

How and why do they use dietary supplements? Unveiling
dietary supplements consumption in social commerce in
China

by

Yun Wang

A thesis submitted to the Faculty of Graduate and Postdoctoral
Affairs in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

in

Management

Carleton University
Ottawa, Ontario

© 2020, Yun Wang

Abstract

Dietary supplements (DS) are used by consumers all over the world to treat disease, prevent disease, or promote health. Various categories of DS are widely distributed and intensively advertised through the Internet and social media. However, in spite of the fact that clinical studies show some DS are ineffective in fulfilling their functional purposes, consumers are committed to the purchase and use of these DS. This apparent paradox leads us to seek answers for the following two research questions: “What are the benefits achieved by committed DS users?” and “How do they practice in order to achieve those benefits?” By answering these two research questions, this study aims to understand and interpret the particular horizons of meaning associated with a specific consumption object, and the variety of ways in which people consume.

DS consumption in social commerce in China provides the research context and facilitates the examination of the benefits achieved by DS consumers and their practices for achieving those benefits. Active interviewing was employed to obtain a rich set of data from twenty-two mass elite females who are committed to the consumption of DS in the context of social commerce in China. Bourdieu’s and Giddens’s sociological theories of structure-agency dialectic provide the theoretical lens for this research. In addition, four foundational works that apply sociological perspectives to understand individuals’ health consumption and promotion behaviors assist with the analysis: Joy and Venkatesh’s (1994) and Thompson and Hirschman’s (1995) theories of the body culture and morality, Abel’s (1991) theory of health-related lifestyles, and Balbo’s (2007) theory of the gender perspective in health promotion.

A grounded theory analysis based on the constructivist view and abductive reasoning revealed that individuals' DS consumption was influenced by the structure-agency dialectic, in which four different strategies were developed: self-learning, disciplined use, consumerism, and socializing. While practicing the four strategies, individuals selectively act upon the choices existing in the structure to actively engage in health promotion and to relieve the tensions caused by the structure-agency interplay, for example, the difficulty in evaluating the functional effectiveness of DS products. As a result, individuals achieve not only functional benefits from DS consumption but also various purposes associated with identity expression and status distinction. In this process, multiple layers of meanings of DS consumption are socially constructed.

Importantly, this research provides implications for the DS consumption literature, health promotion literature, and consumer behavior literature. Recommendations for health product marketers and health promotion policymakers are suggested. Opportunities for future research are also proposed and discussed.

Acknowledgements

I would like to express my most sincere gratitude to my co-supervisors – Dr. Leighann Neilson and Dr. Shaobo Ji – for their guidance and encouragement throughout my doctoral studies. As my mentors, they have shared with me their time, expertise, and insight, which helps me to become a better researcher. Furthermore, as my friends, they have offered me enormous trust and support, which allows me to become the person I am today.

I would like to thank the members of my committee – Dr. Michel Rod and Dr. Luciara Nardon – for their guidance and insightful comments. They have offered me valuable advice from the time I started writing the research proposal to the completion of the dissertation. Thank you.

I would also like to thank the professors, academic staff, and colleagues at the Sprott School of Business for their continuous support throughout my doctoral program.

Finally, I would like to thank my husband, Qi Deng, and my parents, Xiaofeng Wang and Yunxia Peng. This thesis would not have been possible without the unconditional support and love of them.

Table of Contents

Abstract.....	ii
Acknowledgements	iv
Table of Contents	v
List of Tables	ix
List of Figures.....	x
List of Appendices.....	xi
Chapter 1: Introduction	1
1.1 Research Objective.....	3
1.2 Research Methodology.....	6
1.3 Contributions of the Dissertation	10
1.4 Organization of the Dissertation	16
Chapter 2: Literature Review	20
2.1 Introduction.....	20
2.2 Model of Dietary Supplements Consumption.....	21
2.3 The Inputs in Dietary Supplements Consumption	24
2.3.1 Consumer Inputs.....	24
2.3.2 Marketer Inputs.....	30
2.3.3 Environmental Inputs.....	40
2.3.4 Group-level Influences	49
2.4 The Process Inherent in Dietary Supplements Consumption.....	53
2.4.1 From Intention to Action	53
2.4.2 Use.....	57
2.4.3 Committed Use	67

2.5	The Outputs in Dietary Supplements Consumption.....	75
2.5.1	Individual-level Consumer Outputs.....	75
2.5.2	Marketer Outputs.....	85
2.5.3	Group-level Outputs.....	89
2.6	Summary of Literature Review.....	90
2.7	Discussion of Research Opportunities to Be Pursued.....	97
2.7.1	Research Opportunities Regarding Input.....	98
2.7.2	Research Opportunities Regarding Process.....	107
2.7.3	Research Opportunities Regarding Output.....	112
2.8	Scope of This Thesis.....	120
2.9	Conclusion.....	126
Chapter 3: Theoretical Foundation.....		127
3.1	Introduction.....	127
3.2	Pierre Bourdieu’s Practice Theory.....	128
3.2.1	Habitus and Structure-Agency Dialectic.....	129
3.2.2	Theory of Practice, Social Status, Lifestyles, and Capitals.....	132
3.2.3	Application of Bourdieu’s Practice Theory to Thesis Research.....	138
3.3	Anthony Giddens’s Theory of Structuration.....	144
3.3.1	The Duality of Structure and Agency.....	145
3.3.2	Late Modernity – A High Opportunity and High Risk Society.....	146
3.3.3	Application to Thesis Research.....	152
3.4	Thinking about Health Consumption Sociologically.....	153
3.4.1	Thomas Abel’s Theory of Health Lifestyles.....	154
3.4.2	Laura Balbo’s Theory of Health Promotion: A Gender Perspective.....	157
3.4.3	Joy & Venkatesh’s and Thompson & Hirschman’s Theory of Body Culture and Morality.....	158

3.5	A Research Framework for Understanding DS Consumption in China.....	162
Chapter 4: Methodology.....		168
4.1	Introduction.....	168
4.2	Research Approach of This Study.....	168
4.3	Research Context	173
4.3.1	Social Commerce in China	173
4.3.2	DS Consumption in China	175
4.3.3	Government Policy and Regulation of the DS Industry in China.....	177
4.4	Research Design.....	178
4.4.1	Data Collection Method – Active Interviewing.....	179
4.4.2	Data Analysis Method – Grounded Theory	184
4.5	Research Procedures	187
4.5.1	Sample Selection and Recruitment	187
4.5.2	Interview Procedures, Guide, and Techniques	196
4.5.3	Analysis Steps and Coding Techniques.....	207
4.6	Conclusion	210
Chapter 5: Data Analysis and Findings.....		212
5.1	Introduction.....	212
5.2	Structure.....	213
5.2.1	Habitus in the Field.....	214
5.2.2	Changed Conditions in the Field.....	247
5.2.3	Summary: Choices and Tensions.....	274
5.3	Agency – Strategies for Participating in Self-care	290
5.3.1	Gaining Scientific Agency by Self-learning	292
5.3.2	Moving from Scientific Agency to Lay Agency.....	311
5.3.3	Gaining Lay Agency: Three Different Strategies	319

5.3.4	Summary of the Four Strategies	366
5.3.5	Example of the Idiographic Profiles	373
5.4	Conclusion	386
Chapter 6: Conclusion.....		388
6.1	Introduction.....	388
6.2	Contributions to the DS Consumption Literature.....	389
6.3	Contributions to the Health Promotion Literature.....	400
6.4	Contributions to the Consumer Behavior Literature	404
6.5	Limitations and Suggestions for Future Research.....	408
References		418
Appendices.....		448

List of Tables

Table 2.1 The Patterns of DS Use.....	59
Table 2.2 Opportunities for DS Consumption Research	97
Table 2.3 Research Opportunities and Issues Addressed in This Thesis.....	121
Table 4.1 Demographic Profiles of Interview Participants.....	195
Table 4.2 Interview Guide and Questions.....	204
Table 5.1 Skincare & Beauty DS Adopted by the Informants in This Study	230
Table 5.2 The Family’s DS Consumption Managed by the Informants in This Study .	235
Table 5.3 Brands Adopted by the Informants in This Study	255
Table 5.4 Social Media and Social Media Influencers in This Study.....	269
Table 5.5 Habitus in the Field of DS Consumption in China	274
Table 5.6 Changed Conditions in the Field of DS Consumption in China.....	274
Table 5.7 Choices and Tensions for Participating in Self-care.....	276
Table 5.8 Multi-platform Information Search Adopted by Our Informants	283
Table 5.9 Lifestyles Formed in the Self-learning Strategy	301
Table 5.10 Health-related Cultural Capital in Different Learning Modes.....	316
Table 5.11 Lifestyles Formed in the Disciplined Use Strategy	332
Table 5.12 Lifestyles Formed in the Consumerism Strategy.....	351
Table 5.13 Summary of the Four Strategies	367

List of Figures

Figure 2.1 Model of Dietary Supplements Consumption	23
Figure 2.2 Theory of Planned Behavior.....	27
Figure 2.3 Products Offered in Health Consumption Marketplace	32
Figure 2.4 A Conceptual Map for Model Development.....	96
Figure 3.1 Research Framework for Understanding DS Consumption in China	163
Figure 4.1 Data Collection Methods Used in DS Consumption Research	169
Figure 4.2 Research Contexts Addressed in DS Consumption Research as Compared to Market Size.....	176
Figure 4.3 Interview Procedures	198
Figure 5.1 Choices and Tensions in the Four Strategies.....	289
Figure 5.2 Self-learning Strategy for Participating in Self-care	294
Figure 5.3 Gaining Lay Agency: Three Different Strategies.....	321
Figure 5.4 Disciplined Use Strategy for Participating in Self-care	330
Figure 5.5 Consumerism Strategy for Participating in Self-care.....	338
Figure 5.6 Socializing Strategy for Participating in Self-care	353
Figure 6.1 Extended Model of Dietary Supplements Consumption.....	415

List of Appendices

Appendix A: Glossary of Terms in This Study.....	448
--	-----

CHAPTER 1: INTRODUCTION

Wushuang, a thirty-year-old lawyer, wakes up every morning, brushes her teeth, washes her face, drinks a glass of warm water with her skincare supplements, and then has a nutritious breakfast; this routine has been strictly followed by her for seven years.

Xiangyi, a 33-year-old company administrator and mother of a two-year-old girl, has consumed the same skincare supplements for five years. However, Xiangyi only takes the supplements several times a week; she often forgets about the supplements until they expire, then rushes to re-order the same products online. Then, once again, she leaves them in her cabinet. Surprisingly, she also purchases Vitamin D3 supplement for her daughter and calcium supplement for her mother and herself, and never forgets about the intake of these products on any single day.

Yiran, a 39-year-old professor and mother of a twelve-year-old boy, has been purchasing and taking dietary supplements for almost fourteen years. Different from Wushuang and Xiangyi, who are committed to a few types of supplements, Yiran enjoys trying and exploring different dietary supplements in the marketplace, including but not limited to vitamins and minerals, fish oil, collagen, and protein powder; Yiran keeps purchasing dietary supplements for her child and parents, but rarely checks if they are taking supplements regularly. She recently traveled to Canada and purchased more than ten bottles of dietary supplements, taking them back to China and giving them to her friends, colleagues at work, and her son's teacher as gifts.

The three women all come from the same consumer segment in China, the mass elite consumer segment, and all participate in dietary supplements (DS) consumption through social commerce channels; but, obviously, they consume DS in different ways.

Many of their consumption behaviors were observed to be unique and interesting, which might indicate the varying benefits they have achieved (and they want to achieve) from DS consumption. This thesis research project aims to explore the diverse benefits achieved by DS consumers from DS products and consumption and understand the logic and social mechanisms underlying their consumption.

Indeed, we are motivated by a research interest in understanding the variety of ways in which people consume and revealing particular horizons of meaning associated with a particular consumption context (Arnould & Thompson, 2005; Holt, 1995). More importantly, we are motivated by the goal of aiding individuals' decision making in health consumption and ultimately improving individual health and wellbeing.

Influenced by the shared culture of health promotion in contemporary society (Balbo, 2007), dietary supplements are consumed by individuals to prevent disease, maintain, and promote health. We have seen various categories of DS emerging in the health consumption marketplace, widely distributed across channels and contexts, and intensively advertised through the Internet and social media. However, in spite of the fact that some DS are shown by clinical studies to be ineffective in fulfilling their functional purposes (Blendon et al., 2001), consumers are committed to the purchase and use of these DS. This apparent paradox leads us to ask: what are the benefits achieved by DS users, and how do they consume in order to achieve those benefits? Anchored in health consumption and promotion research, and applying structure-agency dialectic theory, the purpose of the study is to understand what happens in DS consumption, how it happens, and why it happens. In particular, our research first identified and summarized the affordances and constraints that exist in the social environment, including the traditional

culture and the contemporary developments and changed conditions. Subsequent to this, the focus shifted to examining the strategies and practices adopted by individuals to leverage on the choices in the social environment for participating in DS consumption. It was found that, while strategies are developed and practiced, various benefits are achieved from DS consumption, multiple layers of meanings of DS consumption are socially constructed, and particular lifestyles are developed, which lead to identity expressions and status distinctions.

In this chapter, we provide a summary of the current research by introducing our research objective, research methodology, and contributions. We conclude by outlining the organization of the dissertation.

1.1 Research Objective

An important and growing sub-theme within public health is the study of health promotion, which has been well established as one of the core functions of public health, at the same level as the reduction of health inequalities (Potvin & McQueen, 2007). In contemporary society, health promotion is legitimized and developed as a shared culture (Balbo, 2007), in which health is treated as ‘a resource for living’ (Breslow, 1999); so health is no longer conceived simply as a biological feature of the human life that is consumed, but a product that one should produce in everyday life and possess as long as possible (Potvin & McQueen, 2007). Consequently, there has been a dramatic shift from medical authorities (e.g., doctors, healthcare systems) to individuals in terms of the responsibility and power for health improvement (Balbo, 2007). That is, the distinction

between health producers and consumers has become blurred, and individuals have become increasingly self-monitoring and self-reliant (Balbo, 2007).

In order to produce and possess health, one of the primary methods that are easy for individuals to employ is consumption - consumption of health promotion products and services. To be specific, a large variety of complementary and alternative medicines (CAM) has flourished in the marketplace, including dietary supplements (DS), and an enormously increased amount of information concerning the science and technology in CAM is now made available through the Internet. Therefore, multiple stakeholders are involved in health promotion, such as individuals, health professionals, multinational enterprises, and mass media, and they share the responsibilities and power for individual-level and society-level health improvement.

In this context, the health promotion literature updates the understanding of health as a sociological phenomenon in addition to a biological and psychological one (Potvin & McQueen, 2007), in which individuals rely on practical and lifelong learning through various kinds of socialization and legitimize both mainstream and lay health knowledge as reliable sources for improving health and wellness (McQueen, 2001). Researchers argue for the importance of thinking about health promotion sociologically (Balbo, 2007). We undertake a sociological perspective to guide the current research, aiming to improve our understanding of individuals' DS consumption behaviors and health promotion activities in contemporary society and make contributions to theories and practices in health consumption and promotion.

Grounded in the sociological perspective, we relied on the theory of structure-agency dialectic (i.e., the interplay between individuals' free will and structural

affordances and constraints) to unpack individuals' DS consumption behaviors, and sought answers for questions such as: Do the offerings in the DS marketplace truly help improve individuals' health and wellbeing? If yes, in what way does the consumption help? If no, why do individuals engage in consumption? By examining these questions, we could identify the choices existing in the structure for contemporary consumers to engage in health promotion, detect the possible tensions they may experience, reveal the roles played by other stakeholders, and propose ways for facilitating their health practice.

To achieve this ultimate goal of improving individual health, several DS consumption issues are tackled: Are the contemporary conditions in the structure (e.g., the prevalent use of social media in communication and product distribution) enabling aspects, constraints, or both for individuals to actively participate in DS consumption? How do traditional beliefs and cultural values influence their health beliefs and behaviors? Answers to these questions may enable us to better understand DS consumption, as consumption is a sociocultural practice shaped by history and emerges within the structures and ideological imperatives of dynamic marketplaces (Arnould & Thompson, 2005).

In particular, we could achieve our objective of uncovering the different ways in which individuals consume DS products and the meanings that are created and associated with DS consumption behaviors. This is an important goal considering that contemporary consumers are constructing multiple realities in their lives and using consumption to experience realities (Arnould & Thompson, 2005), making lifestyle choices, and developing identities (Giddens, 1991). Hence, their different ways of consumption and the meanings built into their actions might become a more accurate representation of

consumers' cultural taste and social status (Holt, 1998), and their lifestyle choice and self-expression (Giddens, 1991), than the consumption objects themselves.

1.2 Research Methodology

Dietary supplements (DS) consumption in the context of social commerce in China provides the site for this research. Grounded in an interpretive research approach, the active interviewing method (Holstein & Gubrium, 1995) is employed to guide our data collection, and the constructivist view of grounded theory (Charmaz, 2003) is applied to guide our data analysis; Bourdieu's (1977, 1984, 1986) and Giddens's (1990, 1991) theories of structure-agency dialectic are referred to as our theoretical foundation.

To begin, the selection of "DS social commerce in China" as our research context fits our research objective of understanding the variety of ways in which people consume and revealing particular horizons of meaning associated with a particular consumption context. By targeting "DS social commerce in China", we are able to investigate a highly complex social environment that involves both contemporary social conditions (e.g., Western DS brands, mainstream Western medicines, Western consumption beliefs, growth of social commerce) and ingrained local traditions and cultures (e.g., Traditional Chinese medicines and Chinese guanxi relationships), which makes the characteristics of late modernity stand out (e.g., experiencing systemic risks and conflicts, always making lifestyle choices) (Giddens, 1991), which, in turn, facilitates our investigation of consumers' divergent consumption behaviors and the underlying mechanisms.

Specifically, aided by contemporary conditions in the social environment, consumers in late modernity are offered many opportunities to free their will and achieve

their personal goals (e.g., actively engage in self-care and health promotion by consuming Western DS products). However, consumers in late modernity are also confronting many risks (e.g., unintended risks caused by the technology in DS production) and experiencing many conflicts (e.g., between global values and traditional values) (Giddens, 1991) so that they are required to increase reflexivity (i.e., increase control over aspects of the social world) to aid decision making.

Hence, individuals ongoingly analyze and negotiate with the environment, other stakeholders, and themselves, and make lifestyle choices, which may result in different consumption behaviors that express unique identities. Moreover, as individuals in the same consumption context leverage on the choices and practice differentially to fit their specific needs, people with similar needs and resources would gather, socialize, and form communities, which may lead to attempts to gain group belongingness or status distinction. Therefore, while the DS consumers in our complex research context continually interact with the social environment to make lifestyle choices, express themselves, and differentiate themselves from others, different layers of meaning associated with the same DS product may be socially constructed, and different ways of DS consumption may emerge and be observed by the researchers.

To summarize, the selection of “DS social commerce in China” as our research site fits our research purpose. Further, the selection is supported by our comprehensive literature review of DS consumption research: 1) China has become the second-largest market for DS in the world but has attracted little research attention; 2) social commerce has become a flourishing market in China where the Internet retailing of DS has accounted for 22.2 percent of its total retail value, much higher than in other countries

such as the US (10.8%) and Canada (1.3%) (Euromonitor, 2019a). Based on our literature review, we developed a DS consumption research model and identified many research gaps and opportunities; the influence of culture and the influence of social media on DS consumption were identified as two important research gaps. Thus, by investigating DS consumption in social commerce in China, we might provide implications for DS consumption research in cultures that are open to the West but still hold onto their traditional cultural roots, and contribute to our understanding of the influence of social media on health consumption and promotion.

As an initial and exploratory attempt to build a more comprehensive understanding of DS consumption in China, we relied on Holstein and Gubrium's (1995) active interviewing strategy and conducted in-depth interviews with twenty-two mass elite females in China to attain a rich set of data regarding their DS consumption, and more specifically, their committed DS use behaviors.

It is appropriate to target the "mass elite females" as our research sample, i.e., women in the young adult (i.e., born in the 1980s) and middle youth (i.e., born in the 1990s) groups, who have a post-secondary education and a professional job, and belong to the upper-middle-class segment, living in urban areas (Ustuner & Holt, 2010). Mass elites in China are often characterized as more inclined toward spending on themselves than their older counterparts, resulting in increased demand for such items as cosmetics and personal care products; they are tech-savvy and play a key role in driving growth in online shopping, particularly shopping via social network platforms (Euromonitor, 2018a). In addition, females are suggested to be the main decision-maker in a family in

terms of healthcare and child-rearing (Balbo, 2007). The abovementioned characteristics of the mass elite females in China suggest that it is an appropriate group to research.

As for data analysis, we followed Charmaz's (2003) constructivist approach of grounded theory analysis. We also followed Belk and Sobh's (2019) suggestion of combining grounded theory and abductive reasoning to observe original phenomenon and generate alternative theoretical explanations. Hence, our data analysis was an ongoing process that involves steps such as initial coding, focused coding, theoretical categorization, and theoretical sampling; it is also an iterative process in which we go back and forth between the data and literature, and between idiographic analysis and cross-case analysis.

We referred to Bourdieu's and Giddens's theories of structure-agency dialectic for "sensitizing concepts" (Blumberg, 1969) that guided our data analysis and interpretation. In particular, we focused on 1) the influence of *structure*, referring to the particular type of social environment consisting of, for example, material conditions, collective history, and language (Bourdieu, 1977); 2) the influence of *agency*, referring to individuals' power and capability to actively choose from a range of dispositions to act (Bourdieu, 1977); and 3) the *dialectic* between structure and agency. Specifically, when analyzing the structure, we addressed both the changed conditions in the contemporary social structure in China, and the beliefs and values ingrained in its historical traditions and cultures, the interplay of which amplified individuals' need for agency and diversified their lifestyle choices (Giddens, 1991).

In this section, we provided a brief summary of our research objective and methodology. In the next section, we summarize the contributions of the thesis dissertation.

1.3 Contributions of the Dissertation

Our research makes contributions to DS consumption literature, health promotion literature, and consumer behavior literature. Moreover, our research identifies many research gaps and opportunities for future research on DS consumption.

The current research makes contributions to the DS consumption literature by shifting the research focus from product purchase to product use, thereby enhancing our knowledge of another stage of the consumption process, enriching our understanding of commitment in DS consumption, and providing implications for DS marketers. First, based on a comprehensive review of the extant DS consumption literature, we identified the mixed and often contradictory findings regarding the predictors of DS purchase, DS use patterns, and the impact of DS consumption on a healthy lifestyle. Further, based on our empirical investigation, we proposed a possible explanation for the mixed findings – current research in DS consumption takes on a relatively static view of DS consumption, restricted to the pre-purchase stage, and applies psychological theories like Theory of Planned Behavior (TPB) to investigate individual's perception of DS products and intention to purchase DS products.

While acknowledging the significant contribution made by this stream of research in predicting consumer behavior, we emphasize a more dynamic view of DS consumption, highlight the behavioral variance in different stages of DS consumption

such as pre-purchase and post-purchase, and initial use and committed use, and suggest the importance of describing the variety of ways in which individuals consume. Based on an interpretive perspective, we confirm the value of a context-dependent investigation by identifying the significant influence of the local traditional culture (in the manner of habitus) on individuals' DS consumption; we go beyond the TPB-based psychological factors to extend current research regarding the factors affecting DS consumption to include, for example, emotion and habit; we uncover divergent patterns in DS consumption, providing a rich description of the behaviors in different patterns and explaining the logic behind the divergent patterns.

More specifically, by focusing on the committed use stage in DS consumption, our research makes contributions to our understanding of the commitment in DS consumption. Influenced by Gundlach et al. (1995), our research clearly defines committed DS users as people who: 1) invest instrumental inputs (e.g., money) in DS consumption (i.e., the instrumental component); 2) consume DS consistently over a long term (i.e., the temporal/behavioral component); and 3) form an enduring intention to develop and maintain a stable long-term DS consumption (i.e., the attitudinal component). In addition, we clarify the difference between daily/continuous use and committed use, i.e., taking DS daily does not necessarily indicate the commitment; committed use does not necessarily involve a daily/continuous use pattern. That is, committed DS users might strictly use DS products on a daily basis; they might use DS products for a few weeks/months, stop for a while, and re-start; or they might flexibly arrange and adjust their DS use according to specific conditions. Moreover, we underscore that there should be a target to which DS users are committed (Moorman,

Zaltman, & Deshpande, 1992). Based on the different layers of meanings of DS consumption, committed DS users in our research achieve different types of benefits and build trust and loyalty to distinct targets (e.g., DS segment in general, DS product, brand, community).

Our research provides implications for DS marketers in terms of targeting, product design, branding, and communication. For example, our research confirms that it is reasonable and effective to target adult women in China for DS marketing as well as other health promotion solutions (e.g., complementary and alternative medicines). We agree with Balbo (2007) that it is women who take primary responsibility for their own health and their family members' health. Further, their consumption decisions, for example, the trial of new product innovations and the tradeoff in price and brand, are heavily influenced by the Chinese cultural values in morality in femininity (e.g., the pursuit for ideal beauty, social role as mother, wife and daughter, thriftiness in consumption for perpetuating the household) as well as other cultural orientations. By accurately understanding the needs of this group of individuals, DS marketers could get the right information about the right targets at the right time.

In addition, our research helps DS marketers recognize the pivotal role played by the brand in Chinese DS consumers' product choice. Despite our informants practicing different strategies and pursuing different benefits from DS consumption, they show one commonality in DS consumption – committing to Western DS brands, whose products are perceived as safe and superior. The strong concern regarding product safety and quality is rooted in Chinese culture where impersonal and institutional trust is low and is enhanced by the Chinese guanxi relationship where good word-of-mouth is weighed as

important. As a result, influencer marketing could play a critical role in China, e.g., health professionals' educational efforts on social media, key opinion leaders' product/brand comparison and summary, and close social ties' influence based on their health knowledge. We confirmed that various types of influencers exist in the marketplace but differentially influence individuals according to their consumption strategies and motivations.

This research also makes contributions to health promotion literature. We confirm the importance of health promotion in contemporary individual life – individuals from the mass elite segment in emerging markets like China actively participate in health promotion by engaging in DS consumption. Moreover, we agree with previous research in recognizing health as a social phenomenon. In particular, as individuals are increasingly self-motivated to manage and improve their health, they rely on practical learning through various kinds of socialization; they formulate and employ lay health knowledge and beliefs as a legitimate information source that complements mainstream scientific knowledge in support of health-related actions, and they construct new symbolic meanings surrounding DS purchase, possession, use, and utilize these meanings and appropriate associated behaviors that indicate their self and taste.

Further, our research suggests the possibility of attaining positive health outcomes by applying lay beliefs in decision making, and we further suggest a boundary condition – as long as individuals are capable of combining mainstream scientific knowledge and lay health beliefs, they could become self-reflexive enough to improvise their actions for maximizing health improvements. Accordingly, we argue for the importance of learning

programs and educational interventions that promote health knowledge as well as the integration of traditional learning tools with new digital channels like social media.

It is also worth mentioning that our research emphasizes the role of family upbringing in healthy lifestyle development and the importance of health knowledge transmission between generations, which influences individuals implicitly and habitually. For example, our research identified that the influence could go both ways – parents can socialize children into a healthy lifestyle by arranging healthy and balanced meals and requiring children to keep regular physical exercise, and adult children can also educate their parents about specific DS products and benefits.

Our research has theoretical implications: we applied Bourdieu's practice theory to understand a new phenomenon of DS consumption; we verified the value of Bourdieu's practice theory in understanding consumer behavior and culture in a non-Western cultural context and modified its application by involving more sociological perspectives like Giddens's high-opportunity and high-risk society. In particular, we identified and emphasized the influence of habitus on individual behavior; we illustrated the structure-agency interplay and highlighted the role of cultural capital and time capital in contemporary consumption. In a nutshell, our research supports Bourdieu's theorization on the structure-agency mechanism, i.e., an individual indeed has agency, i.e., he or she is able to figure out his or her circumstances and generates strategies and practices appropriately in a particular situation; but the individual's agency is restricted and/or shaped by the structure, i.e., his or her perceptions are typically shaped by their habitus as the individual mind is socially bounded and constructed within the limits of experience, upbringing, and training (Bourdieu & Wacquant, 1992).

In particular, we: 1) identified the various elements of habitus in the field of DS consumption in China, e.g., guanxi social structure, low trust culture, morality in femininity, and the ideology of Yin-Yang balance; and 2) illustrated that individuals' lifestyles developed from DS consumption and health promotion practice which either reproduced or transformed their old habitus, reflecting Bourdieu's conceptualization of the structure-agency dialectic.

By acknowledging the value of Bourdieu's structure-agency dialectic, consumer behavior researchers highlight the disconnect between consumer research literature and new patterns of the broader socio-economic structures that are emerging throughout the global economy (Ustuner & Thompson, 2012) and emphasize a shift from focusing on consumption objects to actual practices and the importance of taking socio-historical settings into account (Arnould & Thompson, 2005). Our research helps extend consumer research in this direction by digging deep into the social patterning of DS consumption in a specific socio-historical setting – mass elite females in China; we verify that consumption objects no longer serve as accurate representations of consumer practices and that social distinction is achieved from practice, or the way in which products are consumed, which accentuates consumers' embodied cultural capital (Holt, 1998). We further suggest the importance of treating time as an essential capital in consumption as it builds the foundation for people to accumulate cultural capital, and it legitimizes and indicates individuals' prestige and status in the given field.

In concluding the dissertation, we linked our empirical research findings back to the DS consumption research model developed from our comprehensive literature review of DS consumption research. By doing that, we emphasize our contribution to DS

consumption research by developing a research model and identifying many research gaps and opportunities. Although the current study only addressed a few research opportunities, it produced research findings that support many of the research gaps proposed in the DS consumption research model. Further, by comparing our research findings with the DS consumption model, we came up with additional insights that were specifically gained through the empirical study and added them to the research model. For example, we underscore the value of examining individual consumer inputs, marketer inputs, and environmental inputs separately, but also the importance of conducting the investigation that undertakes a multi-stakeholder perspective and focuses on the interactions among different entities.

In this section, a brief overview of the contributions is provided, detailed descriptions and discussions are included in the Conclusion Chapter. In the next section, we describe the organization of the thesis dissertation.

1.4 Organization of the Dissertation

This introductory chapter is followed by a review of the relevant literature in Chapter Two. Previous research on dietary supplements (DS) consumption from the marketing discipline and previous research on DS use from the nutrition discipline are reviewed. The review is organized according to a model that categorizes that research in terms of individual and social level inputs, processes, and outputs. The result of this review is the research model for DS consumption and the identification of research opportunities associated with DS consumption. The chapter concludes with a discussion of the particular research issues which form the core of this thesis.

Chapter Three establishes the theoretical base for the research by reviewing the sociological theory of structure-agency dialectic. Specially, the theoretical foundations of this thesis project – Pierre Bourdieu’s (1977, 1984, 1986) theory of practice and theory of structure-agency dialectic, and Anthony Giddens’s (1991) theory of structuration and late modernity – are introduced. We first introduce Bourdieu’s theories by focusing on: 1) his theory of habitus and structure-agency dialectic; 2) his theory of practice, social status and lifestyles, and forms of capital. We next introduce Giddens’s theories by focusing on: 1) his theory of structuration; and 2) his view of late modernity, agency, lifestyles, and self-identity. Applications of Bourdieu’s practice theory and Giddens’s theory to the thesis research are elaborated. The two theories help construct the overall research framework for understanding DS consumption in social commerce in China.

In addition, we refer to foundational studies that undertake a sociological perspective to understand health consumption and promotion behaviors, including Joy and Venkatesh’s (1994) and Thompson and Hirschman’s (1995) theory of the body culture and morality, Thomas Abel’s (1991) theory of health-related lifestyles, and Laura Balbo’s (2007) theory of health promotion. The chapter concludes with a discussion of the proposed research framework for understanding DS consumption in social commerce in China.

Chapter Four introduces and discusses the primary data collection method, active interviewing, and the primary data analysis method, grounded theory analysis. The chapter begins with an introduction of our research approach - an interpretive research approach, with the goal of increasing the descriptiveness of the collected data and producing a deeper and more comprehensive understanding of consumer behaviors.

Following this is a discussion of the research context (i.e., DS social commerce in China). We then introduce our research design – active interviewing (Holstein & Gubrium, 1995) was used as the primary data collection method; the constructivist approach of grounded theory (Charmaz, 2003) was used as the primary data analysis method. Specifically, we introduce these two methods and justify their application in this research. Last but not least, the research procedures are elaborated and specific research details are provided, including 1) sample selection and recruitment, 2) interview procedures, guide, and techniques, and 3) analysis steps and coding techniques.

Chapter Five presents our data analysis and findings, organized by two major themes: structure and agency. First, we demonstrate the findings under the theme of structure. We start with the first two sub-themes under structure: habitus in the field and changed conditions in the field, followed by the third sub-theme: choices and tensions for participating in self-care, which are created by the social structure. Next, we focus on the theme of agency by describing and discussing the four primary strategies individuals have developed and practiced in order to effectively grasp the choices and relieve the tensions in self-care. The four strategies are: 1) gaining agency by self-learning, 2) gaining agency by disciplined use, 3) gaining agency by consumerism, and 4) gaining agency by socializing.

While discussing the four strategies, we provide a detailed description of the different forms of agency gained through individual practices, the lifestyles developed in the agency accumulation process, and the impact of agency accumulation and lifestyle formation on self-identity development and social distinction. The final product of the agency section is the answers to our research questions: What are the benefits achieved

by committed DS users in the context of social commerce in China? How do they practice in order to achieve those benefits?

This chapter concludes with an idiographic consumer profile, which works as an illustration of the analysis process employed, a typical example of an individual's DS consumption story, and a reflection of the shared experience across cases.

Chapter Six concludes the dissertation with a review of the contributions of the dissertation research. Limitations and suggestions for future research are also highlighted.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

In this chapter, two parts of the literature germane to the research are reviewed: previous research on dietary supplements (DS) consumption from the marketing discipline and previous research on DS use from the nutrition discipline. The review is organized according to a model that categorizes that research in terms of individual and social level inputs, processes, and outputs. The result of this review is the identification of research opportunities associated with DS consumption. The chapter concludes with a discussion of the particular research issues which form the core of this thesis.

To begin, we introduce the methodology for literature collection. Initially, we conducted a systematic search of papers across various databases by searching (“dietary supplements” OR “nutritional supplements”) AND (“marketing” OR “consumption”) in *title, keyword, subject term, and abstract*. The databases were: Business Source Complete, Emerald, Scopus, Web of Science, and SpringerLink Journals. We did not restrict the search to a specific timeframe or journal. Hence, both papers published in the marketing discipline and the nutrition discipline are included in our literature review. Through this step, 35 papers were identified. We reviewed the abstracts of the papers and assessed their quality and relevance to our study. We removed the duplicate papers and selected a subset of papers (25 papers) that were closely related to marketing aspects or consumer behaviors.

Then, we followed the references cited by this core subset of papers, to expand our dataset while guaranteeing the relevance and quality of papers. This step resulted in 46 additional papers being added to the dataset. As we read, analyzed, and synthesized

papers, we became aware of additional relevant concepts, which prompted additional literature search (i.e., we expanded the search terms to include “complementary and alternative medicine”, “alternative therapy”, “nutraceuticals”, and “functional foods”). That is, the process of completing our dataset was ongoing and iterative. Eventually, another eight papers were included in our research. Our final dataset includes 79 papers. Our subsequent review was based on those 79 papers. Although we have adopted a systematic approach for literature search and collection, we admit some limitations of the search strategy that aimed to produce a set of high-quality journal papers while keeping a realistic review scope. The limitations might include: excluding conference papers and papers published in languages other than English. We encourage future research to expand the review scope for a wider and deeper understanding of DS consumption research.

2.2 Model of Dietary Supplements Consumption

A model of dietary supplements (DS) consumption is introduced in this section as a means of organizing the review and the discussion of the literature (see Figure 2.1). The model of DS consumption is based on the input-process-output framework by identifying and categorizing the aspects in DS consumption as: 1) inputs (the investments made by individual consumers and marketers and social groups within the marketplace and the influences from the environment); 2) process (the process of how DS is consumed, including pre-purchase, purchase and post-purchase behaviors, and the socialization processes within groups; 3) outputs (the outputs of DS consumption for individual

consumers and marketers, and group-level outputs such as societal level and community level outputs).

This model attempts to bridge levels of analysis from the individual level to group level by including the influences of macro-social (societal) groups and micro-social (tribal) groups (Cova & Cova, 2002) on individuals' consumption behaviors by discussing the socialization processes within a group and the group-level practices, and by identifying the group-level outputs. The input-process-output model works effectively as a guiding framework for the review as it implies "what we might need to know" about DS consumption. The literature review is structured to follow the flow of the model. From Section 2.3 to Section 2.5, the findings of the literature review are presented, which illustrate "what we know" about DS consumption. It is important to note that, among the elements identified from the literature and presented in these sections, we may know some of them very sufficiently (texts in grey font color in Figure 2.1) but very limitedly for some others (texts in black font color). Figure 2.1 also demonstrates the research opportunities addressed by this thesis research (*italic texts*). Before moving on to the identification and discussion of research opportunities, Section 2.6 provides the readers with a summary of the literature review. In Section 2.7, the research opportunities are identified, which illustrate "what we do not know (or do not sufficiently know), but we should know." In Section 2.8, the scope of this thesis is introduced, which illustrates "what we intend to know in this project." Given that a lot of research gaps and opportunities are identified, this research project will address some (not all) of the unanswered questions.

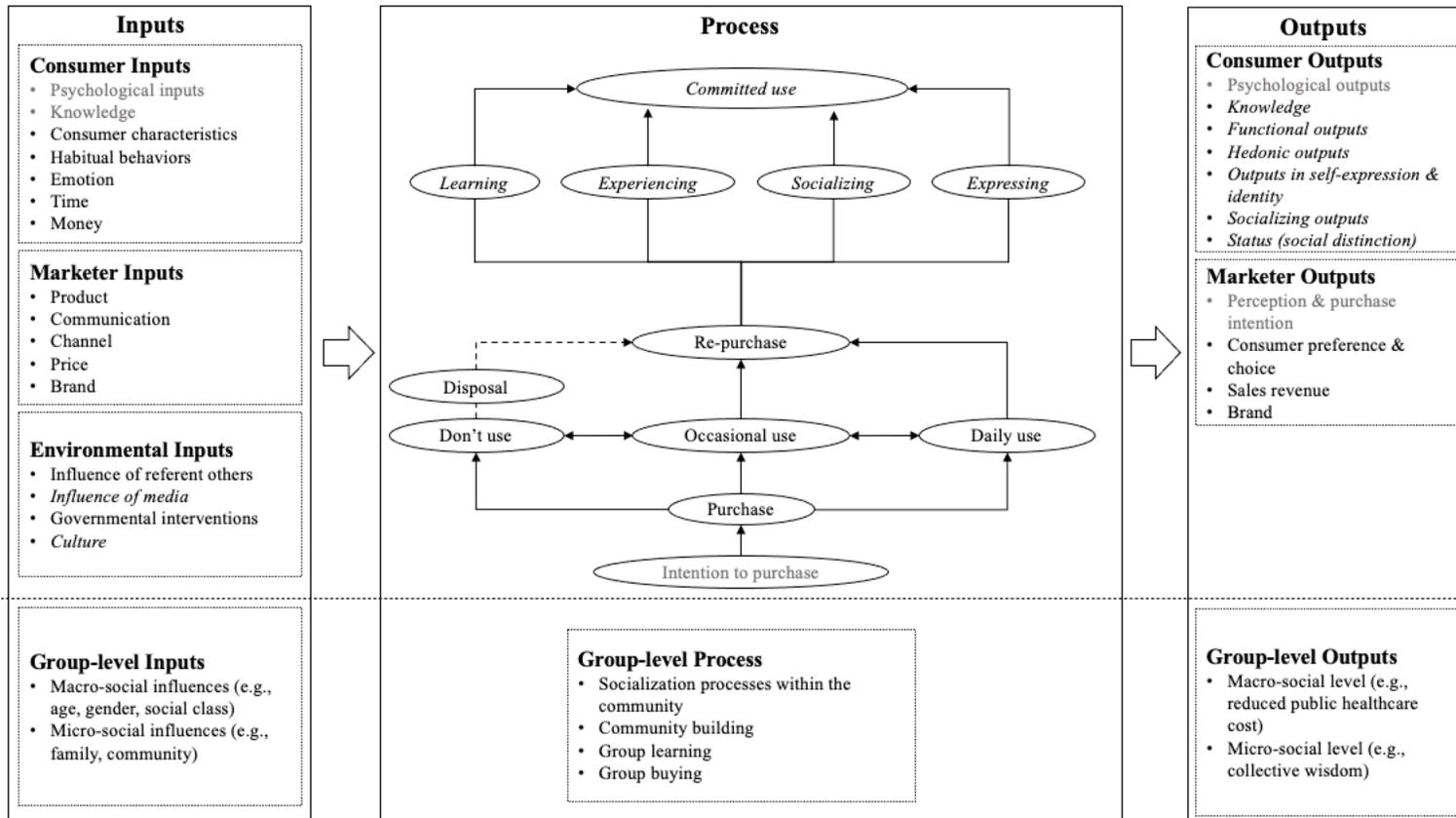


Figure 2.1 Model of Dietary Supplements Consumption

2.3 The Inputs in Dietary Supplements Consumption

This section of the chapter identifies the various inputs made to Dietary Supplements (DS) Consumption by individual consumers and marketers. The external factors that are not controlled by marketers or consumers but are influential to consumers' use of DS are identified as environmental inputs and discussed in this section. Guided by the model, we also sought for group-level inputs within DS consumption. Findings are discussed in this section.

2.3.1 Consumer Inputs

Previous research examines DS consumption from an individual perspective and acknowledges consumer inputs that are important to the research context of DS consumption, such as knowledge, psychological inputs, consumer characteristics, and time.

Knowledge. The research identified the importance of health knowledge to DS consumption by acknowledging the influences of health knowledge on consumers' perception of DS and their intention to buy (e.g., Chen, Lin, Kao and Hang, 2005; Homer & Mukherjee, 2018; Jeong, Stoel, and Chung, 2012; O'Connor and White, 2010; Yap, Noor, Marshall and Liew, 2014). In particular, due to the lack of health knowledge, consumers are more likely to process information through the peripheral route where they make inferences based on simple cues such as the number of health claims in a DS label or the number of ingredients in a DS product, which, in turn, affects their product preferences and choices (Homer & Mukherjee, 2018). In addition to health knowledge in general, knowledge of particular DS products is suggested to influence consumers'

purchase intention (Jeong et al., 2012). Specifically, knowledge of the potential risks and the certainty of their consequences are suggested as underlying factors that affect first-time consumers' willingness to try DS products (O'Connor & White, 2010).

Some studies identified the importance of health knowledge to the actual use of DS (Pelletier & Kendall, 1997). In their study of remedy marketing (including DS and drugs), Bhattacharjee, Bolton, and Reid (2009) suggested the moderating role of health knowledge in the boomerang effect of DS use on consumers' subsequent health behaviors (e.g., high-fat food eating). However, only the highest levels of knowledge (reflecting specialized training or expertise in drugs and DS) were sufficient to eliminate the boomerang effect. A boomerang effect means consumers may trade away the potential gains of remedy usage by reducing healthy intentions or engaging in riskier behaviors (Bolton, Bhattacharjee, and Reed, 2015).

To be more specific, Bolton and colleagues (2015) separated consumer health knowledge into two dimensions: nutrition knowledge and remedy knowledge. Nutrition knowledge refers to "how well people can process nutritional information to make nutrition-related decisions" (Bolton et al., 2015, p. 52), and remedy knowledge refers to "consumer knowledge and comprehension of information about health remedies (i.e., products, services, or actions designed to manage or reduce health risk)" (Bolton et al., 2015, p. 52).

Diagnosis-treatment knowledge was identified as the third dimension of health knowledge to influence consumers' intention to use DS. Wang, Keh, and Bolton (2010) argued that consumers built lay theories of medicine which had an impact on their intention to use complementary and alternative medicines (CAM) as well as their

subsequent health behaviors. Lay theories of medicine incorporate a form of lay diagnosis that may feature causal uncertainty and a form of lay treatment function that takes into account how consumers think treatments work, including the focus and action rapidity of the treatment (Wang et al., 2010). In particular, Hughner and Kleine (2008) described six different types of lay theories of medicine held by US consumers, which affect the theory holders differently in terms of ontology and meaning of health, provider-patient role, the impact of spirituality in health and satisfaction with healthcare, which, in turn, exert an influence on their preferences and choices of health alternatives.

Psychological inputs. The literature has been the most explicit in pinning down what goes into the information processing in consumers' minds within DS purchase. Psychological factors such as perception, motivation, beliefs, and attitudes are central to the deeper concept of consumer behavior and have an effect on consumer decision making throughout the consumption process. We use 'psychological input' as an umbrella term, under which we discuss individual beliefs and health motivation. Extant research examines the pre-purchase stage in consumption and aims at predicting consumer purchase intention based on the theory of planned behavior (TPB) (e.g., Conner, Kirk, Cade & Barrett, 2001, 2003; France & Bone, 2005; Fogel & Rivkin, 2013; Jeong et al., 2012; Noor, Yap, Liew & Rajah, 2014; O'Connor & White, 2010; Rajamma & Pelton, 2010; Ren, Chung, Stoel & Xu, 2011; Royne, Fox, Deitz & Gibson, 2014).

As Figure 2.2 shows, the TPB contends that individuals' behavior is best predicted by intentions, which, in turn, are predicted by attitudes, perceived behavioral control and subjective norms, which, in turn, are determined by underlying behavioral beliefs, control beliefs, and normative beliefs, respectively (Ajzen, 1991).

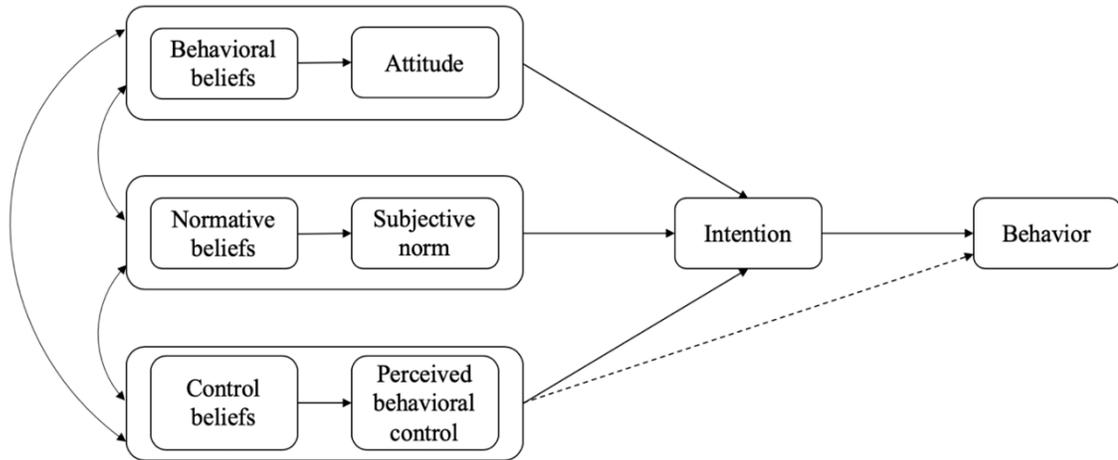


Figure 2.2 Theory of Planned Behavior

(Source: Ajzen, 1991)

In DS consumption literature, there is a consensus that intention is the primary predictor of the actual purchase of DS (Conner et al., 2001; Pajor et al., 2017). However, regarding the impacts of belief-level inputs on purchase intention, the literature shows mixed findings. Behavioral beliefs, in the context of DS consumption, refer to the perceived efficacy of DS use (i.e., perceived likelihood of a positive health outcome from DS use) (Conner et al., 2001). Research agrees on the significant predicting effect of behavioral beliefs on the purchase intention of DS (Fogel & Rivkin, 2013; O’Connor and White, 2010; Ren et al., 2011; Royne et al., 2014).

Control beliefs in DS consumption, consist of health self-efficacy (Bolton, Reed, Volpp, & Armstrong, 2008) and health locus of control (HLC) (Rajamma & Pelton, 2010), referring to the perceived capability and the perceived source and degree of control over performing DS use behavior, respectively (Jeong et al., 2012). Self-efficacy is suggested to be a significant predictor of DS use intention in some studies (Fogel & Rivkin, 2013; Jeong et al., 2012) but not in others (O’Connor & White, 2010). Health locus of control (HLC) is indicated as an essential input in making purchase decisions,

but under different dimensions of HLC (internal HLC, powerful others' HLC and chance HLC) consumers experience different routes for making decisions (Patterson et al., 2003; Pajor et al., 2017; Rajamma & Pelton, 2010).

Normative beliefs consist of perceptions of whether specific significant others believe you should use DS or not (normative beliefs) and the desire to comply with the wishes of specific significant others (motivation to comply) (Conner et al., 2001).

Normative beliefs have been suggested to be predictive of DS use intention in some research (Fogel & Rivkin, 2013), but not in others (Ren et al., 2011).

We have elaborated on the mixed findings regarding the effect of control beliefs and normative beliefs on consumer use intention. One of the reasons for the mixed results lies in the moderating effect of health motivation – another key psychological input we introduce in this section. Individuals have motivations which lead to biases in their cognitive processes involving the access, construction, and evaluation of beliefs, and thus impact reasoning (Mason & Scammon, 2011). Health motivation (i.e., the motivation to engage in healthy lifestyle behaviors) affects how consumers interpret DS product information and the messages in marketing communication (Noor et al., 2014; Pan, 2014), how they build the perception of DS safety and efficacy (France & Bone, 2005), how they form an attitude towards DS products (Yap et al., 2014), how they evaluate the various alternatives (Bhattacharjee et al., 2009), and how they take action to complement healthy lifestyle behaviors with DS consumption (Bolton et al., 2015).

Consumer characteristics. Consumer characteristics are suggested by a few researchers as essential factors that affect consumer buying decisions. Under this category, we discuss personality traits, susceptibility to illness, and some trust beliefs.

Personality traits are summarized as one of the consumer inputs within DS consumption: consumers who are high in openness to experience (France & Bone, 2005; Mason & Scammon, 1999), high in neuroticism-anxiety (Rajamma & Pelton, 2010), and high in risk avoidance (O'Connor & White, 2010) are more likely to adopt and use DS products.

It is worth mentioning that personality traits seem to have a more significant effect on consumers' purchase intention at early stages, namely the initial trial stage (Mason & Scammon, 1999; O'Connor & White, 2010). Some situational factors such as susceptibility to illness and the existence of a chronic condition affect consumers' use intention of DS. For example, individuals under an obese situation are more likely to use DS products (Kimmons et al., 2006); individuals with cancer have a higher prevalence of DS use than those reporting no illness (Patterson et al., 2003); and individuals who survived cancer use DS more than others (Miller et al., 2008). In addition, trust in the whole DS industry (Jeong et al., 2012), trust in government (France & Bone, 2005), and trust in professionals and physicians (Blendon et al., 2001) have been shown to have biasing effects on consumers' interpretation of DS benefits and risks and their intention to use DS.

Time. In their study of healthy lifestyle consumers, Divine and Lepisto (2005) identified the importance of time management in maintaining a healthy lifestyle. A lack of time was suggested to be a primary challenge for healthy lifestyle consumers to do product search and purchase. Further, we argue that the concept of "time as an input", not only refers to the time used for information search and purchase but also refers to the length of time that consumers keep using DS products. Researchers pointed out the different durations of actual use of DS may affect consumers' perceptions of DS products

in terms of perceived safety and efficacy (Mason, Scammon, & Fang, 2007), their motivations for use (Mason & Scammon, 1999), and the benefits they experience (Nichter & Thompson, 2006; Thompson & Troester, 2002). In addition, consumers hold a specific level of tolerance for the timeframe of treatment effectiveness (i.e., how long DS should take to come into effect). The different expectations are influenced by consumers' health knowledge and, in turn, influence consumers' health decisions like product choices (e.g., Western medicine or traditional Chinese medicine/Indian ayurvedic medicine) (Wang et al., 2010).

This section has reviewed inputs to the DS consumption from the individual consumers. From a review of the literature, it becomes apparent that consumers' knowledge, psychological inputs, consumer characteristics, and time are researched and identified as important inputs. However, the four types of inputs attracted research attention unevenly: a lot of research focused on the influence of psychological inputs and knowledge on consumers' purchase intention, whereas little research investigated the influence of consumer characteristics and time. Moreover, inputs such as habitual behavior, emotion, and money are not addressed in previous research. Based on these findings, we identify the research opportunities in Section 2.7 and discuss why they are important.

2.3.2 Marketer Inputs

Previous research investigated DS consumption from a marketer perspective and identified marketer inputs within the DS marketplace. In this section, we discuss the marketer inputs from the following aspects: product (types, sub-types, and attributes),

marketing communications (product labels, claims and warnings, and advertising), and channels (retail and e-marketplace).

Product. According to the US Dietary Supplement Health and Education Act of 1994 (a.k.a. DSHEA 1994), Dietary Supplement means “a product (other than tobacco) intended to supplement the diet that bears or contains one or more of the following dietary ingredients: (A) a vitamin; (B) a mineral; (C) an herb or other botanical; (D) an amino acid; (E) a dietary substance for use by man to supplement the diet by increasing the total dietary intake; or (F) a concentrate, metabolite, constituent, extract, or combination of any ingredient described in clause (A), (B), (C), (D), or (E)”. In addition to dietary supplements (DS), many offerings exist in the current health promotion marketplace, such as drugs and functional foods. It is important to clearly know the offerings as they form a consideration set of alternatives for consumers.

We did a review of the marketplace offerings. In this process, we identified other terms such as nutraceuticals, complementary and alternative medicines (CAM) (also called natural health alternatives). We did an analysis of these concepts, clarified the categorization of the product segments, and presented their inter-relationships in Figure 2.3.

Current literature has discussed DS consumption either within the DS segment (e.g., France & Bone, 2005; Homer & Mukherjee, 2018), or between-segments such as comparing DS with drugs (e.g., Bhattacharjee et al., 2009; Bolton et al., 2015; Royne et al., 2014), comparing DS with functional foods (e.g., O’Connor & White, 2010). Further, some research discussed DS consumption by including it into a bigger phenomenon such as CAM consumption (e.g., Rayner & Easthope, 2001; Spence & Ribeaux, 2004;

Thompson & Troester, 2002), and nutraceuticals consumption (Jain, Roy, Damle, & Jagani, 2016).

In particular, Royne, Myers, Deitz, and Fox (2016) examined the differences in consumer perceptions of prescription drugs and DS. They found that consumers perceived the health risks associated with prescription drug use to be greater than for the use of DS; consumers perceived greater hedonic benefits for DS as compared to prescription drugs (Royne et al., 2016). Bhattacharjee et al. (2009) compared the influence of drug marketing and DS marketing on consumers' subsequent health intention. They found that, compared to the exposure to drug advertisements, exposure to DS advertisements was less likely to exert a negative influence on consumers' subsequent health intention (Bhattacharjee et al., 2009).

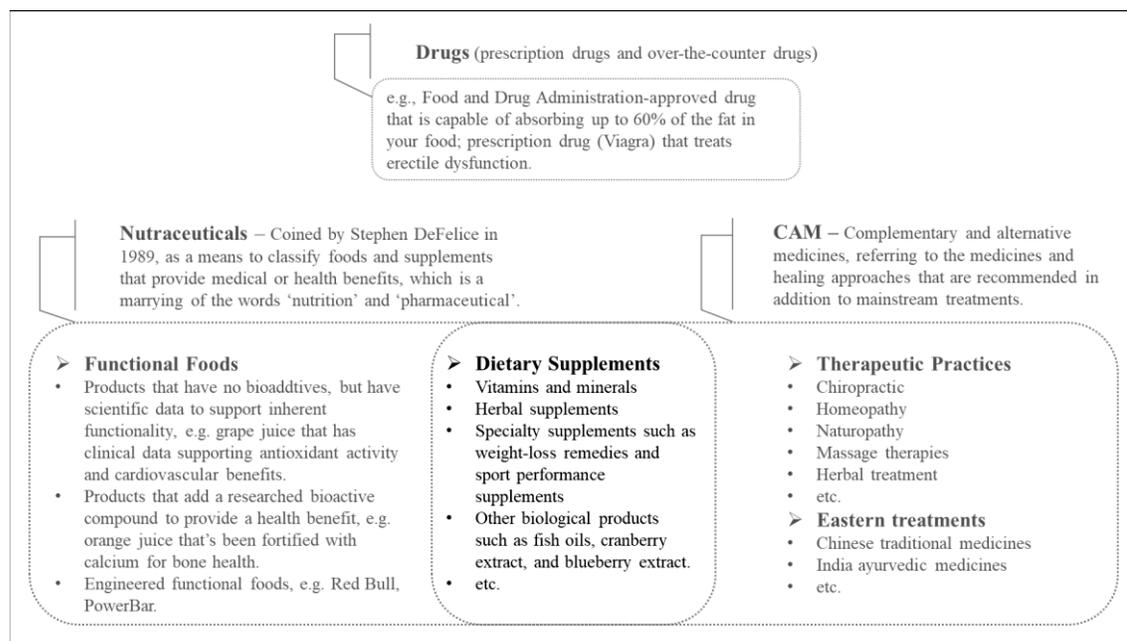


Figure 2.3 Products Offered in Health Consumption Marketplace

Functional food is defined as a food or a food product that in addition to its normal nutritional value has a unique effect on the body that maintains or promotes

health or decreases the risk of disease (e.g., orange juice that's been fortified with calcium for bone health) (Urala, Schutz, & Spinks, 2011). Hence, functional food and DS are similar with respect to their dietary supplementation function. However, they have notable differences in their product forms (i.e., DS is defined as not food, whereas functional food is food). O'Connor and White (2010) examined the predictive effects of TPB-based factors on consumers' intention to use functional foods and DS. They found that risk predictors have different effects: risk dread negatively influences non-users' willingness to try functional foods but not vitamin supplements (O'Connor & White, 2010).

From a broader perspective, DS belongs to the complementary and alternative medicines category (CAM) (also called natural health alternatives). CAM includes: 1) digestive products such as DS and eastern treatments like Traditional Chinese medicine and Indian Ayurvedic; 2) a multitude of therapeutic practices such as homeopathy, acupuncture, and aromatherapy (Rayner & Easthope, 2001; Thompson & Troester, 2002; Vos & Brennan, 2010). DS, as a part of digestive products, is different from therapeutic practices in terms of their values for consumers. For example, therapeutic practices may emphasize a holistic balance of nature (Thompson & Troester, 2002), while DS products may have a higher appeal to specific functions like taking multi-vitamins for increasing vitamin intake (Rayner & Easthope, 2001). Further, DS is different from other sub-categories of digestive products, like traditional Chinese medicine and Ayurvedic, regarding the underlying diagnosis-treatment knowledge system and the country of origin (Jeong et al., 2012; Wang et al., 2010).

While there seems to be an emphasis on the between-segments investigation, a few studies go inside the DS segment, targeting specific types of DS products. The DS products offered by marketers fall into two major categories: 1) vitamins and minerals; 2) other supplements (Radimer, Subar, & Thomspson, 2000). Vitamins and minerals (VM) include the basic single-ingredient vitamin and mineral (SIVM) and multi-vitamins/-minerals (MVMN). Many sub-groups are included in the “other supplements” category: herbal DS (e.g., ginseng, aloe vera, kelp, cranberry), specialty DS (e.g., weight loss remedies, sport performance supplements such as amino acids and protein powder, and laxative-type products such as fiber, wheat bran, psyllium), and other biological products (e.g., fish oils/ Omega-3/-6, lecithin) (Radimer et al., 2000; Starr, 2015). We can see that some categorizations are based on the ingredients contained by the DS (e.g., VM, Omega-3/-6, fiber), while some categorizations are based on the purposes of the DS (e.g., weight loss remedies and sleep aids). The DS industry is burgeoning, with more than 60,000 products emerging in the marketplace in 2018 alone; in comparison, only 3,400 DS products were available in total in 1994 (Ordonez, 2018). The crowded marketplace creates more challenges for consumers in making an informed decision regarding which supplement to take.

Researchers addressed some specific attributes of DS products and explained their influences on DS consumption. The product attributes that have been examined include: the form and dosage level (Homer & Mukherjee, 2018), country of origin (Jeong et al., 2012), the ingredients (Snyder, Dundas, Kirkpatrick, & Neill, 2009), and the package and size (Nagler, Kronenberg, Kennelly, & Jiang, 2011). Research indicated that the product attributes might affect consumers’ perception of DS efficacy. For example, multiple-

ingredient DS is perceived as more efficacious than single-ingredient at low (vs. high) doses (Homer & Mukherjee, 2018). Nagler et al. (2011) found that the provision of additional active ingredients in the multi-component DS products increased consumers' willingness to pay a premium. Moreover, the nominal quantity, such as the number of units and the size of the package, is important information for consumers to make judgments on the DS value. Because consumers are unable to observe key quality-relevant characteristics for DS (one type of credence goods) they must accept some uncertainty about the value proposition; it is possible that they obtain reassurance by assigning value to measures of nominal quantity, which are quickly and directly observable prior to purchase (Nagler et al., 2011).

Marketing communications. We identified marketing communication as an essential input from the marketers within the DS marketplace, influencing multiple components of the consumer's decision-making process. Exposure to marketing communications may activate consumers' need recognition for DS products. After recognizing the need, consumers may seek and process information to help with decision making regarding the purchase and use of supplements. Information provided by the marketer is one of the primary sources for consumers to understand the product. Our literature review identified the following communication inputs from DS marketers: product labels in general, claims and disclosures, and advertising.

As for the DS label in general, research finds that a credible labeling scheme that can provide accurate and objective information about the efficacy of a functional ingredient would help consumers make informed purchase and consumption decisions, which, in turn, helps marketers because consumers would likely value the product more

highly if they were provided with objective information (Ahn, Bae, & Nayga, 2016). In particular, consumers seem willing to pay a premium for DS that claims to contain a standardized set of ingredients (Nagler et al., 2011). Moreover, the provision of information in the label would guide consumers' valuation of certain attributes, like the functional properties of the ingredients, while reducing their valuation of other attributes, like the brand (Ahn et al., 2016).

More studies centered on label claims and disclosures. Marketers are allowed to include *structure-function claims* which describe the role of a nutrient or dietary ingredient intended to affect typical structure or function in humans (e.g., "Garlic maintains a healthy circulatory system"), and *disease prevention claims* which describe a benefit related to a nutrient deficiency disease (e.g., "The consumption of Garlic may reduce the risk of coronary heart disease") without meeting an acceptable substantiation standard, as long as such claims are accompanied by product disclosures such as a *FDA disclaimer* statement (e.g., "These statements have not been evaluated by the FDA. This product is not intended to diagnose, treat, cure, or prevent any disease") and *product warnings* that specify the potential side effects and risks of consuming the product (France & Bone, 2005; Mason et al., 2007). In their research of DS retailers' websites, Morris and Avorn (2003) found that while 81 percent of DS retailers included health claims of DS, more than half omitted the product disclosures.

As for the effectiveness of those two types of disclosure (i.e., FDA disclaimer and product warning), it is found that the FDA disclaimer does not impact consumers' beliefs about either the efficacy or the safety of DS, but the warning does (Mason et al., 2007; Mason & Scammon, 2011). The ineffectiveness of the disclaimer is problematic since it

is intended to encourage consumers to be cautious about their interpretation of the promised benefits of the product. Consumers exposed to the warning displayed less favorable product safety evaluations and more favorable product efficacy evaluations than those exposed to the disclaimer or no-risk disclosure (Mason et al., 2007). The authors suggest that the perception of potential risks may lead to perceptions that a product is very effective. Moreover, contrary to expectations from studies on alcohol and other warnings, heavy DS users do not dismiss warnings; rather, the warning leads to the lowest safety evaluations (Mason et al., 2007). Heavy users seem to use DS for health purposes and have accumulated some remedy knowledge so that they are particularly sensitive to potential risks associated with such products (Mason et al., 2007).

Regarding the product claims, research suggests that the design and presentation of the words in the claims is an essential work for marketers to do. Nagler et al. (2011) found that consumers were attempting to infer product qualities based on signals provided by various sets of label words. Different words may lead to different outcomes. For example, the use of “safe” appeared to reveal a level of investment in marketing that signals superior product quality, whereas the use of “guarantee” seemed to suggest the opposite – a lack of marketing sophistication that reflected poorly on the underlying product (Nagler et al., 2011). As a consequence, consumers are willing to pay a price premium in the former situation, not the latter. DS health claims or warnings use more or less vivid language and images to communicate product benefits or risks. Different word use may lead to varying perceptions of the product. For example, structure-function claims are less specific than disease claims (e.g., “calcium builds strong bones” vs. “this product reduces the pain and stiffness associated with arthritis”) and convert an overall

qualitative sense of the product's benefits rather than fact-based support for the claim (Mason et al., 2007).

Lastly, we identified advertising as a marketer input within the DS marketplace. Advertising is perhaps one of the most apparent marketing activities in consumers' eyes. Shaw, Zhang, and Metallinos-Katsaras (2009) conducted a content analysis of the quantity and accuracy of DS advertisements found in magazines. They found that adult magazines that have a high teen readership contain a substantial amount of DS advertisements with questionable accuracy, raising concerns that these ads may increase the chances of inappropriate DS use by adolescents (Shaw et al., 2009). How do the advertisements affect consumers' DS adoption and use? In his research on purchase intention of DS, Pan (2014) found that consumers would selectively process the information they preferred in advertising, and make a decision based on their preference. Royne et al. (2016) investigated whether competitive interference influenced consumer perceptions of DS and drugs. Competitive interference occurs when consumers retain overlapping memory traces of advertising content due to exposure to ads for competing brands (Burke & Srull, 1988). They proved that exposure to ads for both a DS and its drug counterpart would lead to elevated perceptions about the health risks associated with taking the DS and lower perceived benefits as compared to those who saw the DS ad only. Their research supports that advertisements are an important part of the context; exposure to the information in advertisements encourages consumers to adjust their perceptions.

Channels. Although the question of how to deliver the right product to the right consumer at the right time is a major topic in marketing, little research has addressed the

channel aspect within DS marketing. We reviewed two papers discussing the impact of retail stores on DS purchase. Jeong et al. (2012) examined the impact of store type importance on DS purchase intention in the Chinese market. They found that the perceived importance of large store format was positively related to consumer attitudes to DS products; Chinese consumers preferred foreign retailers (mostly large-sized chain stores competing in the market based on convenience, large spaces, and comfort) over Chinese retailers, especially in Shanghai (Jeong et al., 2012). In Snyder et al.'s (2009) research on older people's consumption of herbal supplements, they stated that the high accessibility and convenience of buying DS was the top reason for the perceived safety of herbal supplements.

One paper investigated the e-marketplaces of DS products – Morris and Avorn (2003) analyzed 443 websites that pertained to oral herbal supplements and found that 338 (76 percent) websites were retail sites either selling DS or directly linking to a DS vendor. However, their research focus was on the role played by retail sites in communication rather than distribution. A thorough investigation of the e-marketplace of DS is missing from the literature.

This section has reviewed inputs made by marketers to DS consumption. From a review of the literature, previous research has addressed marketer inputs regarding the product, communication, and channel. However, we have not built a sufficient understanding of these aspects. For example, less research examined and compared the consumption of specific sub-products within the DS segment (e.g., vitamins/minerals vs. non-vitamins/-minerals); little research paid attention to the marketer-to-consumer and consumer-to-consumer communications that are emergent on social media (e.g., e-

WOM); little research investigated the e-marketplaces of DS (e.g., social commerce). Moreover, price, one of the fundamental elements in the classic marketing mix (4Ps), is not discussed. Further, brand-related concepts such as brand image, brand personality, and brand equity are missing from the literature. Based on these findings, we identify research opportunities in Section 2.7 and discuss why they are important.

2.3.3 Environmental Inputs

The last two sections identified the various inputs made to the DS consumption by individual consumers and marketers. This section will elaborate on environmental inputs. The external factors that are not controlled by marketers or consumers but are influential to consumers' purchase and use of DS are identified as environmental inputs, including the influence of referent others, the influence of media, intervention from government, and culture.

Influence of referent others. The research literature acknowledges the influence of referent others on consumers' adoption and use of DS products. For example, the perceived safety of herbal DS was greatly influenced by family and friends (Conner et al., 2001; Noor et al., 2014; Pajor et al., 2017; Snyder et al., 2009). Mason and Scammon (1999) confirmed the vital role of referent others in initial users' experimentation with DS. The participants in their research became aware of DS through advertising, articles, or news reports, but they would not start to try a DS product without talking to someone who had personal experience with the product. When consumers get more involved in DS consumption after the initial experimentation, they may access different personal sources

such as peers in the fitness community (Mason & Scammon, 1999) and trusted similar others (Thompson & Nichter, 2007) for more information.

The literature lets us know about the existence of influence from referent others. The next question is “how” – how is the influence formed? It is suggested that health literacy is accumulated in a socio-cultural process through which individuals leverage a range of skills as well as social networks to achieve their goals (Adkins & Corus, 2009). However, existing research does not explicate how the socialization process within the family or friends’ circles functions.

In addition to family and friends, the literature also acknowledges the influence of health professionals such as doctors, pharmacists, dietitians, and nurses on consumers’ purchase intention of DS (Chandra, Miler, & Willis, 2005; Peters, Shelton, & Sharma, 2004; Snyder et al., 2009). However, regarding the influence coming from health professionals, some research indicated the opposite results – participants in their research did not consult with health professionals for suggestions on DS consumption (Blendon et al., 2001; Blanck et al., 2007; Starr, 2015). The reason lies in consumers’ beliefs that professionals are lacking relevant knowledge and are biased against DS (Blendon et al., 2001).

Is it true that health professionals are lacking DS knowledge or biased against DS? Alternatively, is that a misperception from the consumer side due to the ineffective communication between professionals and patients? Research is needed in this aspect. Jain et al. (2016) introduced a multi-stakeholder perspective and built an integrated model to explain the roles of different stakeholders in the communication process (e.g., brand, pharmacist, patient, and physician). In particular, they identified that consumers

might face a dilemma of ‘contradictory information’ when learning about supplements since they consult with health practitioners but also have DS recommended to them by pharmacists or, more directly, by marketers/producers. Add to this information gleaned from family and friends, and the dilemma may be enhanced; a decision may become hard to make.

Adkins and Corus (2009) applied Bourdieu’s practice theory to explain consumer and health practitioner’s practices during the co-creation of health literacy. Two different types of consumers are identified – ‘consumerists’ who actively engage in health practices and ‘passive’ consumers who are over-dependent on practitioners. The authors indicated that both types of consumers were enduringly seeking information; ‘consumerists’ were seeking information to become *informed for decision making* whereas ‘passive’ consumers were seeking information to become *informed for compliance* (Adkins & Corus, 2009, p. 220).

From the nutrition discipline, researchers conducted investigations with health professionals to understand their DS consumption behaviors (Dickinson, Shao, Boyon, & Franco, 2011) and their dietetic practices that involve DS use (Marx, Kiss, McKavanagh, & Isenring, 2016). Dickinson et al. (2011) identified that more than half of the health professionals (57% of cardiologists, 75% of dermatologists and 73% of orthopedists) reported the use of DS; also, more than half (72% of cardiologists, 66% of dermatologists, and 91% of orthopedists) reported recommending DS to their patients. Health professionals recommend DS for their patients mainly for reasons related to their specialty (Dickinson et al., 2011), but they do have concerns regarding potential drug-DS interactions (Marx et al., 2016). Investigations were also conducted regarding the

professional-consumer dyad – Tarn et al. (2013) analyzed 1477 transcribed audio-recorded physician-patient conversations and suggested that more discussions about DS were needed, to inform patients' decisions; French, Barr, and Levy-Milne (2003) emphasized the importance to get physicians to educate women on the importance of folate so as to promote the benefits of periconceptional folic acid supplementation.

Influence of media. As a critical input from the environment, media include the traditional media (old) such as print media (e.g., books, newspapers, and magazines), digital media (e.g., TV and audio programs), and emerging media (new) such as social media and interactive websites (e.g., blogs, social networking sites, forums, and YouTube). Previous research focused on the old media and confirmed their influences on DS purchase intention (Conner et al., 2003; Kava et al., 2002; Shaw et al., 2009; Snyder et al., 2009). For example, in Snyder et al.'s (2009) research, the top two information sources for herbal DS are print (e.g., books and newspapers), and digital media (e.g., television); magazines/newspapers and TV/audio programs are identified as the most commonly used sources in French et al.'s (2003) study. Specifically, the influence of traditional media is more significant in the need recognition stage (Mason & Scammon, 1999). Once consumers start to experiment with supplements and become more involved, they begin to actively seek information and expand the sources for information to include journal and magazine articles, advertisements, and public websites (Mason & Scammon, 1999).

There are very few papers mentioning the Internet as an information source and investigating its influence on consumers' decision making with respect to DS consumption. Most of the papers addressing the Internet's influence on DS consumption

were focusing on marketer-controlled media publications such as brand posts and retail websites. The most important conclusion from their research was the incomplete information about product safety and risks provided on websites (Jordan & Haywood, 2007; Kava et al., 2002; Morris & Avorn, 2003). In particular, Peters et al. (2004) indicated that the general public might not be able to distinguish genuinely credible independent research on DS from paid advertising engineered to appear scientific in its presentation. They called for future research to investigate the credibility of the media sources consulted by consumers.

Importantly, we noticed that little attention had been paid to the non-marketer-controlled information that is published on interactive websites and social media. However, due to the development of Web 2.0 and social media technologies, consumers are creating and sharing their product experiences online; they are relying on online public reviews posted by other consumers for decision making. Only Nagler et al. (2011) discussed a little bit about the effectiveness of online ratings of supplements – consumers were suspicious about online ratings and only perceived them as good indicators when there were many positive reviews. No research goes deeper to consider the features of social media and investigate their influences on consumer behavior.

However, we have seen some previous research confirming the positive impact of consumer's social media engagement on their purchase behavior (see Goh, Heng, & Lin, 2013). More specifically, Goh et al. (2013) quantified and compared the relative impact of user-generated content (UGC) and marketer-generated content (MGC) on consumers' apparel purchase expenditures; they empirically confirmed that the UGC exhibited a stronger impact than MGC on consumer purchase behavior. We are wondering if

consumers trust other consumers' reviews more than the brands' information when they consider apparel (a shopping good), would they also do so when researching DS (a credence good)? This is an interesting question to be answered in future research.

Public policy & Governmental management. Note that public health promotion policy and intervention by other governments will be included in the discussion of research context. In this section, we report the findings from current literature regarding governmental inputs that primarily focus on the actions taken by the US government. As many of the DS products in the global marketplace originate in the US where the FDA does have authority, it is worth reporting those findings.

Since the passage of Dietary Supplement Health and Education (DSHEA) in 1994, the US government has chosen to adopt a reactive falsification approach to the safety and efficacy of dietary supplements rather than the proactive verification model used to ensure the safety of prescription drugs. In other words, consumers must suffer harm that is directly connected to the DS before the FDA begins the slow process of restricting a product from the market. Moreover, the DSHEA 1994 further expanded the definition of DS, allowing a broader range of products to enter the market without government inspection (Quinones, Winsor, Patino & Hoffmann, 2013). Accordingly, the number of DS products that have entered the marketplace is burgeoning; the FDA is facing severe constraints in its efforts to enforce its rules against supplement mislabeling and contamination (Nagler et al., 2011). The literature suggests increasing the input from the government within the DS marketplace. That is, to increase the intervention from the government, including governmental regulation and educational intervention.

Governmental regulation of DS standards and labels is required by consumers to guarantee the safety and efficacy of DS products (Blendon et al., 2001). Moreover, Mason and Scammon (2011) suggested that consumers' informed decision making required not only the availability of information but also an understanding of that information. Thus, educational intervention should accompany the establishment of product standards. It may help consumers to accumulate their DS knowledge (Peters et al., 2004) and facilitate their actual use of DS products (Wang et al., 2010). In their research on the impact of DS (vs. drug) consumption on consumers' healthy lifestyle, Wang et al. (2010) designed an educational intervention (i.e., to provide additional information for consumers – “this drug works best if accompanied by a low-fat and low-salt diet, along with regular exercise. Smoking and excessive alcohol intake are not recommended”) and proved its mitigating effect on the boomerang effect of health remedy consumption (Wang et al., 2010, p. 90). Dodge, Litt, and Kaufman (2011) provided further evidence to show that consumers who were educated about the regulation of DS under the DSHEA were gaining more comprehensive understandings of DS safety and efficacy. To summarize, research suggests that policymakers take a more holistic approach to policy design, one that actively accounts for pre-existing beliefs and dispositions that influence consumers' actual decision making and behaviors (France & Bone, 2005).

Culture. DS consumption is becoming a global phenomenon. The literature has confirmed the popularity of DS consumption across countries and contexts such as (but not limited to) the US (e.g., Homer & Mukherjee, 2018), Canada (e.g., French et al., 2003), China (e.g., Jeong et al., 2012; Ren et al., 2011), Australia (e.g., O'Connor &

White, 2010), Netherlands (e.g., Pajor et al., 2017), India (e.g., Jain et al., 2016), and the UK (e.g., Vos & Brennan, 2010). Although marketing researchers mainly focused on the context of the US, nutrition scholars showed us a complete picture by employing cross-sectional population-based surveys and interventional experiments. Nutrition academics described the different patterns of DS use in various countries like Australia, New Zealand, Japan, Netherland, and Canada, to name a few.

Turning to the most-used DS as an example, while multi-vitamins, multi-minerals, and fish oil are popular across countries, the consumption of ginseng is popular in the Netherlands (Kofoed et al., 2015), herbal DS (e.g., green tea extract) is particularly welcomed by the US (Dickinson et al., 2011), garlic tablets are embraced by the UK (Johnson et al., 2000), and soy-based supplements are popular in China (Ren et al., 2011). The diversity in DS use across countries may indicate the significant impact of local culture on DS consumption. Ren et al. (2011) did their research on DS consumption in the context of China. According to them, no studies were found to examine the influences of the local culture on DS consumption, which is consistent with our literature review – Ren et al.'s (2011) study was the only one that addressed the cultural influences. Ren et al. (2011) confirmed the significant influences of Chinese dietary culture (Chinese consumers' diet preferences and dining habits) on Chinese consumers' intention to use imported soy-based DS.

Furthermore, we argue that the cultural influence not only pertains to national culture but also the consumption subculture that creates certain ideologies that may profoundly influence consumers' values and behaviors. Nichter and Thompson (2006, p. 192) stated that:

Many, if not most, of the DS users we interviewed, were motivated to use vitamins and herbal products for very practical, as well as personal reasons. A few, however, expressed overt ideological reasons for using these products.

A classic example that may illustrate the ideological influences on DS consumption is the view of complementary and alternative medicines (CAM) as the “postmodern movement in medicine” (Vos & Brennan, 2010, p. 351). In particular, by interviewing natural health alternative (NHA) consumers, Thompson and Troester (2002) identified the consumer value system under NHA consumption and, more importantly, uncovered its higher-order cultural ideologies that were situated in the broader context of postmodern consumer culture. In particular, the ideologies inbuilt in postmodern consumer cultures such as postmodern integrativeness, counter-modernism, systemic risk awareness, and postmodern reflective relativism influenced consumers’ articulations of NHA consumption values (Thompson & Troester, 2002, p. 556).

This section has reviewed the environmental influences on DS consumption. The literature has identified the influence of referent others, including family, friends and health professionals, the influence of traditional media, the influence of governmental regulation and intervention, and the influence of local culture and consumption subcultures on consumers’ purchase and use of DS. However, many questions are not answered regarding each aspect. For example, how is the influence of referent others formed? What is the influence of emerging information technologies such as social media on DS consumption, specifically, the influence of public online information and online social networks? And, what is the influence of non-western cultures on DS consumption? We will identify corresponding research opportunities in Section 2.7 and discuss why they are important.

2.3.4 Group-level Influences

We were wondering if there would be a group-level influence on consumers' DS purchase and use. From the literature, what we found was group-level influence based on traditional sociological categorizations such as age, gender, education, and lifestyle. Namely, the literature acknowledges differences in DS use among different market segments. The use of DS is more prevalent among specific demographics: older adults (Gunther et al., 2004; Patterson et al., 2003), females (Blanck et al., 2007; Chen et al., 2005), people with higher education (Bailey et al., 2010), people with higher income (Chen et al., 2005), and people with higher social class (Johnson et al., 2000).

The literature also demonstrates the influence of household structure on DS consumption (Stang, Story, Harnack, & Neumark-Sztainer, 2000). Barrena and Sanchez (2010) noted that households without children and households with children presented unique focuses on DS product attributes. The former attached more importance to concrete attributes (product properties that may be desired or pursued by consumers, like 'ease of consumption') than to abstract attributes (properties that cannot be checked prior to consumption and must, therefore, be inferred from internal/external sources, like 'quality' and 'health benefit effect'); the latter attached equal importance to both. These two segments also generated different consequences of DS consumption: consumers from households with children presented a high degree of abstraction, tending towards the higher levels of abstracted values such as 'enhances my peace of mind and self-respect', 'makes me feel fulfilled and responsible', and 'I'm doing the right thing' while

consumers from households without children reported more functional consequences such as ‘saves time’ and ‘makes life easier’ (Barrena & Sanchez, 2010).

In their study of the impact of DS use on complementary health practice, Pelletier and Kendall (1997) found that DS use was associated with higher quality diets in some age/sex groups but lower quality diets in others. Sheldon and Pelletier (2003) and Troppmann, Gray-Donald, and Johns (2002) also reported that the direction and strength of the association between DS use and health outcomes (e.g., nutrition intakes) vary significantly across age, gender, and ethnic groups. Moreover, they suggested that it was the group-level differences in knowledge that resulted in the different directions or strengths of the associations (Pelletier & Kendall, 1997).

The nutrition literature brings to our attention that a healthy lifestyle is an essential input within DS consumption (e.g., Barnes et al., 2016; Chen et al., 2005; De Jong et al., 2003; Gunther et al., 2004; Ishihara et al., 2003; Johnson et al., 2000; Kimmons et al., 2006; Lyle et al., 1998; Miller et al., 2008; Pillitteri et al., 2008; Radimer et al., 2000; Sheldon & Pelletier, 2003). Various aspects of a healthy lifestyle are indicated to influence consumers’ use intention of DS products, such as active physical activity (Barnes et al., 2016), daily healthy diet (Chen et al., 2005), non-smoking (De Jong et al., 2003), no alcohol or moderate alcohol consumption (Kofoed et al., 2015), healthy body mass index (Gunther et al., 2004), previous CAM adoptions (Miller et al., 2008), and longer-term health control attempts (Pillitteri et al., 2008). It is suggested that a healthy lifestyle and DS use may be considered as confounders on health outcomes (Kofoed et al., 2015). As multiple lifestyle factors often interact, resulting in a multi-

causal nature of the disease, the use of indices as confounder control in future studies may be highly relevant.

In addition to the macro-social groups that are based on the traditional sociological categories (Cova & Cova, 2002), are there any other levels of groups within the DS marketplace that may exert an impact on individuals' DS consumption? In their study that advocated the two-stage process (an initial stage and a committed stage) within DS consumption, Mason and Scammon (1999) mentioned the generation of a community accompanying the committed use of DS. They referred to the skydiving community research by Celsi, Rose and Leigh (1993), which found that consumers who participated in skydiving jumps were socially motivated by a sense of community and were engaging partially for the social recognition and a desire to belong to the community in which acceptance was dependent upon one's role as a jumper rather than social status or career. They confirmed that their participants felt this same sort of community identity, which, in turn, enhanced their sense of individuality (Mason & Scammon, 1999, p. 111). However, this is the only effort that addressed community-level group influences. No other research noted the role of offline communities built in the real world, or the online communities built in social media, on DS consumption.

This section has reviewed the group-level influences on DS consumption. The literature has identified the influences of macro-social groups (based on traditional sociological categories like age and gender) on consumers' perception and use of DS. However, little research attention has been paid to the micro-social group influences. Are there any groups/communities built on the use of DS? What are the unique characteristics and impacts of those communities on individual consumers' DS consumption? We will

identify corresponding research opportunities in Section 2.7 and discuss why they are important.

In Section 2.3, we elaborated on the findings regarding inputs within DS consumption, including the individual level consumer inputs, marketer inputs, and environmental influences, and the group level macro-social and micro-social influences. In the research conducted to date, the majority of efforts have been put into the investigation of how consumers' psychological inputs predict their intention to use DS. However, many important aspects are neglected, such as: 1) recognizing that the consumption process involves not only the pre-purchase or purchase stage, but also the post-purchase stage which may involve consumers' actual use, repeated purchase and continuing use, and disposal behaviors; 2) in addition to psychological inputs, contextual factors, habitual behaviors or emotions might be considered as important inputs; 3) many aspects of marketing activities (e.g., pricing and branding) and their impact on DS consumption are missing from the literature; 4) acknowledging that consumption occurs within the context of the larger technological, social and cultural environment, which also impacts consumption; and 5) both macro-social groups (e.g., societal level) and micro-social groups (e.g., family and community) might have influences on individuals' DS consumption. Many questions are raised by the review of inputs, which will be discussed in Section 2.7; some of those questions will be addressed by this thesis, as will be discussed in Section 2.8.

2.4 The Process Inherent in Dietary Supplements Consumption

Processes and practices occur within DS consumption, which builds the bridge between inputs and outputs and completes the mechanisms of the whole DS marketplace. The practices and processes are reviewed and discussed below, beginning with the broader scope that summarizes the whole process of DS consumption, and then drilling down to the particular patterns of DS use, and then becoming more focused on committed use.

2.4.1 From Intention to Action

First, we emphasize our process view of DS consumption in this section. The consumer decision-making process usually consists of pre-purchase (intention to purchase), purchase, and post-purchase stages (Hoyer, 1984); consumer behavior means more than “purchase behavior” and includes all of the interactions between individuals and products before, during, and after purchase (Joy & Venkatesh, 1994). Hence, we highlight that DS consumption research should include all three aspects of “intention to purchase”, “purchase”, and “post-purchase”. Our review of previous research shows that many studies only targeted the “intention to purchase” stage, investigating factors which predict consumer purchase intention, modeled on the Theory of Planned Behavior (TPB) (e.g., Ren et al., 2011) or models that combined TPB with other theories from psychology like willingness model (O’Connor & White, 2010) and control theory (Rajamma & Pelton, 2010). This subset of the literature suggested and empirically confirmed some factors that significantly predicted consumers’ purchase intention such as attitude towards the DS segment (Ren et al., 2011), perceived behavioral control (Conner et al., 2001) and

social norms (Noor et al., 2014). Some research extended the research scope to include upstream antecedents that affect the abovementioned TPB-based predictors, such as the design of product attributes, the messages in advertising, and the location/format of distribution channels. However, no matter how far the research went along the upstream exploration, for the downstream path, research stopped at the “intention to purchase”; research questions were commonly about “why do consumers *intend to buy* DS products?”

This leads us to ask, ‘What happens during consumers’ actual purchase?’ The literature only touches upon the actual purchase by agreeing that purchase intention is the primary predictor of actual purchase (Conner et al., 2001). However, there is still a distance to be traversed from purchase intention to the actual purchase (Manstead, 2011). Many factors can affect the final act of purchasing, other than the TPB-based psychological factors that are inbuilt in consumers’ cognition. This distance is further enlarged in high-involvement consumer behavior, for example, health consumption and promotion behavior. Research has urged us to stimulate rethinking the dominant social marketing approaches including the Theory of Reasoned Action and Theory of Planned Behavior and considering more context-specific factors like cultural values, rituals, and emotions (Belk, Østergaard, & Groves, 1998).

Our literature review of DS consumption research found that, Fogel and Rivkin (2013) examined consumers’ intention to adopt and their adoption of a computer eye strain formula (an oral supplement for computer vision syndrome) and found that the pattern for variables associated with the adoption of the formula was different from intention to adopt. Specifically, they identified those who received treatment for

computer vision syndrome, and those who previously used eye drops for computer vision syndrome had significantly increased odds for formula adoption.

Further, increased symptoms were found to be associated with increased intention to adopt the formula, but not associated with actual adoption. Pajor et al. (2017) also suggested that, in addition to intention, variables such as health regulatory focus and susceptibility to illness are predictors of DS purchase with smaller effect-sizes.

Moreover, when consumers enter the purchase stage, they do not only process health-related information, but also a price-related stimulus. We found only one study that addressed consumers' perceptions and elasticities to DS price – Nagler et al. (2011) indicated the impact of DS label information and language use on consumers' evaluation of the price.

Further, actual purchase behaviors may happen multiple times, including first-time purchase, first-time repurchase, and repeated purchases. There is a difference between a first-time purchase and re-purchase. O'Connor & White (2010) recognized this difference and specifically explored the factors affecting the initial consumer trial.

In terms of post-purchase behaviors within DS consumption, we observed that far fewer studies had addressed aspects of post-purchase consumption, such as the specific DS use behaviors and the evaluation of DS after use. Exceptions include France and Bone (2005), who argued that DS consumption process research should cover multiple consumption stages and that consumer behaviors and their motivations changed across different stages, and Mason and Scammon (1999) who separated DS use into two stages – initial trial and committed use. The latter authors identified differences in consumers' motivations to use DS in these two stages in terms of self-image, self-identity,

community identity, and individuality within the community (Mason & Scammon, 1999). Both papers indicate a dynamic view of DS use.

According to Weinstein (1993), the adoption of health-protective behavior can be viewed from two perspectives: the *dynamic* view, which treats the adoption of health-protective behavior as the end of a sequence of stages, with different issues – and hence different prediction rules – involved at different stages; and the *static* view, which searches for a single prediction rule to explain health-protective behavior. Our review of the literature suggests that most previous consumer researchers preferred the static view since they chose to design their research based on TPB-based prediction models.

However, by integrating the literature from marketing and nutrition, we identified some paradoxes that may be caused by adopting the static view. Marketing research suggests that a higher level of health knowledge (e.g., nutrition knowledge, remedy knowledge) leads to higher purchase intention (Homer & Mukherjee, 2018). However, the nutrition literature uncovers that DS users have low health knowledge even after they use DS for a while (Barnes et al., 2016). From marketing research, the belief in DS efficacy significantly determines consumers' intention to purchase DS (Royne et al., 2014); but the nutrition research demonstrates that consumers would continue to take DS even if they were shown to be ineffective in scientifically conducted clinical studies (Blendon et al., 2001).

We foresee that something happening within the use stage could explain those seemingly paradoxical findings and give us indications as to why consumers still intend to use DS even when they are aware of the clinical evidence revealing unimproved

nutrition indicators and why consumers no longer question the value of the DS they are taking because they ‘know’ they work (Mason & Scammon, 1999).

To summarize, the literature has acknowledged (implicitly) a holistic view of the DS consumption process that lasts from intention-to-purchase, to purchase, and to post-purchase. However, the literature is currently dominated by research on the intention-to-purchase; it has been suggested that such research fails to fully explain the variance in the purchase and the use of DS (Thompson & Nichter, 2007). Additional research employing interpretive, qualitative research and ethnographic methods is called for to explore the different patterns of DS use and to examine the impact of specific contexts on use patterns (Nichter & Thompson, 2006).

2.4.2 Use

In the last section, we highlighted our process view of DS consumption. That is, DS consumption research might cover pre-purchase, purchase, and post-purchase stages. In this section, we specifically focus on consumers’ use behaviors in the post-purchase stage.

As mentioned in the last section, we identified the importance of discovering consumers’ varying patterns of DS use and the motivations and mechanisms underlying the specific use patterns. Hence, we paid particular attention to the discussion of use behaviors when reviewing the literature. To facilitate the review, we utilized the 5W1H framework (a.k.a. 6Ws, i.e., who, what, why, where, when, and how) to organize the review. This framework can provide an ontology-based dictionary for interpretation and

abstraction of literature (Kim et al., 2016), and allow the accumulation of analytical knowledge across disciplines (Huang, Fan, Chern, & Yen, 2013).

By employing the 5W1H framework, we summarized: what are the DS products that are frequently used by consumers (What), who are the users (Who), the countries and districts where DS use is popular (Where), the age and the stage in the lifecycle when the DS is used (When), the specific ways of using DS (How) and the reasons why they use DS in those particular ways (Why). In presenting the findings, we find it necessary to combine “What”, “Who”, “Where” and “When” together, in order to demonstrate DS use patterns in general in the marketplace. More importantly, we found it necessary to combine “How” and “Why”. Previous research highlighted that the context-dependent nature of different motivations for DS use requires us to take both “why people use” and “how they use” into consideration (Nichter & Thompson, 2006).

Several longitudinal surveys and clinical experiments have been conducted to document the use of DS. For example, Bailey et al. (2010) analyzed the National Health and Nutrition Examination Survey (NHANES) 2003-2006 to test the use of DS among the US population. Payette et al. (2002) did a 16-week clinical experiment with older American adults to examine their use of DS. The longitudinal nature of these studies provides insight into consumers’ actual use of DS products over a relatively long timeframe, rather than focusing simply on consumers’ intention to buy or purchase behavior, that may happen at a fleeting moment. The main findings of this group of research studies are summarized in Table 2.1. The literature confirms that the use of DS in the marketplace is very dynamic and context-dependent, showing commonalities as

well as differences. The question of “how DS is being used” closely relates to the questions of what, who, where, and when.

Table 2.1 The Patterns of DS Use

Author	Where, What, Who, When	How	Why
Bailey et al. (2010)	- US - MVMM - General population; elderly & higher educated	- The majority of the users take only one DS product & use on a daily basis - The elderly group uses herbal DS more commonly - The nonobese group uses DS more commonly	- <i>Why take only one product?</i>
Radimer et al. (2004)	- US - MVMM, SIVM - General population; female & the elderly & higher educated	- Adults who keep a healthy lifestyle take DS - Users tend to drink wine during the DS consumption period	- <i>Why keep drinking wine?</i>
Blanck et al. (2007)	- US - Specialty DS (Weight loss) - Adult population; females aged 18-34 years old - No difference in terms of education	- Only one in 10 (10.2%) of users reported 12month use - Long-term use is less frequent in women (7.7%) than men (15.0%). - No nutrition knowledge seeking behavior	- <i>Why not continue use given the weight loss motivation?</i>
Pillitteri et al. (2008)	- US - Specialty DS (Weight loss) - Females aged 25-34 years old; less educated & lower income households	- Users make more lifetime weight loss attempts - Users use more types of weight loss methods	- <i>Why adopt other types of weight loss methods?</i> - <i>Why switch between different methods?</i>
Dwyer et al. (2001)	- US - MVMM (46.8%), SIVM (35.6%, VC 23.9%), NVNM (11.8%) - Adolescents (eighth grade students) - Gender does not impact on the use	- Adolescents take 1 supplement (76.7%), 2 supplements (15.2%), 3 or more (8.2%) - Adolescents intake higher nutrients (micronutrients) from their daily food consumptions while using DS - Adolescents learn about health knowledge while using DS	- <i>Why do adolescents learn more about health than other groups?</i>
Stang et al. (2000)	- US - MVMM - Adolescents	- 1/3 of adolescents used DS, but only 15.6% used on a daily basis. - Users had higher mean dietary intakes of most micronutrients and lower intakes of total and saturated fat. Household size affected their use.	- <i>How does household size affect use & Why?</i>
Payette et al. (2002)	- US - The elderly population	- Users do not increase participation in physical activities while using DS	- <i>Why are the elderly different regarding healthy lifestyle practices?</i>

Gunther et al. (2004)	<ul style="list-style-type: none"> - US - NVNM (herbal DS, specialty DS) - The elderly population (50-76 years old); older & female & higher educated group 	<ul style="list-style-type: none"> - Users keep a healthy lifestyle while taking NVNM like herbal DS and specialty DS (e.g., nonsmoking, healthy eating) - Users in specific medical conditions use specialty DS more (cranberries for bladder infections, acidophilus for lactose intolerance, palmetto for enlarged prostate) 	<ul style="list-style-type: none"> - <i>Why is herbal DS more popular with older people?</i>
Miller et al. (2008)	<ul style="list-style-type: none"> - US - Cancer survivors; female & the elderly 	<ul style="list-style-type: none"> - Adults with cancer or other chronic conditions had a higher prevalence of DS use than those reporting no illnesses. 	<ul style="list-style-type: none"> - <i>Why do illness survivors use DS?</i>
Patterson et al. (2003)	<ul style="list-style-type: none"> - US - Cancer patients; female & the elderly 	<ul style="list-style-type: none"> - Patients feel higher self-locus of control while using DS 	<ul style="list-style-type: none"> - <i>Why do patients use DS? Are their reasons different from those of survivors or healthy people?</i>
Dickinson et al. (2011)	<ul style="list-style-type: none"> - US - MVMM, NVNM (fish oil, herbal DS) - Healthcare professionals 	<ul style="list-style-type: none"> - The long-term use of DS was under 50% - 72% of cardiologists, 66% of dermatologists, and 91% of orthopedists recommended DS to their patients, to improve their specialty related functions 	<ul style="list-style-type: none"> - <i>Why don't professionals use DS in the long term?</i>
Perkin et al. (2002)	<ul style="list-style-type: none"> - US - NVNM (Ginseng, echinacea, protein powder/amino acids, ginkgo biloba) - University students 	<ul style="list-style-type: none"> - Users use DS for health maintenance and body function performance (e.g., build muscle, improve memory, improve energy) 	<ul style="list-style-type: none"> - <i>Why do university students use NVNM more than MVMM?</i>
Barnes et al. (2016)	<ul style="list-style-type: none"> - Australia - MVMM, SIVM; NVNM (fish oil, protein powder, probiotics, herbal DS) - University students; females (74.6%) 	<ul style="list-style-type: none"> - No preference between MVMM/SIVM and NVNM - To improve general health - Follow the instruction on the label - No health knowledge seeking behavior - Only use DS "when sick." 	<ul style="list-style-type: none"> - <i>Why is their knowledge level not improved?</i>
De Jong et al. (2003)	<ul style="list-style-type: none"> - Netherland - MVMM, SIVM; NVNM (herbal DS – echinacea) - General population 	<ul style="list-style-type: none"> - Users do not take DS on a daily base - Daily use of MVMM was 20%; daily use of NVNM was only 3% to 9% - Users take specialty DS (cholesterol lowering margarine) to offset unhealthy behaviors (smoking) 	<ul style="list-style-type: none"> - <i>Why is MVMM used more frequently than NVNM?</i>
Kofoed et al. (2015)	<ul style="list-style-type: none"> - Netherland - MVMM (64%), NVNM (antioxidant 38%, fish oil 24%, Ginseng) - Middle-aged population (5064 years old); female & the elderly & higher educated groups 	<ul style="list-style-type: none"> - More than 71% of the population used at least one DS during the past 12 months - Females prefer fish oil more than males - Physical activities are not significantly associated with DS use - Users tend not to smoke while using DS 	<ul style="list-style-type: none"> - <i>Why do females use fish oil more?</i> - <i>Why is increased physical activity, not a consequence of DS consumption? Is DS consumption a substitute for increased physical</i>

		- The association between alcohol intake and DS use is dependent on the type of alcohol	<i>activity in the pursuit of a healthier lifestyle?</i>
Troppmann et al. (2002)	- Canada - MVMM - General population	- Adults with a healthy lifestyle use DS more commonly	- <i>Why does lifestyle predetermine DS use?</i>
Ishihara et al. (2003)	- Japan - Adult population (45-74 years old)	- Adults who keep a healthy lifestyle take DS - Users take DS to offset the negative effects of eating out frequently and high stress level - Users had lower mean intakes of energy and nutrients than nonusers	- <i>Why are the users holding different motivations?</i>
Chen et al. (2005)	- Taiwan - MVMM (32.2%); SIVM (Calcium 20.9%, VE, VC); NVNM (fish oil, Ginseng) - The elderly population	- 50% of users only take one type of DS - 80% of elderly users take DS regularly	- <i>Why do they only take one type of DS?</i>
Johnson et al. (2000)	- UK - NVNM (fish oil, Garlic), MVMM, SIVM (VC) - The elderly population (over 65 years old)	- The mean number of DS taken was 1.55 - Users did not appear to require additional supplementation - Users did not have diets to help warrant supplementation while using DS	- <i>Why is the mean number of DS taken larger than that in other studies? Why are they taking DS when they do not need nutritional supplementation?</i>

There are commonalities in DS use across countries and demographics. First, the most frequently reported form of DS used were multi-vitamins & multi-minerals (MVMM), followed by single-ingredient vitamins & minerals (SIVM) and herbal DS and fish oil, which belonged to the non-vitamins & non-minerals (NVNM) group of DS. Second, the groups of people who use DS more commonly than others are females, older adults, those with higher education (high-school and above), and those with higher income. Third, daily users seemed to prefer consuming only one DS product daily (Bailey et al., 2010; Chen et al., 2005; Dwyer et al., 2001).

However, some divergence from the common pattern was noted in different contexts. For example, fish oil ranked as the top DS in the UK (Johnson et al., 2000) whereas fish oil was less used compared to MVMM (24% vs. 64%) in the Netherlands

(Kofoed et al., 2015); gender does not influence DS use among American adolescents (Dwyer et al., 2001) and income does not have a positive relationship with American females' weight-loss DS use (Pillitteri et al., 2008). Some more specific use behaviors and trends are summarized in the following paragraphs.

It is found that users who consume VM (MVMM and SIVM) may take supplements on a daily basis and over a long period of time (Bailey et al., 2010). This finding holds across different contexts, such as the US (Bailey et al., 2010) and Taiwan (Chen et al., 2005). VM users in the US usually adopt a healthy lifestyle while using the products (Radimer et al., 2004). Specifically, they eat healthily, with more vegetables and fruits and less saturated fat, and they quit smoking (Gunther et al., 2004).

Compared to VM, the use of NVNM (e.g., herbal DS, fish oil, specialty DS like weight-loss supplements and protein powder) shows more divergence across countries and demographics. For example, university students in the US (Perkin et al., 2002) and Australia (Barnes et al., 2016) may consume NVNM to maintain general health and improve body performance. But in De Jong et al.'s (2003) research on the general population in the Netherlands, users may take NVNM (e.g., specialty DS) to offset unhealthy behaviors, for example, using cholesterol-lowering margarine to offset the negative influences of smoking. This motivation was also found in Japan – adults in Japan may take probiotics to offset the negative effects of the high frequency of eating out (Ishihara et al., 2003).

Compared to the daily and long-term use of VM, the NVNM use in the US seems to be occasional and used for a shorter term (Blanck et al., 2007; Dickinson et al., 2011). Even for healthcare professionals, the ratio of long-term use of NVNM is very low

(Dickinson et al., 2011). These findings applied not only in the US; the daily use of NVNM in the Netherlands was also only 3% to 9%, whereas the daily use of MVMM was 20% (De Jong et al., 2003).

Under NVNM, we identified the major subtypes like specialty DS and herbal DS. University students were found to be one of the largest user groups of specialty DS, such as amino acids, weight-loss remedies, and probiotics. Many university students in Australia stated that they only used supplements “when sick” (Barnes et al., 2016); students in the US stated that they used specialty DS to improve body performance (e.g., build muscle, improve memory, improve energy) (Perkin et al., 2002).

Many herbal DS products are also specialty DS, which are used more commonly by the elderly group than the younger group in Australia (Bailey et al., 2010). Further, Gunther et al. (2014) identified the motivation for American older adults to use herbal DS, which was closely associated with illness prevention based on their specific medical conditions. That is, they sought and used herbal DS products that were specific to prevent a particular disease, such as cranberries for bladder infections, acidophilus for lactose intolerance, and palmetto for enlarged prostate (Gunther et al., 2004).

Based on the same motivation, the use of specialty DS in the US is also commonly found among adults who have chronic conditions like cancer survivors (Miller et al., 2008) or cancer patients (Patterson et al., 2003). They were using the specialty DS to help relieve pain, prevent illness, maintain their recovery, or gain control and confidence. Another primary type of specialty DS in the US is weight-loss supplements. What is unique about weight-loss supplements is that education level seems to have no

impact on use (Blanck et al., 2007), or may even have a negative association – less educated females were more likely to use weight-loss DS (Pillitteri et al., 2008).

We paid particular attention to learning behavior associated with DS use. Compared to other user groups, adolescents in the US appear to engage in more learning in order to gain health knowledge while using DS; their intake of nutrients from daily food consumption is higher than that of other groups (Dwyer et al., 2001; Stang et al., 2000). Other groups, for example, university students, are just following the information and instruction provided on the product label, instead of learning proper nutrition and remedy knowledge by themselves (Barnes et al., 2016). The differences in knowledge accumulation may reflect some influences from family members on DS intake (i.e., the socialization within a family). According to Dwyer et al. (2001), gender seemed not to affect American adolescents' DS use. However, their use was impacted by household size – households with a smaller size (1-4 persons) were using supplements more frequently (daily) compared to households of a larger size (5 persons and above) (71.2% vs. 28.8%) (Stang et al., 2000).

We also looked at the association between complementary health practices and DS use behavior. Among the complementary health practices, physical activity is the least associated with DS use in the Netherlands (Kofoed et al., 2015). Users may eat healthily and quit smoking while using DS, but do not tend to engage in physical activities. In particular, American older adults' intention to engage in physical exercise is lower than that of other groups (Payette et al., 2002). Another interesting behavior was found in both countries – while daily DS users may quit smoking, they do not give up drinking alcohol; they preferred to drink wine moderately (Kofoed et al., 2015; Radimer

et al., 2004). The research suggested that the relationship between alcohol intake and DS use may be dependent on the type of alcohol (e.g., people perceive drinking wine as permissible but not consuming beer or spirits) (Kofoed et al., 2015). Lastly, research projects that focused on American, Canadian or Japanese population all indicated the confounder relationship of a healthy lifestyle and DS intake on health outcomes, by suggesting that healthy lifestyle has pre-determined DS use behavior (Ishihara et al., 2003; Pillitteri et al., 2008; Troppmann et al., 2002). For example, those who make lifetime weight-loss attempts are more likely to use weight-loss supplements, as well as more likely to adopt more types of weight-loss methods (Pillitteri et al., 2008).

To summarize, data from these studies show us a picture of how DS is being used in the marketplace but fail to tell us the reasons why people choose those particular products and behave differently when using different products; data from these studies show us the differences in DS use at different times but do not tell us the reasons why people use DS in those particular ways at different times. The review of previous research leads us to ask questions such as how does learning occur during adolescents' DS consumption, is it through socialization in a family? What are the different mechanisms and consumer value systems that underlie the use of MVMM/SIMM and NVNM? Why does the daily DS user drink wine while quitting other "unhealthy" practices? Are there any factors that are unrelated to health but are associated with consumers' continuing use of DS? We list more example questions in Table 2.1. The answers for these questions cannot be found from the descriptive data based on the large-sample health surveys or the interventional clinical experiments.

The literature seems to indicate that people in different stages of the family lifecycle (adolescents, university students, middle-aged adults, and the elderly population) demonstrate distinctive use patterns that involve varying motivations for use. However, the literature does not answer whether the model of DS consumption is a variance or a process model (Markus & Robey, 1988). That is, does one person hold a constant use pattern, and different persons hold different use patterns? Alternatively, could the different patterns evolve along with the increase in a person's experience with supplements? To find out the answers, we may need to re-emphasize the necessity to combine "How" and "Why" and the necessity to conduct qualitative interpretive studies which pay more attention to the dynamics of DS supply, marketing and demand; the positions and agendas of multiple stakeholders in the marketplace; the social, cultural and economic factors that influence healthcare trends as part of broader social phenomena.

In a word, patterns of DS use also need to be understood as a cultural phenomenon in their own right (Nichter & Thompson, 2006, p. 176). This approach may enable us to take on a more dynamic perspective on DS use to reveal the real reasons consumers use DS at different times. It also gives us a more holistic perspective on DS use to uncover how consumers are using DS in more concerted efforts to treat disease, prevent illness, complement conventional medicine, promote health, or enhance power and performance. Moreover, it may facilitate an extended perspective on DS use – the reasons for consuming supplements may be related to non-health aspects in consumers' life rather than associated health outputs, for example, the aesthetic experiences of life and self-expressions.

2.4.3 Committed Use

First, we identify a difference between daily/continuing use and committed use. Taking supplements on a daily basis or continuing basis does not necessarily mean that consumers are committed to actively engaging and participating in the phenomenon of DS consumption. Adkins and Corus (2009) pointed out that some consumers chose healthcare strategies that were built around a preference for the familiar, such as engaging in habitual behaviors or strategies that delegated health responsibility to social others (p. 209). In these cases, consumers keep using supplements, but with a much lower commitment.

Before going into details, we want to first clarify the concept of commitment adopted in our research. The concept of commitment has become one of the focal points of explanation in marketing, as the discipline moves further away from the transactional view of exchange and embraces the relational view. Commitment is considered to be closely related to mutuality and loyalty, variables that are at the core of the meaning of relationism (Gundlach, Achrol, & Mentzer, 1995). We use Moorman et al.'s (1992) definition of commitment, which defines commitment as an enduring desire to maintain a valued relationship.

Three components of the conceptualization of commitment are widely acknowledged (Gundlach et al., 1995). First, commitment is defined to possess an input or instrumental component, that is, an affirmative action taken by one party that creates a self-interest stake in the relationship and demonstrates something more than a mere promise (Gundlach et al., 1995). Second, commitment is thought to embrace a temporal dimension, highlighting the fact that commitment means something only over the long

term, that is, the inputs and attitudes brought to the relationship must reveal consistency over time (Becker, 1960). In other words, a committed party believes the relationship is worth working on to ensure that it endures indefinitely (Morgan & Hunt, 1994). Third, and most importantly, commitment includes an attitudinal component signifying an enduring intention to develop and maintain a stable long-term relationship. This attitudinal component is conceived to be an interpersonal attachment, leading persons to exchange repeatedly with the same partners (Cook & Emerson, 1978), or an affective attachment to the goals and values of another party, identification, affiliation and value congruence (Gundlach et al., 1995). The literature has emphasized that ‘shared values’ is a direct precursor of relationship commitment, which is the extent to which stakeholders have beliefs in common about what behaviors, goals, and policies are important or unimportant, appropriate or inappropriate, and right or wrong (Morgan & Hunt, 1994).

We suggest that Committed DS users are those who 1) invest instrumental inputs in DS consumption, for example, the money they spend on DS (i.e., the instrumental component); 2) consume DS consistently over a long term (i.e., the temporal component); and 3) form an enduring intention to develop and maintain a stable long-term DS consumption (i.e., the attitudinal component).

In particular, the attitudinal component is the key component that distinguishes Committed DS users from non-committed users. Further, the attitudinal component suggests that commitment requires another party in order to form a relationship (i.e., the targets of commitment). Since DS consumption is a complicated phenomenon that involves multiple layers of meanings, committed users’ enduring positive attitudes toward DS consumption may be specific to certain layer(s) of meanings and, therefore,

different from each other in terms of the targets of commitment (e.g., DS consumption in general, specific DS product and brand, DS seller, and DS community). That is, different compositions of the attitudinal component may lead to interpersonal attachment, affective attachment to DS consumption in general, and/or affective attachment to specific product/brand/community. The question of whether or not there are distinct targets of commitment in DS consumption is important. If there are, it is important for marketers to appreciate these differences, and to understand the relationships between them.

Next, we discuss how DS users may transform from initial users to committed users. Individuals' first-time purchase and initial use of a DS may be suggested and monitored by health professionals (Peters et al., 2004) or significant family members or friends (Noor et al., 2014); may be due to the influence from media such as news, articles, and advertisements (Conner et al., 2003); or due to the influence of person-media interaction (Mason & Scammon, 1999). That is, the motivations for the first-time users' trial attempts, as well as the factors that affect their motivations, are divergent (O'Connor & White, 2010). Also, many context-dependent elements, including individual factors (e.g., demographics, personality, health knowledge, health motivation) and situational factors (e.g., product availability, type of the product, susceptibility to illness, expected time for recovery), separately or holistically determine their use behaviors within this stage.

As a consequence, they may choose to take supplements occasionally (Barnes et al., 2016) or frequently (Bailey et al., 2010); they may take only one supplement (Blanck et al., 2007) or multiple supplements (John et al., 2000); they may become suspicious about product efficacy (Chandra et al., 2005) or hold even stronger beliefs in the claimed

benefits (Vos & Brennan, 2010). They go through this phase of exploration to start taking a supplement, to experiment with additional supplement(s), to evaluate its impact on their body and mind, and to assess the value of consumption by measuring the costs and benefits (Chandra et al., 2005).

After that, consumers may (or may not) enter the next consumption phase – re-purchase. If they do re-purchase and then consume DS on a continuing basis, they may evolve from being a “light user” to a “heavy user” (Mason et al., 2007). However, as we stated earlier, the re-purchase behavior or the continuing use (heavy use) does not necessarily equal committed use. As the field of consumer behavior matured, researchers came to realize that “re-purchase is not sufficient evidence of brand loyalty” (Newman & Werbel, 1973, p. 404). Regarding continuing use/heavy use behaviors, some people could just keep using DS due to habitual behavior or the need to conform to social others (Adkins & Corus, 2009).

By definition, commitment involves not only instrumental inputs and an enduring timeframe, but also affective/interpersonal attachment based on shared values and pleasure. Hence, we argue that the judgment of “committed or not” is not solely based on whether consumers re-purchase or use DS for a long timeframe, but based on the attitude of the consumer towards DS consumption, culture, and philosophy. We suggest that committed DS users would perceive DS products and consumption as highly relevant to their self-image and pleasure, based on their inherent needs, values and interests. That is, the development from initial use to committed use should be based on the acknowledgment and authentic aspiration to the meanings embodied by the phenomenon and the transformative role of the consumption in the consumer’s life and self-concept.

Moreover, we argue that there is a difference in the language used in DS consumption literature and commitment literature regarding the term ‘committed consumer.’ While the literature on commitment emphasizes the relationship aspect of commitment (e.g., committed consumers have certain targets to which they are committed, such as brands, service providers, and communities) (see Morgan & Hunt, 1994), the literature on DS consumption neglects the relationship aspect. We suggest that future research should refer to the conceptualization of commitment from the commitment literature in marketing (i.e., an enduring desire to maintain a valued relationship) (Moorman et al., 1992).

More importantly, the users who successfully transform from initial users to committed users may display different patterns of use; the various patterns may differ based on their inherent needs, value systems and motivations, and their interpretation of the meanings embodied by DS consumption. Therefore, it is expected to see different groups of committed users emerge and/or different types of benefits from DS consumption.

Based on our analysis and synthesis of previous research, we propose that there may be four different patterns. However, the ultimate categorizations may vary according to the findings of our empirical investigation. Firstly, health and wellbeing improvement is one of the most visible meanings of DS consumption, including illness prevention, health maintenance, and improvement. When users who have a strong health motivation or a healthy lifestyle accept the claimed health benefits as well as the diagnosis-treatment philosophy of DS consumption, they will maintain the use of DS. Moreover, they will be committed to DS use by actively learning and assimilating knowledge about DS,

nutrition, and general health. Furthermore, they may want to achieve a better self-image through a commitment to focus on a constellation of behaviors – a combination of supplement use, physical activity, and other health enhancement methods (Mason & Scammon, 1999). Through this path, committed users may be committed to certain types of DS products/brands, and build an interpersonal attachment to individuals who have high health cultural capital (Thompson & Troester, 2002; Dodds et al., 2014). We call this group of committed users, *learning-oriented* users.

More than that, DS consumption entails the imbricated layers of meanings that go beyond health promotion. DS, as a part of the complementary and alternative medicines, expresses the value for self-development and personal enrichment, the dominant ideology in postmodern consumer culture (Holt, 2002). By pursuing alternative methods to cure or prevent disease and maintain health, DS consumption is embracing the ideals of flexibility, adaptability, and customization (Bauman, 2000; Martin, 1994). Through DS consumption, users may obtain and benefit from the *symbolic* values provided by DS consumption, rather than the *functional* values that are related to body health. Examples of the symbolic values may include ethics (natural aspect) (Dodds et al., 2014), “gaining peace of mind” (Peters et al., 2004), a philosophy of holism (Spence & Ribeaux, 2004), harmonious balance, connections, mindfulness, and flexibility (Thompson & Troester, 2002).

Enabled by the social and cultural resources in the alternative health marketplace, committed users could get access to the ‘natural’ health narratives, discourses and practices, achieve the “therapeutic construction of the self,” and express their resistance toward ascribed medico-administrative identities (Thompson, 2003, p. 82). When

acknowledging and embracing the epistemological meanings of DS consumption, this group of users starts to express themselves in terms of the perception of the world and the self through the use of DS. They become committed users, but the benefits they achieve and the target to which they commit may be different from that of the health knowledge learning-oriented users. We call this group of committed users, *expressing-oriented* users.

DS consumption may contain experiential values that bring consumers *hedonic* benefits (Royne et al., 2016). The literature has confirmed experiential values such as play and aesthetics (Dodds et al., 2014) that bring relaxation and leisure to DS users. Consumers described alternative medications as “pleasant experiences used for personal enjoyment rather than any specific problem” (Bishop, Yardley, & Lewith, 2008, p. 1701). For consumers who have a treatment focus, complementary health practices often involve leisure activities such as walking in nature, yoga, and meditation (Dodds et al., 2014). For consumers who have a maintenance focus, the complementary practices may not even be associated with health or nutrition – they may drink a moderate level of alcohol, especially wine (Kofoed et al., 2015; Radimer et al., 2004).

Hedonic experiences reflect the emotional worth of consuming, which is non-instrumental and affective, and that forms a holistic representation of a complex phenomenon (Sánchez-Fernández & Iniesta-Bonillo, 2007). Hence, the impact of emotion on users’ committed use of DS could be considered and investigated. Since much previous research was anchored in TPB-based models, the findings of emotional effects on DS consumption are very limited. McClymont, Gow, Hume, and Perry (2015) sought to better understand the situational factors that affect the switching behaviors of back pain sufferers who use mainstream or complementary and alternative medicines and

identified the important role of emotion in that switching, for example. We call this group of committed users, *experiencing-oriented* users.

So far, three different patterns of committed use are proposed: learning oriented, experiencing oriented, or expressing oriented. We further suggest that no matter which pattern consumers have, they would face, experience, and require socialization processes. DS consumption is coordinated with other practices and interpersonal interactions. Hence, no matter whether these activities and relationships are related to health or not, the activities and relationships together seem to be able to define a community with which the users identify and by which others identify them (Mason & Scammon, 1999).

Due to the formation of community, identity construction or reconstruction may be reinforced by social influences. Their commitment to DS consumption may be further strengthened by sharing experiences with similar others, social recognition, or the desire to belong to the community (Celsi et al., 1993). Also, consumption is embedded within systems of signification, of making and maintaining distinctions (Bourdieu, 1984; Barthes, 1972). Committed users have been seen to enhance their individuality within the community (Mason & Scammon, 1999) and utilize different types of capital (economic, cultural, and social) to earn social status in the networks (Adkins & Corus, 2009). Thus, the fourth pattern – *socializing-oriented* – is suggested from the literature.

To summarize, the literature suggests that consumers may experience initial use and committed use of DS. DS consumers may become committed users only when they invest instrumental inputs, consume DS consistently over the long term, and achieve an enduring intention to develop and maintain a stable long-term relationship with DS consumption phenomenon. Neither use frequency nor timeframe of use determines if they

are committed or not. It is the type and level of the attitudinal component that plays a role. Committed users may develop different patterns of DS consumption and achieve different types of benefits. Moreover, the various patterns may not be exclusive to each other. A committed user may pass through more than one route at the same; they may also shift the focus of their commitment over their lifetime.

2.5 The Outputs in Dietary Supplements Consumption

Participating in DS consumption can be seen to have specific effects on individual consumers and marketers. We define the ‘outputs’ as the effects of participating in DS consumption on individual consumers and marketers, and the outputs individual consumers and marketers obtain from the DS marketplace. We also considered group-level outputs such as community-level outputs (micro-social level) and societal-level outputs (macro-social level). In the following sections, we identify the outputs that have been identified by previous research.

2.5.1 Individual-level Consumer Outputs

We report the outputs of DS consumption for individual DS consumers in this section, structured by knowledge, psychological outputs, functional outputs, outputs in self-expression and identity construction, hedonic outputs, and socializing outputs.

Knowledge accumulation. Health knowledge refers to the degree to which people can obtain, process, and understand the necessary health information and services needed to make appropriate health decisions (Bolton et al., 2008). Health knowledge is most often measured using scales and tests, such as the Test of Functional Health Literacy in

Adults (TFHLA) (Baker, Parker, and Clark, 1998) and the Rapid Estimate of Adult Literacy in Medicine (REALM) (Davis et al., 1993), that consist of numeracy and reading comprehension questions and recognition of medical terms questions. The traditional conceptualization and assessments of health knowledge typify an approach equating health literacy to a neutral set of cognitive processing skills (Fingeret, 1992).

This approach assumes that low health knowledge is an innate deficiency from which the consumer suffers (i.e., lower levels of income and education often exhibit lower capabilities and motivations for health decisions) and is consistent across contexts. Drawing on this view of health knowledge, previous research studies evaluated DS users' health knowledge; many of them suggested that DS users had a low level of health knowledge. For example, Pillitteri et al. (2008) surveyed non-users and users of weight-management DS in the US and confirmed that both non-users and users had misperceptions about the safety and efficacy of DS. In their survey study of elderly consumers who used vitamins and minerals, Chandra and colleagues (2005) found that about one third of users indicated that they had only moderate knowledge of vitamin supplements; 18.8 percent of users indicated that they had little knowledge. Barnes et al. (2016) corroborated Chandra et al.'s (2005) conclusion by confirming that the use of DS in the university population does not help individuals gain knowledge of the benefits and risks of DS. It seems that DS use was not accompanied with a knowledge improvement.

However, the abovementioned research all focused on knowledge of DS, namely, remedy knowledge, which is defined as consumer knowledge and comprehension of information about health remedies (Bolton et al., 2015). It is unclear what effect DS consumption has on other types of knowledge accumulation, such as nutritional

knowledge (Bolton et al., 2015) and diagnosis-treatment knowledge (Hughner & Kleine, 2008; Wang et al., 2010).

In addition, we need to consider whether it is sufficient and valid to assess consumer health knowledge (including nutrition knowledge, remedy knowledge, and diagnosis-treatment knowledge) by applying a traditional approach and using scales like TFHLA and REALM in this contemporary age in which consumers are increasingly becoming active participants in healthcare. Dwyer et al. (2001) assessed American adolescents' (eighth-grade students) nutrition knowledge and health practice and found that DS users had significantly higher scores on health practice than non-users but only slightly higher scores on nutrition knowledge. It may indicate that DS use helped those adolescent users increase health knowledge implicitly but not explicitly. That is, DS users may be able to attain tacit knowledge rather than explicit knowledge from DS consumption.

Our review of previous research studies suggests a new conceptualization of health knowledge may be needed. Adkins and Corus (2009) proposed a more complex and multifaceted view of health knowledge as a social and cultural practice comprised of the totality of communicative practices in which individuals purposefully engage rather than a predefined set of reading and writing skills. That is, the authors debated the traditional assumption of low health knowledge as an innate deficiency from which the consumer suffers; they proposed a 'literacy-in-practice' approach and suggested that health knowledge was socially constructed between consumers and healthcare providers. Further, they empirically support the reconceptualization by demonstrating low literate consumers' health knowledge enhancement process. Implicated by their research, we

suggest that, by investing a series of inputs and by leveraging a range of social and cultural practices, consumers are experiencing the learning process and should be able to accumulate health knowledge that is related to nutrition, remedies, and diagnosis-treatment theories. Then, the key question becomes, ‘which type and which form of health knowledge do DS users accumulate as an output of DS consumption?’

Psychological outputs. We identified the effects of DS consumption on consumers’ health motivation, control beliefs (i.e., self-control, self-efficacy), and belief in DS efficacy as psychological outputs. In terms of health motivation, a boomerang effect of remedy marketing on individuals’ health motivation was confirmed (Bolton et al., 2008). Specifically, Bolton et al. (2008) proved that a health remedy that undermined perceived risk reduced, in turn, the perceived importance of complementary health-protective behaviors. As a result, consumers would be less motivated to engage in complementary health-protective behaviors, thereby undermining a healthy lifestyle. In their follow-up studies, the boomerang effect was confirmed to be valid for actual healthy lifestyle behaviors like healthy eating (Bhattacharjee et al., 2009; Bolton et al., 2015).

From the nutrition research area, we also saw a boomerang effect of DS consumption on users’ health motivation. Payette et al. (2002) conducted a 16-week intervention study with elderly consumers to evaluate the impact of DS use. They found no significant changes regarding consumers’ motivation to participate in physical activities, and no changes were observed concerning consumers’ muscle strength or functional variables.

However, some research suggests positive motivational outputs: Dwyer et al. (2001) found that users of vitamins and minerals among American adolescents had higher

nutrient intakes from food and higher total intakes for several micronutrients and higher nutrition awareness. Similar results are confirmed by Lyle et al. (1998), Stang et al. (2000), and Sheldon and Pelletier (2003).

Confronting the mixed findings, research suggests that the direction and strength of the association between DS use and health motivation may significantly vary across different socio-demographics (Sheldon & Pelletier, 2003) and different usage rates of the products (i.e., the heavy user or light user) (Mason & Scammon, 1999).

Next, we identify outputs related to control beliefs. Control beliefs in DS consumption, consist of health self-efficacy (Bolton et al., 2008) and health locus of control (HLC) (Rajamma & Pelton, 2010), referring to the perceived capability and the perceived source and degree of control over performing DS use behavior, respectively (Jeong et al., 2012). Consumers who become committed users undertake DS use as a way to improve their perception of self (Mason & Scammon, 1999). They gain “a sense of self” through empowerment and recognition from health practices (Dodds et al., 2014, p. 224).

In particular, DS use helps consumers increase control beliefs by creating “a positive, new self-image”, “the feelings of achievement”, and “a sense of control over their individuality” that seem to bolster their self-confidence in other aspects of their lives (Mason & Scammon, 1999, p. 110). Specifically, increased self-efficacy was found by Dodds et al. (2014), who suggested that feelings of “self-worth and legitimacy” result from DS use (Dodds et al., 2014, p. 220).

An increase in self-control was confirmed by Rayner and Easthope (2001) and Spence and Ribeaux (2004). What is worth mentioning is that, for non-committed users,

there may be a boomerang effect of DS exposure on their self-efficacy (Bolton et al., 2008). In particular, taking a health remedy may reduce perceptions of one's health and, in turn, perceived self-efficacy. Thus, the perceived ability to engage in complementary health-protective behaviors would be reduced (Bolton et al., 2008).

Lastly, consumer belief in DS efficacy is identified as an output of committed DS use. In Mason and Scammon's (1999) study, they did in-depth interviews with six adults ranging in age from 22 to 42 years old with varied careers and socio-economic backgrounds in terms of their use of bodybuilding DS (e.g., creatine). One of their key findings was that as consumers continued their use, they may become committed users, and they no longer question "the value of the supplements they are taking because they 'know' they work" (Mason & Scammon, 1999, p. 110). The participants were avid believers in the efficacy of the product and strongly identified with their positive body image.

A possibly beneficial placebo effect was evidenced by previous research: due to enhanced belief in DS efficacy, perceived health improvement was listed by consumers as the main benefit attained from DS consumption (Peters et al., 2004). In particular, Chandra et al. (2005) identified that DS users who used vitamins and minerals "feel better" and have or experience "increased energy" after using DS products; DS helped them "prevent colds/flu and chronic disease" (Chandra et al., 2005, p. 357). In the ethnographic study conducted by Nichter and Thompson (2006), consumers perceived that DS use helped them with illness resistance, harm reduction, and health improvement. Spence and Ribeaux (2004) mentioned: "a sense of increased wellbeing" (p. 131) and

Vos and Brennan (2010) stated “to improve general well-being” (p. 355) as the main reason for long-term use of DS and other types of CAM products.

Functional outputs. Despite the many psychological outputs of DS consumption, the primary reason for the existence of the DS segment is its nutritional supplementation function. Dietary Supplements (DS), by definition, are intended to supplement the diet. Therefore, we wanted to know if DS consumption could produce functional outputs. Only the research from the nutrition area provides us with clues. Mixed results regarding DS’s functional outputs were identified.

Some research confirmed its positive functional outputs: Lyle et al. (1998) proved that DS users had higher micronutrient intakes from food consumption; Stang et al. (2000) proved that DS users had higher dietary intakes of most micronutrients and lower intakes of total and saturated fat; Troppmann et al. (2002) suggested that calcium supplement users had higher intakes of calcium.

However, some studies indicated the ineffectiveness. Cardinal and Engels (2001) investigated the effect of Ginseng supplement intake on affect and mood – its claimed benefits. They concluded that Ginseng supplementation did not affect positive affect, negative affect, or total mood disturbance. Importantly, consumers who regularly took DS as a part of their regular health regimen reported that they would continue to take them even if they were shown to be ineffective in scientifically conducted clinical studies (Blendon et al., 2001).

Outputs in self-expression and identity construction. Through DS consumption, some committed users are expressing their deep-rooted ideological values. That is, the value of DS consumption for them comes from symbolic meanings rather than functional

outputs. Consumers were experiencing “personal freedom” and “ecological consciousness” (Nichter & Thompson, 2006, p. 181). They were expressing their pursuit of “harmonious balance”, “mindfulness”, and “flexibility” (Thompson & Troester, 2002, p. 556). They were advocating the values of “holism”, “anti-experts”, “anti-technology,” and “choice and individualism” (Rayner & Easthope, 2001, p. 172). They were searching for greater meaning in life, for example, “a sense of greater wholeness” (Spence & Ribeaux, 2004, p. 131).

To summarize, the cultural resources and social networks provided by the health marketplace afforded the generation of relevant discourses and practices, enabled the “therapeutic construction of the self” and fostered consumer resistance toward ascribed medico-administrative identities (Thompson, 2003, p. 82). Meanwhile, a new upgraded self-image and self-identity are developed along with the formation of distinct community identity and individuality within the community (Mason & Scammon, 1999).

Hedonic outputs. The literature suggests that some consumers are not seeking instrumental outputs such as the functional outputs of nutritional supplementation or the expression of the self. Instead, they are producing hedonic outputs by using health products. Hedonic outputs refer to aesthetic, experiential, and enjoyment-related consumption values (Royne et al. 2016). Specifically, consumers reported stimulating, fun, and delightful experiences during DS use (Royne et al., 2016). Indeed, researchers have argued for the recognition of important experiential aspects of consumption which are not only related to the symbolic, hedonic, and esthetic values but also the pursuit of fantasies, feeling, and fun (Holbrook & Hirschman, 1982).

In particular, Dodds et al. (2014) conducted interviews with CAM users to explore the values they got from CAM consumption. Aesthetics (i.e., the physical environment in their research) was pointed out by consumers as an essential aspect that affected their satisfaction. Also, Dodds et al. (2014) identified the “play” experience as a significant output of CAM consumption. Play involves having fun and is closely related to leisure (Sánchez-Fernández et al., 2009). Consumers described CAM as “pleasant experiences used for personal enjoyment rather than any specific problem” (Bishop et al., 2008, p. 1701). Even with a treatment focus, CAM practices often involve leisure activities such as walking in nature, yoga, and meditation for wellbeing and stress reduction (Dodds et al., 2014) and for “gaining peace of mind” (Peters et al., 2004).

Socializing outputs. As Adkins and Corus (2009) and Thompson (2003) suggest, health consumption is a social and cultural practice during which individuals leverage a range of skills as well as social networks to meet their needs. Thus, we can expect that consumers might get social outputs from DS consumption. The literature confirms the existence of social consequences, which emerge in the committed use stage.

Thompson and Troester (2002) emphasized the sense of making connections during committed DS use – consumers got their Aha! experiences when they gained communal insights that emerged through relationships and networking activities with other knowledgeable consumers and practitioners. Interpersonal connections were interpreted by consumers as a means to gain access to collective wisdom that afforded insights into the holistic nature of wellbeing.

Consistent with the characteristics of service provider friendships documented by Price and Arnould (1999), particularly instrumentality (i.e., helping clients accomplish

their desired goals) and social bonding (i.e., providing clients with needed social and emotional support), the participants in Thompson and Troester's (2002) study frequently described secure emotional connections with their health practitioners and saw them as having played an essential and often transformative role in their lives. As individuals become more involved and committed, a community is formed, and the individuals' sense of self is strengthened since the sense of achievement is socially rewarding (Dodds et al., 2014; Mason & Scammon, 1999).

The above-mentioned social outputs are attained by users who are committed to DS use and actively engaged in a healthy lifestyle. How about the social outputs for those who passively engage in DS use? Adkins and Corus (2009) pointed out that some consumers chose healthcare strategies that were built around a preference for the familiar, such as engaging in habitual behaviors or strategies that delegated the health responsibility to social others (p. 209). Under these orientations, social network resources take the form of dependence rather than social capital for empowerment; as a consequence, these passive strategies present the notion of habitus (Bourdieu & Wacquant, 1992) as determined by predispositions of one's existing social status and hierarchies (Adkins & Corus, 2009).

The literature does not specify social outputs for this group of consumers. We might also ask about social consequences that may emerge in the early stage of DS use. Previous research has identified normative beliefs and social influences from referent others as essential inputs within individuals' DS consumption to affect their intention to purchase, purchase, and initial use behavior. As far as we know, no research has focused on social consequences for early-stage users.

2.5.2 Marketer Outputs

Marketers invest various inputs into DS marketplaces, such as different product types with different attributes, marketing communications, and support for various channels of distribution. Marketers are facing various types and stages of consumption. It is apparent that marketers are expecting positive outputs produced from their inputs in different consumption processes, such as sales revenue in the short term and brand equity in the longer term. We define marketer output as – the benefits marketers obtain from the DS marketplace and the effects of DS consumption on their marketing performance. The literature identified the following marketer outputs within the DS marketplace: perception and purchase intention, and consumer preference and choice.

Perception & purchase intention. As we stated earlier, most of the DS consumption studies from the marketing area concentrated on the examination of consumer perception of products, which might lead to intention to purchase. Although this paper criticizes the excessive concentration on perception/purchase intention as they might have only a weak correlation with actual purchase and use, we report the findings from current literature in this section. Current literature suggests that one of the primary marketer outputs is consumers' perception of the safety and efficacy of their products, which significantly influences consumers' purchase intention. The unique position of DS in the marketplace, which is similar to but different from a prescription drug or functional food, plus an environment of very little scientific information and limited regulatory oversight over the testing of safety and efficacy of supplements (Mason & Scammon, 2011), make enhanced perceived safety and efficacy play an essential role in persuading

consumers to try and use DS products. In order to attain positive outputs, the literature has investigated various ways to help marketers achieve a higher level of perceived efficacy and lower level of perceived risks associated with DS products.

Typically, food suppliers and marketers possess more information regarding the attributes of the products they sell than the consumers who purchase them (Ahn et al., 2016). This asymmetric information may result in market inefficiency where 1) suppliers and marketers try to exploit the buyer's lack of knowledge about the quality of the product (Akerlof, 1978) and receive underserved profits; or 2) suppliers and marketers may fail to receive well-deserved profits due to the buyer's ignorance of quality information (Ahn et al., 2016). In the latter case, companies do not have an incentive to hide the information, but rather would benefit from knowing whether consumers would value their products more with objective information about the product attributes. Less-informed consumers do not fully appreciate the value of a product.

When marketers provide more objective information about product attributes, for example, if ginseng marketers provided information such as saponin content, solid content, and maturity (age) of ginseng, consumers will become capable of recognizing saponin as the most important attribute rather than the maturity of ginseng (there is a general belief that older ginseng is better) which, in turn, increases consumers' willingness to buy less-aged ginseng so as to alleviate the problems caused by the excess demand for older ginseng in the marketplace (Ahn et al., 2016). In addition to attribute information, the forms and sizes of products also matter to consumers in terms of perceived efficacy, for example, multiple-ingredient supplements are perceived to be more efficacious than single-ingredient supplements (Homer & Mukherjee, 2018).

The role of public policy and governmental intervention in increasing perceived safety and efficacy cannot be ignored. Extant research suggests policymakers take a more holistic approach to the governance of product claims, that is, to fully consider the biasing effect of consumer's existing and distantly related beliefs on their interpretation of product claims. This is because distal beliefs (e.g., government trust and health motivation), tangential beliefs (e.g., industry trust and supplement innovativeness), behavioral filters (e.g., supplement use) and demographic filters (e.g., age, gender, and education) may override the information regarding a particular product and create a biasing effect on product-specific beliefs (France & Bone, 2005).

Consumer preference and choice. The health and wellness marketplace is saturated with thousands of products and brands. Products include prescriptions, over-the-counter drugs, complementary and alternative medicines (CAM), and nutraceuticals. DS is an important sub-sector at the intersection between CAM and nutraceuticals. Inside the DS segment, we see an abundance of product lines and items, such as multi-vitamins and multi-minerals, single-ingredient vitamins, vitamins plus minerals, and specialty supplements. Given the variety and number of health products available for sale, we identify consumer preference for DS in general (i.e., prefer DS rather than other groups of health product such as drugs and functional foods) and preference for specific DS products (i.e., prefer certain types of DS such as MVMM over other types such as herbal DS) as one primary marketer output.

Brand preference is a key output for marketers. A product is “something that offers a functional benefit” (Farquhar, 1989, p. 24); a brand, on the other hand, is “a name, symbol, design, or mark that enhances the value of a product beyond its functional

value” (Farquhar, 1989, p. 24). Hence, one of the main tasks for marketers is to build brand equity, which is the added value that a brand name gives to a product (Aaker, 1991). Building brand equity helps marketers pursue effective market outputs such as higher consumer preference for the brand, and having the brand included in consumers’ consideration sets (Cobb-Walgren, Ruble, & Donthu, 1995).

But we found that most of the DS consumption research centered on consumer preference for products rather than brands, such as consumer preference for DS versus drugs or CAM versus drugs (e.g., McClymont et al., 2015; Spence & Ribeaux, 2004). Some previous research addressed consumer preference for DS versus functional food. Compared to functional food, DS is perceived as holding a lower level of risk, which may indicate a higher level of willingness to try (O’Connor & White, 2010). In particular, the research compared western medicine and Traditional Chinese medicine as well as Indian ayurvedic medicine and argued for the importance of taking individual characteristics such as consumer goals, timeframe and motivation into account when winning their preference (Wang et al., 2010).

There is a small number of studies focusing on consumer switching behaviors between different types of health products. McClymont et al. (2015) confirmed the role of emotion in consumers’ switching behaviors between drugs and CAM. Little research investigates switching behaviors between sub-products inside the DS segment (e.g., multi-vitamins/minerals, single-ingredient vitamins/minerals, herbal supplements, specialty supplements). One interesting finding is that DS users prefer to consume only one type of DS product after they become daily and continuing users (Bailey et al., 2010;

Chen et al., 2005; Dwyer et al., 2000). No previous research investigates consumer preference or switching behaviors between different brands in the DS marketplace.

2.5.3 Group-level Outputs

As we mentioned earlier, we considered group-level outputs such as micro-social level (community level) and macro-social level (societal level) outputs when reviewing previous research studies.

First of all, accompanied by the formation of a community and the socialization processes within that community, some community-level outputs may be produced. However, very few studies mentioned the community-level outputs. Mason and Scammon (1999) identified the formation of a DS community among adults who used sports performance supplements to enhance their strength, stamina, and physical performance and image. A sense of community identity was identified in their study, which, in turn, enhanced community members' sense of individuality in that community (Mason & Scammon, 1999).

In addition to community identity, collective knowledge was mentioned as a group-level output. Thompson and Troester (2002) mentioned that collective knowledge accumulation might be activated due to group learning practices and the production of artifacts and narratives. Interpersonal connections were interpreted by CAM consumers as a means to gain access to collective wisdom that afforded transformative insights into their holistic nature of wellbeing (Thompson & Troester, 2002). More research is needed to reveal the community-level outputs.

Moreover, we found no research focusing on macro-level (societal level) group outputs. However, we believe it is important and necessary to discover societal level group outputs of DS consumption and discuss the association between DS consumption and public health improvement. For example, we know that ‘social good’ could result from enough people in a community getting the flu shot (preventing disease). What will be the ‘social good’ that comes from enough people in a community taking effective DS products (to promote health)?

2.6 Summary of Literature Review

Before moving on to the next section that discusses research opportunities, we want to first summarize and re-emphasize the findings of our literature review (i.e., Section 2.3, 2.4, and 2.5). We have reviewed previous research on DS consumption, utilizing the framework introduced earlier in the chapter to structure what we know and what we still need to learn about DS consumption in terms of ‘inputs’, ‘processes’, and ‘outputs’. In general, it was determined that while we have started to investigate DS marketing activities and strategies, we still have much to learn.

Recall that, under ‘inputs’, we have reviewed individual-level inputs (i.e., consumer inputs and marketer inputs), group-level inputs (i.e., macro-social and micro-social groups), and environmental inputs (i.e., factors in the environment that influence DS consumption which is not controlled by individuals) to DS consumption. Under the ‘process’, we have reviewed the whole DS consumption process and specific consumption stages (i.e., intention to purchase, purchase, and post-purchase). Under ‘output’, we have reviewed individual-level outputs (i.e., consumer outputs and marketer

outputs) and group-level outputs (i.e., macro-social and micro-social groups). In summary, we synthesize our findings and identify the main focus of previous research (what has been widely researched) and the research gaps (what has been less researched or even ignored).

First, we identify that the main focus of previous research has been on individual-level DS consumption, especially on consumer input-process-output in DS consumption. In particular, previous research concentrated on: 1) consumer psychological inputs which were mainly derived from the Theory of Planned Behavior (TPB) model, such as beliefs in DS efficacy, control beliefs, and normative beliefs; 2) the ‘intention to purchase’ stage in DS consumption process which was targeted by the TPB model as the main dependent variable; and 3) consumer psychological outputs, such as perceived effectiveness of DS, beliefs in self-control and self-efficacy, and motivation.

It seems that previous research focused on the application and extension of the TPB model to DS and health consumption, which may result in research gaps such as the role of habitual behavior and emotion in DS consumption; the influences of contextual factors (e.g., personality traits and knowledge level) on DS consumption; and the influences of environmental factors (e.g., local culture, emerging information technologies like social media) on DS consumption. Further, it may lead to much research attention being paid to ‘intention to purchase’ stage whereas little or no attention being paid to purchase, actual use, after-use, and disposal of DS, which are all indispensable parts of consumer behavior research.

Compared to individual consumer input-process-output, less research investigated DS consumption from the marketer’s perspective. This could become a big oversight

considering that, so far, we know very little in terms of DS marketing strategies and techniques. Regarding the classic marketing mix (i.e., the 4Ps: product, price, place, and promotion) that is used to help marketers develop and execute marketing plans, previous research mainly focused on 1) product offerings in the health marketplace from a general perspective (i.e., investigate consumer perception of DS in general, and compare it with other health-related products such as drugs, nutraceuticals, functional foods, and CAM); 2) traditional business-to-consumer communication such as product labels, advertising in print and television/radio programs; and 3) traditional distribution channels such as retail stores.

Among the above-mentioned Ps that have been touched upon by previous research, many research areas and issues have not been tapped yet, such as specific DS product offerings inside the DS marketplace, specific DS product attributes, emerging distribution channels like e-commerce and social commerce, and emerging digital communications like social media marketing. Most strikingly, very limited research has addressed pricing issues of DS products. In addition to the classic marketing mix, we emphasize that little research attention has been paid to the branding of DS. A brand is “a name, symbol, design, or mark that enhances the value of a product beyond its functional value” (Farquhar, 1989, p. 24). Hence, brand equity (i.e., the added value that a brand name gives to a product) (Aaker, 1991) should be a major output for marketers to pursue, which would increase consumer preference, choice, and purchases (Cobb-Walgren, Ruble, & Donthu, 1995).

The lack of research on DS branding reflects the research approach in previous studies that paid a lot of attention to pre-purchase/purchase stage, but very limited

attention to post-purchase stages in DS consumption since branding closely relates to relationship marketing in which marketers build and maintain good relationships with consumers over the long term. As we stated earlier, the main focus of previous research has been on individual-level DS consumption. Less research has addressed group-level input, process, and output within DS consumption. We divided groups into macro-social groups (i.e., societal level) and micro-social groups (i.e., group/community level) (Cova & Cova, 2002). Previous research has considered the influence of macro-social groups on DS consumption based on the traditional sociological categorizations of age, gender, education, and lifestyle.

That is, the literature acknowledges differences in DS use among different market segments. However, neither the socialization processes nor the societal outputs of DS consumption have been addressed by previous research. Little is known regarding the process and mechanism of macro-social influence on individual consumers' perceptions and behaviors, or societal level outputs such as reduced healthcare costs and reported fewer sickness leaves in jobs. More importantly, there is a lack of research on micro-social level input, process, and output. Previous research has mentioned the existence of a DS community and its influence on individuals' DS consumption experience (see Mason & Scammon, 1999).

However, more research is needed to explore the formation processes of different types of DS communities, socialization processes within communities, community-level practices, and outputs. In addition, previous research has confirmed the influence of family (another type of micro-social group) on DS use. However, the literature does not explain the socialization processes within the family. Questions such as, "in what ways

does the family influence individuals' consumption behavior?" are not answered yet in the context of DS consumption.

In Figure 2.4, we provide a conceptual map that illustrates the contribution of our literature review. "The current model", shown at the top of the diagram, represents the most widely researched areas in DS consumption. That is, the TPB-based investigation of the purchase intention of DS, which focuses on the intention to purchase stage and psychological beliefs. Below this, Figure 2.4 shows how our literature review extends the current research model by focusing on inputs, processes, and outputs at both the individual and group levels. Although discussed and presented separately, it is important to notice that the research opportunities regarding inputs, processes, and outputs are not mutually exclusive. Addressing any one of the three aspects could bring new insights to current research and deepen our understanding of DS consumption and marketing; exciting and valuable results are more likely to stem from considering the different aspects simultaneously.

For example, consumer health knowledge has been identified as an input and an output within DS consumption. We found evidence which suggested the importance of health knowledge as an input that might affect consumers' perceptions of DS (Homer & Mukherjee, 2018) and that consumers with higher income and education levels are more likely to have a higher level of health knowledge (Radimer et al., 2004). We also found evidence that suggested consumers' DS use was not accompanied by health knowledge improvement (Pillitteri et al., 2008).

These findings seem to indicate that health knowledge is pre-determined by social stratification and that low health knowledge is an innate deficiency from which the

consumer suffers; that is, consumers with lower levels of income and education may exhibit lower capabilities and motivations for health consumption, which cannot be improved by DS consumption practices. Our paper might hold a different opinion in terms of the health knowledge. We took a further look at the findings regarding DS consumption practices and processes. We found that while DS users failed to significantly increase their scores on cognitive tests of nutrition knowledge, they did get significantly higher scores on health practice than non-users (Dwyer et al., 2001). Thus, we could presume that DS consumption might help consumers improve health knowledge in an implicit manner rather than an explicit manner. Further, we found that research suggested a different approach to conceptualizing health knowledge as a social and cultural practice comprised of the totality of communicative practices in which individuals purposefully engage rather than a predefined set of reading and writing skills (Adkins & Corus, 2009). Hence, employing the IPO model and considering the three aspects simultaneously may lead us to revisit the appropriate measures of health knowledge.

In the next section, we will propose and discuss specific research opportunities based on the findings from our literature review. This thesis aims to address some (but not all) of the research opportunities identified, specifically investigating issues related to committed use (as highlighted in italics in Figure 2.4).

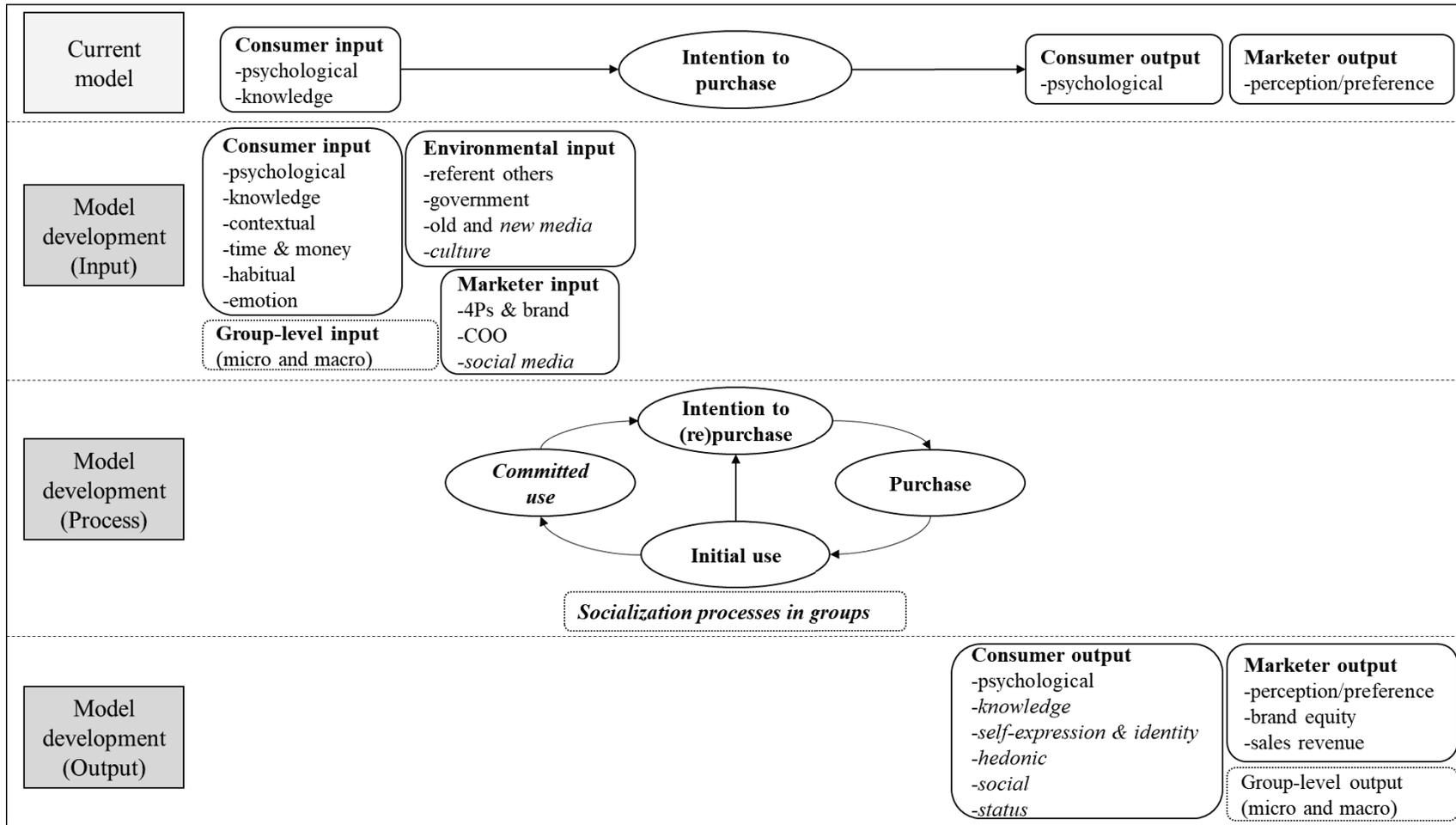


Figure 2.4 A Conceptual Map for Model Development

2.7 Discussion of Research Opportunities to Be Pursued

The review of DS consumption research from both the marketing and nutrition fields reveals many research gaps that provide several opportunities for future research. A list of the opportunities is shown in Table 2.2, following which is the discussion of each opportunity.

Table 2.2 Opportunities for DS Consumption Research

Topic	Research Opportunities	
Input	<i>Consumer Input</i>	
	<ul style="list-style-type: none"> • What is the role of habitual behavior in DS consumption? • What is the role of emotion in DS consumption? 	
	<i>Marketer Input</i>	
	<ul style="list-style-type: none"> • What are the impacts of brand-related concepts and country-of-origin on DS consumption? • How can firms design effective product development strategies? How should firms develop new product lines/items? • What is the role of social media in DS marketing communications? • What is the role of social commerce in DS selling and distribution? 	
	<i>Environmental Input</i>	
	<ul style="list-style-type: none"> • What is the impact of e-WOM and user-generated-content (UGC) on DS consumption? What is their impact on the industry as a whole? • How are DS consumed in cultures ‘opening to the West’? 	
	Group level	
	<ul style="list-style-type: none"> • What is the role of micro-social groups in individual DS consumption? 	
	Process	<i>Individual Level</i>
		<ul style="list-style-type: none"> • What is the process of “purchase – initial use – re-purchase”? • What are the different patterns from initial use to committed use? • What are the products, practices, and interpersonal interactions involved in those patterns? • Is the model of DS consumption a variance or process model?
<i>Group Level</i>		
<ul style="list-style-type: none"> • What are the socialization processes in different groups (family and community)? 		
Output		<i>Consumer Output</i>
	<ul style="list-style-type: none"> • How can consumers be helped to develop health knowledge? • What are the hedonic outputs and the outputs in self-expression and identity construction which result from DS use? • What are the socializing outputs for initial users? • Is “status” one of the outputs of DS consumption? 	
	<i>Marketer Output</i>	
	<ul style="list-style-type: none"> • How can firms enhance brand equity and sales revenue? 	
	<i>Group Level</i>	
	<ul style="list-style-type: none"> • What are the group-level outputs (community level and societal level)? 	

2.7.1 Research Opportunities Regarding Input

In this section, we focus on the research opportunities identified regarding the inputs to DS consumption.

What is the role of habitual behavior in DS consumption? Based on our review, the theory of planned behavior (TPB) is the most widely used theoretical framework in DS consumption research. However, we have seen critiques of TPB, suggesting its failure to take sufficient account of the role played by habitual behaviors resulting from social influences and unconscious beliefs and goals. Many important behaviors caused by social factors are not ‘reasoned’ or ‘planned’ but rather are ‘habitual’, and therefore fall outside the purview of the model (Manstead, 2011).

The DS literature has suggested that while consumers could be influenced mindfully and consciously by DS marketing, they can also be influenced in relatively unintended manners (Bhattacharjee et al., 2009). Some consumers chose health protection or maintenance strategies that are built around a preference for the familiar and habitual behaviors (Adkins & Corus, 2009). Not only social behaviors but also consumers’ beliefs and goals are sometimes unconscious and unplanned. Unconscious goals would influence consumer decision-making by creating a bias in the process of searching for information (Mason & Scammon, 2011).

Also, research from the nutrition field has suggested that a healthy lifestyle may have pre-determined both use intention and use patterns for supplements (Ishihara et al., 2003; Troppmann et al., 2002). Healthy lifestyles, like other lifestyles, are part of a consumer’s “habitus”. Without creating a deliberate intention towards any specific outcome, they may still significantly influence individuals’ health, positively or

negatively (Cockerham, 2005). Therefore, we call for future research moving beyond the TPB model to consider habitual behavior.

What is the role of emotion in DS consumption? In addition to habitual behaviors, affective factors appear to be overlooked in the TPB. Due to the frequent reliance on the TPB model, little research attention has been paid to the impact of emotion on DS consumption. However, emotion has been explicitly suggested to be associated with people's health behavior. For example, emotions are proven to be different before and after exposure to a health message; the valence dimension of discrete emotions (positive or negative emotions) is suggested to affect consumers' processing of health information (Agrawal, Menon, & Aaker, 2007). Similarly, Cox, Cox, and Mantel (2010) identified the facilitating role of positive mood induction (e.g., by placing advertisements in upbeat media environments) in enhancing consumers' ability to process health product risk information.

The research suggested that the effect of emotion on consumer perception may underlie the two different types of cognitive processes held by individuals – affect-based and cognition-based routes (Keller & Block, 1999). Therefore, we argue that future research should take emotion into account when examining DS consumption. Some pioneering studies have been conducted, such as McClymont and colleagues' (2015) examination of the role of emotion in DS users' switching behaviors; however, more research is warranted.

Our observations of the hedonic outputs gained from DS consumption further support this point – hedonic experiences reflect the emotional worth of consuming, which is non-instrumental and affective (Sánchez-Fernández & Iniesta-Bonillo, 2007). In

addition, with increased use and experience, emotional connections and emotional support may be built among consumers within a group (Price & Arnould, 1999; Thompson & Troester, 2002). Hence, the impact of emotion on users' committed use of DS should be considered and investigated.

What are the impacts of brand-related concepts and country-of-origin effects on DS consumption? We suggest that future research should examine the impact of the brand as well as country-of-origin on DS purchase intention and actual use. No research in our dataset has investigated the impact of branding on DS perception. However, a brand with high brand equity has been empirically shown to have a substantial impact on market share, marketing efficiency, profitability, and firm value (Rao, Agarwal, & Dahlhoff, 2004). Hence, we call for future research examining the impact of brand-related concepts (e.g., brand equity, brand image, brand identity, co-branding) on DS consumption.

Only one research study in our dataset addressed the country-of-origin effect. However, no significant association was found (Jeong et al., 2012). Country-of-Origin (COO) refers to "where a product is made" (Zhang, 1996). COO has attracted marketer attention because research shows that the image associated with a specific COO influences consumers' perception and purchase intention towards products and brands from that country (Han, 1990).

We have seen examples from the literature that lead us to think about the impact of COO on consumers' attitudes and intention to purchase individual products and brands made in the country (Chen, Mathur, & Maheswaran, 2014; Han, 1990). For example, Chinese consumers perceive cosmetic products manufactured in Japan, the US, and

Europe to be safer than those made in China (Siu & Wong, 2002), and Chilean consumers perceive COO to be more important than either price or packaging in the decision to purchase beef (Schnettler, Ruiz, Sepulveda, & Sepulveda, 2008).

In the DS industry, we have seen marketing efforts that might try to associate brands with certain country images, such as *Swissnatural* (a Canadian DS brand) which associates its name with Switzerland, *Blackmores* (an Australian DS brand) claims on its website that they are “Australia’s No.1 Brand”, and, interestingly, *Swisse* (another Australian DS brand) also represents itself as “Australia’s No.1 Brand” on their website. We have not seen any empirical evidence to confirm that those marketing activities are really caused by the effect of COO on consumer perception of DS products/brands. We think it is worth exploring and suggest further research to empirically test the assumption.

How should firms design product growth strategies & how should firms develop new product lines/items? Several questions related to “product” are raised by our literature review. First, are there any DS products that are generally taken by consumers at certain times? For example, what is the first product that consumers typically experiment with? What is the ‘gateway supplement’ that, similar to the gateway drug, significantly increases the probability of consumers’ use of further supplements? Fogel and Rivkin (2013) found that individuals who have used eyedrops are more receptive to oral eye supplements that relieve symptoms related to their computer vision syndrome. Pillitteri et al. (2008) found that females who have tried different types of weight-loss methods are more receptive to particular weight-loss supplements. Both studies indicate the possibility of finding a ‘gateway supplement’ and the potential benefits of developing related products.

Further research is important since it may help practitioners design and implement appropriate growth strategies and develop new product lines or specific line items. An interesting phenomenon regarding the actual use of supplements is that consumers seem to try one type of DS product at the initial stage, and then experiment with and extend to other products (Mason & Scammon, 1999), but eventually, those who become daily users are more likely to revert to using only one type of DS (Bailey et al., 2010). It is interesting to know which type of product consumers choose to stick with and why. Thus, we suggest future research focusing on the product element under DS marketing, providing implications for DS marketers' product strategies.

What is the role of social media in DS marketing communications? Little research addressed the use of social media in marketing communications related to DS products. Some early research indicated that marketing communications employing new communication technologies were not providing consumers with accurate and informative messages (Morris & Avorn, 2003). Since then, only Jain et al. (2016) even briefly mentioned the role of social media in the communication between DS companies and brands and consumers.

Most of the research focused on the traditional communication mix, including print, television, and radio programs. However, in the Web 2.0 age, social media has increasingly been employed in Business-to-Consumer and Business-to-Business communications. Various forms of social media, such as public social networking sites (e.g., Facebook and Twitter), web-based community (e.g., brand community and discussion boards), third-party online review platforms (e.g., Yelp and TripAdvisor), and company-owned social media (e.g., firm blog, official website, enterprise social

bookmarking systems and enterprise wikis), are widely utilized to build and maintain relationships and networks with end-users as well as business partners and facilitate business transformations (Aral, Dellarocas, & Godes, 2013; Kaplan & Haenlein, 2010).

We want to emphasize that the investigation of a phenomenon should be put into the current technological environment in which it resides. As researchers, we need to keep our investigations up-to-date with the latest changes and trends in the marketplace. In terms of the health marketplace, health consumers are becoming the new “connected consumers” or “m-consumers (mobile-consumers)” with the increasingly enhanced need for online information search and support (Ordonez, 2017). We advocate for research on the use of social media in health marketing as well as its integration with the traditional media mix.

What is the role of social commerce in DS selling and distribution? Aided by Web 2.0 technology, health consumers are embracing the ‘self-educated’ approach in their information search behavior (Peters et al., 2004) – instead of relying on physicians or pharmacists for advice on nutrient intake, consumers prefer to seek information and evaluate product alternatives online (Kava et al., 2002). Changes in consumers’ information search behavior are fostering the development of e-marketplaces for DS (Jordan & Haywood, 2007).

We want to be more specific by emphasizing the emergence of DS social commerce. Social commerce is defined as “the delivery of e-commerce activities and transactions via the social media environment, mostly in social networks and by using Web 2.0 software” (Liang & Turban, 2011, p. 6). The definition emphasizes some critical features of social commerce: exchange-related activities, computer-mediated social

environment that involves meaningful personal connections and sustained social interactions, and cultural productions (Liang & Turban, 2011; Zhang & Benjoucef, 2016).

No research has investigated the consumption of DS through the social commerce channel in spite of the fact that social commerce marketplaces have burgeoned during the last two decades. The explosive growth of social commerce started in 2004, the same year in which Facebook and many other social media sites were founded (Lin, Li, & Wang, 2017). In 2005, the concept of social commerce was introduced by Yahoo to describe a new collaborative shopping feature on its platform that allowed consumers to create, share and comment on product lists (Wang & Zhang, 2012). Since then, we have seen the rapid development of social commerce either by adding commercial features to social networking sites (SNS) or adding social media features like user-generated-content (UGC) and networking into e-commerce websites (Zhang & Benyoucef, 2016).

Since social commerce combines social and cultural practices with economic activities, we argue for more research into the unique consumption patterns of DS as well as unique factors that affect use patterns in DS social commerce.

What is the impact of e-WOM and user-generated-content (UGC) on DS consumption and the industry? Our review shows that existing research focuses on the influence of traditional media such as newspaper, magazine, and TV/radio programs on consumers' need recognition, information processing, and perception of DS products. However, as we stated in the past two sections, with the widespread use of social media and mobile devices, consumers are getting unprecedented access to free health information from the Internet and social media (McClymont et al., 2015).

Supplement users could create, share, and edit texts, pictures, and videos regarding specific products and experiences on social media. Other users may make use of this user-generated-content (UGC) (e.g., online ratings and reviews) to help understand the benefits and risks of products and evaluate the alternatives (Nagler et al., 2011). Hence, the UGC could become positive or negative word-of-mouth online (e-WOM) that may affect consumers' purchase intention, as well as the reputation and image of DS brands.

We identify the opportunity to understand the impact of UGC and e-WOM on DS consumption. More importantly, aided by big data analytics, the UGC on social media could become a valuable data resource through which companies and brands extract business intelligence and competitive intelligence for a better understanding of the DS market and prediction of sales (Chen, Chiang, & Storey, 2012). By utilizing analytics tools like text mining and network analysis to analyze UGC, firms can perform consumer profiling to improve segmentation and targeting; they can also identify the 'social media influencers' who have the power and social networks to become brand ambassadors (Alp & Öğüdücü, 2018). Therefore, we further identify the opportunity to employ the UGC on social media for business intelligence extraction and accumulation.

How is DS consumed in cultures 'opening to the West'? The literature indicates the influences of local culture on DS consumption (purchase and use), but more research is needed (Ren et al., 2011). We advocate for research on the influence of culture on DS consumption. More specifically, we advocate for research on the cultures opening to the West. First of all, there is a large group of DS products that are originating from cultures such as China (e.g., Traditional Chinese medicines) and India (e.g., Indian ayurvedic

medicines). Individuals from these cultures hold-fast to their traditional diagnosis-treatment philosophies (e.g., focusing on ‘holism of health’ and ‘natural’) but are also open to the Westernized approach to treating illness (e.g., focusing on allopathic medicine that uses technological and pharmaceutical interventions).

Previous research has primarily investigated the DS experiences of individuals living in the Westernized medication culture, such as the US. It would be interesting to know how individuals who do not live in the Westernized medication culture but instead reside in cultures opening to the West, perceive and interpret the use of alternative medicines. It is well worth researching, especially given the popularity of DS in those cultures – although the United States is still the largest market for DS, China and Japan have become the second and third largest markets of DS in the world; it is forecasted that the growth of the retail value of DS in China will double that of the US in the next five years (Euromonitor, 2019b).

Secondly, and more generally, it could be thought-provoking to use DS consumption as the research context to further understand the consumption behaviors in those cultures which hold onto their traditional value systems but are open to the western consumption values as well. For example, during the past 50 years, China experienced significant events like the Economic Reform Era (1980-91) and the Era of Globalization of China (1992-present) that gave birth to the current generational consumption cohorts.

We have seen both a typical Chinese cultural value system and another set of emerging values coexisting in the Chinese consumer market and shaping consumer behaviors. The former cultural value system may include values related to consumption such as ‘thriftiness’, ‘harmony with nature’, ‘modesty and self-effacement’, and

‘relational orientation and face value’ (Wang & Lin, 2009); the latter may include a growing tendency toward individualism (McEwen, Fang, Zhang, & Burkholder, 2006) and materialism (Podoshen, Li, & Zhang, 2011), growing consumerism and awareness of consumer rights (Ho, 1997), hedonic consumption values, and a nationalist feeling (Wang & Lin, 2009). It would be interesting to examine the impact of such a complex value system on consumers’ perceptions and practices.

2.7.2 Research Opportunities Regarding Process

In this section, we focus on the research opportunities identified regarding the process of DS consumption.

What is the process of “purchase – initial use – re-purchase”? As we described earlier, the current literature mainly focuses on the investigation of the intention to purchase stage of consumer behavior. In comparison, very little attention has been focused on actual purchase, use, and repurchase behaviors. Although the literature agrees upon the significant prediction role of purchase/use intention on actual purchase/use, the intention construct cannot fully explain the variances which exist in actual purchase behaviors.

Consistent with papers such as Bolton et al. (2015), Homer and Mukherjee (2018), and Mason and Scammon (2011), we argue for more research on the contextual factors, such as individual factors and situational factors, which impact actual purchase/use. Furthermore, further research should target not only the impact of contextual factors on purchase behavior but also, and more importantly, the initial use behaviors after purchase.

At present, we only see in the literature a classification of users based on occasional use and daily use, short-term and long-term use, and light and heavy use. However, classification based on use frequency and the duration of use is not sufficient to assess whether consumers are committed to DS use or not. The daily/long-term users are not necessarily committed users. Initial users may be distinguished from committed users in terms of their level of commitment, which may be reflected by their daily use behaviors. Therefore, we believe it is important to clearly enunciate the specific use patterns involved in initial use.

Rather than using simple criteria like use frequency and duration, we highlight that detailed descriptions of consumers' behaviors, including DS intake behavior, health-related behavior, and non-health-related behavior, are required. We expect that further research may reveal various types of use/user, for example, consumers who purchase but never actually use the supplements they have purchased; those who purchase, never use, but then repeat purchase; those consumers who purchase, use DS as an initial trial, but don't re-purchase; consumers who purchase and use DS only during 'crisis' periods (e.g., to fend off a cold prior to an important event); and committed DS consumers for whom supplement use becomes a way of life. Such research may help to expand the implications of DS consumption research. For example, the "purchase – never use – repurchase" type of consumption may provide insights into the meanings of this type of possession for consumers.

What are the different patterns from initial use to committed use? The literature confirms that at least some consumers do indeed progress from initial use to committed use (Mason & Scammon, 1999). More importantly, the literature has identified clues that

indicate the different patterns consumers may form from initial use to committed use, such as learning, experiencing, socializing, and expressing. Do the patterns hold? Are there any other patterns? Are they exclusive or inclusive to each other? That is, are they distinct stages of consumption, and does one stage lead to another? Or, is DS consumption more of a gestalt or holistic experience with various parts which cannot be separated? For example, do experiencing-oriented consumers pass through an expressing-oriented path before getting to experiencing, or are they two separate paths that each come out of learning-oriented use?

We suggest future researchers seek the answers to these questions. By doing so, researchers would be able to draw a more comprehensive and complete picture of DS consumption, which would make an important contribution to health marketing research and, by extension, to consumer research, more generally. We argue that a given consumption object is typically consumed in a variety of ways by different groups of consumers. This pervasive variation in consumer actions suggests an essential and relatively underdeveloped research stream for the discipline of consumer research: to comprehensively describe the variety of ways in which people consume, to understand how these differences vary across groups and situations, and to explain the unacknowledged conditions that structure how different groups consume and the unintended consequences of such patterning (Giddens, 1979; Holt, 1995).

What are the products, practices, and interpersonal interactions involved in those paths? By comprehensively describing the variety of ways in which people consume a given product, we identify the opportunity to uncover the products that are commonly used by different groups of people, the routines and activities that are practiced by

different groups of people, and the interactions and relationships among group members. This may have managerial implications for practitioners in terms of segmenting and targeting the profitable markets as well as developing new products or adjusting the features of existing products.

Moreover, it may help researchers achieve the goal of revealing the context-dependent varying motivations for DS use that take both “why people use” and “how they use” into consideration (Nichter & Thompson, 2006). It also enables us to take on a holistic perspective on DS use by considering the practices of multiple stakeholders and their interactions and relationships. Previous research mainly took a dual-actor approach and discussed the interactions and relationships in a dyad, such as the patient and healthcare provider dyad (Adkins & Corus, 2009; Tarn et al., 2013). Other research was focused on one particular stakeholder, mostly on the consumer, with a few studies focused on the health practitioner (Dickinson et al., 2011; Marx et al., 2016). Although Jain et al. (2016) adopted a multi-stakeholder perspective, they were investigating patients, brands, pharmacists, and physicians.

The multi-stakeholder perspective that we want to highlight involves not only the users, brands, and the health practitioners, but also other users, families, and friends (both offline and online). This broader perspective fits with the “self-educated” approach undertaken by contemporary health consumers (Peters et al., 2004).

Is the model of DS consumption a variance or process model? Another interesting question we suggest future research examine is whether the model of DS consumption is a variance or process model. That is, do the patterns and routes depicted in our framework represent discrete models of DS consumption, or are they, instead, stages in

the consumption of DS, such that one may lead to another, or are they aspects of DS consumption that one cannot be separated with another, forming a gestalt? We identify this as a research opportunity.

By answering these questions, we may know the exact marketing strategies that a DS brand could employ at different times. If it is a variance model, DS marketers need to choose a specific target and then provide necessary and sufficient conditions to enhance the chances of their expected outcome. If it is a process model, DS marketers may need to provide necessary conditions and causes in sequence, but also keep an eye on the chances and random events that play a role in enabling the expected outcomes.

What are the socialization processes in groups (family and community)?

Literature from the marketing and nutrition field confirmed the influence of family on DS use. However, the literature does not explain the socialization process within the family – how is the influence of family formed? In what ways does the family influence individuals' consumption behavior? Data from population-based surveys (Radimer et al., 2004) demonstrate that females and older adults are using supplements more frequently than other family members. Are they, then, the leading influencers in the family who guide other family members' use?

Surveys targeting university students and adolescents suggest that university students are not learning health knowledge and are taking supplements occasionally (Barnes et al., 2016), while adolescents are learning to eat healthily and taking in more nutrition from their diets (Dwyer et al., 2001). Does this difference reflect the influence of and knowledge passed by parents to the next generation? Also, we see evidence that shows the impact of household size on DS use – a smaller size is more effective than a

bigger size in fostering the use of supplements. To better understand and explain these symptoms, we suggest more research focusing on the socialization process within a family.

In addition, the socialization processes at work within a community are worthy of research. We have stated that no matter along which path consumers walk to enter the committed use stage, they will interact and coordinate with other stakeholders along that particular path. No matter whether these activities and relationships are related to health or not, the activities and relationships together seem to be able to define a community with which the users identify and by which others identify them. It seems unavoidable that they would experience at least some socialization processes within these communities.

We identify the exploration of the socialization processes as a research opportunity. What are the critical events during socialization? Do community members do group buying? Do they get together for a gathering, have regular meetings, or develop routines and rituals? Do they create and share artifacts and narratives for group learning? Answering these questions may have implications for health marketing researchers, health policymakers, and practitioners to help build health-related communities and effectively promote health-related messages.

2.7.3 Research Opportunities Regarding Output

In this section, we focus on the research opportunities identified regarding the output of DS consumption.

How can marketers help consumers develop their health knowledge? The crucial role of health knowledge in DS consumption is widely identified by the literature. General nutrition knowledge affects consumers' attitude and intention to buy supplements (Homer & Mukherjee, 2018); remedy knowledge of particular products affects consumers' assessment of product safety and efficacy (Jeong et al., 2012); and, diagnosis-treatment knowledge may determine consumers' preference for western DS or Eastern treatments (Wang et al., 2010). Also, knowledge has an impact on the actual use of supplements as well, in terms of coordination with other health practices (Bolton et al., 2015) and switching behaviors between different remedies (Hughner & Kleine, 2008).

However, ineffective knowledge accumulation as a consequence of DS consumption is also identified by the literature (Chandra et al., 2005). As we stated earlier, the findings of ineffective knowledge accumulation might be biased due to the inappropriate conceptualization and measurement of health knowledge. The traditional conceptualization of health knowledge viewed it as a predefined set of cognitive skills (like reading and writing skills) and measured it by using scales and tests such as the Test of Functional Health Literacy in Adults (Baker et al., 1998) and the Rapid Estimate of Adults Literacy in Medicine (Davis et al., 1993).

But, some research suggested that health knowledge may be viewed as 'literacy-in-practice' and as socially constructed rather than a predefined cognitive skill (Adkins & Corus, 2009), and consumers' tacit health knowledge was improved but not explicit knowledge (i.e., consumers got significantly increased scores on health practice but didn't get significantly increased scores on a health knowledge test) (Dwyer et al., 2001). These research findings lead us to re-think the conceptualization and measurement of

health knowledge. We may need to develop a new conceptualization for health knowledge that is appropriate for this age, where health consumers are becoming active in health-related communication practices and self-educated by online/offline information.

Considering the importance of health knowledge as an input within DS consumption, we suggest that future research could empirically investigate whether DS consumption would help consumers enhance health knowledge implicitly rather than explicitly, as well as how marketers can help consumers develop their health knowledge and transform implicit knowledge to explicit. It is worth researching given that knowledge might influence consumers' health practices in terms of ontology and meaning of health, provider-patient role, and satisfaction with healthcare (Hughner & Kleine, 2008). We suggest future research applying theoretical frameworks from the knowledge management literature (e.g., Alavi & Leidner, 2001; Leonard & Sensiper, 1998; Reber, 1989) to the health knowledge accumulation area. Our aim is to help consumers make a more informed decision regarding DS purchase and enhance the positive impact of DS use on consumers' lifestyles and health.

What are the hedonic outputs and the outputs in self-expression and identity construction of DS use? The literature has suggested the existence of experiential values and hedonic values in DS consumption (Dodds et al., 2014; Royne et al., 2016). The literature has also suggested the outputs of expressing one's self and constructing one's identities (Thompson & Troester, 2002). However, we recognized that the identification of these outputs comes primarily from research focused on the consumption of

complementary and alternative medicines (CAM) or natural health alternatives (NHA). These two terms refer to a broader scope of products and services than DS.

CAM and NHA cover both dietary supplements and therapeutic practices. We argue that there are differences in the meanings between DS consumption and therapeutic practices. For example, alternative therapies may have a significantly higher ‘holism’ value than DS product consumption (Rayner & Easthope, 2001). The holism value refers to an emphasis on the in-depth and holistic sources of wellness and illness, and the holistic balance of nature (Thompson & Troester, 2002). On the other hand, DS products may have a higher content of appeals to particular functions, like taking Ginseng for increasing power and strength (Rayner & Easthope, 2001).

Furthermore, previous research was inclined to target patients who were struggling with chronic health conditions or were just recovered from illnesses (see Dodds et al., 2014; Thompson & Troester, 2002). Fewer investigations were conducted with individuals in healthy conditions. We want to emphasize that consumers may take DS ‘for my wellness, not just my illness’ (Nichter & Thompson, 2006, p. 175), that a growing segment of CAM users can be termed ‘consumers of wellness’ (Spence & Ribeaux, 2004, p. 120), and that consumers seek CAM experiences for maintaining health and preventing illness rather than managing or alleviating an existing condition (Vos & Brennan, 2010). While recognizing a distinctive set of values and benefits attained by patients-as-consumers (Thompson, 2003), we recommend that future research conduct in-depth investigations of the outputs produced by consumers seeking wellness and prevention over illness recovery.

What are the socializing outputs for non-actively engaged consumers and initial users? Corresponding to the socialization processes in family, groups, and communities, we could expect that consumers would experience social outputs. Moreover, research has implied social benefits for committed users, such as social support (Thompson & Troester, 2002) and social bonding (Price & Arnould, 1999). In this thesis, we suggest there may be different routes for consumers to become committed users. Accordingly, we are wondering if the socializing outputs attained may differ by the route. Hence, we suggest future research to deepen our discovery and understanding of different types of socializing outputs.

Further, since the abovementioned discussion focused on consumers who are committed to DS use and actively engaged in a healthy lifestyle, we wonder about the social outputs for those who passively engage in DS use, those who choose certain health products out of habit, or those who delegate their health responsibility to social others. Under these circumstances, social network resources may take the form of dependence rather than social capital for empowerment (Bourdieu & Wacquant, 1992). The literature does not provide an answer. Also, what about the social consequences that may emerge in the early stage of DS use? We only know from the literature that normative beliefs and social influences from referent others are identified as essential inputs within DS consumption. No research addressed the social consequences of early-stage users. Hence, we suggest future research discovering the socializing outputs earned by initial users.

Is “status” one of the outputs of DS consumption? It was suggested that population groups who have a higher income (Chen et al., 2005), higher education (Bailey et al., 2010), and higher social class (Johnson et al., 2000) are more likely to use

DS. Moreover, Sheldon and Pelletier (2003) and Troppmann et al. (2002) reported significant population-based group differences regarding the association between DS use and health outputs. This evidence may suggest that dealing with health in our daily life reflects some of the fundamental stratification processes and the distinct social status positions in the larger society.

Similarly, in addition to the societal level status generation, we presume that status might be produced in micro-social groups like the DS community. The research observes that motivations for personal investment in health (by means of lifestyle changes) are socially learned and often part and expression of a broader habitus. Through consumption, individual health lifestyles become part of cultural capital and acquire status in the field (Cockerham, Rütten & Abel, 1997). Hence, healthy lifestyles are the social practices to promote social identity and create social distinction among members of a certain community. We suggest the examination of social status in the community as a research opportunity.

The DS marketplace is saturated with promotion activities in which different agents strive to define what health rules are appropriate and acceptable and whose advice should be followed. Research suggests that the practices of those agents and the interactions between different agents determine the social stratification and distinction among individuals, and structure the social distribution of health (Abel & Frohlich, 2012). In the health research area, there has been a call for a more comprehensive theoretical framework that helps understand the interplay between different agents and their role in the (re)production of population health (Abel, 2007). Discovering or creating a theoretical framework that explicates these actions and interactions would make a

meaningful contribution to the literature. By investigating the social interactions in health consumption, we can also make contributions on a collective level – the macro-social and micro-social level impact of DS consumption on health promotion.

How can marketers enhance brand loyalty and sales revenue? From the perspective of DS companies and marketing managers, the ultimate objective is to increase sales revenue and brand equity. Given that DS consumption research is still at its early stage, research attention has mainly been paid to the business unit level of analysis, such as comparisons between drugs and DS, comparisons between DS and functional foods, or the perceptions of the overall DS segment. Little research addresses the marketing strategy level of analysis to tackle issues specifically related to marketing activities, such as branding and sales. Hence, we suggest the exploration of specific marketing strategy issues (e.g., product, place, price, and promotion) as a research opportunity.

Considering that switching behaviors between different remedies have been indicated as usual by previous research (Hughner & Kleine, 2008), we further advocate for research on how to decrease consumers' propensity to switch and increase their brand loyalty. Moreover, we confirm the importance of studying the pricing issues in the DS marketplace since consumers' willingness to pay a price premium is significantly influenced by the cues provided on product packaging (Nagler et al., 2011).

What are the group-level outputs (community level and societal level outputs)? Accompanied by the formation of a community and the socialization processes within that community, some group-level outputs may be produced. For example, collective knowledge accumulation may be activated due to group learning practices and the

production of artifacts and narratives. In previous research, interpersonal connections were interpreted by consumers as a means to gain access to collective wisdom that afforded transformative insights into their holistic nature of wellbeing (Thompson & Troester, 2002).

Another example would be the unique characteristics of the community (i.e., community identity). A sense of community identity was mentioned in the study by Mason and Scammon (1999), in which users took sports performance supplements to enhance their strength, stamina, and physical performance and image. The sense of community identity, in turn, enhanced their sense of individuality (Mason & Scammon, 1999). The identity of each community may be different and used to distinguish one community from another.

As we stated earlier, there may be different types of DS community formed through different paths (i.e., learning-oriented, expressing-oriented, experiencing-oriented, and socializing-oriented paths). Due to the different values pursued by those community members and the different socialization processes within those communities, we may expect those different communities can earn different levels of reputation, position, and status in the marketplace. Therefore, we suggest another type of community-level output – reputation, position, and status in the marketplace. Following this direction, future research may consider comparing the reputations of the communities that are built upon different themes (e.g., learning, experiencing, and self-expression) and mapping out the positions of different communities in the market.

We have mentioned that, in addition to the community-level outputs, we considered and reviewed societal-level outputs that may be produced by DS

consumption. We found clues that indicated the role of societal-level groups as input within DS consumption, that is, previous literature acknowledged differences in DS use among different macro-social groups that were based on traditional sociological categorizations such as age, gender, education, and lifestyle. However, we found no previous research focused on examining macro-social group level outputs produced by DS consumption. We suggest that further research could investigate the societal-level outputs, for example, if DS improves health generally, the healthcare costs on a societal level could be reduced, or, if people are healthier, they may also report fewer days lost to sickness in their jobs.

In Section 2.7, we provided an overview of possible research topics related to DS consumption. Given that a lot of research gaps and opportunities were identified, this research project can only address some (not all) of the un-answered questions. Next, we will clarify the research opportunities addressed by this study, that is, the scope of this thesis.

2.8 Scope of This Thesis

The overall objective of this thesis is to, first, understand in which ways DS is consumed by individuals and why DS is consumed in those particular ways and, second, learn how stakeholders in the marketplace, e.g., DS marketers, can strategically and socially responsibly act to enable consumers to achieve their short-term desires and long-term benefits.

To pursue the overall objective, this thesis addressed several opportunities regarding the input, process, and output, respectively. Table 2.3 shows the opportunities

and specific issues that will be addressed in this thesis project. While the marketer inputs and environmental inputs are highlighted in the table, it is important to note that we acknowledge the importance of consumer inputs such as knowledge, psychological inputs, and various consumer characteristics and take them into account in our project. What we propose is an interpretive and exploratory research project, which inevitably examines the individual factors and situational factors and highlights the context-dependent nature of the investigation. However, in this table and the subsequent descriptions, we only highlight the inputs that are relatively new to DS consumption research.

Table 2.3 Research Opportunities and Issues Addressed in This Thesis

Topic	Opportunity	Research Issues
Marketer input	<ul style="list-style-type: none"> • Social commerce 	<ul style="list-style-type: none"> • How is DS consumed in social commerce environment?
Environmental input	<ul style="list-style-type: none"> • Social media • Culture 	<ul style="list-style-type: none"> • What is the impact of social media on consumer's decisions within DS consumption? • How is DS used in cultures opening to the West?
Process	<ul style="list-style-type: none"> • Committed use 	<ul style="list-style-type: none"> • What are the different patterns in committed use? • What are the reported socialization processes in committed use?
Consumer output	<ul style="list-style-type: none"> • Multiple outputs 	<ul style="list-style-type: none"> • What are the perceived outputs gained through different patterns of committed use (e.g., learning-oriented, experiencing-oriented, expressing-oriented, socializing-oriented, and social distinction)?

DS social commerce in China. Building on Table 2.3, this thesis explores the phenomenon of DS consumption as it occurs in one of the online marketplaces – social commerce. The decision to focus on social commerce is based on the following research opportunities – “What is the role of social media in DS marketing communications?”, “What is the role of social commerce in DS selling and distribution?” and “What are the impacts of e-WOM and user-generated-content (UGC) on DS consumption as well as on

the DS industry?” These opportunities, combined, indicate the importance of discussing DS consumption in the context of social commerce.

Social commerce refers to “the delivery of e-commerce activities and transactions via the social media environment, mostly in social networks and by using Web 2.0 software” (Liang & Turban, 2011, p. 6). It encapsulates both seller and buyer networks, as well as the platforms where economic activities and social and cultural practices all take place; it is broader than the act of e-commerce, collaborative buying or social shopping (Curty & Zhang, 2013) and differs from those concepts in process and mechanism (Rad & Benyoucef, 2011). Given that social media use and online buying have become increasingly prevalent among consumers, and that little research has addressed its role in DS consumption, we situate our research in this context and expect to achieve some new insights in terms of DS consumers’ economic, social and cultural behaviors.

Further, this thesis investigates DS-centered social commerce in China. According to the country report of the DS industry produced by Euromonitor (2019a), internet retailing in China accounted for 22.2% of the total retail value in 2018. The ratio is much higher than in other countries, including the US (10.8%), Canada (1.3%), India (2.3%), New Zealand (7.6%), and Japan (8.4%). Moreover, the ratio shows continuing and steep growth in the past five years (from 8.8% in 2013 to 22.2% in 2018) (Euromonitor, 2019a). These statistics indicate the potential for the prosperity of DS social commerce in China, which bodes well for an in-depth investigation.

More than that, the decision to focus on the context of China builds upon the research opportunity of “How is DS used in cultures opening to the West?” Due to

historical events such as the Economic Reform Era (1980-91) and the Era of Globalization of China (1992-present), the Chinese marketplace is filled with a complex value system which includes both traditional Chinese cultural and social values (e.g., “guanxi”) and the emerging westernized values that collectively influence consumer behaviors. We investigate DS consumption in China as a first step to knock at the door of cultures that are open to the West but also retain their cultural roots. It is interesting to understand the use of multi-vitamin/-minerals (westernized supplements) in countries like China and India, which have their ingrained diagnosis-treatment systems and traditional medicines like Traditional Chinese medicines and India ayurvedic medicines.

A final note about choosing this context is that the researcher comes from the Chinese culture and has lived in China for over twenty years. The researcher is capable of understanding Chinese DS consumers’ language, is familiar with Eastern medicines, supplements, and therapies and their underlying diagnosis-treatment systems and philosophies, and is well-versed in various social commerce sites and applications that are popular in China. Hence, it is appropriate to put this research project into the context of China.

Committed use. Different from previous research, we focus on the use of DS rather than the intention to purchase and purchase. As we discussed in previous sections, consumption is a whole process that lasts from intention-to-purchase, to purchase, and to post-purchase. Understanding *how* individuals use the products and services is indispensable for a better understanding of *why* they use those products and services. The predictors and motivations present in the purchase intention stage cannot fully explain the variance in individuals’ actual DS use behaviors.

Hence, this thesis explores the different patterns of use, with a concentrated focus on committed use. By interviewing committed DS consumers about their use of DS, we gain access to their stories of using DS. These narratives may enable us to detect the details of their use, such as use frequency and duration, the activities and behaviors which accompany use, the routines that are embedded within the use, and DS users' interactions with family members, friends (offline and online), other users as well as the sellers.

Consumer outputs. As for the outputs, we draw particular attention to consumer outputs. The literature has suggested the importance of health knowledge in facilitating consumers' purchase and use of DS but also indicated the low level of knowledge among current DS users. Since those results came from projects that addressed offline DS consumption, we are interested to know if the findings, such as the inefficient knowledge accumulation, hold in the DS social commerce marketplace.

Social media offers unprecedented opportunities for sharing information and knowledge both among individuals tightly bound by shared interests but also among those representing the strength of weak ties (Granovetter, 1977), and has the potential to enable collective sense-making (Weick, 1995) and to construct meaning (Choo, 1998). It is useful for maintaining a dynamic collective knowledge base that reflects changing definitions and cultural norms. Also, it reduces the cost of traditional social exchanges and enables much easier and more flexible social interaction (Hemsley & Mason, 2013).

These benefits remind us that social media may be able to help cope with the barriers and challenges we meet in traditional offline health knowledge learning by facilitating information flows. The prevalence of social media has largely changed individuals' communication and collaborative learning behavior (Chen & Jang, 2010).

Hence, we would like to emphasize the necessity to discuss the impact of social media on information flows in DS consumption as well as its subsequent consequences. One of our research goals is to uncover evidence that indicates whether effective knowledge accumulation can occur through social commerce and participation in the social media community.

In addition to the accumulation of health knowledge, we intend to identify the specific outputs that are produced by committed DS use: what are the specific hedonic outputs? What are the outputs in self-expression and identity construction? Lastly, we argue that every pattern of committed use is accompanied by socialization processes and the formation of communities. Hence, we are interested to know, through the socialization processes, whether or not individual consumers will start to seek distinction among their peers, and further, whether or not their satisfaction with DS use will originate from the stratification and the social status built in that community. We expect to find answers to these questions in this thesis.

Group-level influences and outputs. It is important to note that, although the current focus of this thesis is on DS use at an individual level, it is possible to identify some group-level outputs and group-level influences within the investigation. For example, if various models are identified for committed use, such as learning-oriented, expressing-oriented, experiencing-oriented, and socializing-oriented, different models may generate their unique group-level practices such as group learning, group buying, or group meeting. Those practices, together with artifacts and narratives, may stimulate the development of community identity, which, in turn, determines the reputation and social

status of that community in the marketplace. Hence, we need to make a note about the possibility of having group-level findings (as by-products) in this research.

2.9 Conclusion

This chapter reviewed literature pertinent to the research to be undertaken – previous research on dietary supplements (DS) consumption from both the marketing and nutrition disciplines. The review is organized according to a model that categorizes that research in terms of individual and social level inputs, processes, and outputs. The result of this review is the identification of research gaps and opportunities associated with DS consumption. The chapter concludes with a discussion of the particular research issues and questions which form the core of this thesis. We summarize the two research questions that will be answered by this thesis project below:

RQ1. What are the benefits achieved by committed users in DS social commerce in China?

RQ2. How do they practice in order to achieve those benefits?

CHAPTER 3: THEORETICAL FOUNDATION

3.1 Introduction

In Chapter 2, we reviewed current DS consumption research and reported our findings. One of our major findings was that most of research attention was paid to positivist model development, factor analysis, and behavior prediction. We criticized the excessive concentration on one single research perspective and argued for the value of undertaking an interpretivist research approach and a sociological theoretical orientation in understanding individual consumption behavior and culture.

In this chapter, theoretical foundations of this thesis project – Pierre Bourdieu’s (1977, 1984, 1986) and Anthony Giddens’s (1990, 1991) theories of structure-agency dialectic are introduced. We first introduce Bourdieu’s theories by focusing on: 1) his theory of habitus and structure-agency dialectic; 2) his theory of practice, social status and lifestyles, and forms of capital. Applications of Bourdieu’s practice theory to the thesis research are then elaborated.

While applying Bourdieu’s theories to this research, we made modifications by including Giddens’s theorization of high-opportunity and high-risk society. Hence, in this chapter, we next introduce Giddens’s theories by focusing on: 1) his theory of structuration; and 2) his view of late modernity, agency, lifestyles, and self-identity. Applications of Giddens’s theory to the thesis research are then elaborated. The two theories help construct the overall research framework for understanding DS consumption in social commerce in China.

In addition, we refer to important research works that undertake a sociological perspective to understand health consumption and promotion behaviors, including Joy

and Venkatesh's (1994) and Thompson and Hirschman's (1995) theory of the body culture and morality, Thomas Abel's (1991) theory of health-related lifestyles, and Laura Balbo's (2007) theory of health promotion.

The chapter concludes with a discussion of the proposed research framework in order to understand DS consumption in social commerce in China.

3.2 Pierre Bourdieu's Practice Theory

Pierre Bourdieu (1977) defines "practice" (similar to "behavior") as neither a "mechanical reaction" nor an act of completely "free and willful power" (p. 73). Instead, he outlines a theory of practice in which individual behavior is constituted by the dialectic of the "internalization of externality" and the "externalization of internality" (p. 72). He focuses on the major question of how individual's practices, such as dietary supplements (DS) shopping or attending a cultural event, are influenced by the external structure of their social world and how these practices, in turn, contribute to the maintenance of that structure (Jenkins, 2002).

Across a diverse range of substantive studies, Bourdieu (1984) invents an integrated way to explore social stratification in different societies, organizations, and other contexts and describe individuals' practices in their quest for social distinction. Bourdieu's work came to prominence in his series of studies on taste and cultural production that demonstrated how cultural objects such as art, writing, and film were produced, evaluated, and consumed (Levina & Arriaga, 2014). Since then, Bourdieu's theory has been applied to other domains to explore, for example, the social patterning of contemporary consumption (Holt, 1998; Ustuner & Holt, 2010).

This section of the chapter reviews two key conceptualizations in Bourdieu's practice theory: habitus and the structure-agency dialectic; and his theory of practice, lifestyles, social status, and capital. This section concludes with the application of Bourdieu's practice theory to the thesis research.

3.2.1 Habitus and Structure-Agency Dialectic

Habitus – the internalization of externality. By “structure”, we are referring to the particular type of social environment (Bourdieu, 1977, p. 72), such as the material conditions of existence characteristic of a class condition, the collective history and language (Bourdieu, 1977, p. 85). Bourdieu developed the concept of “habitus” in *Outline of a Theory of Practice* (Bourdieu, 1977) and then defined the term in *The Logic of Practice* (Bourdieu, 1990, p. 53) in the following way:

The conditionings associated with a particular class of conditions of existence produce habitus, systems of durable, transposable dispositions, structured structures predisposed to function as structuring structures, that is, as principles which generate and organize practices and representation.

Habitus consists of enduring habits, embodied predispositions, and naturalized styles of thought, many of which are established through primary forms of socialization; the social conditioning process fosters class-based and gender-based norms and ideologies as natural aspects within personality (Bourdieu & Wacquant, 1992). Thus, the habitus, which works as “the internalization of externality” (Bourdieu, 1977, p. 72), overcomes subjective-objective dualism by inscribing subjective, bodily actions with an objective social force so that the individual routines or practices take on social meanings (Bourdieu, 1984).

Moreover, the habitus draws a cognitive map of an individual's social world that offers various dispositions (i.e., procedures to follow) appropriate for that person in a particular situation (Bourdieu & Wacquant, 1992). That is, the individual is able to figure out his or her circumstances and generate a strategy and practices appropriate to a particular situation; but his or her perceptions are typically shaped by their habitus as the individual mind is socially bounded and constructed within the limits of experience, upbringing, and training (Bourdieu & Wacquant, 1992). Thus, the habitus ensures the active presence of past experiences and incorporates the external social world into an individual's mind in the form of schemes of perception, thought and action, so as to guide his or her behavior towards a reasonable path (Bourdieu, 1990).

Agency – the externalization of internality. According to Bourdieu (1984), habitus – the internalized and embodied social structures – not only reflects the influence of the objective world on the individual agency but also highlights the possible struggles inherent in social life and enables individuals to cope with unforeseen and ever-changing situations (Bourdieu, 1977). Because the habitus is not a mechanical response to all situations, it is rather an open system of dispositions that produces practices as the strategy-generating principle, but only determined by the future (Bourdieu, 1977). Therefore, the same habitus can generate diversified or opposite outcomes since individual agents are not mechanically controlled by external forces but are capable of orienting themselves towards the best practices. That means agents can consciously or unconsciously inhibit or alter their dispositions, and selectively choose certain procedures to follow, in order to cope with the struggles inherent in their social lives.

Hence, the concept of habitus is consistent with Bourdieu's wider theory of practice, which highlights the individual's agency, referring to individuals' power (i.e., control over different forms of capitals) and capability to actively choose from the dispositions to act, virtuosity and intersubjectivity. It is just that Bourdieu also emphasizes the structure-agency dialectic – individuals can inhibit or alter their dispositions, but categories of perception and appreciation (the foundation for self-determination) are themselves largely influenced by individuals' social relationships and conditioning processes. That is, although individuals choose their choices (accept, reject or modify), they do not do so with complete free will, as the habitus predisposes them toward certain choices by providing a cognitive map.

However, the habitus is not without change. As the habitus structures action through a process of creative typification to particular situations (Holt, 1998), agents start to internalize the emergent complex of rules, norms, values, and expectations as a form of embodied cultural capital, which is a key element of the habitus, thereby transforming the logic of practice and transforming their old prevailing habitus.

For example, in Canadian society we understand that a red traffic light means we need to stop walking along the road and wait for the light to turn green before crossing at an intersection. The system of traffic signs has become institutionalized and forms part of our habitus. We agree to accept this restriction on our behaviour because it ensures our personal safety (individual outcome) and allows for the efficient functioning of pedestrian traffic and our roadways (societal outcome). However, we are not so constrained by this societal influence that we can't make the decision to take another action. So, if we see that there is no vehicle traffic on the roadway, we can choose to

cross the road against the light. We assert our ‘free will’ or agency to practice in a different manner. Eventually, if enough people decide not to observe the traffic light, an institutional response, such as issuing tickets to pedestrians who do not follow the rules, might be instituted. This would tend to circumscribe individual agency. Thus we can see the interplay of agency and structure.

3.2.2 Theory of Practice, Social Status, Lifestyles, and Capitals

Theory of practice. When introducing the theory of practice, Bourdieu (1977, p. 72) states that,

...it is necessary to pass from the *opus operatum* to the *modus operandi*, from statistical regularity or algebraic structure to the principle of the production of this observed order, and to construct the theory of practice, or, more precisely, the theory of the mode of generation of practices, which is the precondition for establishing an experimental science of the dialectic of the internalization of externality and the externalization of internality, or, more simply, of incorporation and objectification.

By *opus operatum* (literally “the work wrought”), Bourdieu refers to the objective cultural and structural conditions and their objective meanings (Bourdieu, 1977, 1990).

By *modus operandi* (literally “the mode of operating”), Bourdieu refers to the principle of the production, the mode of generation of practices, the sense of the game. He describes social agents as “virtuosos” (Bourdieu, 1977, p. 79) who have a “sense of the game” (Bourdieu, 1990, p. 66), and uses football and tennis players as examples of this virtuosic sense – they do not apply *a priori* principles to their play but have the practical flexibility to know how to play by holding an incorporated knowledge of the logic of practice in the game (Bourdieu & Wacquant, 1992).

Importantly, the “sense of the game” is an intersubjective sense, a shifting agreement established and transformed by interaction and negotiation between agents. An example of the “sense of the game” is how Serena Williams would make her decisions in the tennis game: Depending on the score of the tennis game and her opponent’s specific skills, she would select how to serve or return serve. That is, the best practice is not determined by some *a priori* rule but by whether it is interpreted as appropriate by the individual, other individuals, or the group to which this individual belongs. Hence, there is a nature of openness and dynamics in Bourdieu’s theory of practice; individual agents could elaborate and improvise upon the resources offered by the habitus and in the light of their relations with others (Bourdieu, 1977). Bourdieu (1977, p. 9) emphasizes the virtuosic sense of the game and the dynamic nature of practice by explaining gift exchange:

All experience of practice contradicts these paradoxes, and affirms that cycles of reciprocity are not the irresistible gearing of obligatory practice found only in ancient tragedy: a gift may remain unrequited if it meets with ingratitude: it may be spurned as an insult.

The dynamic nature of the game is reflected by individuals continuing to negotiate their relations with others by constructing the social meanings of gift exchange in their favor.

Social status and lifestyles. As mentioned, Bourdieu’s practice theory emphasizes that social reality is constructed in the (re)negotiations of social relations between individual agents that are open to strategic transformation. Moreover, individuals transform their habitus strategically in order to establish their distinction from other individuals in the field. Here, ‘field’ refers to a network or configuration of objective relations between [social] positions (Bourdieu & Wacquant, 1992, p. 99).

According to Bourdieu, the social world consists of many distinctive, relatively autonomous, but similarly structured ‘fields’ such as politics, arts, religion, education, and business (Holt, 1998). Social dynamics in fields are centered on the social distinction process and the generation of social status (i.e., symbolic capital) (Bourdieu & Wacquant, 1992). Social status is constituted when specific forms of capital (e.g., economic, social, cultural, bodily capitals) are recognized as legitimate bases for claiming prestige, respect, and/or authority within a given field (Bourdieu & Wacquant, 1992).

We continue using the successful career and fame of Serena Williams for illustration: She is very strong, and she scores many ‘aces’ with her serve (bodily capital); she has won many tournaments, so she has both social capital (she has worked with many coaches, etc.), cultural capital (she knows the inner workings of the game, along with its history) and economic capital (the money she gets from winning and also from sponsorship, as a result of the accumulation of other forms of capital). Her social status is then constituted when these forms of capital are recognized as legitimate bases for claiming her prestige, respect, and authority. It is closely related to the concept of power, which is referred to as one’s control over various capitals, but they are distinct in the sense that status exists only in the eyes of others (Magee & Galinsky, 2008). So when a sports commentator calls her ‘one of the top female tennis players in any era’, we recognize that her status rests on the unique combination of capitals she possesses and employs.

It is important to note that status is constituted through collectively understood status games whose legitimating criteria are formally and informally codified (Ustuner & Thompson, 2012). That is, the social distinction is informed by broad cultural

understandings emergent in individuals' interactions but informed only when individuals agree upon them. Hence, the formation process of social status is a sociological phenomenon rather than a psychological one, and the generation of status is contextually grounded – a form of capital that functions as status-conferring symbolic capital in one field may not do so in another (Ustuner & Thompson, 2012).

In addition, for a specific field, it is also a dynamic site of struggle as social actors mobilize to reshape the rules of the status game in ways that are more favorable to their relative positions (Bourdieu, 1977). For example, symbols of cultural legitimacy are fought over not so much between classes but mostly between status groups within classes (e.g., within the bourgeoisie class) (Jenkins 1992).

Regarding social status and lifestyles, Bourdieu includes his most extensive discussion in *Distinction: A social critique of the judgement of taste* (Bourdieu, 1984).

Bourdieu (1984, p. 171) defines the operationalization of lifestyles as follows:

Objective conditions of existence combine with positions in the social structure to produce the habitus that consists of a system of schemes generating classifiable practices and works, and a system of schemes of perception and appreciation (taste), that, together, produce a specific classifiable practices and works that result in a lifestyle.

Therefore, produced by the habitus-agency interplay, lifestyle works as a system of classified and classifying practices that express social distinctions and is distinctive to a particular status group. A critical contributor to a lifestyle is the generation of taste. Bourdieu defines taste as “the capacity to materially or symbolically appropriate a given class of objects and practices as a set of distinctive preferences” (Bourdieu, 1984, p. 173). The generation of taste is accompanied by conversions, accumulations, and transmissions of various forms of capital. Bourdieu (1984) documents how various forms of capital are

enacted to produce/reproduce tastes in fields of consumption, such as the arts, food, popular culture, hobbies, and sport.

Capitals – economic, social, cultural, time, and body. The word, *Capital*, is defined by Bourdieu as an accumulated resource, either embodied in a person or objective in an object, which, when appropriated on a private, i.e., exclusive, basis by actors or groups of actors, allows for influence (Bourdieu, 1986). The fundamental idea is that capital is a valuable resource that: 1) can be unequally accumulated by different agents; and, 2) is simultaneous “stake” as well as “weapon” in the social struggle.

Bourdieu (1986) described three relationships of capital: conversion, accumulation, and transmission. Firstly, the different forms of capital can be converted one into another, e.g., one’s money could be invested to improve one’s education, skills, and knowledge. Second, capital in these different forms can be accumulated, e.g., money can be invested in the stock market to make more money. Third, the different forms of capital can be transmitted, e.g., money can be passed on from parents to their children. We then briefly review Bourdieu’s conceptualizations of the three main capitals.

Economic capital refers to one’s control over physical and financial resources such as income, property and other financial assets; *social capital* refers to the actual and potential resources that can be mobilized through social contacts and connections, i.e., an actor’s ability to draw resources from connections within social networks (Bourdieu & Wacquant, 1992). Distinct from economic and social capitals, *cultural capital* consists of a set of socially rare and distinctive tastes, skills, knowledge, and practices (Holt, 1998).

In particular, cultural capital exists in three primary forms: embodied as implicit practical knowledge, skills, and dispositions; objectified in cultural objects; and

institutionalized in official degrees and diplomas that certify the existence of the embodied form (Holt, 1998). The three forms of cultural capital are inter-dependent and transformable. In particular, *embodied cultural capital* is highly invisible, comprising perceptions, skills, and knowledge; *objectivized cultural capital* comprises books, paintings, machines, technical tools and other material forms, whose utility value is dependent upon embodied cultural capital of the agent; *institutionalized cultural capital* is the most visible and provides social acceptance and credibility for the agent, referring mostly to educational degrees, status ascription and professional titles (Bourdieu, 1984).

More importantly, Bourdieu states that cultural capital is accumulated in three primary sites of acculturation: family upbringing, formal education, and occupational culture (Bourdieu, 1984). Later, Bourdieu adds that, for the accumulation of embodied cultural capital, the duration of education might be the “least in-accurate” measure (Bourdieu, 1986. p. 244). Yet, he also stresses that a measure of “time of education” would have to include all stages and forms of lifelong learning, including family education, peer group socialization, work environment experience, etc.; certainly not just years of schooling.

Among the three states of cultural capital, Bourdieu pointed out that the embodied cultural capital is the most substantive and distinctive component of habitus as well as lifestyle. It is incorporated inside the human body and closely linked to the uniqueness of the actor, and social agents learn to use the symbolic representation of this capital, wherever and whenever it supports their action (Bourdieu, 1984). Since it can only be personally acquired through a lifelong learning process, we highlight that “time”, more specifically, personal time, should be seen as one essential form of capital.

Another important point is that, by proposing embodied cultural capital, Bourdieu considers that the human body constitutes physical capital, which is transformed into cultural capital as a result of social practices. Bourdieu states that *bodily hexis* is “political mythology realized, embodied, turned into a permanent disposition, a durable manner of standing, speaking, and thereby of feeling and thinking” (Bourdieu, 1977, p. 93). Based on the conceptualization, he discusses the physical manifestations of taste and of the symbolism of the body in social practice. For example, Bourdieu finds that taste in food depends on each class’s idea of the body and the effect of food on it (Bourdieu, 1984). The bodily hexis has an important implication for the thesis research – individuals might express their values on the body through consumption of health products and services such as weight-management DS and anti-aging DS. Hence, we emphasize that body should be treated as one important form of capital. As Bourdieu introduces, the investment of time, energy, and resources into one’s body might constitute a way to increase status and may be exchanged for economic, social, or cultural goods (Bourdieu, 1984).

3.2.3 Application of Bourdieu’s Practice Theory to Thesis Research

This section of the chapter aims to elaborate on the applications of Bourdieu’s practice theory to this thesis research. First, it is appropriate to apply Bourdieu’s theory to this research: compatible with Bourdieu’s theorization, this research underscores the examination of consumption practices (rather than consumption objects) of mass cultural products (rather than high cultural products) in a specific socio-historical context (rather than a general context). Second, Bourdieu’s theory provides large implications for this

research: 1) we choose to address an emergent and important consumer segment – the mass elite consumer segment in China; 2) we apply Bourdieu’s approach of structure-agency dialectic and theory of practice to construct the research framework to understand the Chinese mass elite consumers’ DS consumption practices.

Appropriateness – examining context-dependent consumption practices of a mass cultural product. Bourdieu’s practice theory offers the most comprehensive and influential attempt to develop a theoretical framework to measure the social patterning of consumption (Holt, 1998). Its usefulness for explaining how social reproduction and distinction work in fields of contemporary consumption has been verified by many studies, e.g., Arsel and Bean’s (2013) research on taste regimes and market-mediated practice.

In particular, Holt (1998) reformulated Bourdieu’s practice theory to the examination of contemporary consumption in the United States by: 1) emphasizing that consumption objects no longer serve as accurate representations of consumer practices; rather, class differences in American consumption are identified with actual practices which accentuate their embodied cultural capital instead of the goods consumed; 2) highlighting the importance of considering sociohistorical settings, in which the relationships between social conditions, taste, fields of consumption and social reproduction are different; 3) arguing that empirical studies should take various consumption fields into account, such as food, interior décor, vacations, fashion, sports, reading, hobbies and socializing, since tastes serve as a resource for social reproduction in fields in which consumers invest the requisite time and psychic energy to convert their generic cultural capital to particular field-specific cultural capital.

Based on this reformulation of Bourdieu, Holt (1998) accounted for the socio-historical context of the contemporary US and mass cultural consumption practices. By interviewing HCC (individuals with higher cultural capital), and LCC (individuals with lower cultural capital), the researcher elicited detailed descriptions of their respective tastes and corresponding consumption practices across a variety of mass cultural categories and identified their systematic differences that are structured by their social conditions.

As stated in the last chapter, the current research aims to investigate: 1) what are the benefits achieved by Committed DS users in the context of social commerce in China, and 2) how do they practice in order to achieve those benefits. That is, this research intends to examine the divergent consumption practices (rather than consumption objects); interpret their underlying symbolic meanings (which represent consumers' embodied cultural capital and tastes); and focus on the unique social conditions of China (a specific socio-historical setting). These research foci are all compatible with Holt's (1998) reformulation of Bourdieu's theory in consumption research. Thus, we apply Bourdieu's conceptualization as a guide.

Moreover, this research aims to examine DS, a health promotion product whose consumption involves learning, cultural capital accumulation, and lifestyle formation. Further, this research conducts the examination in the context of social commerce, an online field building on user-generated-content and social media, which constitute the prime grounds for the (re)production of cultural goods and the enactment of tastes. As mentioned, Bourdieu's work came to prominence in his series of studies on taste and cultural production that demonstrated how cultural products such as writing and food are

produced, evaluated, consumed and reproduced (Bourdieu, 1984). Furthermore, researchers have applied Bourdieu's theory to explain the social distinction in online fields (e.g., Levina & Arriaga, 2014), and healthy lifestyles and health-promoting practices (e.g., Abel, 1991). By attending to these fields of mass cultural production and consumption, the thesis project is well-positioned in terms of utilizing Bourdieu's cultural production perspective.

To summarize, we argue that it is appropriate to apply Bourdieu's (1984) practice theory to guide this thesis research, considering its emphasis on context-specific exploration, consumption practices, and cultural production and consumption. Further, later on, based on the interviews with our Chinese participants, we modified our application of Bourdieu's theory by including Giddens's discussion of the changing structure in contemporary world.

Implication – structure-agency dialectic and theory of practice. By proposing the structure-agency dialectic, Bourdieu did a lot of work in various fields to illustrate the influence of macro-level social structure on individual behavior. That is, individuals living in different socio-demographic groups (based on age, gender, and social class) may possess different levels of cultural capital which influence their tastes and their capabilities to appreciate the value of products, and their consumption practices (i.e., the influence of habitus).

Further, Bourdieu's supporters have proposed the emergence of a new consumer segment called 'mass elite consumers' which comprises upper-middle-class individuals with at least a college degree, professional jobs, and discretionary purchasing power. Holt's (1998) study focused on investigating the mass elite consumer segment, which he

called HCC (individuals with higher cultural capital). One of the important findings from his research is that, for mass elite consumers in the US, the material value of consumption objects is taken for granted; instead, taste becomes a realm of self-expression, a means of constructing subjectivity. Similarly, Ustuner and Holt (2010) examined this segment but moved the research context away from the West (e.g., Europe and the United States) to a less industrialized country, explaining the particular mechanics of status consumption among upper-middle-class women in Turkey. Accordingly, the authors identified the unique characteristics of cultural capital in the Turkish context. For example, different from Bourdieu's cultural capital in France which is the fruit of indigenous socialization, cultural capital in Turkey is based upon the ability to properly interpret, learn, internalize, and then enact the consumption of a distant other, which the authors develop as deterritorialized cultural capital (Ustuner & Holt, 2010).

Researchers have highlighted that there seems to be a disconnect between the existing consumer research literature and new patterns of the broader socio-economic structures that are emerging throughout the global economy, such as the mass elite segment (Ustuner & Thompson, 2012). New investigations are needed in order to understand the mass elite segment's tastes, social distinctions, and strategic use of structure-agency dialectic. Further, in the last two decades, an extraordinary surge of mass elite consumers has emerged in low industrialized countries (LICs) such as Mexico, Brazil, Chile, Russia, Poland, Turkey, South Africa, India and China (see Myers & Kent, 2004 for a complete list). These countries have moved up the global value chain beyond resource extraction to include value-added industrial production.

As a result, the mass elite class in low industrialized countries has become an emergent global class that has discretionary purchasing power approaching Western levels and so they are able to pursue a consumption-focused lifestyle (Ustuner & Holt, 2010). However, these countries which are open to the west still hold their ingrained historical and cultural roots, which intensify the social struggles between old habitus and new opportunities for gaining agency. This thesis research aims to help close the gap and understand the mass elite consumer segment in China.

By addressing a particular social class, the mass elite consumer segment in China, we follow Bourdieu and admit the influence of macro-social structure on individuals' practice. Their consumption behaviors are expected to be influenced by the habitus that is ingrained in the mass elite social class, and the habitus that is ingrained in the unique Chinese culture and history. More than that, given that the macro-structural influences on the mass elites class in China would be relatively equally experienced, this thesis will focus more on the micro-structural influences that are formed by the socialization processes within micro-groups such as family and community.

It is suggested that Bourdieu's notion of habitus represents a novel and logical conceptualization of the internalization of external structures in an individual's mind and perception. The result is a registry of dispositions to act in ways that are consistent with the socially approved behavioral paths of the macro-social (e.g., socio-demographic groups) or micro-social (e.g., groups and communities) groups (Cockerham, 2005).

However, by applying Bourdieu's structure-agency dialectic, we highlight that individuals also have agency, referring to individuals' power (i.e., control over different forms of capitals) and capability to actively choose from a set of dispositions to act. It is

the interplay of agency and structure that influences individuals' practices and their lifestyles in a specific field. Critically, since lifestyles are increasingly representative for status groups, which are aggregates of people with similar status and class backgrounds and originate through a sharing of similar interests, symbols of cultural legitimacy are found to be fought over not so much between classes but mostly between status groups within the bourgeoisie dominant class (Jenkins, 1992).

To summarize, this thesis research applies Bourdieu's theorization of agency-structure dialectic to account for both the influence of habitus (resulting from the socio-demographic background and historical-cultural background) on individuals' practices and the agency held by individuals to increase their control over power, develop and express lifestyles and achieve social distinction. This thesis emphasizes that contemporary consumers (e.g., mass elites) might attempt to secure distinction by adapting their consumption practices to accentuate embodied cultural capital, not its objectified presentations (Holt, 1998). Especially for fields in which there is great overlap in the objects consumed (such as the field of DS consumption in China), to consume in a rare, distinguished manner requires that one consume the same categories of products or services in a manner inaccessible to others (Bourdieu, 1984).

3.3 Anthony Giddens's Theory of Structuration

In the last section, we introduced Bourdieu's theory of practice and structure-agency interplay and discussed their implications for the thesis research. In this section, we will focus on Giddens's sociological theory of structuration and his views of late

modernity, reflexivity, lifestyle, and self-identity, and discuss their implications for the thesis research.

3.3.1 The Duality of Structure and Agency

Similar to Bourdieu's conceptualization of structure-agency dialectic, Giddens develops a theory of structuration, centered on the notion of the duality of structure and agency. Giddens (1991) states that structure contains a duality dimension, because individual agents construct social behaviors and, thereby, construct social structures. However, the structure is not just the consequence of individual agency. Rather, it fosters and/or constrains agents' social behaviors as social interactions and practices start within a given structure resulting from previous actions. Similarly, Giddens (1991) argues for the duality of the agency. Individual behaviors and interactions are always embedded in a social structure but also reproduce, maintain, or transform that structure. Thus, consistent with Bourdieu in this respect, Giddens tries to resolve the dualism of structure and agency by eschewing extreme positions and arguing that individual agents do have agency but are not entirely free to choose dispositions nor practice their strategies.

Moreover, Giddens suggests that structure consists of both rules and resources that constrain and enable actions, respectively (Bryant & Jary, 2003). The former includes the macro-sociodemographic chances, and the latter consists of a large variety of options enabled by contemporary conditions (e.g., globalization and digital revolution). Thus, individual agents who live in late modernity (in any social class) always have at least some choices and are always forced to choose. While individuals are able to make selections and negotiate lifestyle choices among a variety of local and global options,

they inevitably confront increasing tensions, and emotional stresses resulting from mass media generated information overload and the complex offerings of the marketplace.

By paying serious attention to modernity and its consequences, Giddens's theorization of structure-agency dialectic is distinctive from previous researchers like Bourdieu – he addresses social conditions with increasingly higher levels of complexity (high/late modernity) that go well beyond those previously discussed; he emphasizes individuality to a greater degree. That is, although Giddens accords significant roles to socioeconomic forces in the selection of lifestyles, his focus is clearly on individual agency, including the individual's reflexivity, lifestyle choices, and maintenance of self-identity (Cockerham, Rutten, & Abel, 1997). The next section of the chapter will illustrate Giddens's description of late modernity and its impact on individual agents' reflexivity, lifestyle choices, and self-identity.

3.3.2 Late Modernity – A High Opportunity and High Risk Society

Different viewpoints have been developed and various terminologies have been used by sociologists to describe the defining sociological features of the current era, such as liquid modernity (Bauman, 1992), late modernity (Giddens, 1991), reflexive modernity (Beck, Giddens, Lash, 1994), and postmodernity (Bauman, 1997; Firat & Venkatesh, 1995). Regardless of how we label this current period, researchers agree that we are witnessing a new form or stage of modernity that moves beyond its earlier industrial model (Beck, 1992).

Our literature review of DS consumption research shows that DS consumers in the Western context seem to demonstrate postmodern consumption values and treat

complementary and alternative medicines as the “postmodern movement in medicine” (Vos & Brennan, 2010, p. 351). Firat and Venkatesh (1995) states that “postmodernity refers to the time period overlapping with late modernity” (p. 240). By stating that postmodern conditions cannot be fully considered a break from modernism but a radical extension and maturing of it, Firat and Venkatesh (1995) argued that these conditions were suppressed by modernist metanarratives and liberated by postmodernism. Hence, one of the main factors that differentiate those defining terms (e.g., late modernity and postmodernity) may be the degree to which postmodern conditions have been liberated.

As this thesis project addresses a consumption context in a less industrialized and less developed country which is open to the global modern changes but still keeps its traditions (i.e., China), we mainly referred to Giddens’s (1991) view of late modernity. We admit that China has experienced significant transformations in economy and market since it entered the Economic Reform Era (1980-1991) and the Era of Globalization of China (1992-present). However, changes and influences of the modern forces and conditions last only about four decades (1980-present) in China, whereas modernity is generally believed to start in Western history from the late sixteenth century or early seventeenth century (Borgmann, 1992). Moreover, many traditions and cultural values have been ingrained in Chinese social structure due to its thousands of years of history. Then, the postmodern conditions that have been liberated may stay at a very limited level. Therefore, we believe that the sociological status of Chinese society might not go as far as that of the Western society which might already enter the postmodernity stage.

There is another reason why we mainly referred to Giddens’s (1990,1991) theory of late modernity. Giddens pays particular attention to the consequences of modern

conditions as detraditionalization and focuses on the opportunities and risks that coexist in the society. This emphasis makes his theory instructive in our current research as we address a typical culture that is heavily influenced by both global changes and local traditions, in which opportunities, risks, and conflicts coexist. According to Giddens (1991), under conditions of late modernity, an individual is offered multiple choices from which to form a particular lifestyle, but is also confronted by various tensions resulting from the conflicts between traditions and detraditionalization, and is required to reflexively scan the options and analyze the unintended risks following their actions.

Note that, the choice of referencing to Giddens's (1991) late modernity was supported by our data analysis and interpretation as our interviews unfolded. Based on our interview data, we did observe our informants showing fragmented consumption behavior patterns that help them experience realities and link to identifies, which belongs to consumption features in postmodernity (Firat & Venkatesh, 1995). However, we also observed consumption behaviors leaning towards modernity such as "consumerism" (Marchand, 1985), and identified prevalent risk concerns that concurred with the late-modern "systemic risk awareness" (Thompson & Troester, 2002). Moreover, tensions raised by the conflicts between Chinese traditions and global detraditionalization effects permeated our interviews. Hence, as we iterated between our data, literature, and theory (as required by our research approach and methods), we were further convinced that it would be appropriate to position our research context as existing in late modernity.

According to Giddens (1991), late modernity refers to the mode of social life resulting from the consequences of modernity, i.e., it is a developed and radicalized modernity produced by the extension of the same social conditions that shaped the

previous age. Giddens (1990) has described the conditions of modernity, such as the disembedded nature of contemporary time and space, the increasingly sophisticated and abstract money systems, the significant power of media, and the reliance on the development of science, technology, and knowledge. Further, Giddens (1991) describes how these conditions may result in opportunities but also risks for people living in late modernity, e.g., the world faces unintended but unpredictable effects related to environmental risks, trends in the global economy, and the power of science and technology.

For example, technological innovation and developments in scientific research introduce previously unconceivable experiments to human life; new types of drugs and complementary and alternative medicines are formulated by these experiments and are becoming increasingly popular by means of globalization, commercialization, and the digital revolution. However, even technologies that have been used and that have transformed constraints into means still hold unknown risks. Thus, individuals become increasingly aware and reflexive about the potential risks of their own actions. A culture of uncertainty is generated – we are living in a high opportunity and high-risk society (Balbo, 2007). As a result, personal coping strategies and individual skills are increasingly needed, which may enable individuals to gain more agency to overcome ambivalence and to govern risks (Giddens, 1991).

To summarize, the conditions developed in the late modern society provides diversified choices for contemporary individual agents to live based on their free will. However, they bring unintended consequences and potential risks that need to be actively dealt with by individual agents. For less-developed and non-western countries like China,

tensions are intensified by the detraditionalization effect. Thus, in order to deal with these risks and tensions, individuals can not solely rely on expert systems and authorities to help make choices; rather, individuals must practice enhanced reflexivity. For Giddens, reflexivity primarily relates to the social practices involved in attempts to exercise control over aspects of our world and how such practices continuously transform and are transformed by the knowledge they generate (Beck, Giddens, & Lash, 1994).

Obviously, knowledge accumulation plays an important role in reflexivity. However, the growing unpredictability of our social world might lead to failure if individuals totally rely on gaining knowledge from professionals and experts. In fact, in many techno-scientific endeavors, for example, in health promoting activities, more scientific knowledge does not necessarily translate into more predictability and control. It often means increasing complexity and uncertainty about the impact of action through unintended consequences.

Hence, while the capacity to analyze one's own place in the world has been valued for making the appropriate choices, reflexivity also highlights a different role of knowledge in the creation of risks – “why has the generalizing of sweet reason [has] not produced a world subject to our prediction and control?” (Giddens, 1990, p. 151). Therefore, one key feature of reflexivity is the growing capacity of individual agents to distance themselves from the influence of the social structure and to become the main decision makers on the matters of their life. Individuals are given more informed choices, which leads to the freeing of agency. As a result, expert knowledge and authority are combined with lay knowledge and naïve theories by individuals to make choices in their daily practices.

As individuals are requiring more analysis and thought before making decisions, they are becoming more self-reflexive and self-aware. One of the results is the development of self-identity. Giddens pays particular attention to this aspect. Giddens (1991, p. 53) defines self-identity as “the self as reflexively understood by the person.” Self-identity, therefore, is not something that is predetermined by the social structure; rather, it is something that has to be socially constructed – routinely created and maintained through the practices of the individual and his or her intersubjective interactions. As Giddens writes, a person “must continually integrate events which occur in the external world, and sort them into the ongoing ‘story’ about the self” (Giddens, 1991, p. 54).

Further, Giddens (1991, p. 82) defines a lifestyle as “involving a cluster of habits and orientations and hence has a certain unity important to a continuing sense of ontological security that connects options to a more or less ordered pattern.” The core idea here is that lifestyles not only fulfill utilitarian needs but also provide the material form to one’s self-identity (Cockerham et al., 1997). In order for individuals to sustain their self-identity, they have to adopt some representative and reflexively constructed lifestyle (Giddens, 1991).

This process indicates that individuals are capable of reflecting on the causes and consequences of their actions from time to time, so as to maintain or revise their daily practices and routines for (re)constructing their social roles and identities. However, this reflexivity is grounded in the environment of change, including the complex information and the risks associated with technology. Accordingly, individual agents are liberated by the agency to choose what they want to do and whom they want to be but also troubled in

the sense of confronting increased emotional stress and time pressure resulting from searching, analyzing, and evaluating a large variety of choices. As Giddens finds, “What to do? How to act? Who to be? These are focal questions for everyone living in circumstances of late modernity – and ones which, on some level or another, all of us answer, either discursively or through day-to-day social behavior” (Giddens, 1991, p. 70).

3.3.3 Application to Thesis Research

Giddens’s (1990,1991) theory of structuration and late modernity are applied to this research, to account for the role of: 1) the western science and offerings that have traveled to the Chinese DS marketplace due to globalization and commercialization, and; 2) the developments that have emerged in Chinese digital media – in Chinese individuals’ reflexive accumulation, lifestyle selection, and identity development. It is appropriate to apply Giddens’s theoretical perspective because Giddens focuses on the detraditionalization effect of contemporary social conditions and pays serious attention to the tensions existing in the high opportunity and high risk society.

His observation is especially helpful for analyzing the Chinese DS marketplace since Chinese consumers hold close to their unique traditional beliefs but also embrace recently-available western resources and orientations. In recent decades, Chinese individuals are facing a large variety of local and international choices regarding health promotion and maintenance; they might experience pressure when decision making due to information overload and an expansion of market offerings, and have conflicts resulting from the collision between their old habitus and new changes in the environment. According to the theories described here, Chinese individuals would have

to engage in gaining reflexivity by accumulating agency in order to alleviate tensions, make and improvise lifestyle choices, and develop and maintain their self-identities.

In addition to Bourdieu and Giddens's theories of structure-agency dialectic, this thesis research refers to another three foundational works that make direct connections between health-related practice and structure-agency dialectic, for more implications. The next section of the chapter will introduce the three foundational works and discuss their contribution to our analysis.

3.4 Thinking about Health Consumption Sociologically

According to Bourdieu, the social world consists of many distinctive, relatively autonomous, but similarly structured fields such as politics, arts, religion, education, and business (Holt, 1998). A field is defined as a “network or configuration of objective relations between [social] positions” (Bourdieu & Wacquant, 1992, p. 99). In particular, a field of practice is a social space held together and defined by 1) power relations among the agents who belong to it, and 2) an “interest” that is shared among those agents (Bourdieu & Wacquant, 1992, p. 117). We can see two fundamental characteristics of Bourdieu's notion of the field: it is built on relations and networks; it is built on a common “socially constituted concern for, and desire to play, given social games” (Bourdieu & Wacquant, 1992, p. 25).

We apply this notion of the field to define *the field of DS consumption* in our research context (i.e., DS consumption in the context of social commerce in China) as: a social space held together and defined by 1) relations and networks among individuals

who participate in DS consumption and 2) their shared interest in self-care and health improvement.

First, health can be understood as a “field” in Bourdieu’s sense for several of its characteristics. Dealing with health in our daily life reflects some of the fundamental social conditioning processes (e.g., in the form of habitus) along with social reproduction and transformation (e.g., in the form of health lifestyle). In addition, in the field of health consumption, various agents practice and interact with different forms of capital for social distinction (e.g., in the form of embodied cultural capital and lifestyle).

Also, health consumption is closely related to Giddens’s concept of late modernity. Self-care has become an ideological belief in the West as Western medication science and technology keeps developing and offering new options for individuals. Further, this self-care paradigm is becoming a prominent shared culture in non-Western countries like China, aided by digital communication and globalization. However, these trends might lead to changes in individuals’ health practices and social interactions and lead to the social construction of new patterns of health-related (or even health-unrelated) lifestyles.

It is found that Bourdieu and Giddens’s theories have been applied to guide health-related research, including health lifestyles, health promotion, and the socialized feminine body. Next, four foundational works in these areas are reviewed and discussed.

3.4.1 Thomas Abel’s Theory of Health Lifestyles

Based on Bourdieu’s practice theory, Abel (1991, p. 901) defines a health lifestyle as “comprising patterns of health-related behaviors, values, and attitudes adapted by

groups of individuals in response to their social, cultural and economic environment.” In a more recent paper, Abel updates the definition by replacing “patterns of health-related behaviors, values, and attitudes” with “interactive patterns of health-related behaviors, orientations, and resources” (Abel, Cockerham, & Niemann, 2000). This update emphasizes the dynamic interplay between the structural social conditions and the innovative practices of the agents. Further, this conceptualization of health lifestyle includes the openness to both scientific and lay perspectives that support an appropriate healthy lifestyle.

More than that, it acknowledges that health-related lifestyles, despite the fact that they may be relevant for health, are practiced habitually, or with no deliberate intention towards any specific health-related outcome (Abel, 2007, p. 61). In this respect, consistent with Bourdieu’s understanding of embodied cultural capital, which has symbolic meanings for symbolic representations in social differentiation, Abel (2007) argues that some health-related lifestyles also work as social practices for achieving social distinction in the field. For example, a health-promoting lifestyle serves to promote self-identity by achieving a sense of belonging.

As the definition indicates, healthy lifestyle is not just associated with individuals but with status groups, which are aggregates of people with similar status and class backgrounds and originated through a sharing of similar lifestyles, thereby showing it is principally a collective social phenomenon (Cockerham, 2005). That is, health-related lifestyle is not the uncoordinated behavior of disconnected individuals but is personal routines that merge into an aggregate form representative of specific groups and classes.

No matter what distinct health-related lifestyle the individual agent claims to choose, it is the type and level of embodied cultural capital that plays a decisive role. For example, some individuals learn the mainstream health knowledge, so they keep healthy diets and exercise regularly, while some other individuals learn the lay health belief perceiving that mental health determines physical health, so they do not keep healthy diets or participate in regular exercise that requires deprivation of happiness. That is, for any health-related lifestyle, the individual behaviors must match with their orientations and resources (Abel, 2007).

According to Bourdieu, embodied cultural capital may refer to perceptions, skills, and knowledge that are learned through a lifelong social process and stored inside the individual's human body. In contrast to economic capital, embodied cultural capital is tied to the human body and closely linked to the biological conditions and uniqueness of the actor (Bourdieu, 1986, p. 245). Hence, in the field of health consumption, the body could be treated as one form of capital. Individuals invest in economic, social, and cultural capital in exchange for body capital for social distinction.

In addition, it is worth mentioning that the main source needed to accumulate embodied cultural capital is time – contemporary individuals are doing reflexive accumulation (or lifelong learning) in their disposable time (Balbo, 2007, p. 133). However, time for investing in cultural capital is unequally distributed among social groups; personal time could be obtained by reducing workloads or hiring child care, but only by those who have the economic capital to afford this (Abel, 2007, p. 67). Thus, time capital and economic capital are two distinct capitals for health and wellness.

3.4.2 Laura Balbo's Theory of Health Promotion: A Gender Perspective

Grounded on Giddens's (1990, 1991) theoretical discussion of reflexivity and agency in late modernity, Balbo (2007) suggests a gender perspective in health promotion research as adult women's roles and responsibilities in daily health arrangements require increased agency, reflexivity and lifelong learning (Balbo, 2007, p. 130). According to Balbo (2007), it seems reasonable to focus on adult women when addressing issues of health and wellness as it is women who take primary responsibility for their own health and their family members' health, such as child-rearing and caring for those who are ill or aging.

Moreover, in contemporary modern society which results in a higher degree of individuality and reflexivity, adult women are experiencing increasing obligations and pressures in time demand and organization, because they have to cope with often contradictory flows of information by adjusting themselves to expectations of self-learning (Balbo, 2007, p. 134-135). As a consequence, lay knowledge and lay participation are legitimized and developed as a complementary form of agency to scientific knowledge in practicing health promotion as a paradigm.

Further, Balbo (2007) highlights the role of media, economic interests and profit mechanisms in exacerbating women's stresses in fulfilling their responsibilities: 1) due to the global market and global communication networks, a large variety of products and services are offered in the marketplace, ranging from dietary supplements to homeopathy; 2) due to the prevalent use of the internet and social media, an extraordinary amount of information about medicines, therapies, and remedies has become highly accessible; and

3) due to the scientific and technological development in medicines, self-care becomes possible and easy so that the authoritative power of health professions is at stake.

In this context, women, as the persons in charge of family health, are expected to accumulate relevant knowledge and make decisions. However, this learning process is accompanied by many struggles and confusion, such as the conflict existing between demanding time schedules and moral obligations, the complex and sometimes contradictory information from digital media and scientific authorities, and the incompatibility between old habits and new marketing arrangements. As a result, women have a lot of tensions to deal with, and they might be likely to develop a favorable attitude towards improvisation, as well as toward “self-interpreting” and “self-monitoring” (Balbo, 2007, p. 134) by employing ‘unscientific’ agency.

3.4.3 Joy & Venkatesh’s and Thompson & Hirschman’s Theory of Body Culture and Morality

Thompson and Hirschman (1995) illustrate that such dualisms as mind/body, rational/irrational, and male/female, are socially constructed and situated in a field of interpersonal relationships. These distinctions – as systems of cultural meanings – stand in a co-constituting relationship with the social order (Thompson & Hirschman, 1995, p. 139). The authors focus on the distinctions between mind and body and explore the impact of these distinctions on consumer choices and practices, aiming to systematically highlight the shared cultural meanings behind the interpretations expressed by individual consumers.

Joy and Venkatesh (1994) also discussed the body culture by discussing postmodernism and feminism in the context of consumer behavior which challenged the fundamental tenets of Enlightenment philosophy of rationality and the abovementioned dualist assumptions. In particular, they examined the process of production and consumption of gender through the body culture formation, and... Joy and Venkatesh (1994) stated that, since our society entered modernity, the rise of science and medicine created the emergence of 'the medical body' due to the established biological/physiological differentiation of male and female bodies; the conditioning of modern industrialism led to gendering of the body from a sociological perspective and the social reproduction of the gendered body, i.e., 'the aesthetic body', a representational tool (p. 341). In specific, while the male body is a rational, neutral body, thanks to the superior rational mind, the female body is an expressive, sexual, attractive body. Thus, the morality of a body culture begins with the notion of discipline of 'the medical body' which is then transferred to the attractiveness of 'the aesthetic body'; this moral principle is turned around in such a way that the person with an aesthetic outer body is the moral equivalent of a good person (Joy and Venkatesh, 1994).

Their theorizations are highly relevant to this thesis research as it holds important implications for health-related consumption research on the use of consumption as a way to achieve morality (Joy & Venkatesh, 1994) and a means to create self-identity (Belk, 1988). Specifically, they helped us understand the socialized feminine body, by illustrating the abstract system of shared cultural meanings that constitute the socialized feminine body and highlighting cultural and social conditioning processes that shape these shared meanings and get them implicitly embodied in individuals' bodies. By

focusing on the influence of the dualistic metaphysic on the formation of the body culture, these authors emphasize the formation of a particular ethic of self-control that argues for a moralistic obligation to control the body. Moreover, the ethic of self-control and the moralistic obligation to control one's body (Foucault, 1994) is strengthened by a series of socio-cultural influences such as the voice of culturally sanctioned professionals (e.g., nutritionists), market culture (e.g., extensively advertising body as the central concept in contemporary social life), and body-related social norm (e.g., being slim and staying young). As Foucault (1979) states, individuals try to attain more freeing agency for dealing with the possible risks resulted from breaking moral codes, such as rewarding practices, confessional practices, and the disciplinary gaze (i.e., a form of social control ensuing from the self-surveillance conforming to normative conventions).

The abstract system level of mind/body distinction, which has been treated as a structuring concept for Western medical science (Romanyshyn, 1989), produces an ideology of "mind over body" that is widely expressed in body-related practices (e.g., weight loss and anti-aging) and is largely promoted by commercialization and marketing (e.g., a lot of products and services advertised as a means to manage weight or postpone aging). In particular, the ideology of self-control, which aims at conquering nature, is formulated in the reverence for the ethic of control that resides in Western cultural values. Three primary values are mentioned: 1) the long-standing cultural idealization of youthfulness, 2) the disembodied transcendence of individual's essential self (i.e., mind, spirit, selfhood), and 3) the Cartesian ideal that knowledge and the technology it inspires liberates the transcendent self from the forces of nature (Thompson & Hirschman, 1995, p. 143).

Hence, contemporary Western consumers feel a moral obligation to utilize knowledge and technology to resist aging and stay young, and for achieving transcendence of the self. This sense of moral obligation has been largely enhanced by cultural discourses manifested as sanctioned knowledge or scientific evidence in marketing promotions (Glassner, 1990), which reflects the enlightenment ideal of a society structured on rules of logic and prescriptions of science (Romanyshyn, 1989). The social conditioning process legitimizes the ideology of pursuing self-control and the superiority of mind over the body by normalizing/problematising certain body types and traits. This process is facilitated by developing medical science and knowledge, mass media, and marketplace practices and, in turn, enables discourses that intensify individuals' stress for not fulfilling their moral obligations.

Based on Joy and Venkatesh (1994), and Thompson and Hirschman (1995), this paper holds that, first, individuals' body construction practices build on perceptions they have of their bodies, and these perceptions are socially conditioned and constructed in a field of interpersonal relationships, cultural ideologies, normative prescriptions, and moralistic meanings regarding self-control. Many ethics-related desires and actions are produced by this process, such as an internalized duty of self-discipline/control, the rewarding of self-discipline, and the resistance to temptation. Second, the achievement of a normalized or idealized body is itself not the end. Rather, it is the symbolized meanings embedded in the construction behaviors, which show individual agents' personal worth, their positions in a field, the merit of their lifestyle, and their self-identity (Thompson & Hirschman, 1995, p. 151). In this research, we aim to investigate ethic codes and moral obligations in self-control that are socially constructed in the field of DS consumption in

China, which is a much more complicated context than the West, as it contains Eastern historical roots and embraces Western cultural values in healthcare and body image. Specifically, we aim to understand the strategies and practices adopted by individuals and the underlying symbolic meanings that espouse their unique lifestyles and self-identities.

In Section 3.4, we have introduced, justified, and discussed the theoretical works that are referred by our study as our theoretical foundation. Next, we describe how we applied the theories to our research by presenting and discussing our research framework.

3.5 A Research Framework for Understanding DS Consumption in China

In this section, we highlight the implications of the theories discussed in previous sections for this thesis by proposing and discussing a research framework for understanding DS consumption in social commerce in China. Figure 3.1 demonstrates the research framework. As we stated in Chapter 2, based on a comprehensive literature review of dietary supplements (DS) consumption, we identified research gaps and opportunities for DS consumption research.

This thesis project will focus on two of the key research opportunities, i.e., the influence of culture and social media technology on DS consumption, and answer the following two research questions: What are the perceived benefits achieved by committed DS users in social commerce in China? How do they practice in order to achieve those benefits? It is obvious that the current research intends to examine consumption practices (rather than consumption objects) and symbolic meanings underlying individuals' practices and to focus on the influence of socio-cultural structure in China on individuals' practices (a specific socio-historical setting). These research

questions are compatible with Holt’s (1998) reformulation of Bourdieu’s theory in consumption research.

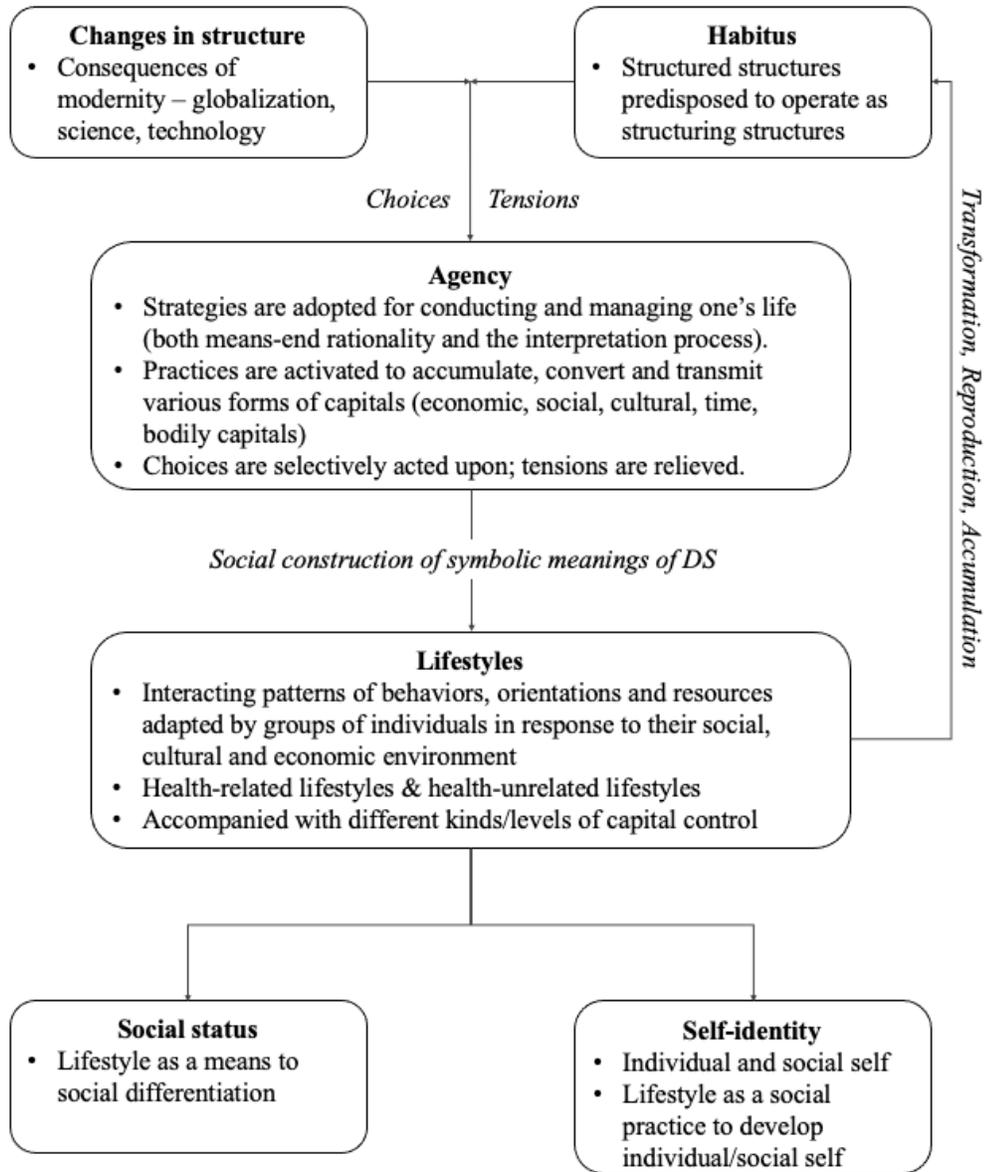


Figure 3.1 Research Framework for Understanding DS Consumption in China

Moreover, DS is the research subject of this thesis – a health promotion product whose consumption involves the cultural capital accumulation and lifestyle formation – and social commerce is the research context – an online field building on user-generated-

content and social media that constitute the prime grounds for the (re)production of cultural goods and the enactment of tastes. Based on the research subject and context, we believe it is appropriate to apply Bourdieu's theory to our research.

Thus, implicated by Bourdieu's work and its applications in previous consumer research, the current study addresses a particular social class – the mass elite consumer segment in China – to account for the influence of macro-social structure on individual practice, i.e., social class and local socio-historical culture. More than that, this thesis focuses more on the micro-social influences that are generated from the socialization processes in micro-groups within a macro social class, such as family and community. Further, Bourdieu's work on the structure-agency dialectic and theory of practice is applied to guide the thesis research as a framework.

In particular, we apply Bourdieu's theories in the following way: there are many unique habitus that has been formed and developed in the context of China over thousands of years; this habitus is “structured structures” but also operate as “structuring structures” that offer dispositions to act for individuals in terms of DS consumption and use; although constrained and shaped by the social structure, individuals have an agency that supports them to selectively choose options from structure and dispositions from habitus and to adopt and practice strategies accordingly; through daily practices and routines, individuals are developing unique lifestyles (including both health-related and health-unrelated aspects) which are used as a means for social distinction (i.e., social status); a lifestyle is a reproduction of the habitus but also a transformation of the old habitus.

While utilizing Bourdieu's structure-agency dialectic as a guiding framework, this research also refers to Giddens's theories on structuration and late modernity for implications. First, Giddens's theory on structuration – the duality of structure and agency – is compatible with Bourdieu as they both highlight the dynamic inter-relationship between structure and agency. What is unique to Giddens is that he takes the consequences of modern forces into account when he talks about structure-agency interplay. We agree with Giddens regarding the consequences, i.e., the tensions and stresses created and intensified by trends like globalization, developments in science and knowledge, and the digital revolution, and his conceptualization of reflexivity, and its impact on lifestyle choices and self-identity development.

More specifically, this research applies Giddens's theory by emphasizing the changing conditions in Chinese social structure (e.g., the entrance of Western products and services, ideology of self-care in Western medical science, social media and e-commerce development), highlighting the tensions experienced by Chinese individuals regarding health promotion and self-care, and discussing their corresponding strategies in order to relieve the tensions, the resulting lifestyles as well as self-identities.

While we build the framework, we refer to the previous important health consumption studies, trying to add more in-depth implications for this research. To be specific, Thomas Abel's (1991) theory of health-related lifestyles, Laura Balbo's (2007) theory of health promotion, Thompson and Hirschman's (1995) theory of the socialized body, and Joy and Venkatesh's (1994) feminine body provide implications for our research. First, we learned from Abel (1991) that health-related lifestyles might be functional to health outcomes or not (e.g., healthy lifestyle and health promoting

lifestyle), and it is the forms and levels of embodied cultural capital which can be accumulated by investing time or money that differentiate various lifestyles.

Then, we learned from Balbo (2007) about a gender perspective in health promotion and consumption practices – primarily, adult women take the role and responsibility in daily health arrangements that require the increased agency, reflexivity, and lifelong learning in late modernity.

Lastly, we learned from Thompson and Hirschman (1995), and Joy and Venkatesh (1994) about the socially constructed feminine body – the dualism between mind and body is socially constructed to enforce an ideology of self-care and result in the ethical belief and moral obligation of pursuing self-control and self-discipline; the social construction process is accomplished by the interplay of many socio-cultural factors including sanctioned technology and science, mass media information, and marketplace promotion discourses and narratives.

To summarize, this research extends the research focus from health-related lifestyle to both health-related and health-unrelated lifestyle, by taking on a gender perspective in DS consumption investigation, and by considering moral codes in examining the symbolic meanings underlying DS consumption practices.

To summarize, as Figure 3.1 shows, we combine the theories of Bourdieu and Giddens of structure-agency interplay to create our research framework for understanding DS consumption in social commerce in China; our framework is also implicated by previous foundational works in health promotion research that takes on a sociological perspective. In the next chapter, we will introduce our methodology, including the

primary data collection method, active interviewing, and the data analysis method, the constructivist view of grounded theory analysis.

CHAPTER 4: METHODOLOGY

4.1 Introduction

This chapter discusses the research approach and research design of this thesis project. Primary data collection method, active interviewing, and the primary data analysis method, grounded theory analysis, will be introduced. The chapter begins with an introduction of our research approach, followed by a discussion of the research context (i.e., DS social commerce in China). We then introduce and justify our research design – active interviewing was used as data collection method; the constructivist approach of grounded theory was used as data analysis method. Specific research procedures and details are provided, including 1) sample selection and recruitment, 2) interview procedures, guide, and techniques, and 3) analysis steps and coding techniques.

4.2 Research Approach of This Study

Derived from the previous chapters, this thesis aims to answer two research questions – “What are the benefits achieved by committed DS users?” and “How do they practice in order to achieve those benefits?” Our purpose is to explore the various types of benefits associated with DS consumption, such as social distinction and self-expression, and interpret the multiple layers of meaning that are socially constructed in DS consumption and use. Consequently, an in-depth and context-dependent investigation based on an interpretivist research approach is needed. That is, this thesis research undertakes an interpretive research approach in order to increase the descriptiveness of the collected data to produce a deeper and more comprehensive understanding of consumer behavior.

There has been a call for a more interpretive approach in understanding consumer behavior; “Every approach to consumer research may have something to offer” (Hudson & Ozanne, 1988, p. 520). However, research in the area of DS consumption has heavily relied on the positivist research approach and designed research based on one data collection method – survey. To illustrate, we demonstrate the distribution of data collection methods used in previous DS consumption research in Figure 4.1. The numbers in the figure came from the descriptive analysis of our literature review dataset (the review of DS consumption studies shown in Chapter 2). Nearly fifty percent of papers employed a positivist view and survey-based research in DS consumption studies.

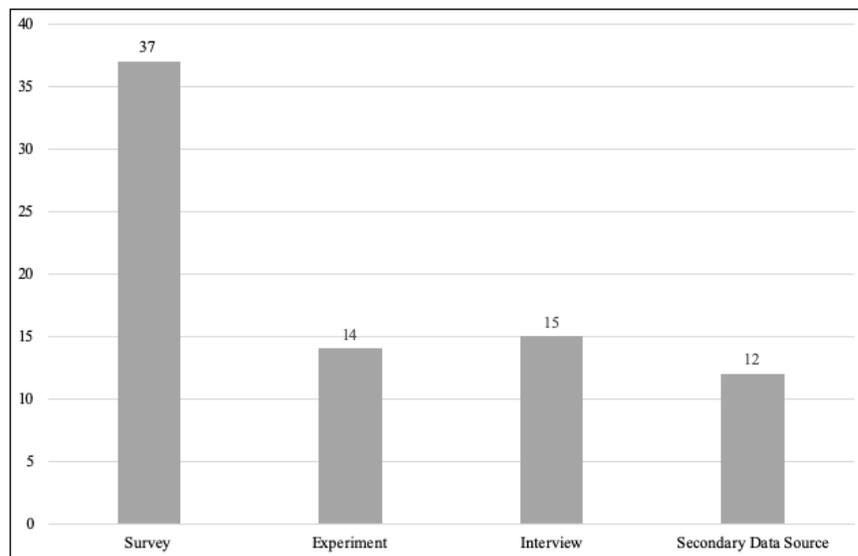


Figure 4.1 Data Collection Methods Used in DS Consumption Research

Choosing to use surveys for data collection was in accordance with the positivist research approach and the models that were employed in those studies. In particular, it was psychological and cognitive theories such as the Theory of Planned Behavior (TPB) and Theory of Reasoned Action (TRA) that guided previous DS consumption studies.

Our literature review of DS consumption research papers identified the dominant role of the TPB in guiding DS consumption research; that is, extant research undertakes the positivist perspective and focuses on the prediction of consumers' purchase intention and centers on rational and cognitive predictors based on the TPB (e.g., Conner et al., 2001, 2003; France & Bone, 2005; Fogel & Rivkin, 2013; Jeong et al., 2012; Noor et al., 2014; O'Connor & White, 2010; Rajamma & Pelton, 2010; Ren et al., 2011; Royne et al., 2014). Researchers preferred the prediction-oriented theories and models because of the belief that this stream of theory may provide businesses with testable propositions and causal explanations (Busalim & Hussin, 2016).

However, as we stated in Chapter 2, TPB-based factors fail to fully explain the variance existing in the process from consumer's intention to purchase to actual purchase and actual use. Many factors can affect the final act of purchasing and the specific use pattern, other than the TPB-based psychological factors that are built into consumers' cognition (e.g., Fogel & Rivkin, 2013; Pajor et al., 2017), such as habitual behaviors, emotions, contextual factors and environmental factors (Bolton et al., 2015; Homer & Mukherjee, 2018; Mason & Scammon, 2011). Accordingly, surveys based on the TPB-like models are not able to provide researchers with a comprehensive set of data that might indicate the underlying factors and processes of DS consumption, that are hidden to or unrecognized by consumers, but that are playing an important role in influencing their consumption motivations.

In addition, as we described in Chapter 2, the large population-based cross-sectional health surveys conducted by nutrition researchers did provide us with some important clues that indicate the distinctive patterns of DS consumption from different

consumers, their different motivations, and the varying impacts of DS consumption on their subsequent health behaviors such as eating, exercising, alcohol drinking and smoking, and health knowledge learning (e.g., Ishihara et al., 2003; Payette et al., 2002; Sheldon & Pelletier, 2003; Stang et al., 2000). However, the descriptive data gleaned from these large sample surveys only tell us ‘what the result is’ rather than ‘what happens’ and ‘how it happens’. Researchers have emphasized the importance of taking both ‘why people use DS’ and ‘how people use DS’ into consideration and exploring the context-dependent varying motivations for taking DS as well as the varying impacts of DS consumption on consumers’ subsequent practices (Nichter & Thompson, 2006).

Accordingly, a research design that takes on an interpretive and exploratory perspective and moves beyond surveys to consider patterns in specific contexts is called for (see Leviana & Arriaga, 2014; Nichter & Thompson, 2006). According to interpretivists, individuals create theories and categories to help them make sense of their worlds, and reality is socially constructed in that sense-making process (Berger & Luckman, 1967; Burrell & Morgan, 1979). Thus, multiple realities exist, and these realities are changing because of different individual and group perspectives (Hudson & Ozanne, 1988).

Interpretivists view individual realities as being dynamic; that is, reality is made up of systems that are dependent on other systems for their meaning (Lincoln & Guba, 1985). Therefore, consumer behavior researchers need to enter the field in which the researched phenomenon dwells and learn about the context because consumers are constructing reality and giving it meaning based on the specific context (e.g., consumers

might perceive and process information differently if they are in a natural setting or laboratory setting).

Furthermore, interpretivists view individual realities holistically; that is, the systems that make up an individual's reality are interdependent; individuals cannot be studied out of context or reduced to variables (Taylor & Bogdan, 1984). Therefore, consumer behavior researchers need to grasp the meanings of a phenomenon of interest while taking into consideration the relevant norms, schemas and perspectives that exist in the context where the phenomenon happens.

In addition, interpretivists view the nature of social beings as voluntaristic and proactive (instead of positivists' view of social beings as deterministic and reactive); they work towards a goal of understanding consumer behaviors (instead of positivists' goal of explaining or predicting); they believe that knowledge of consumer behavior is generated in an idiographic, time-bound, and context-dependent way (instead of positivists' way as nomothetic, time-free, and context-independent); they treat the researcher-participant relationship as interactive, cooperative, with no privileged point of observation (instead of positivists' dualism, separation, privileged point of observation) (Hudson & Ozanne, 1988, p. 509).

To summarize, keeping in mind Hudson and Ozanne's (1988) encouragement to use an interpretive research approach as an alternative way of seeking knowledge in consumer research, Thompson's (1997) determination that marketing insights can be derived from the texts of consumers' consumption stories, and previous example studies that apply an interpretive and exploratory perspective to generate deep insights about health consumption (see Adkins & Corus, 2009; Hughner & Kleine, 2008; Mason &

Scammon, 1999; Nichter & Thompson, 2006; Thompson & Troester, 2002), this thesis project decided to undertake an interpretivist view, and employ a research design that is based on interviewing, more specifically, the active interviewing method outlined by Holstein and Gubrium (1995), as the primary data collection method. Charmaz's (2003) constructivist approach to grounded theory as the primary data analysis method will also be employed. Research design and methods are discussed in detail in Section 4.4. Before that, Section 4.3 introduces the research context to prepare the reader for a better understanding of the research design.

4.3 Research Context

In this section, we introduce our research context – DS social commerce in China. The selection of this research context is determined by our research questions and supported by our literature review and theoretical foundations.

4.3.1 Social Commerce in China

We selected the DS social commerce in China as our research context based on our research questions: what are the benefits achieved by committed DS users, and how do they practice in order to achieve those benefits? The research questions clearly show that we focus on the understanding and interpretation of the particular horizons of meaning associated with DS consumption, and the variety of ways in which people consume. That means we need to locate a site to conduct context-dependent exploratory research. The DS consumption in social commerce in China provides us with the research

context as it facilitates our examination of the diverse benefits achieved by DS consumers and their practices for achieving those benefits.

First, this thesis explores the phenomenon of DS consumption as it occurs in one of the online marketplaces – social commerce. Social commerce is defined by (Liang & Turban, 2011, p. 6) as “the delivery of e-commerce activities and transactions via the social media environment, mostly in social networks and by using Web 2.0 software.” The decision to focus on social commerce is based on our purpose of examining the influence of contemporary social conditions on individuals’ DS consumption. The selection is specifically supported by the research opportunities we identified from the literature, e.g., the role of social media in DS communication and distribution.

In particular, this thesis chooses to focus on social commerce in China to achieve our goal of detecting the conflicts between contemporary social conditions and traditional culture and their influence on individuals’ DS consumption. Social commerce builds on two fundamental features: economic and social (Curty & Zhang, 2013), and Chinese culture is well-known for its high level of collectivism and an emphasis on “guanxi” – the Chinese term for “relationship” – in business (Ou et al., 2014), which makes social commerce in China an ideal research context.

The research context selection is further supported by the statistics showing that social commerce in China is a flourishing market. The internet retailing of DS has accounted for 22.2 % of its whole retail value in China in 2018, much higher than in other countries including the US (10.8%), Canada (1.3%), India (2.3%), New Zealand (7.6%), and Japan (8.4%) (Euromonitor, 2019a). Moreover, this ratio in China has shown

a continuing and steep growth in the past five years (from 8.8% in 2013 to 22.2% in 2018) (Euromonitor, 2019a).

4.3.2 DS Consumption in China

By conducting our research in the context of China, this thesis aims to contribute to an essential and relatively underdeveloped research stream for the discipline of consumer research: to comprehensively describe the variety of ways in which people consume, to understand how these differences vary across groups and situations, and to explain the unacknowledged conditions that structure how different groups consume and the unintended consequences of such patterning (Giddens, 1979; Holt, 1995). More than that, this research intends to contribute to contemporary consumption research in less industrialized countries (LICs) (Ustuner & Holt, 2010). In particular, the DS consumption in China can provide a lens through which researchers may further understand consumption behaviors in cultures that hold onto their traditional value systems while increasingly being open to western consumption values as well.

Our decision to target China as our research context is also supported by our literature review. As described in Chapter 2, we conducted a comprehensive literature review of the previous DS consumption research. We drew Figure 4.2 to show the distribution of the research contexts addressed by those studies. The ‘number of papers’ was calculated based on the descriptive analysis of the DS consumption research papers included in our dataset. We also included a separate bar to show the market size of DS in each country in 2018; the ‘market size’ was based on the retail value (in USD million) of the DS industry in each country (Euromonitor, 2019b). It is clear that most of the

research focused on the US context and investigated American consumers' DS purchase and use behaviors, as well as the governance and regulation of the DS industry in the US. Only two papers in our dataset examined DS consumption in the context of China, despite the fact that China has become the second-largest market of the DS industry (Euromonitor, 2019b).

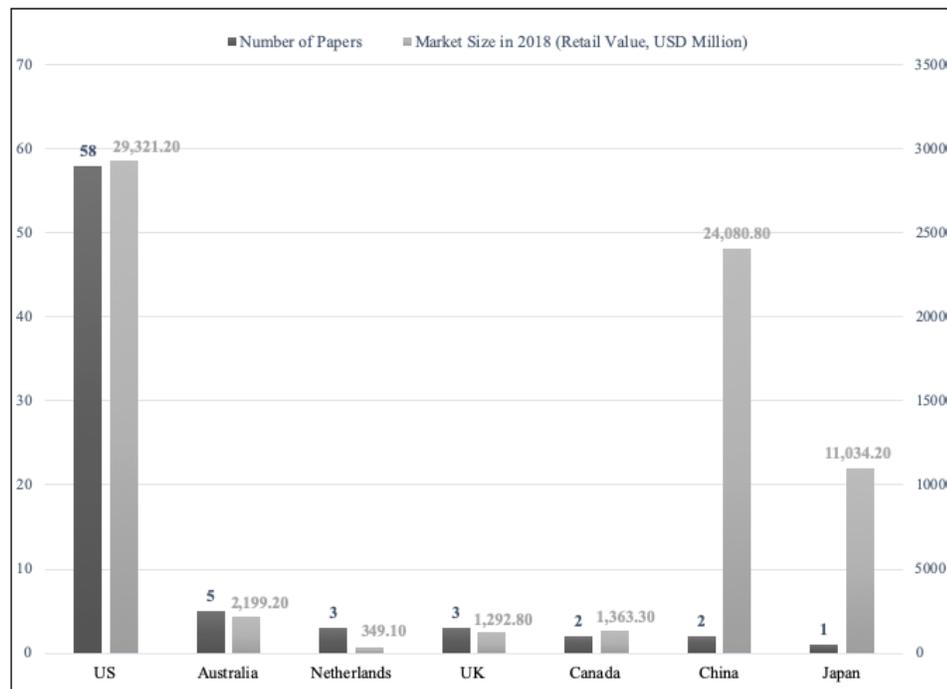


Figure 4.2 Research Contexts Addressed in DS Consumption Research as Compared to Market Size

As DS has been popularly used by individuals to treat and prevent disease, maintain and promote health, the worldwide retail value of the DS industry has grown from 48,532.8 USD million in 2004 to 106,380.0 USD million in 2018, and it is expected to grow to 138,018.7 USD million in 2023 (Euromonitor, 2019b). Moreover, while the US is still the largest market for DS, China has surpassed Japan to become the second-largest, with forecasted retail value growth in the next five years more than double that in

the US (52.4% vs. 21%) (Euromonitor, 2019b). These facts make DS consumption in China an ideal research context.

4.3.3 Government Policy and Regulation of the DS Industry in China

As we mentioned in Chapter 2, most of the DS research papers that take a public policy perspective addressed the context of the US. We made a note in Chapter 2 that we would describe the Chinese government's regulations of the DS industry in this chapter. Overall, consumer health is strongly supported by Chinese government policy and law. As a strategic industry in the national government's 13th Five-Year Plan, consumer health consistently benefits from funding released by government departments; for example, the Law on Traditional Chinese Medicine has been established and continued to be implemented in 2018 (Euromonitor, 2018b). Regulating efforts, such as regulations that set the specifications and standards that should be adhered to by manufacturers, are made by the Chinese government.

In particular, the latest regulation on the disclosure of food and drug safety supervision, in accordance with the newly revised Food Safety Law, was issued by the China Food and Drug Administration (CFDA) in December 2017 and officially implemented in March 2018. The newly amended Advertising Law was brought into effect in September 2015 in China, in which DS is rigidly prohibited from providing a guarantee of efficacy and security, from announcing remediable or preventive features, or from being endorsed by a celebrity. It is also compulsory to declare, "This product is not an alternative for drugs". In addition, related advertisements cannot be aired in the mass media for juveniles (Euromonitor, 2018b).

To summarize, the Chinese government is increasing its control and regulation on DS labeling and advertising, which might increase the difficulty for DS brands to communicate the claimed health benefits to targeted consumers through mass media or packaging. Considering the very large market size of DS industry in China (as we stated earlier, China has become the second-largest market for DS), we believe that there is research potential in the context of China – in a context that lacks sufficient business-to-consumer communication, how/where do consumers search for information about the products? What are the roles of consumer-to-consumer communication and social media channels in consumers' decision making?

4.4 Research Design

The active interviewing method was adopted to provoke interactive conversations that would allow the researcher to collect rich and contextualized data regarding committed DS users' varying activities and outcomes; grounded theory based on a constructivist approach was adopted as the data analysis method to build theoretical categories in terms of the logic of practice in the field of DS consumption. This section starts with an introduction and justification of the data collection method – active interviewing (i.e., what is active interviewing and why use this method in this research), followed by an explanation of the data analysis method (i.e., what is grounded theory analysis and why use this method in this research).

4.4.1 Data Collection Method – Active Interviewing

What is active interviewing? As a form of interpretive practice, active interviewing is a meaning-making occasion in which both the interviewer and interviewee are necessarily and unavoidably active (Holstein & Gubrium, 1995, p. 4) as they ongoingly and intersubjectively interpret structures, resources, and orientations. Holstein and Gubrium believe that the interview is not merely a neutral conduit nor a source of distortion but rather the productive site of reportable knowledge itself (Holstein & Gubrium, 1995, p. 3). According to Holstein & Gubrium, reality is constituted at the nexus of the *hows* and the *whats* of experience, by way of interpretive practice – the procedures and resources used to apprehend, organize, and represent reality (Holstein, 1993; Holstein & Gubrium, 1994). While the *hows* refer to the interactional, narrative procedures of knowledge production (not merely to interview techniques), the *whats* pertain to the issues guiding the interview, the content of questions, and the substantive information communicated by the interviewee (Holstein & Gubrium, 1995, p. 4). Their theoretical lens of ‘how and what’ is compatible with the thesis of answering ‘how and what’ questions together and the emphasis on the ‘process’.

Overall, the active interviewing method suggests that interviews are interpretively active, implicating meaning-making practices on the part of both interviewers and interviewees. Active interviewing represents more than an inventory of methods; it expresses a perspective – an implicit theory of the interview. It suggests that, instead of adding to a long list of methodological constraints under which interviews should be conducted, researchers could take a more positive approach, proposing an orientation whereby researchers acknowledge interviewers’ and interviewees’ active contributions

and consciously and conscientiously incorporate them into the production of knowledge (Holstein & Gubrium, 1995).

Why use active interviewing? It is appropriate to use active interviewing as the primary technique due to the following reasons. First, as we discussed in Chapter 2, in spite of the fact that research shows that DS does not always fulfill their functional purposes (see Cardinal & Engels, 2001), other research indicates that some DS consumers would continue to take DS even if the products were shown to be ineffective in scientifically conducted clinical studies (see Blendon et al., 2001). This apparent paradox indicates that (at least some) DS consumers might not be consciously aware of the real motivations for their DS consumption. In other words, they might not be able to give the researchers clear answers to the question, “why do you use DS?”

Contrary to other methods such as surveys and the traditional interview method, active interviewing does not treat the interviewee as a ‘vessel-of-answers’; instead, Holstein and Gubrium (1995) argue that the interview is a meaning-making process in which researchers interactively cooperate with informants to make sense of their behaviors. The ‘meaning-making process’ indicates a constructionist perspective on the interviewing process and interviewing products, and rejects the notion (so often hidden in the way we think of survey research) that crisp answers to clean questions can be recovered with professional dispatch once the ground rules are explained by the interviewer to the respondent.

To Holstein and Gubrium, interviews are social productions. With this orientation, active interviewing is suitable for our research, through which participants would be seen as narrators or storytellers, and interviewers would be cast as cooperators

in the process. Working together, the interviewer and narrator actively construct a story of DS consumption and interpret its meaning (Miller, Manning, & Maanen, 1995), and may uncover reasons for consumption that would not be top-of-mind. Through discussions, meanings and/or answers that might not be consciously recognized by the interviewees may become accessible to them as the interview unfolds.

Second, this thesis research aims to investigate the possible benefits achieved by DS users that might not be directly relevant to health-related outcomes. That is, this research intends to explore the relationship between DS consumption and individual lifestyle, self-identity, and social distinction. In this respect, active interviewing will facilitate the systematic examination of how DS users narrate their DS consumption and how those narrations may or may not relate to their life experiences outside the field of DS consumption (McAdams, 2011). By identifying important scenes in their consumption stories, and extended stories outside the field of DS consumption, consumers' unique use patterns may be revealed, along with the symbolic meanings underlying those use patterns and the logic of practice in that field.

In fact, Holstein and Gubrium have recommended that the interviewer may want to encourage informants to shift positions during the interview. The objective is to access alternative stocks of informants' knowledge and various ways in which informants attach meanings to the research phenomenon. So, for example, an informant who finds certain DS products effective may shift his/her frame of reference from consumer to health knowledge accumulator and begin to search for relevant health knowledge and post health-related UGC online with other consumers. These positional shifts broaden the

horizons of consumption meanings and extend to more linkages that enable a deeper and diversified understanding of the phenomenon.

Third, in conventional approaches, informants are basically conceived of as passive vessels of answers for experiential questions put to informants by interviewers. They are repositories of facts and the related details of the experience. Occasionally, such as with especially sensitive interview topics or with recalcitrant respondents, researchers acknowledge that it may be difficult to obtain accurate experiential information (Holstein & Gubrium, 1995, p. 7). For some users, DS consumption may be related to their personal health conditions, which may make the conversation topic a little sensitive to discuss. In addition, Chinese people are recognized as very conscious of 'face' value (which is called *mianzi* in Mandarin), who treat dignity, prestige, and reputation very importantly. Chinese go out of their way to be polite and accommodating, to maintain dignity in a variety of situations and avoid disputes, conflicts, and embarrassments in their pursuit to avoid losing 'face'.

We believe the active interviewing technique could help overcome the sensitive nature of the topic and encourage Chinese informants to actively talk about their consumption practices and feelings about DS because active interviewing underscores the respect that a researcher should give to the informant and the knowledge co-generation that builds on collaborative activities within the interview process. Holstein and Gubrium suggest that during an active interview, the researcher may choose to position him/herself in different ways such as disclosing his/her feelings of the research phenomenon, using facilitative self-disclosure, and acknowledging the informant (not him/herself) as the professional of the research phenomenon, which might be very helpful for the informant

to feel relaxed and comfortable so as to reveal thoughts, emotions, and feelings associated with the research topic.

Last, the active interviewing method is suitable for interviewers who are familiar with the material, cultural, and interpretive circumstances to which respondents might orient their comments and who have the particular vocabulary that may be employed to convey the respondent's experience. In this thesis project, the researcher comes from the segment targeted by the study, i.e., the mass elite consumer segment in China. She is familiar with the material, cultural, and interpretive circumstances to which participants might orient, and with the vocabulary through which experience will be conveyed. Such familiarity and knowledge have been emphasized by Holstein and Gubrium (1995, p. 77) as invaluable resources for doing active interviewing. Therefore, this technique is not only appropriate in terms of the research context and questions but also a perfect match from the researcher's perspective.

Preparation for Entering the Field. Holstein and Gubrium recommend that interviewers be familiar with the material, cultural, and interpretive circumstances to which respondents might orient their comments and with the particular vocabulary that may be employed to convey the respondent's experience. Previous DS consumption research has also emphasized the need for 'immersion' and 'progressive contextualization' in the research environment in order to achieve an empathic sense of informants' experience in the context of everyday life and to establish trust. In Thompson and Troester's (2002) study of natural health alternatives consumption, they participated in several natural health seminars and adult education courses, engaged in natural health

practices, and had many informal conversations with a variety of natural health practitioners.

Inspired by Holstein and Gubrium, and implicated by Thompson and Troester's (2002) work, the researcher actively sought to prepare herself to enter the field. For example, she attended the Sixth Biennial Championing Public Health Nutrition Conference in Ottawa, on October 1-2, 2018. This conference is held by the Centre for Health Science and Law, aiming to promote public health and develop health-related public policy. During the conference, the researcher had the opportunity to talk with dietitians, nutritionists, and researchers from nutritional sciences, and was able to build a good understanding of nutrition, diets, and DS. In addition, the researcher engaged in DS consumption, and extensively read DS-related media (e.g., magazines, websites, and social media articles) to acquire fluency in the various DS consumption vernaculars and to better understand the dominant cultural meanings, ideals, and tensions represented in these discourses.

4.4.2 Data Analysis Method – Grounded Theory

In this section, the data analysis method is introduced. There are a number of references available to assist researchers with the analysis of qualitative data (e.g., Spiggle, 1994). This research refers specifically to, and relies heavily on, Charmaz's (2003) account of the grounded theory approach during data analysis and interpretation phases. This section starts with an introduction of grounded theory analysis (what it is) and concludes by justifying its use in this research (why it was used in this research).

Building on Glaser and Strauss (1967), Charmaz (2003) addresses how the grounded theory method shapes qualitative interviewing in relation to personal narratives and guides analysis of interview data. Essentially, grounded theory methods consist of flexible strategies for focusing and expediting qualitative data collection and analysis; they provide a set of inductive steps that lead the researcher from studying concrete realities to rendering a conceptual understanding of them (Charmaz, 2003, p. 311). Grounded theory methods have taken two different forms since their creation: the constructivist approach (Charmaz, 2003), which places a priority on the phenomena of research and treats both data and analysis as created from the shared experiences of researcher and informants, and the objectivist approach (Glaser, 1978), which emphasizes the viewing of data as real and assumes that data represent objective facts about a knowable world.

Our research applies the constructivist approach of grounded theory method and argues that researchers “*define* what is happening in the data” rather than “*discover* what is happening in the data” (Charmaz, 2003, p. 320). Grounded theory methods fit our research questions particularly well. As stated earlier, our research emphasizes the investigation of consumption practice and process; grounded theory methods require researchers to define and explore social and psychological processes (Charmaz, 2003) and foster studying action and processes (Charmaz, 2006).

More specifically, by applying grounded theory methods, researchers collect data and analyze it simultaneously from the initial phases of research. In the initial phase, researchers cannot know exactly what the most significant social and psychological processes are in particular settings, so they start with areas of interest and form

preliminary interviewing questions. In addition to picking up and pursuing categories and themes in interviews, they look for ideas by studying data and then returning to the field to gather focused data to answer analytic questions and to fill conceptual gaps.

Our research is about identifying different types of benefits pursued by committed DS users and uncovering their varying practices, for which we cannot develop comprehensive hypotheses prior to data collection and analysis. But we indeed have a few “hunches” (McAdams, 2011), based on past reading and experience, about the categories of benefits (e.g., experience, knowledge, self-expression). In grounded theory analysis, we could use these “hunches” as sensitizing concepts to firstly deconstruct and code the data. While starting from these areas of interest, grounded theory method gives the researcher flexibility to still focus on the interview texts; that is, the themes derived by the researcher are always grounded in the data of the texts themselves (Strauss and Corbin, 1990). As the researcher moves through the text, she would repeatedly note significant excerpts, keep a running tally of tentative inferences, gradually develop a set of integrative themes, and, most importantly, go back to the field and look for ample support for the themes.

In addition, active interviewing techniques fit the grounded theory methods particularly well. A constructivist approach of grounded theory methods takes implicit meanings, experiential views, and grounded theory analyses as constructions of reality; it emphasizes the study of how action and meaning are constructed. According to Charmaz (2003), interview data reflect the researcher’s and the research participants’ mutual constructions, and the researcher might be affected by participants’ worlds. Consistent with this approach, active interviewing holds that the interview is an interactive meaning-

making process in which both the interviewer and interviewee are necessarily and unavoidably active (Holstein & Gubrium, 1995). To summarize, the grounded theory analysis method fits our research questions and works well with active interviewing.

4.5 Research Procedures

This section illustrates the specific research procedures, including three aspects: sample selection and recruitment; interview procedures, guide and techniques; analysis steps, and coding techniques.

4.5.1 Sample Selection and Recruitment

Sample selection: Mass elite females in China. This thesis selects an emergent global consumer segment called “mass elite” (Sassen, 2006), which comprises upper-middle-class individuals with at least a college degree, professional jobs and discretionary purchasing power (Ustuner & Holt, 2010; Ustuner & Thompson, 2012), as the segment from which our sample will be drawn. They have a degree of affluence that enables wide-ranging purchases such as household appliances and televisions, personal computers, and other consumer electronics, among other perceived perquisites of an affluent lifestyle (Myers & Kent, 2003). Furthermore, this research focuses on female mass elites’ DS consumption and health-related practices. Next, we justify the decision of this sample – the decision is implicated by our theoretical foundations; it suits our research purposes.

First, we chose this research sample based on theoretical foundations. We apply Bourdieu’s theory of practice to guide our research so that we emphasize the impact of a

macro-level social structure (e.g., social class, gender, age) on individual behavior. One of the key variables in the macro-level social structure is social class. Specifically, individuals living in different social classes possess different levels of cultural capital that influence their tastes for appreciating the value of products, and different levels of economic/time capital that influence their capabilities for purchasing the products. Hence, this thesis project acknowledges the impact of social class on individual practice by addressing a particular social class – the mass elites – and discussing DS consumption behaviors within this group.

Bourdieu's theory has been applied to examine the consumption behaviors of mass elites in less industrialized countries (Ustuner & Holt, 2010; Ustuner & Thompson, 2012). Our position is consistent with this research stream, reflecting a shift in consumption research focus from objects to practices and from high or elite culture to mass culture. It is our goal to reveal particular horizons of meaning associated with this consumption context, to increase our knowledge of the variety of ways in which people consume and to comprehensively understand why they consume in those particular ways.

Another key variable in the macro-level social structure is gender. We only focus on adult women's DS consumption in this study. A gender perspective has been proposed by previous consumption research (Ustuner & Holt, 2010; Ustuner & Thompson, 2012) as well as health promotion research. Grounded on Giddens's (1990, 1991) theoretical discussion of reflexivity and agency in late modernity, Balbo (2007) suggests a gender perspective in health promotion research as adult women's roles and responsibilities in daily healthy arrangements require the increased agency, reflexivity and lifelong learning (Balbo, 2007, p. 130).

According to Balbo (2007), it is appropriate and insightful to focus on adult women when addressing issues of health and wellness as it is women who take primary responsibility for their own health and their family members' health, such as child-rearing and caring for those who are ill or aging. In addition, previous research on DS consumption (e.g., Blanck et al., 2007; Gunther et al., 2004; Radimer et al., 2004) points toward gender-based differences in DS consumption practice and experience. It is legitimate to focus on adult women in this thesis research in an effort to control for the anticipated effect of gender variations in the meaning and importance of DS consumption and health-related practices.

Second, we chose this research sample to suit our research purpose. We aim to investigate *the field of DS consumption in China*, which has been conceptualized as a social space held together and defined by 1) relations and networks among individuals who participate in DS consumption and 2) their shared interest in health promotion, and we aim to uncover the dynamic DS consumption practices and divergent symbolic meanings underlying those practices. To achieve our purpose, we need to examine a primary social group that drives the purchases and consumption of DS in China to collect a rich and meaningful set of data.

Our review of DS consumption research shows that individuals with higher education, higher social class, and higher income are major groups who consume DS products (e.g., Bailey et al., 2010; Gunther et al., 2004; Kofoed et al., 2015). The mass elite segment in China consists of young adults and middle youth, widely known as 'Post-80s' (born between 1980 and 1990) and 'Post-90s' (born between 1990 and 2000) generations; in 2017, these cohorts combined accounted for 39% of the total population,

who are in their peak earning years, are generally inclined to spend rather than save, and are driving the country's considerable and growing consumption rate and the increasing demand for a wide range of modern goods and services (Euromonitor, 2018a). They are also characterized as confident, optimistic, and more inclined toward spending on themselves than their older counterparts, resulting in increased demand for such items as cosmetics and personal care products (Euromonitor, 2018a). Hence, mass elites in China have the financial wherewithal to participate in the DS consumption, and they have the capability of appreciating the value of DS products. That means mass elites are a suitable research sample to be addressed in this research.

In addition, the sample selection facilitates our leverage on the research opportunities of examining culture and social media's influence on DS consumption. Our literature review indicates that DS consumers are becoming the new "connected consumers" or "m-consumers (mobile-consumers)" with the increasingly enhanced need for online information search and support (Ordonez, 2017). In China, the mass elite consumers that consist of both Post-80s and Post 90s generations are the main social media users who are driving the online shopping trend – currently, three out of four online shoppers are young and urban and living in top-tier cities (Euromonitor, 2018c). Thus, considering that the mass elite segment in China is the major social group that uses social media and shares a common interest in health promotion and consumption, our sampling plan enables us to approach the primary social group who consume DS products in the context of social commerce in China.

To summarize, based on our research objectives and implicated by our theoretical foundations, we decided to target *mass elite females in China* as our research sample. In

particular, we targeted women in the young adult (i.e., Post-80s) and middle youth (i.e., Post-90s) groups. They typically have a post-secondary education and join the workforce; they belong to the upper-middle-class living in urban areas; they are often characterized as confident, optimistic and more inclined toward spending on themselves than their older counterparts, resulting in increased demand for such items as cosmetics and personal care products; they are tech-savvy and playing a key role in driving growth in online shopping, particularly shopping via social network platforms (Euromonitor, 2018a). In the next section, we describe our sample recruitment method.

Sample recruitment. In survey research, the respondent selection is principally addressed in terms of representativeness; that is, how well the characteristics of those sampled represent the characteristics of the population of interest. However, in active interviewing research, the issue of who should be selected to participate in interviews appears to precede the question of sample representativeness, going to the very heart of what we mean by *people*, as opposed to populations (Holstein & Gubrium, 1995, p. 25).

The word *people* refers to a collective term of reference for all potentially appropriate respondents; it extends the interpretive privilege to a wide range of voices, assigning narrative competence to all those placed in the category, recognizing their common worth as human beings (Holstein & Gubrium, 1995, p. 25). Hence, selecting *people*, as opposed to representatives of populations, suggests that individuals are equally worthy despite individual differences, have worthwhile stories to tell, and, therefore, enables representations of diverse and complex experiences.

In this thesis project, we refer to mass elite females in China as *people* and hope to incite their thick description of experience and collaboratively make sense of their DS

consumption behaviors. To be recruited in this study, participants should be females who come from the mass elite segment in China. Therefore, participants should satisfy the following two criteria: they are females, living in urban cities, belonging to Post-80s (born between 1980 and 1989) or Post-90s (born between 1990 and 1999) generations in China; they have at least a college degree and hold a professional job (which indicates they have a high level of cultural capital and economic capital for appreciating and purchasing modern goods and services). Besides, participants who are recruited in this study should be committed DS users.

In Chapter 2, we have defined “committed DS users” in the following way: they have invested money in purchasing DS products (i.e., the instrumental component); they have consumed DS consistently over a long term (i.e., the temporal component); they have formed an enduring intention to develop a stable long-term DS consumption (i.e., the attitudinal component). Accordingly, we require our participants to satisfy the following three criteria: they have purchased DS products before; they have engaged in DS consumption for more than one year; they are using DS products that are commonly distributed in the marketplace such as vitamins and minerals, collagen and grape seeds for long-term health maintenance/promotion (they do not experience major illness issues and use DS for illness treatment).

Lastly, in order to accurately target individuals who consume DS in the context of social commerce, we require participants to meet the last requirement: they have purchased DS via social commerce channels, or they have consumed, created, or shared DS related information in social commerce channels.

To summarize, to be recruited in this study, participants should meet the following six criteria:

- 1) They are females, living in urban cities, belonging to Post-80s (born between 1980 and 1989) or Post-90s (born between 1990 and 1999) generations in China.
- 2) They have at least a college degree and hold a professional job (which indicates they have a high level of cultural capital and economic capital for appreciating and purchasing modern goods and services).
- 3) They have purchased DS products before.
- 4) They have engaged in DS consumption for more than one year.
- 5) They are using DS products that are commonly distributed in the marketplace, such as vitamins and minerals, collagen, and grape seeds for long-term health maintenance/promotion (they do not experience major illness issues and use DS for illness treatment).
- 6) They have purchased DS via social commerce channels, or they have consumed/created/shared DS related information in social commerce channels.

While this recruiting strategy guarantees the researcher to interact with the right people – the mass elite females who are committed to DS consumption in the context of social commerce in China – for meaningful interpretation, it also keeps our research focus sharp and research scope realistic (by focusing on a specific group of people and restricting their used DS to be common and ordinary ones in the marketplace for health promotion and maintenance). In this specific research context, we aim to collect a rich

and diverse set of data that produces a thick description of the consumer experience. To achieve that purpose, we recruit individuals who vary according to other key socio-cultural indicators, such as length of DS use (years), marital status, location of residence, and occupation.

In regard to the sampling process, this research adopted a purposive sampling strategy (Spiggle, 1994), which is consistent with interview methods employed in health consumption studies (Mason & Scammon, 1999; Thompson & Troester, 2002; Ustuner & Holt, 2010). And specifically, we used personal referrals to recruit participants, which is consistent with interview methods employed in studies conducted in non-Western contexts (e.g., Thompson & Tambyah, 1999). Throughout the whole research process, the researcher (who comes from the targeted consumer segment and who conducted the interviews) recruited 14 participants through direct social ties and another 8 participants based on a snowballing strategy (referred by the direct contacts). In total, 22 participants were recruited and interviewed.

Importantly, note that not all 22 participants were recruited or interviewed at the same time; the number of 22 was not predetermined. In fact, data collection and data analysis in this research project were iterative and ongoing (Spiggle, 1994) – an emergent design was adopted, where participants were recruited until saturation in the emerging data, regarding breadth and richness of experiences, and redundancy in our interpretive categories, were achieved. Details of the iterative and dynamic interview procedures are illustrated in the next section. Table 4.1 below provides basic demographic information about participants. All names are pseudonyms.

Table 4.1 Demographic Profiles of Interview Participants

Name (Age)	Education	Marital Status	Child (Age)	Occupation	City	Years of Use	DS Products Consumed
Zixuan (40)	Bachelor	Married	1 child (10)	Government administrator	Beijing	10	Fish oil; anti-aging DS
Mengqi (30)	Master	Married	2 children (1; 4)	University Administrator	Beijing	5	Prenatal DS; child's DS; parents' DS (calcium, coenzyme Q10)
Yunhan (30)	Master	Married	No child	College instructor	Guiyang	7	Multivitamin; prenatal DS; anti-aging DS; weight-loss DS; parents' DS (calcium, fish oil, etc.)
Yiran (39)	PhD	Divorced	1 child (12)	Professor	Hangzhou	14	Multivitamin, calcium, fish oil, VC; collagen; protein powder; child's DS; parents' DS
Ruoxi (31)	Master	Married	2 children (3; 4)	Radiologist	Guiyang	9	VC, calcium; wheatgrass extract; anti-aging DS; parents' DS
Yinuo (30)	Bachelor	Married	1 child (1)	Project manager (IT)	Beijing	5	Prenatal DS; multivitamin; child's VD; parents' DS; husband's multivitamin
Shiqi (40)	Master	Married	2 children (4; 10)	College instructor	Beijing	3	Vitamins, minerals, probiotics, fish oil, etc.; anti-aging DS; child's DS; husband's DS (e.g., prostate protection)
Yuxin (31)	Master	Married	1 child (1)	Project manager (Insurance)	Guiyang	5	Prenatal DS; child's VD; parents' DS
Meimei (30)	Master	Married	1 child (1)	Securities analyst	Beijing	5	Multivitamin; prenatal DS; child's VD; parents' DS
Chun (30)	Master	Married	1 child (1)	Hospital administrator	Guiyang	4	Coenzyme Q10, selenium; anti-aging DS; child's DS

Yuehan g (30)	Bachelor	Married	1 child (4)	Securities analyst	Guiyang	5	Prenatal DS; child's DS
Hong (38)	Master	Not married	No child	College instructor	Beijing	15	Multivitamin, vitamins; calcium; anti- aging
Haoran (29)	Master	Not married	No child	University administrator	Zhuhai	7	Weight-loss DS
Junjie (27)	PhD	Not married	No child	College instructor	Beijing	5	Blueberry, cranberry, evening primrose; anti-aging DS; parents' DS
Yuanyu an (31)	Master	Married	No child	Bank clerk	Hangzho u	7	Calcium, VC, blueberry; anti- aging DS
Panpan (29)	Bachelor	Not married	No child	Project manager (Media)	Guangzh ou	4	Multivitamin, vitamins; anti- aging DS
Qianxi (27)	Bachelor	Married	1 child (1.5)	Company administrator	Hefei	3.5	Prenatal DS; child's DS; anti- aging DS
Luying (31)	Bachelor	Married	2 children (1; 3)	Product manager (IT)	Beijing	3.5	Prenatal DS; child's DS; parents' DS
Fangxu e (31)	Master	Married	1 child (4)	Bank clerk	Nanjing	4	Multivitamin, vitamins; anti- aging DS; child's DS; parents' DS
Xiaoxi (31)	Master	Married	Pregnant	Investment risk analyst	Nanjing	7	vitamins; prenatal DS; weight-loss DS
Xiangy i (33)	Bachelor	Married	1 child (2)	Company administrator	Guiyang	5	Calcium; anti- aging DS; wheatgrass extract; child's VD; parents' DS
Wushu ang (30)	Bachelor	Not married	No child	Lawyer	Guiyang	7	Multivitamin, calcium; anti- aging DS

4.5.2 Interview Procedures, Guide, and Techniques

In this section, the interviewing process is introduced, i.e., interview procedures, interview guides and questions, and interviewing techniques. It is important to note that, as data collection and analysis in this research project should be iterative and ongoing, it is impossible to exclusively separate interview and analysis. Hence, in this section, the whole research process is described, including all interviewing and coding procedures

(see Figure 4.3). Specific details of data analysis (i.e., grounded theory approach of analysis steps and coding techniques), we will introduce and discuss in the next section.

Interview procedures. Three stages were included in this research process. In stage 1, the first 12 informants were recruited. Eight informants were personal contacts of the researcher. They were invited and recruited directly by the researcher. The other 4 informants were referred by direct contacts and then invited and recruited by the researcher. As the first step in stage 1 (i.e., Stage 1-1), all 12 informants were interviewed. All interviews were conducted online through WeChat audio call (WeChat is the primary multi-purpose messaging, social media, and mobile payment application in China, developed by Tencent Holdings Limited). We chose to do online audio call rather than video call in order to create a casual friend-to-friend chat environment to facilitate a comfortable and relaxed conversation.

All interviews began with the presentation of the approved ‘letter of invitation’ and ‘consent form’ to informants. Once informed consent was obtained, the interview proceeded in a relaxed manner, as a sharing conversation between DS users. All interviews were conducted in Chinese and audio recorded, and ranged from 40 to 60 minutes in length. Each interview started with general questions about the informant’s personal background, an overview of current life status, and an overview of her DS consumption. Then, each interview segued to queries about their specific DS use practices and experiences, health-related understandings, as well as other consumption and life goals. In keeping with the conventions of active interviewing, informants actively participate in the discussion, with the researcher asking follow-up questions and probing for more descriptive details.

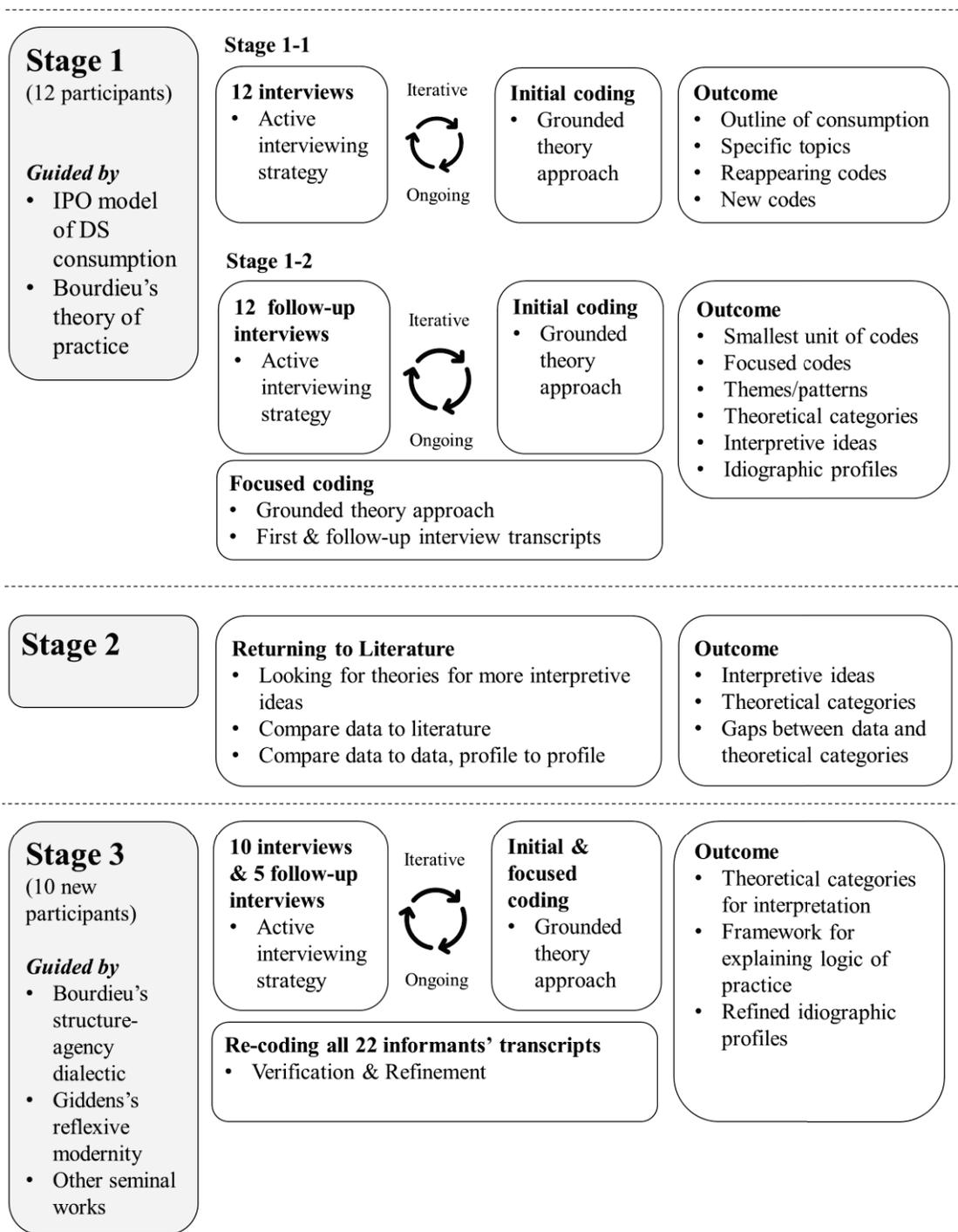


Figure 4.3 Interview Procedures

While the interviews were not structured with predetermined, fixed questions, the researcher did prepare a list of questions and general categories/themes as a guide (based

on the IPO model of DS consumption that was developed in Chapter 2), and in most cases, these topics emerged spontaneously through the course of the conversation. The design and use of an interview guide and questions are demonstrated and discussed in the next section. This section concentrates on the presentation of the whole interviewing process.

Immediately after each interview, the researcher transcribed audio data to a textual transcript in Chinese. Initial coding was conducted immediately after each interview based on the original Chinese transcript, in order to keep the accurate, authentic, and unbiased meanings embedded in Chinese texts and language. The initial coding was guided by the IPO model of DS consumption and Bourdieu's theory of practice (at an early stage of analysis, we only referred to Bourdieu's theory of practice for sensitizing concepts). But the initial coding kept a bottom-up analysis approach, as suggested by the grounded theory method, to be open to new analytic ideas as well as to test/enrich the proposed IPO model of DS consumption.

Through the first round of interviewing and coding, the researcher became familiar with the general outline of each individual's DS consumption and became aware of more specific topics/questions which caught attention. Moreover, as interviews unfolded, the researcher started to see reappearing initial codes, which indicated common topics across cases, but also new codes emerged in later interviews, which led to further investigations of the earlier interviews.

As a result, the researcher moved on to Stage 1-2 – conducting follow-up interviews with all of the 12 informants – to probe into the specific topics/questions identified in Stage 1-1, aiming at increasing the depth and richness of the dataset and

making comparisons across cases for trends and contrasts. The follow-up interviews were conducted within a three-month period following the first round of interviews; each follow-up interview lasted 60 to 90 minutes. After each interview, audio data was transcribed into texts in Chinese.

Another round of coding was conducted for each interview, also based on the original Chinese transcript. Guided by the IPO model of DS consumption and Bourdieu's theory of practice, various items were identified as inputs, processes, and outputs and extracted as the smallest unit of code. That is, each interview transcript was analyzed word by word, line by line; each word/sentence/line/section (when appropriate) was assigned with a code. The purpose of producing codes as specific as possible was to prepare and facilitate the later categorization and theme creation as analysis moved towards interpretation. When initial coding was done, focused coding was conducted based on the interview transcript that integrated the first and second round of interviews.

The result of focused coding was an identification of the focused codes (i.e., reappearing initial codes) across cases, and a categorization of these focused codes which could be further developed into theoretical categories and themes and used to build individual consumption profiles. At the end of this stage, a consumption profile was built for each informant that described their practices inside and outside of the DS field (e.g., health-related and consumption-related practices), and the benefits they have achieved from DS consumption (e.g., functional, social, cultural).

While building idiographic profiles, we moved across cases to make comparisons in terms of the benefits they attained from DS consumptions and corresponding practices. Along the path, commonalities and differences in DS consumption were gradually

revealed; some of them could be explained by Bourdieu's theory of practice and could be developed to theoretical categories for interpretation, but some of them could not.

Consequently, we went back to the literature (i.e., Stage 2), looking for more suitable theories to help interpret and explain the identified themes and patterns; and then, by integrating the new theoretical categorizations, we went back to the field to conduct new interviews and collect new data (i.e., Stage 3), for the purpose of testing and saturating the interpretive ideas found in Stage 2, as well as filling in the gaps between old data collected in Stage 1 and new categories found in Stage 2.

In Stage 2, we went back to the literature, learning about new theories, frameworks, and models, and referring to more seminal works in DS consumption, health consumption, and promotion research. While doing the readings, we compared our data with previous research, looking for suitable theories that could help us understand and interpret the phenomenon well. As a result, we extended our theoretical foundations to include Bourdieu's theory of practice, Bourdieu's theory of structure-agency dialectic, and Giddens's theory of structuration and late modernity.

Supplemented by foundational works in health consumption and promotion research (e.g., Abel's health-related lifestyles and Thompson's the socialized body), we were able to build a more comprehensive and deeper understanding of 'what happens' in our data, e.g., by connecting DS consumption to the structure-agency interplay, lifestyle choices, self-identity development, and social distinction. Consequently, in the path of seeking explanatory theories, new sensitizing concepts were generated; gaps between existing data and new interpretive ideas were identified. A new round of data collection and analysis was required.

In Stage 3, ten new informants were recruited. Six informants were personal contacts of the researcher and invited and recruited directly by the researcher. The other 4 informants were referred by direct contacts and then invited and recruited by the researcher. The first round of interviews was conducted with all 10 informants and ranged from 60 to 90 minutes in length. A follow-up interview was conducted (when necessary) with 5 of the 10 informants within a one-month period following the first interview, to increase the depth and thickness of the data; interviews ranged from 60 to 90 minutes in length. Similar to Stage 1 interviews, we first asked general questions regarding informants' personal background, life status, and DS consumption, and then moved to queries about their specific DS use practices and experiences, health-related understandings, as well as other consumption and life goals. Then, we focused on questions regarding theoretical categories and new interpretive ideas that emerged at Stage 1 and 2.

The purpose of this stage was to verify the proposed interpretive ideas and saturate theoretical categories by supplementing sufficient evidence. That means the number of 10 informants was not predetermined. Rather, we stopped at 10 naturally because saturation was achieved, i.e., we did not get new insights from new interviews. By coding the 10 informants' data (through initial coding and focused coding), we justified the applicability of our theoretical categories, saturated the categories with sufficient data, and produced a theoretical framework for explaining the logic of practice in the field of DS consumption in China.

As a final step, we applied the theoretical framework and corresponding categories to re-code all 22 informants' transcripts for verification and refinement. The

result of this stage of interviewing and coding was a systematic framework that consists of refined theoretical categories explaining the logic of practice in the field (i.e., benefits achieved by different types of DS users and practices they have done for achieving those benefits). Moreover, idiographic profiles were refined and supplemented with details.

Interview guide and questions. According to Holstein & Gubrium, active interviewing is not confined to asking questions and recording answers. Indeed, this approach to interviewing requires the interviewer to encourage the participants to talk, to activate their memories, feelings, and thinking, and to collaboratively and interactively construct the stock of knowledge. However, the flexible and unrestricted conversation-like interview does not mean that it abandons a preliminary interview guide. Instead, Holstein and Gubrium (1995) emphasize that the interviewer not only needs to “keep the conversation going”, but also provides the respondent with a measure of narrative guidance that maintains the necessary research focus.

Hence, in order to guide the interview to center on our research purposes and questions, we prepared a list of general questions and topics regarding DS consumption in order to invoke discrete stories that may be analyzed and interpreted later, in relation to our guiding model and theory. Despite preparing guiding questions, we underscore that: 1) not all questions were asked in each interview; 2) new questions emerged as we moved across interviews. That is, we highlighted the nature of active interviewing by assigning sufficient flexibility to schedules and agendas of active interviewing so that they could be substantively built up and altered in the course of the interview. The particular questions and discussion items were adjusted, added, or combined as the interview unfolded, depending on the structure and horizons of meaning being conveyed.

Table 4.2 Interview Guide and Questions

Stage	Guide & Questions
Stage 1-1	<p><i>Guide</i></p> <ul style="list-style-type: none"> • Each interview started with general questions about the informant’s personal background, current life status, and an overview of her DS consumption. • Each interview segued to queries about her specific DS consumption experience and use practices, health-related understandings, as well as other consumptions and life goals. • A list of general topics/keywords was prepared as a guide (based on the IPO model of DS consumption that was developed in Chapter 2). In most cases, these topics emerged spontaneously through the course of the conversation. • Guided by active interviewing strategy, participants actively engage in the discussion, with the researcher asking follow-up questions and probing for more descriptive details. <p><i>Common questions used to start the interviews</i></p> <ul style="list-style-type: none"> • Could you please give me an introduction of your demographic background? Like, your age, marital status, how many children you have, their age, your profession, and your job, etc. • Can you give me an introduction of your DS consumption? When did you start to buy and use DS, where to buy, how do you search product information, and what made you consider buying DS, and what did you hope to achieve with DS consumption? <p><i>Topics to be covered – flexibly emergent during interviews</i></p> <ul style="list-style-type: none"> • Inputs in DS consumption: Perceptions, beliefs, time and money, emotion, habit, control and capability, referent others, media, social media, norms, culture, price, channels, product, promotion, advertising, e-WOM, brand, etc. • Process and practice: Time/length of use, changes during the path, information search, purchase decision making, purchase, use, disposal, re-purchase, performance evaluation, recommendation to others, etc. • Outputs in DS consumption: Benefits, health, social, cultural, knowledge, lifestyle, identity, family/group/community, etc.
Stage 1-2	<p><i>Guide</i></p> <ul style="list-style-type: none"> • Follow-up interviews were conducted to probe into the specific topics/questions identified in Stage 1-1. • There was a specific list of follow-up questions for each participant, based on the first round of interview in Stage 1-1. • Some questions were unique for each participant, aiming at increasing the depth and richness of data. Some common questions were followed up with each participant, aiming at facilitating the comparisons across cases for trends and contrasts.
Stage 3	<p><i>Guide</i></p> <ul style="list-style-type: none"> • Consistent with Stage 1, each interview started with general questions about the informant’s personal background, current life status, and an overview of her DS consumption. Each interview segued to queries about her specific DS consumption experience and use practices, health-related understandings, as well as other consumptions and life goals. A list of general topics/keywords was prepared as a guide (based on the IPO model of DS consumption that was developed in Chapter 2). In most cases, these topics emerged spontaneously through the course of the conversation. • Different from Stage 1, we asked questions regarding theoretical categories and interpretive ideas emerged at Stage 1 and 2, aiming at verifying proposed interpretive ideas and saturating theoretical categories by supplementing sufficient evidences. <p><i>Common questions used to start the interviews</i></p>

-
- Could you please give me an introduction of your demographic background? Like, your age, marital status, how many children you have, their age, your profession, and your job, etc.
 - Can you give me an introduction of your DS consumption? When did you start to buy and use DS, where to buy, how do you search product information, and what made you consider buying DS, and what did you hope to achieve with DS consumption?

Topics to be covered – flexibly emergent during interviews

- Inputs in DS consumption: Perceptions, beliefs, time and money, emotion, habit, control and capability, referent others, media, social media, norms, culture, price, channels, product, promotion, advertising, e-WOM, brand, etc.
- Process and practice: Time/length of use, changes during the path, information search, purchase decision making, purchase, use, disposal, re-purchase, performance evaluation, recommendation to others, etc.
- Outputs in DS consumption: Benefits, health, social, cultural, knowledge, lifestyle, identity, family/group/community, etc.

Topics to be covered specifically in this stage – flexibly emergent during interviews

- Tensions, conflicts, time as a capital, childcare, adult women's roles/responsibilities, body as a capital, self-care, anti-aging, beauty, late modernity, technology, science, lifelong learning, western medicine vs. traditional Chinese medicine, etc.
-

Interviewing techniques. In the last section, we emphasized one important technique in an active interviewing strategy – preparing a list of questions and topics/keywords as a guide but assigning sufficient flexibility to interviewing. In addition to that, our research emphasized that meaningful configurations should emerge through patterned narrative linkages. The patterns are what Holstein and Gubrium called “horizons of meaning”; horizons provide contexts that suggest other linkages. One of the primary objectives of active interviewing is to promote the visibility of linkages and horizons. To achieve the goal, the active interviewer needs to be vigilant to the horizons emerging in a participant's narration, and manipulate the emergent horizons by suggesting subjective relevancies, orientations, and connections, to interpretively challenge the participant to make sense of experience in relation to various subjective possibilities.

Offering diverse horizons and possibilities for narrative linkage enables a more transparent and visible meaning-making process. More specifically, in order to activate the diverse horizons and encourage the participant to extend to linkages, the active

interviewer might need to facilitate positional shifts to activate different aspects of his or her stock of knowledge. Participants in our study, for example, might be positioned as DS consumers as well as knowledge producers or health promoters on social media; in different positions, they might produce different interpretations of the same experience.

Moreover, even the researcher's position is encouraged to shift during the interview (e.g., as the audience, as the professional researcher, or as another DS user) to draw on mutual experiences, establish rapport and convey that the researcher is sensitive to certain horizons of meanings, and accomplish "indigenous coding" (Holstein & Gubrium, 1995, p. 56) in which both interviewer and participant continuously engage, interact, and construct the meanings.

Lastly, we want to highlight that the interview process was ongoing and iterative. Multiple sequential interviews came to the research as the interviews and data analysis unfolded. This was determined by the exploratory nature of our research and required by grounded theory analysis –to gain a dynamic perspective on the phenomenon and to deepen our understanding of emerging themes. In particular, in Stage 1 of the interview process, a second interview was conducted with all 12 informants within a three-month period following the first interview; in Stage 3, a second interview was conducted with five informants within a one-month period following the first interview.

In addition, the logic of the grounded theory method calls for the emerging analysis to direct data gathering, in a self-correcting, analytic, expanding process. Thus, we had some general and common questions to ask at the beginning of each interview but followed with specific questions in each interview based on the information we have got from the first a few questions. The same, new ideas during/after the first few interviews

were included in subsequent interviews, and, in turn, new ideas created in later interviews were followed up with the earlier informants.

4.5.3 Analysis Steps and Coding Techniques

In the last section, we have described the interviewing and analysis procedures together as they cannot be separated. In this section, we elaborate on the specific steps and techniques that were used in our data analysis. As stated earlier, this thesis followed the constructivist approach to grounded theory analysis (Charmaz, 2003). In particular, we apply the rules in grounded theory analysis methods (Charmaz, 2003, 2006, 2008) to address the textual analysis of DS consumption stories. The grounded theory approach provides researchers with specific guidelines for analyzing data.

We start with coding, which moves us from description toward conceptualization of that description. This thesis research focused on the two phases in grounded theory coding: initial coding and focused coding (Charmaz, 2006, p. 42), which led to developing theoretical categories (Charmaz, 2006, p. 51). In the initial coding stage, fragments of data, i.e., words, lines, segments, and incidents, were analyzed closely for their analytic import. The initial coding was based on the set of “sensitizing concepts” (Blumer, 1969) that accumulated from the prism of assumptions and theoretical perspectives. In our case, the sensitizing concepts came from the IPO model of DS consumption developed from our comprehensive literature review of DS consumption (e.g., various factors in input, process, and output in the DS consumption) and theoretical foundations (e.g., Bourdieu’s theory of practice and theory of structure-agency dialectic, and Giddens’s theory of structuration and late modernity).

While conducting the initial coding, we followed a constructivist approach to grounded theory, to be reflexive about the preconceptions and assumptions – we kept using sensitizing concepts if they sparked ideas for coding and refined the analysis, but we dropped them if they did not. More importantly, during the whole coding process, we always did analysis bottom-up and always came back to the typical starting question in grounded theory analysis, “What is happening in the data?” (Glaser, 1978) to find new ideas.

Hence, in the initial coding stage, the researcher read the transcribed interview texts line by line, word by word, with an open and discerning mind, searching for ideas that struck the ear as especially salient, recurrent, surprising, or potentially revealing of central dynamics and issues (Alexander, 1988). We produced codes as specific as possible, such as “experience a good taste like candy” and “experience product exploration”, to build a large and comprehensive pool of codes to prepare for the later categorization and theme creation as analysis moved forward towards interpretation.

When reaching the focused coding stage, the researcher used frequently reappearing initial codes in sorting and synthesizing large amounts of data. The most useful initial codes were selected and tested against extensive data. Focused codes are more abstract, general, and, simultaneously, analytically incisive than many of the initial codes that they subsume (Charmaz, 1983; Glaser, 1978), such as “experience-related output”. Through focused coding, the researcher moved across interviews and compared individuals’ experiences, actions, and interpretations. Then, implicated by theory, theoretical categories were developed from focused codes, such as “hedonic consumption”; the entire analytic framework was constructed by developing and

integrating the categories. To refine and develop theoretical categories, we went back to the field, conducting follow-up interviews, or recruiting new informants to gain richer insights (i.e., theoretical sampling). Interviewing didn't stop until the saturation of data and redundancy of interpretation ideas were achieved.

It is important to note that two procedures were constantly conducted at each stage of coding: 1) making comparisons at each level of analytic work; 2) returning to the literature to locate sensitizing concepts. First, the grounded theory approach requires researchers to make comparisons at each level of analysis. The comparison enables us to compare data from different people about similar processes, data from the same individuals at different times during the course or trajectory of the studied experience (Charmaz, 1983). In our research, within-case comparisons and reviews produced an idiographic profile for each individual and a comprehensive understanding of her reflexively constructed identity expressions. Across-case comparisons led to the identification of similarities and differences in DS use patterns, the commonality regarding symbolic meanings underlying various use patterns, and the divergent representations in different individuals' lives.

Second, the grounded theory approach requires the researcher to remain flexible in terms of the use of sensitizing concepts. We went back and forth between data and literature and kept open to more suitable theories and frameworks for interpreting and explaining what the data meant. Specifically, at the early stage of data analysis, we referred to Bourdieu's theory of practice for implications. Further, we focused more on the capital exchange and accumulation aspects than structure-agency interplay or the influence of habitus on individual action. As interviews unfolded, we realized that we

gained more insights by referring to Bourdieu's theorization of habitus and structure-agency dialectic. Moreover, we went back to the literature and found that our data resonated with Giddens's theory of late modernity. Naturally, we got both Giddens's and Bourdieu's theories involved and found the best way – integrating their theories – to help interpret 'what happens' and explain 'how it happens' in our data.

By highlighting these two continuing procedures, we emphasize that our data analysis was an ongoing and iterative process. According to Spiggle (1994), the process of iteration means the data collection and analysis move in a way that preceding operations shape subsequent ones. The iteration in our research occurred within the analysis of each individual interview as the earlier sections might be better understood in the context of the entire interview; the iteration occurred when the researcher moved from the analysis of initial interviews to later interviews as new leads and concepts emerged from the later interviews which required the returning to the initial interviews to solicit more in-depth insights and sufficient support; the iteration occurred when we finished coding all of the individual interviews and developed our theoretical categories as the researcher needed to apply the categories as a guide for organizing the idiographic profile in each individual interview. The idiographic profile was used to gain a better, more detailed sense of the shared experience across cases, which, in turn, provided a more contextualized understanding of the individual experience.

4.6 Conclusion

This chapter begins with an introduction of our research approach – an interpretive and exploratory research approach, followed by a brief discussion of the

research context – DS social commerce in China. Then, our research methods are introduced. In particular, this thesis project applied an active interviewing strategy for data collection. An introduction of active interviewing and reasons for choosing this method are presented. The review of active interviewing is followed by a discussion of the data analysis method – grounded theory analysis. An introduction of grounded theory analysis and reasons for choosing this method is presented.

The chapter proceeds with a detailed elaboration and discussion of the research design, including sample selection and recruitment, interview procedures, guide, and techniques, and data analysis steps and coding techniques. This detailed elaboration is included in an effort to make the data collection and analysis process more transparent and explicit. Implicated by Spiggle (1994, p. 497), the provision of greater detail in the discussion of analytical procedures would allow for the sharing of “useful, duplicatable techniques and procedures”, the opposition to the view that treats qualitative methods as “loose, nonrigorous, self-confirming and unrefutable”, and the encouragement for “replication of research findings across domains, contexts, groups of individuals, and cultures.”

CHAPTER 5: DATA ANALYSIS AND FINDINGS

5.1 Introduction

Based on the grounded theory analysis method, an iterative approach to interpretation was ongoing throughout our research, i.e., we iterated between data collection, analysis, and even writing. Hence, data analysis and our report of findings are presented together in this section. Findings are organized by two major themes: *structure* and *agency*. We start with the theme of structure by discussing *habitus in the field*, *changed conditions in the field*, and *choices and tensions for participating in self-care*. Next, we focus on the theme of agency by describing the four primary strategies individuals have developed and practiced in order to effectively grasp the choices and relieve the tensions in self-care. The four strategies are: 1) *gaining agency by self-learning*, 2) *gaining agency by disciplined use*, 3) *gaining agency by consumerism*, and 4) *gaining agency by socializing*.

While discussing the four strategies, we provide a detailed description of the different forms of agency gained through individual practices, the lifestyles developed in the agency accumulation process, and the impact of the agency accumulation and lifestyle formation on self-identity development and social distinction. The final product of the agency section is the answers to our research questions: *What are the benefits achieved by committed DS users in social commerce in China? How do they practice in order to achieve those benefits?* This chapter concludes with a consumer profile based on the idiographic analysis, which works as an illustration of the analysis process employed, a typical and comprehensive example of an individual's DS consumption story, and a reflection of the shared experience across cases.

5.2 Structure

This section reports our findings regarding the influence of structure on individual practice and social interaction in the field of DS consumption in China. Recall that by “structure” we are referring to the particular type of social environment (Bourdieu, 1977, p. 72), including but not limited to: the material conditions of existence characteristic of a class condition, the collective history, and the language (Bourdieu, 1977, p. 85). Three major themes were emergent over the course of interviews, including *habitus in the field*, *changed conditions in the field*, and *choices & tensions for participating in self-care*. In particular, we identified the various kinds of habitus that were developed through China’s thousands of years of history and internalized into Chinese individual’s mind, providing ‘dispositions to act’ that might influence their DS consumption as well as other health-related decision making and action.

However, in the last four decades, as a consequence of the changed conditions (e.g., technology and science development in Western health care, globalization of Western DS products/brands, development of social media in marketing communication and distribution), Western DS products/brands have traveled to China and become popular. Moreover, Western values and beliefs, such as Western consumption values and Western medical science beliefs, have entered China and led to many changes in the Chinese social structure.

Thereafter, the interplay between traditional habitus and modern environmental changes has resulted in a range of promising life choices from which individuals could act upon in light of self-care and health promotion. However, in late modernity, new risks

and tensions have been experienced by individuals (e.g., unintended risks in technology and science, information overload, and saturated marketplace). Moreover, in less developed and non-Western countries, like China, we see collisions between the original habitus and the newly-entered Western trends and values, which exacerbate the tensions experienced by individuals. In this section, the three major themes, i.e., habitus in the field, changed conditions in the field, and choices and tensions, and the specific items under each theme, are introduced and discussed.

5.2.1 Habitus in the Field

Guanxi – A key construct in Chinese social structure. Guanxi is a Chinese word literally meaning “interdependent relationship” (Qi, 2013, p. 309). Guanxi has been applied as an analytic category in scholarly Western marketing research but has primarily been applied to research related to business-to-business relationships (e.g., Ou et al., 2014; Shaalan, Reast, Johanson, & Tourky, 2013). However, guanxi is not confined to business relations but is also fundamental to social relations; indeed, guanxi has been described as a “Chinese cultural phenomenon” (Fan, 2002, p. 374) and a sociocultural concept essential to the understanding of Chinese social structure (Qi, 2013).

Yau and colleagues (2000) suggest that guanxi consists of the following constructs: bonding, empathy (renqing), reciprocity (huibao), personal trust (xinyong), face (mianzi), and affection (ganqing). Guanxi is left untranslated to keep its complicated and rich meaning, which covers various forms of interpersonal connections in long-term relationship maintenance, which follow implicit social norms embedded in Chinese culture. Constructs under Guanxi, separately or together, influence Chinese

individuals' social interactions in the DS consumption process. We identified four sub-themes: *Empathy-reciprocity mechanism*, *bonding needs*, *affection-trust-based social capital*, and *face-empathy-based social status*.

First, as *guanxi* stresses empathy (expressed through emotional responses and instrumental resources) and reciprocity (returning favors), interpersonal behavior in China has an important normative dimension of obligation in giving and returning favors. Empathy and reciprocity operate as a mechanism that regulates social exchanges and can function as emotional and instrumental resources (Qi, 2013). Importantly, in Chinese culture, reciprocity does not mean that the favor must be immediately returned; a first favor could be given without any specific intention, and value could be returned in the long run (Yau et al., 2000). This empathy-reciprocity mechanism is shown in our interviews, mainly reflected by the fact that individuals ask friends, relatives, or other social ties who live in another country to help purchase and deliver Western DS products from overseas. For example:

Interviewer: Do you need to pay your friend for helping you purchase DS products?

Luying: No fees. No fees. She just does me a favor. No charge.

Interviewer: You only need to pay for the product price?

Luying: Exactly. By online transactions.

Interviewer: Any feeling of being in her debt? I mean, it takes your friend time and effort to help you out.

Luying: Mm...Not at all. Because we are very close friends...Our *guanxi* is like...for example, if she needs money to purchase a house now and she comes to ask me to lend her some money, say, 100 thousand RMB [about 20 thousand CAD], I will lend the money to her immediately...No second thought. You know what I mean?

[Yuxin mentioned she bought Skincare & Beauty DS from her friend, who lives in the UK a few years ago. Now she talks about her child's DS purchase]

Yuxin: I choose that UK brand again because...there is no other reliable channel that I can trust...there are some channels, sure. But I am

suspicious...you know...I am afraid of [quality issues]. My friend living in the UK, I mentioned earlier, started to do business [of selling UK products]. I want to show my support for her business, you know. Besides, she is my personal friend. I think her channel must be trustworthy.

Yuehang: In addition to DS products, I also ask my friend to order infant formula for me. She lives in Beijing...she is a relative to me but a little distant. My aunt's sister. She works for a German company, so she has a colleague who lives in Germany. The process is, she orders products for my son and her own child from her colleague in Germany. Once the package arrives at Beijing, she mails mine to me. It is a little complicated. [laughter]

Interviewer: Do you think that complicated process causes any trouble for your friend?

Yuehang: A little bit. I guess.

Interviewer: Do you pay her additional fees?

Yuehang: No. Never. She has been helping me purchase baby's stuff since my son was born. [...] We have never thought about giving her money for that...I believe...neither has she.

Interviewer: Did you feel that you might be in debt when you asked your friend to purchase products overseas?

Meimei: Why? No...I didn't. First of all, the people I would like to ask for a favor are my friends. We are in a good guanxi relation. I don't feel that way, neither do they.

From Luying and Yuxin's incidents, we see future endeavors for returning favors in the long run. Further, as this is an implicit social norm that has been incorporated in individuals' minds as one type of habitus, from Yuehang and Meimei's descriptions, we don't see emotional burdens explicitly carried by the individuals who received favors from their social acquaintances. As Geddie, DeFranco, and Geddie (2005) suggest, guanxi contains overtones of unlimited exchange of favors and is maintained by an unspoken commitment to others in the network, which means unwritten codes of reciprocity and promises. Hence, the possible additional handling costs which could be incurred if using another method of sourcing products do not apply here.

Second, researchers suggest that guanxi is executed more on a tactical level rather than at a strategic level through bonding activities (Shaan et al., 2013). Gift-giving exists as a primary tactic. Although the ubiquity of the gift in social relationships has been evidenced across many cultures (Mauss, 2000), there is a particular style and purpose in gift exchanges in guanxi, which closely relate to a characteristic Chinese cultural feature of guanxi (Qi, 2013), i.e., moving forward from “an emphasis on reciprocity” to “an discouragement of reciprocity due to a high degree of intimacy” (Joy, 2001). Actually, research has suggested that a continuum of social ties is formed in Chinese gift giving activities, including “close friends,” “good friends,” “just friends.” (Joy, 2001).

Smart (1993, p. 403) indicates that a “critical social capital of trust, not just obligation, is created through the repeated exchange of gifts and favors in China.” Our interviews show that gift-giving has played a role in Chinese individuals’ DS consumptions:

[Yiran bought a lot of DS products when she traveled to Canada a few months ago]

Interviewer: Have you finished the products you bought when you were in Canada?

Yiran: Well...Actually, a lot of the products I brought back were gifts for others.

Interviewer: For whom? What did you buy?

Yiran: Things like bee propolis. If you want to use it as a gift, it is appropriate to buy products like bee propolis. For whom...let me see, for example, the elderly in my family...and my colleagues [...] I bought quite a few. Ten bottles or so. I gave bee propolis to my colleagues and said, “it’s a gift for your mother” [laughter] Ah! I also bought some multivitamins! Some of my colleagues have children, so I gave multivitamins to them and said it was good for their children. I also gave some to my office manager...and the teacher of my son...

[When asked to give a basic introduction of her DS consumption history, Fangxue naturally talked about purchasing DS for gift-giving during festivals]

Fangxue: [...] I started to buy and use some DS products. Then, I bought the DS for the elders in my family. In the beginning, I bought local brands from the supermarket to give the older people in our family as gifts during festivals, like calcium and fish oil. As I started to do some more research on this product area, I started to buy international brands for them. Mainly bone improvement products like glucosamine.

Fangxue uses DS products as gifts for older family members, and Yiran uses DS products as gifts for her colleagues, her supervisors, and her son's teacher. It is worth noting that, in the process of applying DS products in gift-giving, a new form of the symbolic meaning of DS products has been socially created and accepted. That is, DS refers to 'good things for your health'. At the same time, its original functional meaning as 'dietary supplement' has been largely ignored. That could be reflected by our interviews – a lot of our informants call DS as “nutritional product” instead of “dietary supplement”.

Based on the symbolic meanings, and required by guanxi norms in Chinese culture, tactical-level bonding activities like gift-giving happened surrounding DS products. Individuals prepare gifts for social contacts without specific intentions but with the purpose of maintaining a good long-term relationship in case of future reciprocity. In the process of empathy-reciprocity based bonding activities, the exchange partners in guanxi are emotionally and individually involved, which leads to affection (Wang, 2007) and trust (Yau et al., 2000). Consider the following example – when answering why she keeps purchasing DS from the same person she has had good guanxi with, rather than new reliable salespersons, Yiran mentions:

Mm...Even if they [new reliable salespersons] have authentic products or high-quality products that can be trusted...they and I ... How to say...I have the right to stick to my own choice, right? Even if they can be

trusted, even if my friend offers a higher price...I still choose to buy from her. She must have better-quality products...

From Yiran's statement, we see that even though she trusts the credibility of a new salesperson and recognizes a better deal with a lower price (i.e., cognitive trust), she still chooses to buy from her old friend (i.e., affective trust). Indeed, in relationally based cultures like China, a low propensity to trust results in individuals developing affection first through the process of guanxi creation and maintenance, before the formation of cognitive trust; the affective trust reduces uncertainty as well as increases benevolence, confidence and mutual protection (Allott, Gibb, & Akoorie, 2017).

Thus, our study emphasizes that bonding activities in Chinese guanxi build a solid foundation for affection and trust, which represent an equivalent of guanxi to social capital, which is accumulated, owned, and transferred by an individual (Fan, 2002).

Affection-trust based social capital is the third sub-theme identified in our study. Social capital is defined by Bourdieu (1986, p. 249-250) as:

The aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition – or in other words, to membership in a group – which provides each of its members with the backing of the collectivity-owned capital, a 'credential' which entitles them to credit, in the various senses of the word.

Bourdieu treats "a credential for credit" as essential for social capital, which is explicitly conveyed in the notion of guanxi (Qi, 2013). Fan (2002, p. 372) views guanxi from a problem-solution perspective and defines the term as

a process of social interactions that initially involves two individuals A and B. A may or may not have special relationships with B. A asks B for assistance (favor) in finding a solution to a problem. B may have the solution at hand, or more often, has to seek further assistance from other connections.

As stated earlier, our informants approach their social ties living overseas to buy and deliver DS products for them. These individuals usually represent their strong social ties, such as friends, relatives, and classmates (Chou, Cheng, Huang, & Hsu, 2004). The guanxi between the two individuals functions as a credential for credit. Consider the following example:

Zixuan: Vitamin C is from New Zealand. Usually, I ask my classmates to buy and send it to me. [...] I took an undergraduate in New Zealand...Many of my classmates now still live in New Zealand or Australia.

Interviewer: Do they take money from the services? Charge you of some shopping fees?

Zixuan: No. They just offer me help without any charge. They were my classmates in college! You know. And I chose to buy DS in this way because I can trust them.

It is clear that Zixuan can trust her social contacts and her social contacts are willing to buy and deliver DS products for her due to the close guanxi relationship between them. To further illustrate the representation of affection-trust based guanxi as social capital, we build on Fan's (2002) explanation and move a step forward by assuming that B seeks further assistance from C, who has no prior (guanxi) relation with A, and introduces C to A. Through such exchanges A benefits from B's existing guanxi with C; through A's guanxi with C, C's guanxi with B is transferred to A. Moreover, B's guanxi with A works as a credential for assuring the quality of newly built guanxi between A and C; in turn, their inter-dependent personal relationships keep their network trustworthy on a collective level. See the following two examples:

Interviewer: Do you remember the channel from which you purchased DS for the first time?

Xiaoxi: Let me see. Mm...I think it was from a friend.

Interviewer: Did you know this person before purchase?

Xiaoxi: I didn't know him personally. It was my friend who has had guanxi with him that introduced him to me.

Interviewer: As for the DS purchased and delivered from Germany, do you trust their quality?

Yuehang: I do. I do...

Interviewer: How do you contact the person who purchases DS for you? By WeChat?

Yuehang: No, no. I don't have her contact in my cell. I only contact my friend in Beijing and tell her about my needs. She then contacts her colleague from her side [...] I didn't do research on infant formula. Because...back then...my friend...the relative in Beijing...has done her research and homework. So, she is like, doing research for me and selecting products and brands for me. I didn't have to pay much attention [laughter].

From the last sentence of "I didn't have to pay much attention," we see that the *guanxi* relationship relieves the consumers' information search burden because some trusted referent others do the research for them.

Lastly, we highlight that, as development of affective commitment and trust, bonding, and reciprocal exchange of favors, individuals in the *guanxi* network would benefit from mutual protection and enrichment of reputation, prestige, and social status (Flambard-Ruaud, 2005). Importantly, the enrichment of social status has its specific expressions in the context of China influenced by *guanxi* constructs, primarily two constructs – *face*, literally meaning prestige, reputation, and looking-glass self (Qi, 2013), and *empathy*, referring to receiver centered communication (Yau et al., 2000).

Chinese individuals have motives for reciprocal behaviors due to face-saving (Shaan et al., 2013); they respect social harmony and consensus, perceiving individual initiative as less important than the willingness to merge one's personal identity, to avoid sender-centered communication and embarrassment for others (Suen, Cheung, & Mondejar, 2007). As a consequence, Chinese individuals avoid becoming the kind of

active opinion leaders in social networks who would be perceived as aggressively compelling other people to accept/follow their opinions.

Our study found that, despite the fact that they actually played the role of opinion leaders, they were unwilling to admit their high social standing. Hence, their prestige and reputation can only be seen from their trustworthiness, reflected by the fact that participants in their networks actively ask for and accept their opinions. In these cases, our “opinion leaders” make endeavors to describe themselves as “allies” or “supporters” instead of “leaders”. Considering the following passage:

Interviewer: Are you willing to share what you have learned [about health knowledge] with others?

Xiangyi: Mm...Only if someone comes to ask me...I would like to answer. Otherwise, I don't...? But I have a few friends who have the same knowledge system with me. Usually, I discuss things, express my ideas, and share with them inside our group. We are all explorers.

Interviewer: Which one is the leader in your group? You?

Xiangyi: [Laughter] Mm...No...I don't think there is a leader. We are all on a similar level, I suppose. We are allies...yes...we are all good at these things [laughter].

Interviewer: How about people outside your allies?

Xiangyi: No. I don't actively discuss these things with them. If they ask, I will answer. You know, nowadays, there are many “free riders” [...] They come to me frequently, asking for my suggestions about products or advice on child healthcare [...] it is true that...they always follow my recommendations [...] Sometimes, I post pictures of my daughter playing, with some toys, for example, on WeChat Moment. If they see the pictures, they will come to ask me which brand the toy is, how the toy functions [laughter]. Some even just directly ask me to send the purchasing link to them.

Interviewer: Once they see your child using some product, they are willing to buy the same product. Can I summarize it in this way?

Xiangyi: [Laughter] Mm...kind of...Some of them are like that [Laugh blushingly]

Interviewer: Why is that?

Xiangyi: Maybe...they trust me...I really don't know...[laugh blushingly again, then a moment of silence]. Maybe they know that I am doing my research, and I'm taking a lot of time learning about that stuff. They know I take classes.

In this dialogue, Xiangyi first expresses her willingness to discuss and share her knowledge and expertise in healthcare with, and only with, her in-group friends – in her word, “allies” – (i.e., the friends who are on the same knowledge level with her) and indicates that there is no leader-like role in their group. Then, despite the fact that the outsiders (“free riders”) trust her due to her expertise, come to ask for her advice, and always follow her advice, she is unwillingly admit her prestige and social standing in that circle (She laughed blushing twice during this dialogue and was reluctant to admit that she plays the opinion leader role in her social network). Obviously, the unique social mechanism of guanxi determines the unique representation of social status in China.

To summarize, the constructs under guanxi such as bonding, empathy (renqing), reciprocity (huibao), personal trust (xinyong), face (mianzi), and affection (ganqing), interactively help to structure and inform the habitus as the “internalization of externality” (Bourdieu, 1977, p. 72) that influences individuals’ practices and social interactions in the field of DS consumption.

More importantly, while Chinese individuals are informed by the habitus, and also selectively act upon the habitus to meet their respective purposes; symbolic meanings of DS products and DS consumption are socially constructed, which are specific to the context of China. Individuals’ agency and improvised symbolic meanings of DS consumption will be discussed in Section 1.3. From Xiangyi’s case above, we can see that she prefers to share information and express personal opinions with in-group individuals and not with outsiders (Shin, Ishman, & Sanders, 2007), which reflects Chinese individuals’ tendency to divide people into groups and hold different attitudes

and actions toward in-group and out-group members. The next section illustrates this tendency and its relationship to low trust culture in China.

Low trust culture in China. Prior trust research has largely focused on task-oriented cultures with high propensities to trust. Most Western societies are characterized by high trust, in which people tend to trust each other even though they do not have blood relations (Fukuyama, 1995). As Wang (2007, p. 83) asserts, a “network is relatively open to any exchange partners as long as one plays by the rules of the game.” Different from the Western cultural phenomenon of relationship, *guanxi* in China is a network of social relationships often related to a common background, such as coming from the same locality, working together, or having family ties (Björkman & Kock, 1995). Thus, *guanxi* has an exclusive circle of members that does not extend to members of other social networks (Haley, Tan, & Haley, 1998).

As a result, Chinese society shows a low-trust culture in which trust is extended only to immediate or extended family members (Fukuyama, 1995). More specifically, in relationally based cultures like China, a low propensity to trust results in individuals developing affection first through the process of *guanxi* creation and maintenance, before the formation of cognitive trust; the affective trust reduces uncertainty as well as increases benevolence, confidence and mutual protection (Allott et al., 2017).

Then, consider that Chinese culture tends to divide people into categories according to in-group (family as the core in-group) and out-group boundaries (Shalan et al., 2013). Chinese culture emphasizes the value of collectivism. Hence, Chinese people have unconditional trust in their own family, the core in-group, but distrust anyone else who is not in one’s family and is thus a member of the “out-group” unless they can be

proven to be trustworthy during a long-term guanxi development (Shalan et al., 2013). This is due to the moral behavior produced in the Confucian social ethics, which is closely linked to concrete personal connections and lacks “rules for impersonal dealings beyond the face-to-face level” (Steinhardt, 2012).

Therefore, we can interpret China’s low trust culture further in the following way: Chinese people show a high level of trust towards members of their own in-group, while they tend to have a pervasive distrust of strangers (“out-group” members) (Fukuyama, 1995). The theme of low trust culture in China permeates our interviews, including two sub-themes: 1) *a higher trust in interpersonal word-of-mouth and interpersonal purchasing channel* (e.g., family, classmates, colleagues, close friends, and Daigous); and 2) *a lower trust in long-distance e-word-of-mouth and large businesses in online marketplaces* (those who look like ‘strangers’ to individuals).

Note that two types of purchasing channels are included in ‘interpersonal purchasing channel’: 1) individuals ask their close friends who live in another country to help them buy DS products; 2) individuals buy DS products from professional Daigous (i.e., surrogate shoppers). In the former purchasing method, individuals who live in another country do their friends a favor based on the empathy-reciprocity mechanism in Chinese guanxi; they don’t make money from the purchasing process, in fact, the purchasing process might cost them time and money (e.g., time for searching products and driving cost). We have elaborated on this type of interpersonal purchasing channel under the guanxi habitus. Next we focus on the latter part – professional Daigous.

Different from the former type, Daigous are charging an extra fee, in addition to the cost of the purchase, to make a profit. Daigou, literally referring to surrogate

shoppers, is an emerging type of consumer-to-consumer social commerce channel in contemporary China, and mainly exists in Chinese social networking mobile apps, e.g., WeChat and RED. In addition, only Daigous, who are direct or indirect social ties, are trusted and chosen by the informants. Consider the following examples that illustrate individuals' higher trust in Daigous than businesses on e-commerce platforms.

Interviewer: Okay. Did you search for product information on Taobao? But didn't make a purchase there? Why?

Yunhan: I don't have trust in Taobao flagship stores. I suppose. There are all kinds of rumors, saying that many of those stores are not authorized, or the products are not authentic. Besides, the price on Taobao is sometimes too low to be real. You know? I have my personal friend in Australia. She tells me it is impossible to get those products at such a low price. I believe her [...] So, I always buy DS products from my friends. Technically, they are not professional Daigou. They are my personal friends who live in Australia and willing to do me a favor.

Interviewer: How did you buy DS products?

Yiran: I ask my friends who travel abroad to buy. Or, I know a Daigou...She was my tour guide when I traveled to Sri Lanka. Sometimes I asked her to buy these things. I trust her. But I don't buy from the Daigou I don't know personally.

From the examples above, we can see that individuals have a higher trust in interpersonal purchasing channels (e.g., Daigous, who they personally know) and a lower trust in large enterprises and brands in online marketplaces. Regarding products that are highly relevant to health, especially children's health (e.g., Children's Vitamin D3 supplement), our informants prefer personal shoppers that they already build good *guanxi* with than large businesses that are perceived as strangers to them. Similarly, individuals have more trust in face-to-face conversation than online word-of-mouth in the information search process:

Interviewer: You just mentioned that you could get information from your personal friends, online sources like key opinion leaders on social media, say, RED. Which one influences you the most?

Luying: I think the largest influence comes from the persons in my life...friends who are trustworthy [...] If they recommend me some products, I will follow their instructions without any concerns. The next would be my colleagues. Compared to other people, they are closer to me. I probably know them better...I know what kind of person he or she is...and I can make a judgment on whether to accept their advice or not, based on my previous experience with them. The last would be the online sources, like professional accounts and reviews on RED.

Luying's example demonstrates that our informants have more confidence in personal contacts' information and advice because they know them personally so that they are capable of making a judgment about the degree of their trustworthiness based on prior interaction experience. Compared to social acquaintances in their personal life, social media accounts (e.g., key opinion leaders, official accounts, online reviewers, and bloggers) only provide information long-distance without enough background information. Our informants are suspicious about their reliability and reputation due to the lack of personal interaction experience. Interestingly, their trust in online accounts could be enhanced by knowing that their real-life social ties are also building a relationship with online accounts. When discussing what affects Yunhan's trust in WeChat official accounts, she mentions that:

I also check about the indicators shown by WeChat, such as "how many of your contacts are reading this post" or "how many of your contacts have followed this account". Although I don't know exactly which friend in my WeChat contacts is reading this post or following this account, I at least get to know that this post is also read by my real-life friends. Further, if it is shown that a large number of my friends are reading this post, or following this account, I might think this account is trustworthy. I guess...its impact in my network is an important indicator for me to build trust. In contrast, in terms of the number of its own followers, I don't care that much. Because that number is irrelevant to me...and it might be fake.

Yunhan gains more trust in a social media account/post when she is aware that her personal contacts are also referring to this account/post. On the contrary, the number of

followers of the account has no impact on her trust as she perceives a low relevance and reliability of the number to her. To summarize, the low trust culture in China, more specifically, higher trust in members of in-group and lower trust in members of out-group, results in Chinese individuals' high level of trust towards personal friends' DS/health suggestions and a pervasive distrust in online voices. Moreover, the suspicion of online reviews and recommendations could be attenuated by gaining approval from personal contacts (e.g., Yunhan trusts social media post more when she realizes that many of her personal contacts are reading the post).

Morality in femininity. Balbo (2007) suggests adopting a gender perspective in health and wellness consumption research because, in contemporary modern society, women are taking primary responsibility for their own health and their family members' health, such as child-rearing and caring for those who are ill or aging. Thompson and Hirschman (1995) argued for the formation of a particular Western type of morality that expressed a moralistic obligation to pursue a slim and young body, emphasizing a Western dualistic metaphysic between body and mind, a disembodied transcendence of the mind, and a desire for conquering nature (as the body is perceived as one form of nature).

Consistent with Balbo (2007) and Thompson and Hirschman (1995), our research identified a morality in femininity that is internalized by Chinese individuals from the external environment and history as predispositions that direct their DS and health-related practice. Further, we emphasize that the morality in femininity is defined and presented in the Chinese context (especially under its Confucian influence) with its own specific forms and meanings. The morality in femininity in our research context is identified to

include two major dimensions: 1) *moral beliefs in a female beauty ideal* and 2) *moral obligations of taking care of the whole family*.

As for *moral beliefs in a female beauty ideal*, consistent with Thompson and Hirschman (1995), we identified expression of morality in pursuing ideal beauty in the field of DS consumption in China. But, importantly, different from previous research that focused on Western culture, this study addressed a non-Western culture (i.e., China) and identified specific dimensions of its morality in pursuing ideal beauty and the socio-cultural influences in its formation process (e.g., the body-related social norms and schemas). First, we describe the mainstream female beauty ideal in China – a Chinese-style youth look, which is mainly represented by a young, soft, supple, and fair skin. One of our informants gave us a vivid description of what the ‘youth’ means in Chinese beauty ideal:

Chun: Consider a girl in her sixteen or seventeen...in high schools. Hair is tied with a very simple ponytail. She must look pure and innocent...you know? Her skin is full of collagen. Very healthy, young, and pure.

Previous research on women’s anti-aging efforts in Western contexts (e.g., the US) shows that Western women hold an “ageless self”, i.e., they perceive their self-concepts do not experience aging, but they feel a disjuncture between their younger self and their aging body (Kaufman, 1986). As a result of the disjuncture, Western women seek anti-aging solutions to make their outside bodies match with their ‘inner youth’. Different from the logic in Western countries, our informants start with the failure of keeping the idealized self informed by Chinese habitus, a self that can only be maintained by “a girl in her sixteen or seventeen” as “pure and innocent”. The incapability of keeping an inner youth

pushes our informants to take actions, which makes their actions to get more involved in the moral dimension.

Indeed, in Chinese culture, both the external appearance and inner moral dimensions determine the beauty of women. In the Confusion texts, female beauty refers to the good qualities and positive dispositions of personality that define a good woman, such as gentleness, softness, and innocence (Man, 2000). Hence, the aesthetic taste in a youth look resonates with moral dimensions in Chinese femininity, which have been ingrained in ancient Chinese culture. The origin and underlying moral meanings of the youth beauty ideal might not be consciously known by the informants nor explicitly expressed by their language; the aesthetic value in youth has been instilled into their minds and expressed through their practice. That is, youth, as the female beauty ideal in China, is pursued by the informants who participate in DS consumption. Among the 22 informants, 13 informants have been actively engaging in the consumption of Skincare & Beauty DS products such as grape seeds, collagen, and other herbal products, for the purpose of anti-glycation, and anti-oxidation (see Table 5.1 below).

Table 5.1 Skincare & Beauty DS Adopted by the Informants in This Study

Informant	Single-ingredient DS product	Compounded DS Usually named with ‘brand + function’
Zixuan	<ul style="list-style-type: none"> • Grape seeds • Collagen 	<ul style="list-style-type: none"> • SeroVital Renewal Complex <ul style="list-style-type: none"> ○ Supports body’s production of hGH, a peptide associated with renewed vitality, smoother skin, etc. ○ “making users look and feel decades – not years, but DECADES – younger.” • SHOYO Time Essence: Grape/acai berry/blueberry compound drink.
Yunhan	<ul style="list-style-type: none"> • Collagen • Vitamin E 	<ul style="list-style-type: none"> • Transino White C Clear <ul style="list-style-type: none"> ○ Contains L-cysteine/Vitamin C, and Vitamin B2/B6/E/B3 combination. ○ “spot care”, “skin energy”.
Yiran	<ul style="list-style-type: none"> • Vitamin C 	<ul style="list-style-type: none"> • Nature’s Bounty Hair, skin & nail gummies with biotin <ul style="list-style-type: none"> ○ Contains Vitamin C/E, Biotin.

		<ul style="list-style-type: none"> ○ “provide a unique way to help support your natural beauty from within.”
Shiqi	<ul style="list-style-type: none"> ● Grape seeds ● Collagen ● Vitamin C, Vitamin E, etc. 	<ul style="list-style-type: none"> ● Floreve Beauty-IN-Force: <ul style="list-style-type: none"> ○ Contains hyaluronic acid, wheat lipid extract, Vitamins, Zinc, peach, goji and grape juice. ○ “to revitalize skin, to hydrate deeply, to reveal skin’s radiance.” ● AXXZIA Venus Recipe & AG Drink. <ul style="list-style-type: none"> ○ Contains collagen, anti-glycation and anti-oxidation herbal extracts. ○ “An ideal beauty beverage contains a selected herbal mixture”, “support your inner beauty against an aging to be a graceful beauty life.” ● SHINYA KOSO Night Diet Enzyme <ul style="list-style-type: none"> ○ “We believe that a person’s optimal health is essential for youthfulness and happiness, everyone wants to be youthful, healthy, and beautiful for as long as possible.”
Chun	<ul style="list-style-type: none"> ● Grape seeds 	<ul style="list-style-type: none"> ● Confidence USA Nutri~Youth Moisturizing Formula. <ul style="list-style-type: none"> ○ Contains white acai berry, collagen, L-glutathione. ○ “Scientifically formulated to support moist & smooth skin.” through anti-glycation & anti-oxidation.
Hong	<ul style="list-style-type: none"> ● Grape seeds ● Vitamin C, Vitamin E, etc. ● Suntory Milcolla Collagen drink. 	
Haoran		<ul style="list-style-type: none"> ● SHINYA KOSO Night Diet Enzyme
Junjie	<ul style="list-style-type: none"> ● Grape seeds ● Collagen ● Vitamin C. 	
Yuanyuan	<ul style="list-style-type: none"> ● Grape seeds ● Collagen ● Vitamin C. 	<ul style="list-style-type: none"> ● Nature’s Bounty Hair, skin & nail gummies with biotin.
Panpan	<ul style="list-style-type: none"> ● Grape seeds ● Collagen ● Vitamin C, Vitamin E, etc. 	
Fangxue	<ul style="list-style-type: none"> ● Grape seeds ● Collagen ● Vitamin C, Vitamin E, etc. 	
Xiangyi	<ul style="list-style-type: none"> ● Grape seeds ● Collagen. 	
Wushuang	<ul style="list-style-type: none"> ● Collagen ● Vitamin C, Vitamin E, etc. 	<ul style="list-style-type: none"> ● Pola Inner Liftia <ul style="list-style-type: none"> ○ Contains collagen peptide & herbal and biological compounds. ○ “Secret of youth.” ● Pola White Shot Inner Lock Tablet <ul style="list-style-type: none"> ○ Contains herbal extracts. ○ “Boosting the energy in epidermal cells for alluring, translucent and beautiful skin.” ● Pola B.A Tablet <ul style="list-style-type: none"> ○ Contains herbal extracts.

-
- “Draw out the resilience of beauty.” “Maintain the skin’s moisture and suppleness.”
-

A desire to remain youthful, and practices for keeping the symbols of youth, i.e., a skin condition possessed by a teenage girl, permeate the discourse of skincare in our interviews. Consider the following examples:

Shiqi: For example, products like Beauty-in-Force are sending me messages like, “I could make your skin become soft, smooth, glowing again! I can help you go back to the youth!” [laughter]

Hong: And...I’m afraid of aging...very, very afraid of aging...I want to stay in youth forever!

Wushuang: I remember that I read a sentence before...It says all humans’ behaviors are out of fear or love. Mine must be fear. [laughter]. I am afraid of aging. I am scared when I think about that. Much more scared than other people [...] If I look at myself in the mirror...and find my skin dark...pale...without vibrance! I cannot accept that me. You know what I mean?

From the three examples, we see that our informants have a strong desire for anti-aging (e.g., “go back to the youth!” “stay in youth forever!” and “afraid of aging”) Moreover, this beauty ideal is emphasized as a social norm rather than individual preference:

Fangxue: [...] I think the worship for these criteria is not only held by females, but by the whole society. People would perceive a woman beautiful if she has a good skin condition but average eyes, nose or lips [...] Many young males make very clear about this when they look for a girlfriend – they don’t require their dates to have a beautiful appearance, but they prefer a good skin condition. I have male friends. We talked about this before. It seems to be a very normal thing [...] It’s one common aesthetic requirement in our society.

Hong: [...] Others said to me, “you look so young, younger than me!” But later, we got to know that I was actually a few years older than her. Maybe people are giving me compliments. But...it happens more than once. [laughter]

From the above two examples, we can see that our informants use youth as a topic in their social interactions; a young and good-condition skin is socially accepted and preferred.

As Table 5.1 demonstrates, informants are using DS products that claim to have anti-oxidation and anti-glycation properties, in order to maintain a youthful appearance, and more specifically, to keep young, translucent, supple and fair skin. The desire to stay in youth is especially expressed by the advertising messages communicated by the DS brands. We quote the messages from the brands and include them in Table 5.1, such as “*Secret of youth*” and “*Making users look and feel decades – not years, but DECADES – younger.*” Moreover, by stating that “*We believe that a person’s optimal health is essential for youthfulness and happiness. Everyone wants to be youthful, healthy, and beautiful for as long as possible*”, a connection between youth, health, and happiness is developed. Thus, we conclude that the Chinese female beauty ideal is originated in ancient Chinese culture, and has been socially constructed as a social norm through the discourses and narratives in marketplaces.

As stated earlier, the contemporary Chinese aesthetic value of youthful-looking skin is rooted in ancient Chinese moral values of female beauty - female beauty refers to the good qualities and positive dispositions of personality that define a good woman such as gentleness, softness, and innocence (Man, 2000); a youth-looking skin represents these qualities. We can observe this connection from informants’ descriptions in which they always referred to ancient Chinese sayings (see the examples below). Moreover, these references further extend our understanding of the beauty ideal of youth by emphasizing a preference for a fair skin condition.

Fangxue: [...] Men believe in the old saying of “A fair skin covers up a hundred flaws.” [一白遮百丑]

Chun: [...] Rosy lips and white teeth...gives others an impression of youth and purity...and...wealth. “Rosy lips and white teeth belong to wealth.” [唇红齿白主富贵] I know this old saying in our culture. You’d better to have no wrinkles, no puffy eye bags, showing that you are not aging.

Hong: Chinese adore a fair complexion. Do you know why? Have you heard about an old Chinese saying of “If you want to look pretty, dress in mourning white.” [要想俏，一身孝] The mourning dress in ancient China was all white. [laughter] That is what I have heard of since I was a child. So, white color was used in the old times to symbolize holiness and purity [...] It is a very old aesthetic value.

These old Chinese sayings indicate the symbolic meanings embedded in the fair skin condition that are valued by Chinese culture, e.g., purity, nobility, and elegance. Indeed, the beauty ideal of fair skin dates back as early as the Han Dynasty, when a female’s complexion was used to indicate social class. Many lower-class females worked outside in the fields, exposing them to more sun, and ultimately making their skin darker. In contrast, higher-class women didn’t do fieldwork; they stayed indoor and learned feminine skills such as music, chess, poetry, calligraphy, and painting that cultivated feminine temperaments like nobility and elegance (i.e., embodied cultural capital). Moreover, the ideal fair skin is enhanced by the symbolic meanings given to white color in light of female morality – the color of white refers to purity, holiness, and innocence. As the example shows, “If you want to look elegant, dress in mourning white.” In Chinese artwork, snow and ice are both frequently utilized to describe the skin condition of beauty.

To summarize, there is a female beauty ideal in contemporary China – Youth, represented by a young, supple, and fair skin – which is rooted in ancient Chinese culture and enhanced by the discourses and narratives in the marketplace. Further, there is a

moral dimension in the Chinese female beauty ideal that emphasizes female qualities, e.g., purity and innocence, and feminine temperaments, e.g., nobility and elegance.

Next, we want to highlight that the *morality in femininity* in China, which includes not only an individual dimension but also a social dimension. That is, the morality in femininity includes not only the moral beliefs in the beauty ideal but also the responsibility for taking care of a whole family, i.e., their children, husband, and the elderly in the family. In Chinese tradition, wives were householders. The basic responsibilities of wives were to perpetuate the family and to manage the household (Man, 2000).

The morality of taking care of family is a primary theme that emerged in our interviews. Seventeen out of 22 informants who participated in this research are not only responsible for their own DS use, but also the DS purchase and management of other members in the family. Unmarried women might need to look after their parents' and other older family members' health arrangements; married women might need to take care of the whole family (e.g., children, husband, parents, parents-in-law, and other older family members). Table 5.2 demonstrates the products they have been purchasing for the family.

Table 5.2 The Family's DS Consumption Managed by the Informants in This Study

Informant	For Children	For Parents or Parents-in-law	For Husband	For Herself
Zixuan	Fish oil, Vitamin C Vitamin D3 (within 1 year old), etc.	Fish oil, Co- enzyme Q10, calcium, etc.	Vitamin C	Fish oil; Skincare & Beauty DS
Mengqi	Vitamin D3, milk calcium; Prenatal DS: Multivitamin (for folic acid), DHA	Co-enzyme Q10, MoveFree, calcium, etc.		

Yunhan	Prenatal DS: Multivitamin (for folic acid), DHA	Liver detox, calcium, fish oil, lung health support, etc.	Liver detox	Skincare & Beauty DS
Yiran	Multivitamin, blueberry, calcium, etc.	Calcium, eye protection DS, bee propolis, etc.		Calcium, multivitamin, fish oil, Vitamin C; Skincare & Beauty DS
Ruoxi	Vitamin D3	Calcium		Calcium, liver detox, Vitamin C; Skincare & Beauty DS.
Yinuo	Vitamin D3 (within 1 year old); Prenatal DS: multivitamin.	50+ Women's multivitamin; calcium, fish oil.	Men's multivitamin	Women's multivitamin
Shiqi	Calcium, multivitamin, Vitamin C/D3	MoveFree, calcium, etc.	Liver detox, men's multivitamin, calcium, prostate protection, MoveFree.	Calcium, vitamins, minerals, multivitamin, probiotics, fish oil, Co-enzyme Q10; Skincare & Beauty DS.
Yuxin	Vitamin D3; Prenatal DS: Multivitamin (for folic acid), multimineral, DHA.	Calcium, glucosamine, chondroitin.		Calcium; Skincare & Beauty DS.
Meimei	Vitamin D3	Calcium, fish oil, bee propolis.		Multivitamin, calcium.
Chun	Vitamin D3 (within one year old), DHA, liquid calcium.			Co-enzyme Q10, selenium; Skincare & Beauty DS.
Yuehang	Vitamin D3, milk calcium, DHA; Prenatal DS: Multivitamin (for folic acid)			
Junjie	<i>No child.</i>	Liver detox, calcium, bee propolis.	<i>Not married.</i>	Evening primrose, cranberry, blueberry; Skincare & Beauty DS.
Qianxi	Vitamin D3, DHA, milk calcium; Prenatal DS: Multivitamin (for folic acid), DHA			Skincare & Beauty DS.
Luying	Vitamin D3, calcium, probiotics; Prenatal DS: Multivitamin (for folic acid).	Glucosamine and chondroitin, fish oil.		

Fangxue	Vitamin D3 (within one year old), milk calcium, DHA; Prenatal DS: Multivitamin (for folic acid).	Calcium, fish oil, glucosamine, etc.	Multivitamin, Vitamin C; Skincare & Beauty DS.
Xiaoxi	Prenatal DS: Multivitamin (for folic acid), DHA.	Calcium.	Calcium; Weight-loss DS; Skincare & Beauty DS.
Xiangyi	Vitamin D3 (within one year old)	Calcium.	Calcium, wheatgrass; Skincare & Beauty DS.

Note: 1) “Skincare & Beauty DS” is a group of products; specific items of this group are summarized in Table 5.1; 2) “Prenatal DS” products are consumed by the informants rather than the children, but for children’s health benefits.

As Table 5.2 shows, in addition to their own self-care and skincare, females in our research are occupied with the tasks of selecting and purchasing DS products for their children, husbands, and parents/parents-in-law. In some cases, they only focus on their children’s DS and health consumption instead of their own (e.g., Luying, Yuehang, and Mengqi). Note that under the “for children” category, we documented the products that are directly used by the infants/children, but also the prenatal products consumed by the females in pre-pregnancy, pregnancy, and breastfeeding stages. Females purchase and consume prenatal products in these stages for the purpose of their infants’ health benefit, rather than their own.

Thus, the traditional moral belief ingrained in the social role of wife, daughter, and mother, and the interdependent self-construal in China, push adult women to actively take on the responsibilities of continuously learning about DS products, guaranteeing product supplies, and monitoring their family’s DS use as well as other health-related practices. The most important task is related to children’s healthcare:

Interviewer: How do you and your husband arrange the workload for child care?

Xiangyi: My husband does chores. I’m responsible for all mind work [laughter].

Interviewer: Will he remind you of your daughter's Vitamin D intake?
Xiangyi: No. Never. He is responsible for dishwashing, laundry, house cleaning. All kinds of labor work. Decision making...or other mind works are mine. I don't have other choices. It is impossible to expect a man to do this type of works. Trust me. It is too hard for them to accomplish.

Interviewer: What is your husband's attitude towards your son's DS use?
Yuehang: My husband? I don't know if he has any attitude [laughter]. Anyway, he never asks why I bought those supplements. He doesn't ask. When I asked him to add some Vitamin D to infant formula, he would just do as I say. But he never independently decides or practices anything...he seems not to ask anything...[laughter]

The examples illustrate that, it is common that males are not involved in the decision-making process for children's DS use. They only need to follow their wives' instruction and help with the execution; husbands don't know about their children's DS use at all, much less become actively involved in DS consumption practices. More importantly, wives are able to justify their husbands' inactive participation in children's healthcare by applying a traditional perception of gender difference:

Interviewer: Who is making these decisions in your family?

Chun: Regarding decision making, for example, brand choices of infant formula, diaper, and early education, I am the one who takes charge. I'm paying attention to these areas, doing information searches, and making choices.

Interviewer: Why not your husband?

Chun: Mm...Because...mothers are more detailed and more careful than fathers. Women are likely to have more concerns about brands, price, and other factors that affect the purchase. We would like to spend more time and make more comparisons. Fathers...seem to pay less attention to these things...I suppose mothers are more active and motivated in these arrangements [...] From the perspective of looking after people, females have more advantages...right...females are good at taking care of family, managing households. I think it is related to a female character and the division of labor in society.

Interviewer: Division of labor?

Chun: Yeah...I mean, division of labor due to gender difference. It might be related to Chinese tradition as well. You know, culturally. We are used to the tradition of "Men outside the home, women inside."

Chun accepts and justifies her husband non-involvement in health-related decision making by referring to the “female character and the division of labor” in Chinese cultural tradition. Moreover, the moral obligation of taking care of children makes females feel guilty when they realize that their husbands are taking care of their children more than themselves; they blame themselves when they perceive that their children show some deficiencies in growth:

Fangxue: Lately, I actually feel very guilty. [Sigh] I have been very busy at work recently...So... I suppose the time I spent with my son is even less than the time my husband spent with him...

Chun: I was stressed at that time. Huge pressure. You see, I had my child in 2017, and then I started to prepare for my graduate record examination from February 2018. I was working at the same time. I had to squeeze time out to study every day [...] My child didn't start to speak until 1 year and 10 months old or so. Very late. You know? Much later than other babies. I believe it was due to a lack of company from my side. It must have a bad influence on him. The good thing is he is fine now. I made a large amount of effort...and I am able to spend much more time with him now [laughter].

We can see that our informants are voluntarily and actively taking the responsibility for raising their children. Moreover, they tend to associate the feeling of fulfillment and guilt with the moral responsibility of taking care of children.

In addition to child care, females are expected to look after other family members' health, including their husbands, parents, as well as parents-in-law. They communicate with the elderly and become aware of their physical condition and needs; they search for corresponding DS product information and purchase DS products for the elderly.

During the interview with Yunhan, when asked questions such as, “What DS products have you purchased?” and “What are the DS products that you keep purchasing so far?” Yunhan always responded by first asking, “Do you mean the products I use or

my family use?” This response indicates that she is the one who takes charge of the whole family’s DS consumption, and, more importantly, she perceives it as her responsibility naturally.

To emphasize, members of collectivist cultures like Chinese emphasize inter-generational, rather than individual, interests (West, 1989). Therefore, based on the inter-generational interests, Chinese individuals are likely to maintain a longer time horizon with respect to individual consumption (West, 1989). The inter-generational interests and the longer time consideration require individuals to keep thriftiness in consumption, i.e., to save money from current consumptions in order to keep longer-term prosperity of the family and guarantee the future benefits of the next generation. Consistently, our study confirms the influence of thriftiness value on an individual’s DS consumption. Thriftiness is actually a traditional Chinese cultural value that has a significant impact on Chinese daily lives, such as their attitudes toward debt, saving, and spending patterns (Wang & Lin, 2009). For adult females who need to manage the household, they are expected to value frugality and help the family save money.

Chun: The Nutri~Youth product...is from an American brand. Initially, I tried an Australian brand, but I switched to this brand because it was cheaper [laughter].

Hong: I do care about the price. Because you need to make sure that you can afford the product in a very long time. Right? If it is too expensive, you are probably not able to keep using it in the long term. It is not a very good thing.

Qianxi: I don’t aim for the priciest product or the so-called best-quality product. I do much homework to search for the most appropriate product, which should be high-quality and low-price.

As illustrated by the examples, females in our study express a saving-money concern for DS consumption, and they do extra work on product and brand search to locate the most

appropriate choice. Moreover, research has suggested a distinction in Western culture and non-Western cultures – a distinction between the self-as-separated and the self-as-connected (Markus & Oysermen, 1988). While individuals in American culture seek to maintain their independence from others by “attending to the self”, many Asian cultures insist on “attending to others” to keep the fundamental relatedness of individuals to each other (Markus & Kitayama, 1991). Consistent with previous research, our data show that the informants’ thriftiness concern exists mainly with respect to their own DS consumption but not their children’s:

Qianxi: In Chinese culture, in regard to the education and raising of children...unless your family is in very bad finance...otherwise, normal families, like mine, will always put children in the first place.

Yunhan: [Regarding prices of DS] Some are cheaper, but some are pricier [...] prenatal DS products usually cost a little bit more money...but not something we cannot accept [...] And...you might also know...we don’t care too much about the price of prenatal things...even they are really pricy...you will still accept it.

Like Qianxi and Yunhan, our informants express a willingness to sacrifice their own benefits in order to fulfill the next generation’s needs. “Always put children in the first place” shows us the Chinese cultural emphasis on social self-value, i.e., viewing the self in social relationships, and the emphasis on an inter-generational perspective (West, 1989).

To summarize, there has been a habitus of morality in femininity generated in Chinese culture and in the field of DS consumption in China that influenced female individuals’ DS consumption. The morality in femininity includes both an individual dimension (morality in pursuing ideal beauty) and a social dimension (morality in taking care of family); it is related to moral beliefs in feminine qualities (e.g., purity and innocence) and

temperament (e.g., nobility and elegance) and moral obligations in the social roles of “wife” and “mother” (e.g., taking care of the whole family, managing the household, thriftiness).

Ideology of Yin-Yang balance. In Western culture, dualism has been one of the most widely discussed philosophical distinctions. The standard conceptions of dualistic couplets such as mind/body and male/female are regarded as socially constructed through cultural discourses and subsequent activities, rather than directly reflecting states of reality (Bourdieu 1984). For example, the abstract level distinction of mind and body in Western medical science is expressed in body-related practices (e.g., weight loss and anti-aging) and largely promoted by commercialization and marketing (e.g., a lot of products and services advertised as a means to manage weight or postpone aging); it is widely treated as a structuring concept in Western medical science (Romanyshyn, 1989) and produces an ideology of self-control (i.e., mind over body). The ideology of self-control aims for conquering nature and expresses worship for the disembodied transcendence of an individual’s essential self that resides in Western cultural values (Thompson & Hirschman, 1995).

Obviously, the habitus developed in Western culture and Western medical science (i.e., the dualism of mind and body) has a significant impact on an individual’s health consumption and practice. Consistently, our study identified that a dualistic metaphysic also exists in Chinese culture – Yin and Yang, its role as a structuring concept in traditional Chinese medicines, and the ideological meanings socially constructed in an individual’s health consumption practices. Grounded on the school of Yin-Yang or the school of Naturalists in ancient China, the philosophy of Yin-Yang has been absorbed

into and has influenced traditional Chinese medicines (TCM) for thousands of years. Yin-Yang represents two abstract aspects that every phenomenon in the universe can be divided into; while Yin is representative of things like the moon, female, water, Yang is representative of the opposites like sun, male, and fire.

In Chinese culture, Yin and Yang symbolize balance. By applying to TCM, it means good health is to be achieved by pursuing various balances. The philosophy of TCM argues that the universe is a macrocosm composed of various forms of Yin and Yang, and man is a microcosm that mirrors the larger macrocosm. Hence, the natural effects of diet, lifestyle, emotions, environment, and age are the reason health or disease develops; a balance leads to health, and an imbalance leads to disease. Yin and Yang are dualistic, but they are connected by forces like vital energy that moves energy fluently inside the body and between man and the universe. These ancient medical conceptualizations are not necessarily explicit knowledge consciously known by our informants. Rather, they are internalized as embodied knowledge that unconsciously influences their health perceptions and actions. In other words, the informants may not explicitly introduce these TCM principles and their origins to the researcher, but they express their concerns about Yin-Yang dualism and holism during the course of the interview. Consider the old Chinese saying that appeared across interviews – “是药三分毒”, which literally means “Every medicine contains thirty percent of toxicity”.

Interviewer: So, you think the normal DS products in the market, such as collagen and calcium, could create a burden for your body?

Qianxi: Yes. More or less. But there must be something bad. You know “是药三分毒”, right? The bad effect might be minimal in the short term. But in the long term, I'm not sure... These pills might lead to some problems...

Interviewer: You mentioned that DS products could not be consumed every day. Why?

Yunhan: It is similar to skincare. We use creams and lotions to nourish our skin. But we don't use too much. We want to let our skin breathe the air, to get some breaks, to let it rest and do self-adjustment. It's also similar to the intermittent fasting, I think. These DS products, even as simple as vitamins, are things added to our bodies. They more or less contain some unnatural ingredients. So, they could help improve our health but also bring some burden. So, I take DS products 20 days every month and skip the other 10 days.

Interviewer: What do you mean by "bring some burden"?

Yunhan: There are some ingredients contained in DS products that need to be processed by the kidney or liver. How to explain this to you. Do you know the old Chinese saying that goes as "是药三分毒"? It means we need to consider a balance whatever we do, right?

Qianxi and Yunhan both referred to the old Chinese saying. Its underlying meaning refers to the philosophy of Yin-Yang in TCM – every substance has two opposites; their application needs to achieve a balance. The ideology of achieving a Yin-Yang balance indicates that Chinese individuals acknowledge the dualism but also the holism of the various forces in the universe. More importantly, they perceive the human body as a natural part of the universe, which is equipped with a capability for self-adjustment. In their perception, mind and body are also dualistic (consistent with the Western culture), but they don't perceive the transcendence of mind over body, or pursue the conquering of nature (body as a representative form of nature). Instead, they treat the body and mind as equal organisms and intentionally give the body opportunities to "take breaks" and "do self-adjustments". Achieving a balance is the ultimate goal, not conquering nature.

Moreover, based on the ideology of Yin-Yang dualism and holism, TCM holds that good health condition results from holistic conditioning that involves various forces, including diet, lifestyle, emotions, environment, and age. As shown in our research, informants are influenced by the following beliefs: 1) the efficacy of treatment can only

be shown in the long term; and 2) the focus of health maintenance and promotion should be applying various forces to holistically adjust body functioning rather than relying on one specific treatment. Consider the illustrations from a 7-year user, Wushuang, and a 15-year user, Hong:

Interviewer: Have you felt any positive changes after three years' use of these DS products?

Wushuang: About this...I'm not very sure [...] You know that women would do various things in order to make the skin stay young and good. For example, I take these products. But I also pay attention to my diet. I also take exercises. So, which aspect is working exactly? I cannot be so sure. But I insist on doing all those things. It's just that I'm using DS products more regularly and persistently than doing other activities.

Interviewer: You were saying that you have not experienced the aging symptoms so far. Do you think this is due to your continuing use of DS products?

Hong: I think it is a holistic effect. I cannot say it is totally because I'm taking DS products. I think it is a holistic effect, based on your lifestyle, combined with the DS effect. Is it due to one factor? I don't think so. A good physical condition is built on your life habits. It's even related to the weather and environment in Beijing. I never separate any one aspect from the others.

Wushuang and Hong attributed the anti-aging effect to a holistic set of efforts, which fits the traditional TCM belief in the dualism and holism of Yin-Yang balance. Moreover, by admitting the holism and balance that exists in the universe as a macrocosm, as well as in the human body as a microcosm that mirrors the larger macrocosm, TCM indicates that humans need to accept that “chances” are also part of the forces in the holistic health conditioning system.

Originating from the Confucian texts, there is an old Chinese saying of “生死有命富贵在天”, literally referring to “Life or death, poor or rich, it's all destined.” The essence of this belief is the value of ‘inner peace’ – by implying that there is an invisible force existing in the universe that functions as a factor affecting human life, including

well-being. TCM emphasizes harmony between humans and the universe and respect for nature. It is similar to the concept of chance health locus of control (chance HLC), which refers to the belief that health results by chance (Wallston, Wallston, & DeVellis, 1978). Chance HLC is different from Internal HLC, which means that people believe that they have complete control over their health, and their own actions dictate their health. It is also different from powerful others' HLC, which means that people believe that their health is the result of the actions of powerful others such as health care providers (Wallston et al., 1978; Rajamma & Pelton, 2010). Our data reflects the influence of the belief in chance health locus of control on individuals' DS consumptions:

Yiran: [...] I have an uncle. He was a doctor...He was highly knowledgeable of health maintenance, and he was doing a great job of self-care. But he died...a long time ago [...] I would think...our Chinese people...a lot of Chinese people are not paying that much attention to self-care or diet...but they are still exceptionally long-lived. These examples were comforting myself...when I didn't want to take DS on someday...I told myself...it is okay to skip a day or two [...] It is related to how you want to treat your life...I wouldn't expect too much...wouldnot be too determined...you know what I mean?

From Yiran's story, we can see that she implies the existence of an invisible force in the universe that affects an individual's health condition no matter what lifestyle the individual lives. Further, Yiran admits that, for some days during her DS use, she is consciously making use of the traditional belief to justify her behavior of skipping DS products to escape the guilt feeling.

To summarize, the ideology of Yin-Yang balance that is ingrained in ancient Chinese culture and applied in TCM provides predispositions for individuals to act upon in making health consumption choices and decisions. This mind map of predispositions consists of a belief in the balance and holism of the universe, a belief in the dualistic but

equal mind and body, and a series of TCM beliefs such as the slow effect of treatment, the holistic view of a health regimen, and the chance health locus of control.

In this section, we illustrated the habitus in the field of DS consumption in China. Specifically, guanxi social relationship, low trust culture, morality in femininity, and ideology of Yin-Yang balance were introduced and discussed. Next, we elaborate on the theme of changed conditions in the field.

5.2.2 Changed Conditions in the Field

Since the industrial revolution, our world has experienced modernity and entered a more radicalized and developed modernity which Giddens called as late modernity (some sociologists call it postmodernity). The modern forces that were developed in the stage of modernity in the West (e.g., globalization and technological and scientific development) are found to influence our informants' social life from various aspects.

In this section, we introduce and discuss the *changed conditions in the field of DS consumption in China*, including *technology and science development in Western health care, globalization of Western DS products and brands, entrance of Western consumption values, entrance of Western medical science values, and development of social media in marketing communication and distribution*. This section displays and discusses these forces and their consequences for health promotion activities in China. Following this, we discuss the interplay between local habitus and the changed conditions – opportunities and tensions coexist in Chinese individuals' DS consumption as well as other health-related consumption fields.

Technology and science development in Western health care. Two sub-themes emerged during data analysis under this category: 1) *DS is a scientific and technological solution that originates from the West*; 2) *the rise of a self-care paradigm with a shift in power from authority to non-authority*. First, our research confirms that DS is perceived by our informants as a solution originating from the West and representing the power of modern science and technology. See the following examples that illustrate the positive influence of the Western origin of DS innovation on individuals' product choice:

Meimei: I stayed in the UK for two years. I came back at about 2013. Right. I got to know DS when I went to the UK. I think DS originated from the Western countries, right? In my eyes, the foreign DS products look better. I started to buy DS since then.

Interviewer: Were you trying to persuade your father to use DS?

Yiran: Yes, I did. I told him that, for example, Western people would take a handful of DS every day. They are in very good health condition. [laughter] [...] Indeed, in our eyes, a lot of Western people are physically stronger. Our first hypothesis is that they are strong because they are eating those nutritional products. The other hypothesis is that they have been drinking a lot of milk...and doing a lot of exercises.

Interviewer: You mentioned that the Chinese have a preference for foreign products and brands?

Panpan: I think this is already a Chinese consumption style. You see, the Chinese always think the Western brands are better, no matter what they buy [...] foreign shoes are better...foreign apparels are better...foreign foods and drinks are better [...] Besides, the concept of DS originates from the West, not China.

By taking a deeper look at the data, we identified that the reason for the positive attitude towards the Western origin of DS lies in the technological and scientific development in the contemporary West. There is a common conventional view in Western consumption – science and technology, as the empowering and liberating forces (Foucault, 1994), are omnipotently embodied in consumer goods (Stivers, 1999), and bring magical/mythical solutions to consumer's life problems (St. James, 2011; Thompson, 2004). This

orientation reflects that technology has become central and sacralized in contemporary culture in which efficiency is expected, and technology itself becomes a dominant source of magic (Stivers, 1999). Hence, health consumers are primed to believe that consumption can be used to control the health and/or appearance of the body (Glassner, 1990).

Previous studies have confirmed the existence of this conventional view in self-care and health promotion. For example, research suggests that natural health products are advertised as magic-in-a-bottle or magic elixirs (Thompson, 2004) that allow consumers to reap the benefits of a natural lifestyle without adhering to its stringent demands (St. James, 2011). That is, by evoking a technological utopia, “Diet fads, pills, and shakes, as well as popular culture gurus and their advice” (St. James, 2011, p. 642), are examples of magical solutions that offer quick and low-effort gains for consumers (Marshall & Larimer 1995).

Consistent with Thompson’s (2004) analysis of the mythic narratives that circulate in the natural health marketplace, our research identified that mythology is constructed in the DS marketplace and ideologically used by advertisers of DS products and consumers seeking alternatives to their life problems. Specifically, Thompson (2004) proposes two types of mythic metaphors and their corresponding mythological promises that are conveyed in the technocratic rhetoric in product commercials: 1) *technology-as-divine-tool* that conveys the mythic promise that the products have distilled, enhanced, and standardized the healing powers of nature, rendering them more efficient and effective; 2) *technology-as-liberator* that conveys the mythic promise of boundless

vitality, i.e., the product has energizing properties that liberate individuals from the restrictions of nature (p. 168).

We see these two discourses prevailing in the advertising rhetoric of DS products which are offered as a solution for consumers' health-related and/or body-related problems. Further, the rhetoric has been endorsed by scientific symbols, language, and statistics; by referring to scientific findings and laboratory testing, the mythic narratives are endowed with scientific rigor and rational license, and, in turn, lead to the formation of a magical solution – a safe, effective, and effortless solution.

Now we consider how these mythic metaphors are ideologically influencing our informants. Chun is committed to the use of DS products, including Co-enzyme Q10, selenium, and L-glutathione. In her narrative, she keeps describing the products by employing scientific symbols and language – different from other informants; she keeps calling the DS products by the names of chemical substances instead of the brands or functions. She states that the most important factor that affects her DS product choice is whether it is a chemical substance distilled from nature. She also mentions numbers when illustrating the effectiveness of the products:

Chun: I don't trust the so-called natural product. I must know it is some scientifically extracted substance [...] Those named with, for example, cranberry or evening primrose, are not reliable to me. I know grape seeds' main effective ingredient is procyanidin. But 100 mg of grape seeds only contain 75 mg of procyanidin. Based on this volume, I feel it lacks professionalism. I trust those products clearly named by chemicals, such as Co-enzyme Q10, selenium, and L-glutathione...those chemically distilled substance.

Similarly, Qianxi and Yuanyuan both express their perception of the technology-as-divine-tool: the DS products have distilled and standardized the effective function of nature (e.g., blueberry); they even enhance the effectiveness, aided by the scientific and

technological processing. Hence, taking DS products is a more effective and efficient solution for guaranteeing nutrient intake:

Qianxi: [...] DS is actually extracting the good substances contained in real foods and transforming those substances into smaller particles that are easier for digestion and absorption. This is how I understand the DS [...] people who are not willing to, or don't have enough time to prepare fruits or vegetables, could take DS for convenience [...] For busy white collars, it is more convenient and efficient to use DS.

Yuanyuan: You can buy real blueberry and eat real blueberry. Yes. But...blueberry supplement is small...you just need to take one or two tablets. It's sufficient enough. Otherwise, you might need to eat a lot...a lot of blueberries every day. I don't think you can guarantee that large quantity. Taking blueberry supplement is more effective.

From the two examples, we can see that both Qianxi and Yuanyuan perceive DS as more effective and efficient than real food in providing people with nutrients. This perception is based on the science and technology behind DS production.

In addition to the mythical belief of technology-as-divine-tool, our informants also utilize the other orientation, technology-as-liberator, in their DS consumption.

Wushuang states that she is extremely "afraid of aging," and she has been committed to the use of skincare and beauty DS products for anti-aging benefits. She describes her fear when she realizes her lack of energy and vitality:

I remember that I read a sentence before... It says all humans' behaviors are out of fear or love. Mine must be fear. [laughter]. I am afraid of aging. I am scared when I think about that. Much more scared than other people [...] If I look at myself in the mirror...and find my skin dark...pale...without vitality! I cannot accept that me. You know what I mean?

Like Wushuang, many of our informants express their fear of lacking vitality. The mythic promise of boundless vitality conveyed by technology-as-liberator brings comfort, hope, and happiness to our informants. The products seem to have the boundless vitality that

makes our informants feel more vibrant immediately after the use and liberate them from the aging effect of nature. Panpan expresses a similar view with Wushuang. She is also committed to the use of skincare and beauty products, like collagen and grape seed extract.

When I take them, I talk to myself in my mind: “I will be prettier after I take it!” [laughter] Sometimes, I go to look at the mirror and observe my look...and I feel like I really become more vibrant!

We can clearly see the liberating effect of the skincare DS products from Panpan’s words. According to Panpan, she immediately saw a different self after taking the DS products. Moreover, our informants mention that these cultural myths are concretely manifested through mass media and brands’ advertising. Information provided in advertisements, such as scientific experiments and laboratory statistics, encourages consumers to feel they can rely upon and trust the promoted products.

Wushuang: Mm...About the science feeling, ...it is perhaps an advertising method. But I believe it. Usually, the DS advertisements provide information related to, for example, experiments, scientific lab, and research statistics...right? They put statistics in the commercials. I buy it. For example, the difference between user and non-user...or, the changes in the user’s skin after a 4-week use [...] [Laughter] this kind of messages...is like, showing me their science and experiment. It is persuasive to me.

According to Wushuang, she is clear that the statistics and experimental results in commercials might be “an advertising method”, but she chooses to believe in the “scientific feeling”. Her reflection seems to indicate that the power of the cultural myths about technology and science surpasses that of her cognitive suspicion of the role of the statistics and experimental results as a marketing technique.

As a part of our data analysis and interpretation, we iterated between the information provided by our informants and the materials associated with their DS

products, for example, the advertisements. We found that both mythic beliefs that we have described above – technology-as-divine-tool and technology-as-liberator – are explicitly expressed and advocated in these materials.

First, the names of DS products, such as *SeroVital Renewal Complex* and *SHOYO Time Essence*, use words “renewal” and “time essence” to emphasize a boundless vitality embedded in the product implicating a fairy-tale dream of a second chance at youth or staying in youth forever. Some products directly use the English names of gods in myth, e.g., *AXXZIA Venus Recipe & AG Drink*, to indicate a mythical quality imbued by the product is staying young and beautiful.

Second, we see brands using names like *Nature’s Bounty* to demonstrate the brands’ attempts to connect the product to nature, leading to a perception of the product as a representative of the healing power of nature. Further, this healing power of nature embedded in the DS product is enhanced by science and technology – we see discourses such as “*Scientifically formulated to support...*” prevalent in the ads of DS products. Hence, despite the magical quality of these ads, the authorities who back these promises are not wizards or magicians or companies, but an assemblage of various scientists, doctors, and researchers that help consumers build trust in the product (Smirnova, 2012). All examples described in this paragraph are also included in Table 5.1.

To summarize, as a result of contemporary technological and scientific development in the West, DS is perceived by our informants as a solution originating from the West and representing the power of advanced science and technology. Moreover, based on the mythical connections, including technology-as-divine-tool and technology-as-liberator, DS products that are developed by science and technology in the

West are perceived by Chinese individuals as a magical solution for solving health problems and promoting health.

Next, we highlight another sub-theme that emerged during our interviews: *the rise of a self-care paradigm with a shift in power from authority to non-authority*. As science and technology are embodied in consumer goods (Stivers, 1999) and bring magical solutions to consumer's life problems, health promotion has been seen within the context of profit-making and market mechanisms (Balbo, 2007). The prevailing trends in public health point to aspects of "commercialization" and "marketization" (Balbo, 2007), and indicate a transfer of power and responsibility in controlling individual health from medical authorities and health professionals to individuals (Tang & Guan, 2018).

Contemporary consumers are more than ever before feeling confident in recognizing and controlling their own health status. Accordingly, we have seen a rise of the self-care paradigm along with the shrinking power of authorities, e.g., doctors and dietitians, and increasing influence from non-authorities, e.g., celebrities, bloggers, and close social ties, on individuals' health care.

Yinuo: [...] But there is a lack of knowledge. [...] People don't know how exactly I can do to promote my health. Some experts in nutrition, like Professor Zhihong Fan, are giving some guidance through her social media channels like Weibo account. But there are so many other voices as well! And the public seems more likely to be influenced by those voices, for example, the commercials from the brands and the suggestions from the Internet Stars. [...] Their voices are much louder than the experts' voice. They let people believe, yes...I must add some extra nutrients.

Interviewer: From your point of view, why are so many people crazy about DS consumption?

Yinuo: I believe they are taking DS for the purpose of health improvement. That is for sure. But, most of them don't want to be too harsh on themselves. Here is where DS comes. It is like a short-cut. That's why many people are purchasing and using the dietary powder for weight-loss. [laughter]

From Yinuo’s descriptions, we see her acknowledgment of people’s goodwill for health promotion, but we witness her concerns about the trend of using DS consumption as a replacement for healthy activities such as diets and exercise by stating that the use of DS is a “short-cut”. It might remind us of the special feature of health promotion and consumption: while contemporary individuals are participating in self-care practices (by taking DS products, for example), they may need knowledge and skills that support their decisions and practice. Further, along with the shift of power from authority to non-authority, not only mainstream medical knowledge but also lay health beliefs and theories come into the picture, influencing individuals’ health promotion decisions collectively.

Globalization of Western DS products and brands. As the world becomes a global economy, Western products and brands enter the Chinese marketplace and dominate the consumption of the mass elite social class.

Table 5.3 Brands Adopted by the Informants in This Study

Informant	North America	Europe	Australasia	Japan	China
Zixuan	SeroVital		Blackmores		
Mengqi	MoveFree, Ddrops		Blackmores		
Yunhan	Pfizer-Centrum	Bayer-Elevit	Blackmores, Swisse	Transino	SuperVita, Yangshengtang
Yiran	Nature’s Bounty		Swisse		
Ruoxi			Blackmores, Swisse	Fancl, Pola	
Yinuo	Pfizer-Centrum, GNC	Bayer-Elevit	Blackmores, Swisse		
Shiqi	GNC		Blackmores, Swisse	Kobayashi	
Yuxin	Ddrops, Floradix	Bayer-Elevit	Bioisland, Swisse, Blackmores		
Meimei	Ddrops, Vitamin World, Pfizer-Centrum	Bayer-Elevit	Swisse		Yikexin
Chun	Confidence, Childlife		Bioisland		
Yuehang		Bayer-Elevit, Zymafluor	Bioisland		

Hong				Suntory
Haoran			Melrose	Night Diet
Junjie			Blackmores, Swisse	
Yuanyuan	GNC, Nature's Bounty	Caudalie	Swisse	Fancl
Panpan			Swisse	
Qianxi		Lifeline Care		Yikexin
Luying	Pfizer-Caltrate, Childlife, Nature's Bounty-Puritan's Pride	Bayer-Elevit, BioGaia		Yikexin
Fangxue			Bioisland, Blackmores, Swisse	Yikexin
Xiaoxi		Bayer-Elevit	Bioisland	DHC, Fancl, Yangshengtang
Xiangyi	Ddrops		Blackmores, Thompsons, Ostelin, Melrose	
Wushuang	Pfizer-Centrum			Pola, Fancl

As Table 5.3 demonstrates, most of the 22 informants in this study have focused on purchasing and using Western DS products and brands. The very limited choice of local Chinese DS brands is either recommended by doctors (i.e., Yikexin is a local brand specializing in Vitamin D supplement) or socially recognized as a brand that specializes in the most common DS categories such as multivitamins and has a very long history (i.e., Yangshengtang and SuperVita are old Chinese brands that focus on vitamins). Informants perceive DS products produced by Western countries (e.g., US, Canada, Australia, New Zealand, Germany) as safe and premium.

Moreover, as many of our informants explicitly state, the adoption of Western products and the positive perception of Western brands are quite common in China. It makes common sense to our informants; they don't even know if there are local DS brands:

Interviewer: You didn't consider a local brand [for child's DHA]. Why?
Yuxin: Because...because there seems no good Chinese brand. [laughter].
Nobody around me ever suggests any local brand to me.

Interviewer: Why do you think Australian DS brands are good?

Meimei: First, because it has good word-of-mouth. The older people in my family, or my peers, all trust that brand. [...] Moreover, online reviews show that this brand is the best. [...] I think it is common sense that we should buy Australian brands.

Shiqi: [...] Besides, brands like GNC are very popular in China. Many people would choose these brands. If you see so many people using the same brand and saying all good words [...] you will trust its safety and quality.

The quotes demonstrate our informants' positive perception and preference for Western DS products and brands. We found three factors that contribute to the positive perception of Western products and brands: 1) Western countries are developed societies (see Luying's description) 2) where DS brands are created by giant and reputable enterprises that have a long history (see Shiqi and Meimei's descriptions), and 3) where the governance and surveillance of DS products are much stricter than in China (see Junjie and Yuanyuan's illustrations):

Interviewer: Do you have a particular preference for a certain country's product?

Luying: Yes. US, Japan, and Germany. I think they are the most reliable.

Interviewer: Why?

Luying: As for the US, it is the most developed country, right? It's proud of its products. I personally feel that its products have a low probability of quality or safety issues. [...] For Japan, I know that they have very serious punishment for people who make fake products. [...] regarding Germany, I always have a perception that it is famous for its rigor. I think their productions won't have any problems.

Shiqi: You see, big companies usually guarantee quality. If two brands both have Vitamin C or Vitamin E, I will definitely go with, for example, GNC, the big name, rather than a no-name brand. Actually, GNC might be more expensive than the no-name brand. But if I can afford, I still choose GNC. It is a famous brand. It has a strong research and innovation team. You can see its quality credentials. So, you know that its products must be under strict control.

Meimei: For DS products...I think giant brands are trustworthy...the companies that have had decades or even hundreds of years' history must be safe. Otherwise, they cannot survive the market for that long. [...]

Interviewer: how do you judge if this brand could be trusted or not?

Junjie: in Australia, there are big pharmaceutical stores. Those stores sell limited brands. [...]. I would check their websites; if I can find the brand sold in these stores, I would trust its authenticity and quality. [...] In Western countries, the governance of DS is strict. The fake products will bring serious penalties, including fines. Those big pharmacies usually hold a high level of standard for products that they sell.

Interviewer: Your brand choices seem to concentrate on the US and Australia?

Yuanyuan: That's right. Countries like Japan, the US, Australia, and New Zealand have a better reputation. [...] I would prefer products produced by these countries because I feel that they have stringent control and governance on product quality and ingredient quality. I think Chinese consumers have a good attitude towards these countries' products.

It is very clear that Chinese consumers have trust in Western DS brands for their safety and product quality. Moreover, based on the social mechanism of *guanxi* in China, individuals' faith in Western DS brands is enhanced through interpersonal communications and the resultant social norms in their peer group – their classmates, colleagues, friends, and other close ties all use and recommend Western DS brands. As Shiqi describes, they do not really care about the probable higher price of the Western DS products. In fact, they are willing to pay for the higher price because the countries of origin are developed post-industrial societies that have built a strict public governance infrastructure to exercise control over health products, and have strong enterprises with a long history. All these factors lead to individuals' trust in Western DS product's safety and quality.

Our findings concurred with previous research on recent changes in China under Western influence. In the last four decades, Chinese society has experienced significant

transformations during the Economic Reform Era (1980-1991) and the Era of Globalization of China (1992-present). These major events have increased Chinese individuals' economic power and disposable income and have led to Western businesses' successful entrance into the Chinese consumer market since it was opened up in the early 1980s. As a consequence, we see the emergence of the recent generational consumer cohort in China, i.e., our targeted sample – mass elites.

Importantly, as Western consumption and cultural values entered China, the Economic Reform Era and the Era of Globalization of China introduced new social orders and ideologies that cultivated new group values (Podoshen, Li, & Zhang, 2011), including both traditional Chinese Confucian values that emphasize frugality, interpersonal self-construal, and collectivism, and western materialistic values that emphasize consumption and personal enjoyment (Chan, 2003). Next, we emphasize that along with the dominance of Western DS brands in our interviews is the prominent display of Western consumption values and Western medical scientific values. We next elaborate on these two subthemes.

The entrance of Western consumption values. Our research finds that Western consumption values, including *hedonics*, *consumerism*, and *individualism*, have an influence on DS consumption in China. Research has suggested that, since the Economic Reform Era (1980-1991) and the Era of Globalization of China (1992-present), noticeable changes in China include hedonic consumption (Wang et al., 2000), growing consumerism (Podoshen et al., 2011), and a growing tendency toward individualism (McEwen et al., 2006). All three major changes are reflected in this study.

First, many DS users were committed to DS purchase and use over the long term due to the hedonic values achieved from consumption. The hedonic value could come from each time of consumption experience (e.g., good taste of the product) (see Junjie and Xiaoxi) and/or an array of trial experiences of new DS products over a long term (e.g., experiences of exploring DS product category) (see Yuanyuan). Consider the following examples:

Interviewer: In terms of Vitamin C, how often did you use?

Junjie: Almost every day. It tastes good like candy, sweet, and tart. There is no obstacle for me to take it every day. I feel happy when I take it.

Interviewer: Did you start to purchase Vitamin C and Vitamin E after you started your career?

Xiaoxi: Exactly. But I purchased and used VC much more often than VE. Because VC tastes great, but VE doesn't.

Interviewer: What do you mean by "tastes great"?

Xiaoxi: VC is sweet, like sugar. Also tart, like orange. And what I bought was lozenge...it was like candy. But VE is very big...transparent...and oily...and needs to be swallowed!

Yuanyuan: [...] I bought gummy bears as well. It was in a pink bottle...looked like candies...which are also pink and sweet. Really like candies. [...] Purchasing it was purely out of curiosity...novelty seeking! Not for its functions or performances. [...] My purchases were in that pattern. Products might change. Many times, my friends introduce me some new product, I would like to give it a try. That is to say, I have been trying this DS category but not stick to any product. I always want the same functions, but switch between different products. [...]

Interviewer: Why do you keep switching?

Yuanyuan: Because...you will be bored if you use some product for a very long time. You want to see if there is any better product. That's a common attitude among women, I think. No matter how great a product is, you still want to find something new to replace the old one.

These examples show that our informants pay particular attention to, and are influenced by, the use experience (e.g., taste) and the exploration experience (e.g., novelty seeking) during DS consumption. Research has theorized that, as a result of economic affluence (Ger & Belk, 1990), hedonic value and happiness seeking originated in Western

consumption beliefs (Campbell, 1987). With the exponential growth in industrialization in Asia (e.g., Japan), there has been a convergence of western influence (Belk, 1985) and rapid economic rise that together leads to the growth of materialism and happiness seeking in these countries (Brannen, 1992). It is also found that hedonic values have a positive impact on Chinese consumers' choice and consumption patterns such as novelty seeking, brand consciousness, and preference for foreign brands (Wang & Lin, 2009). Hence, as shown in our interviews, DS users (e.g., Yuanyuan) might seek novelty by exploring various DS products and trying various brands of DS from foreign countries, but do not build commitment to any specific brand/product; they are conscious about the most famous international brands and only purchase international brands.

Second, the theme of consumerism is shown across interviews. Informants keep experiencing consumption of DS products, as well as other modern goods, by investing money and time in exchange for comfort and happiness. Consider the following examples:

Xiangyi: I like doing research on skincare and cosmetics products as well. I found that skincare products are actually similar to grape seeds in terms of the functions. Skincare products can only do basics like moisturizing. Other claimed functions like anti-aging and decreasing wrinkles are useless. All these products cost me a lot of money. However, when you use these products, you feel happy. After skincare routines, you feel happy as well because you have some expectations. I think it is enough to have these feelings. I mean, all these consumption are ineffective regarding their claimed benefits, but they make you stay in a positive mood.

Interviewer: During the whole consumption process, in what moment you get the greatest joy?

Shiqi: Probably when I received the product [...] You want to unpack it quickly, look at it, and try one. The purchase was only a moment of spending your money. You will not be able to feel the value of the consumption until you hold it...you possess it...

Shiqi: I don't take exercise. I don't have enough motivation. I cannot get pleasure from exercise. It takes a lot of my time and energy. I think it is

not a good deal for me. I would rather spend money [...] I invest a lot of money on skincare. Most of my salary. [laughter] But I'm satisfied with my life now. Since I started to take these DS, I feel they have been functioning to improve my skin condition.

Both informants are seeking happiness by investing money in DS consumption as well as other consumption. They do not necessarily believe in the functional performance of the DS, but they agree on the joy brought by the consumption and possession. Research suggests that, guided by the happiness seeking ideology, Western consumption values emphasize that an individual's ability to earn a high income would lead to his or her flexibility and capability to purchase a wide variety of commodities (Rice, 1992). Influenced by Western culture, it has been shown that over sixty percent of young Chinese urbanites believe that one should "enjoy life now," saying that they are willing to spend more on high-quality items (McEwen et al., 2006).

However, it is worth mentioning that, traditional Chinese culture includes a strong Confucian value of thriftiness that has a significant impact on Chinese daily lives and their attitudes toward debt, saving, and spending patterns (Wang & Lin, 2009); China is also a guanxi-oriented society (Yau et al., 2000) in which social acceptance is of paramount importance. As a result, while Chinese individuals are embracing Western consumption values, they are also attaching importance to frugality and social belonging; the conflicts may lead to a negotiated and localized Chinese-style consumerism.

Third, largely because of globalization, our research sample of Chinese mass elites (Post 80s and Post 90s generations) hold viewpoints and attitudes that are different from those of their parents. A central feature of these attitudes is individualism that stands emphatically opposed to the collectivist spirit. In our research context of DS

consumption, the increasing individualism is reflected by a respect for other people's lifestyles (see Yuxin), and a call for divergent lifestyles (see Panpan).

Interviewer: Didn't you try to persuade her not to spend money on those DS products that were ineffective, in your opinion?

Yuxin: No, I didn't. [laughter] Because I think that was her consumption lifestyle. She is just making consumptions in that way. I don't think I need to say anything to her. I mean, that is her way of living. There is no right or wrong about it.

Qianxi: Products like DS, are similar to lipsticks. Different people suit different colors of lipstick. Right? There is no one consistent choice for all.

Interviewer: What is your opinion about the popular word 'self-discipline' nowadays in China?

Panpan: Ah, I hate that word. I don't like the propaganda of it. Because I think every person could have different lifestyles, attitudes, and pursuits [...] Besides, I don't think, for example, weight control...I think some girls with chubby faces are very cute. Personally, I am against the advocates for a single lifestyle, the so-called self-disciplined lifestyle. I believe individuality needs to be freed. Every time I came across some articles on social media talking about self-discipline, I would skip that article immediately. Nonsense! I want to live in my own way. Don't need to follow others' lifestyles. As long as you feel comfortable, it would be fine. Nobody really cares about how you live.

From the examples above, we can see that our informants express a respect and advocate for diversity (e.g., "That is her way of living." "There is no consistent choice for all.") However, in traditional culture, Chinese people view the self as interdependent, where one's self-identity is found in terms of *guanxi* relationships (Markus & Kitayama, 1991). Conformity to the group is treated as desired and expected (Yau et al., 2000). In contrast, the Western view of the self encourages individuals to regulate and manage behaviors depending on personal tastes and values, abilities and preferences (Wong & Ahuvia, 1998). Influenced by the independent self-construal inbuilt in Western cultural values, Chinese mass elites might be experiencing a shift from collectivism to individualism.

The entrance of Western medical science values. Western medical science values are confirmed to affect our informants' DS consumption. Two sub-themes are included: *the evidence-based medicine (EBM)*, and *the mind over body ideology*. First, evidence-based medicine (EBM) refers to “the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients” (Sackett, Rosenberg, Gray, Haynes, & Richardson, 1996, p. 71). As a core principle of Western medical science, EBM emphasizes science, experimentation, and evidence – applying the best available scientific information to guide decision-making about clinical management, which is distinctively different from Traditional Chinese medicines in which diagnosis and treatment largely depend on expert knowledge and experience without conducting large scale medical experiments. EBM has a significant impact on our informants' health practices. See the following examples for illustration:

Interviewer: You were saying that, information based on clinical experiment and evidence has a larger impact on you?

Chun: Exactly. It makes me feel more reliable because it has evidence as support. Evidence-based medicines.

Interviewer: Can you elaborate more on that? The evidence-based medicines?

Chun: [laughter] How to say, it is a medical science based on evidence. Its opposite is experientialism, I suppose. I'm not an expert on this area...but I believe that, every conclusion...every argument...should have evidence for support. That's it.

Interviewer: Do you do some information search before making purchases?

Xiangyi: Of course, since my daughter was born. Now, it is advocated to follow the “scientific parenting” principle, which is based on evidence-based medicines. I'm learning about these things. Mainly learning about the evidence level. I need to make sure in which level of evidence a medicine or DS product is, and then make my decision about whether to use it or not [...] I personally don't believe in Traditional Chinese medicines. I extremely attach importance to evidence. Traditional Chinese medicines...don't have experiments...a lot of experiments to provide evidence.

Chun and Xiangyi's descriptions show that the evidence-based logic influences their DS consumption (e.g., Chun needs evidence that supports the claimed function of DS, and Xiangyi follows the "scientific parenting" principle).

Another key concept in Western medical science is the dualism of mind and body. The mind/body distinction has been treated as a structuring concept for Western medical science (Descartes, 1984; Romanyshyn, 1989). Since the industrialization era, Western society emphasizes individual power enabled by science and technology. Hence, our intellectual capacity is expected to transcend the constraints of our biology (Thompson & Hirschman, 1995). As a consequence, an ideology of "mind over body" is produced in Western culture and widely expressed in body-related practices (e.g., weight loss and anti-aging). For example, the natural aging process is perceived to be controlled by knowledge and technology. The ideology is further largely promoted by commercialization and marketing activities (e.g., a lot of products and services advertised as a means to manage weight or postpone aging). Facilitated by globalization, this ideology of mind over body travels to China and develops an influence on Chinese individuals' practices. See the following example:

Yuxin: As for physical exercise, I think it is necessary...I want to keep myself doing some exercise every day. The body...you cannot let it stay in a comfortable situation...um, a lazy situation for a long time. You must push it to move...and to be well prepared for some changes, like losing some weight and gaining muscles [...] Sometimes...many times...I know that my body doesn't want to move at all [laughter] but my mind is, like, doing some self-talking, like, let's try! There are some strugglings. But usually...after a few self-talk...eventually we can take some time, like, half an hour, to do some cardios or yoga...

Interviewer: You just said "we"...when you said you take half an hour to do cardios or yoga...Who, exactly?

Yuxin: [laughter] Just me. My mind and my body.

From Yuxin's description of her effort to keep doing physical exercise, we can see that she clearly distinguishes between her body and her mind, and both body and mind influence her perception of the self. She can feel that her body has its own intent as it "doesn't want to move at all" but her mind is stronger than her body's power as her body becomes willing to do exercise after a few "talks" between her mind and body. This example demonstrates the dualism between mind and body as well as the mind-over-body ideology.

Next, we discuss the last sub-theme under "changed conditions in the field" – the development of social media in communication and distribution.

Development of social media in communication and distribution. First, we focus on the role of social media in marketing communications. It is said that consumers would change their values and subsequent behaviors over time, as the consumption situation and environmental changes call for adaptation, through continuous assimilation, accommodation, organization, and integration of environmental information (Kahle, 1983). During this process, mass media plays an important role in value and behavior changes, working as a catalyst for the emergence of new consumer culture (Wang & Lin, 2009). Previous research on the Western influence on Chinese consumption has suggested that Chinese exposure to Western culture through commercials, film, TV programs, and magazines has contributed to the erosion of traditional Confucian values and the increasing salience of individualistic values (Wei & Pan, 1999), materialism (Pollay, Tse, & Wang, 1990), and hedonics and extravagant consumption (Wang & Lin, 2009).

Consistently, the significant influence of mass media on Chinese individuals' information processing is a stand-out theme in our interviews. But strikingly different from previous research, our study shows that social media, instead of traditional print/digital media, becomes the principal force. No informant mentioned traditional print media like magazines or newspapers, but 3 out of 22 informants mentioned that they relied on reading health-related books for information and knowledge. Regarding digital media, a transformation from TV programs to social media is shown across interviews, and a trend of using social media as the only information source is distinct:

Interviewer: You mentioned the popularity of Australian brands in China. Popular among whom?

Meimei: Everybody. People around me. The elder people in my family, relatives, friends. And, the internet. I think it is known to all people. It is omnipresent.

Interviewer: On TV programs or newspapers as well?

Meimei: Uh...Not really. No. Basically...online comments...or discussions around me.

Interviewer: What do you refer to by saying "online"?

Meimei: RED...Taobao...Mm...and WeChat's official accounts.

Interviewer: About Bioisland, you said it was very popular. How do you define popular?

Xiaoxi: It is very famous in China...with great word-of-mouth...many people know about it.

Interviewer: What do you mean by "many people"? Where are they? TV, the Internet, or your personal life?

Xiaoxi: Online. Many people on social media, like RED, have been talking about this brand all the time.

Interviewer: Could you please describe a little bit about how you learn nutrition knowledge?

Yuanyuan: Of course. Mm...there are many channels. Nowadays, the Internet is so mature. For example, the WeChat official accounts that I have mentioned earlier. And...RED. In the first few years, I used Sina Weibo...and also Taobao's product description page [...] mainly through these social media platforms...

Interviewer: You mentioned that your first-time experience with DS was in high-school...introduced by your parents?

Yuanyuan: Yes. Back then, TV commercials were much more common. Parents watched those commercials and thought I might need some...TV commercials should be the earliest channel for us to get to know DS products.

Shiqi: I tried many so-called “Internet Star” products [...] Internet Star products refer to products that go viral online. Actually, on our traditional digital media, such as TV commercials and newspapers, you can never see the information of those Internet Star products. But they are so popular online. Everybody gets to know these products from the Internet...

Meimei and Xiaoxi’s descriptions show that DS products and brands are broadcasted, and in many cases, only broadcasted on social media platforms. Both Yuanyuan and Shiqi’s excerpts demonstrate the transformation from relying on television for information to social media. Moreover, Shiqi mentions “Internet Star” products that only emerge on social media channels, and are advertised by specific groups of social media influencers. She provides further clarification for “Internet Star” products:

Shiqi: [...] Internet Star products are originally used by some celebrities [...] They are using these products, and they all do awesome jobs of anti-aging. They still look like little girls. Their looks already show the effectiveness of the products. So, these products become increasingly hot without any commercials from the businesses. These celebrities might recommend these products a little bit on their social media accounts out of personal interests. They create Internet Star products. Later on, many bloggers joined in [...] They keep trying various kinds of products for their followers, and they recommend products based on their own experiences. Gradually, they become opinion leaders on social media who have lots of followers. People are willing to follow their suggestions...Gradually, the products they recommend online are also called Internet Star products. Literally, it means products that become stars on the Internet.

Shiqi vividly explained to us what the “Internet Star” products were. They are products that gain popularity solely by online (more specifically, social media) word-of-mouth.

The user-generated-content (UGC) and social networking features of social media

contribute in a large manner to individuals’ freedom and the flexibility to express their ideas, and significantly facilitate the fast and wide broadcasting of individuals’ ideas.

Shiqi’s explanation shows the strength of social media in advertising products in China nowadays through consumer-to-consumer e-word-of-mouth rather than business-to-consumer communication. Further, she mentions e-word-of-mouth from one specific type of social media influencers – key opinion leaders who are celebrities or bloggers. More categories of social media influencers and social media platforms they dwell in were identified in our interviews. Table 5.4 summarizes the social media platforms and social media influencers that occurred in this study.

Table 5.4 Social Media and Social Media Influencers in This Study

Social media (& Influencer)	Specifications
WeChat	<ul style="list-style-type: none"> • A multi-purpose messaging, social media and mobile payment application, launched by Tencent in 2011. • Functions: Instant messaging (one-to-one, group chat, video and audio call), Content marketing (official accounts & subscriptions), Social networking (read, post and share contents), keyword searching.
WeChat influencers	<ul style="list-style-type: none"> • WeChat official accounts (health professionals): Doctors/nutritionists register as public official accounts on WeChat, and push feeds to subscribers, interact with subscribers and provide them with services. • WeChat groups: Theme-based groups are formed on WeChat including parenting-group, skincare-group, etc. People communicate and share experiences, provide informational and emotional support within groups.
RED	<ul style="list-style-type: none"> • A social media and e-commerce platform, also called Xiaohongshu, launched in 2013. • Functions: Allowing users (normal people, celebrities, bloggers, sales and businesses) to post and share product reviews, travel blogs and lifestyle stories via short videos and photos. RED also operates RED Mall, which sells international products to Chinese users.
RED influencers	<ul style="list-style-type: none"> • Key opinion leaders (celebrities and bloggers): Celebrities and bloggers share product and service experiences and recommend products/services for others. • Reviewers: Normal people share product and service experiences and recommend products/services for others.
Taobao	<ul style="list-style-type: none"> • An e-commerce platform with social media features, launched by Alibaba in 2003. • Services: Taobao Marketplace (C2C platform), Tmall (B2C platform launched in 2008), Tmall Global (cross-border B2C platform, offering consumers high-quality imported products in 2014) • Functions: Social networking (feedbacks, ratings, comments, Q&As), Alipay (payment method), AliWangWang (buyer-seller communication)

Taobao influencers	<ul style="list-style-type: none"> • Reviewers: Consumers share product and service experiences and recommend products/services for others, consumers do Q&A on product page. • Store owners: Store owners provide information on product information pages and communicate with consumers through AliWangWang, interact with consumers by commenting/replying their reviews.
Sina Weibo	<ul style="list-style-type: none"> • A microblogging platform launched by Sina Corporation in 2009. • Functions: Post, comment and share contents, follow other users, keyword search, private messaging, hashtags and trending topics.
Weibo influencers	<ul style="list-style-type: none"> • Weibo official accounts (health professionals): Doctors/nutritionists register as verified accounts on Weibo, share contents with others, interact with others by doing Q&A and other services. • Key opinion leaders (celebrities and bloggers): Celebrities and bloggers share product and service experiences and recommend products/services for others.
Zhihu	<ul style="list-style-type: none"> • A knowledge market and question-and-answer platform where questions are created, answered, edited and organized by the community of its users, launched in 2011. • Functions: Registered users ask questions while inviting specific users to answer, follow other users, keyword search, social networking by likes, answering, commenting, and sharing.
Zhihu influencers	<ul style="list-style-type: none"> • Official accounts (health professionals): Doctors/nutritionists register as verified accounts on Weibo, create and share contents with others, interact with others by doing Q&A.
Health mobile apps	<ul style="list-style-type: none"> • Medical mobile applications focusing on baby care and parenting. • Functions: Providing parenting knowledge, Q&A, seminars, recording personal information, keeping journals, social networking with other users.
Influencers on health mobile apps	<ul style="list-style-type: none"> • Reviewers: Users share product/service experiences and recommend products/services for others, and share parenting and health-related information and experience with others.

We have introduced the role of social media in DS product/brand communication.

Next, we introduce the other role of social media – as a distribution channel of DS products in China, namely, social commerce. Social commerce in China is a flourishing market. The internet retailing of DS has accounted for 22.2 % of its whole retail value in China in 2018, much higher than in other countries including the US (10.8%), Canada (1.3%), India (2.3%), New Zealand (7.6%), and Japan (8.4%) (Euromonitor, 2019a). Moreover, this ratio in China has shown continuing and steep growth in the past five years (from 8.8% in 2013 to 22.2% in 2018) (Euromonitor, 2019a).

As stated in the Habitus section, our informants show the strongest trust in asking personal friends and relatives living overseas to help them buy and deliver Western DS

products, which reflects the empathy-reciprocity mechanism and affection-trust relationship in Chinese guanxi social structure. Also, in the Habitus section, we discussed how our informants show a preference for purchasing DS (i.e., high health risk product) through Daigou (i.e., surrogate shoppers who live in another country) in their personal social networks, rather than large enterprises on e-commerce platforms, which reflects the Chinese cultural tendency to divide people into groups and individuals' higher trust in in-group (e.g., family) members and lower trust in out-group (e.g., strangers) members.

We have described and made examples of the Daigou phenomenon and its underlying trust mechanisms in the Habitus section. Next, we emphasize that it is the development of social media that enables Chinese individuals to have access to this purchase channel option that meets the unique Chinese-style trust standard (e.g., the Daigou channel described earlier). In addition to the Daigou channel, we introduce another important social commerce channel that occurred in this study – WeChat social groups/communities themed with consumption. Critically, these social media groups don't only fulfill consumption purposes, but also provide informational and social support for group members. Consider the following two dialogues that talk about WeChat groups themed with consumption:

Qianxi: I have joined some groups on WeChat. A few focus on Daigou purchasing of baby stuff and the others focus on the resale of pre-owned products. [laughter]

Interviewer: How many people are there in those groups?

Qianxi: It depends. Some have 200...some have more, like, 400 or 500 people. 500 is the maximum, set up by WeChat. It is very usual to see groups with 200 or 300 people. Group members are all females, mothers. They share consumption information like online store discounts, and they buy, for example, baby's DHA...infant formula...or clothes together. They are placing order together. Mothers are crazy about buying children's stuff [laughter] [...] One of the WeChat groups I am in is...it should be categorized as a pre-owned product resale group. The group

builder is a Daigou who sells children's DS, diapers, and so on. Her intent for building this group was to push notifications and updates about her products to her clients [...] Gradually, there were people posting products they didn't need anymore, but in good condition. If there is anyone interested, they would sell the product and deliver it to the buyer. As time passed by, people were starting to talk about baby care and parenting skills. Everybody starts to talk. It's pretty funny. For example, someone posted a question or an issue in the group chat, then a second person commented on her question, and then a third person added a follow-up, and eventually, many people participated in the discussion.

Interviewer: That's really fascinating. Any chitchat?

Qianxi: Of course! I always read those chats to relax [laughter] Sometimes, some women complain about their mother-in-law...because...you know...there are always some different understandings between the mother and the mother-in-law in terms of baby care. Then, other women show up and talk about their own experiences. Then...you know...women's tea party starts. [laughter]

Interviewer: Usually, who gives you recommendations for new products?

Yuanyuan: WeChat friends. We have WeChat groups. People would talk about new products, or their favorite things, in the groups, while we chat with them together.

Interviewer: About which area of product?

Yuanyuan: DS products, of course. And skincare products, cosmetics...all kinds of things.

Interviewer: Are they kind of your close friends?

Yuanyuan: Not exactly...some are my close friends in my life. But some are just online friends. We don't know each other personally. But we get together in one group because we have common interests...hobbies...like beauty, skincare, health maintenance. We have the same signature. We can naturally chat without difficulty because we have a common language.

The groups were usually built by Daigou. Originally, group members were Daigou's clients. Gradually, we invite our own friends into the group. So, the group members are more and more. The number of this type of group is also increasing...

Interviewer: Do the group members have a large influence on you?

Yuanyuan: Yeah...and pretty large. Because these group members could be counted as my familiar social ties. From my perspective, they are trustworthy. More trustworthy than the Internet Stars on social media.

More influential on me [...] I am really interested in what they suggest...I'm willing to try.

From these two dialogues, we can see that Chinese individuals (mass elite females, in our case) enjoy WeChat groups themed with consumption, mainly with baby product

consumption and healthcare and beauty consumption. They share product information and place orders together. More importantly, they provide informational support and emotional support for each other, through which affection and interpersonal trust are developed among group members. Social media features and functions effectively decrease the psychological distance between two individuals so as to attenuate the pervasive distrust, which exists between strangers in relation-based Chinese culture (Fukuyama, 1995). Hence, they prefer social commerce in their personal social networks rather than purchasing from large enterprises on e-commerce platforms, as they gain more affective and interpersonal trust in these social commerce channels, which play a bigger role than cognitive and institutional trust in their decision making. Interpersonal trust refers to the trust built on repeated interactions (Mechanic & Schlesinger, 1996). Institutional trust refers to one's "trust in collective institutions," which is shaped by society's confidence in particular institutions and is influenced by mass media (Pearson & Raeke, 2000, p. 510).

In this section, we provided a detailed description of the changed conditions in the field of DS consumption in China, including technology and science development in Western health care, globalization of Western DS products/brands, Western consumption values, Western medical science values, and development of social media in marketing communication and distribution. Next, we summarize the choices and tensions, resulting from the existence of habitus and changed conditions in the field, for individuals' DS consumption and health promotion efforts.

5.2.3 Summary: Choices and Tensions

In the last two sections, we presented and discussed our findings in terms of the habitus that exists in the field of DS consumption in China as well as the changed conditions in the field. We summarize our findings in Table 5.5 and 5.6.

Table 5.5 Habitus in the Field of DS Consumption in China

Themes	Sub-themes
Guanxi	<p>A Chinese cultural phenomenon and a sociocultural concept essential to the understanding of Chinese social structure, including six major constructs: empathy, reciprocity, bonding, affection, trust, face.</p> <ul style="list-style-type: none"> • Empathy-reciprocity mechanism, e.g., asking friends living in Western countries to help buy DS. • Bonding needs, e.g., gift giving • Affection & trust, e.g., guanxi is social capital • Face-empathy based social status symbols in China
Low trust culture	<ul style="list-style-type: none"> • High in-group trust, e.g., high trust in family, classmates, and friends. • Low out-group trust, e.g., low trust in strangers, long-distance communicators, large enterprises in online marketplaces.
Morality in femininity	<ul style="list-style-type: none"> • Moral beliefs in female beauty ideal (youth; a young, supple, and fair skin), e.g., purity, innocence, nobility and elegance. • Moral obligations of taking care of family members' health arrangements, mainly the elderly and children; thriftiness in their own DS consumption.
Ideology of Yin-Yang balance	<ul style="list-style-type: none"> • Everything needs a balance - acknowledging the dualism but also the holism of the various forces in the universe. • Mind and body dualism – mind and body are dualistic; they are equal organisms. • Traditional Chinese medicine beliefs – emphasizing the slow effect of treatment, and the holistic view of treatment, and chance health locus of control.

Table 5.6 Changed Conditions in the Field of DS Consumption in China

Themes	Sub-themes
Technology and science development in Western health care	<ul style="list-style-type: none"> • DS is a scientific and technological solution that originates from the West. • The rise of a self-care paradigm with a shift in power from authority to non-authority.
Globalization of Western DS products/brands	<ul style="list-style-type: none"> • Western countries are developed countries. • Western countries have large DS companies/brands with a very long history. • Western countries have strict governance on DS product safety and quality.
Western consumption values	<ul style="list-style-type: none"> • Hedonic value & happiness seeking, e.g., enjoy the taste of a DS product; enjoy the exploration experiences. • Consumerism, e.g., spending money for hedonic values. • Individualism, e.g., respect and advocate for divergent lifestyles.

Western medical science values	<ul style="list-style-type: none"> • Evidence-based medicine (EBM). • Mind-over-body ideology.
Development of social media in marketing communication and distribution	<ul style="list-style-type: none"> • Social media is the primary force for advertising DS products/brands, i.e., e-word-of-mouth. • Social media provides Chinese individuals with distribution channels that meet their guanxi-based trust standard.

Based on the research findings, we first conclude that developments in the contemporary West lead to the changes in the health consumption environment in China and create *a general choice for participating in self-care* for our informants – the mass elite females. That is, all of our twenty-two informants are actively engaging in self-care and committed to the consumption of Western DS in the social commerce context for several years. Actually, the fact that they have been acting upon the general choice for participating in self-care motivates us to target them as our research sample. In particular, the mass elite consumers in China have strong economic capital to support their continuing consumption of Western DS products; they have strong social capital to support their cross-border purchasing of Western DS products; they are equipped with cultural capital to support their appreciation of DS value in health promotion and information searching and processing.

However, our research recognized that, while this group of people worked on the general opportunity for practicing self-care, they as well experienced some common tensions that resulted from the modern forces, e.g. overloaded and contradictory information regarding DS benefits, complex marketplace offering, and safety/efficacy concerns of DS. Moreover, in a non-western culture like China, the individuals' self-care practices are inevitably influenced by local habitus in either a facilitating or restraining way, which complicates the structure-agency interplay.

In this section, we discuss the general choice provided by the structure – choice for participating in self-care, which has been commonly utilized by our informants, and the tensions that are accompanied by the choice for self-care. We summarize the choices and tensions in Table 5.7.

Table 5.7 Choices and Tensions for Participating in Self-care

	Choice for Participating in Self-care	Tension for Participating in Self-care
<i>Structural changes lead to both choices and tensions</i>		
<ul style="list-style-type: none"> • Technology and science development in Western health care 	<ul style="list-style-type: none"> • <i>Choice:</i> Using DS consumption, a technology and science enabled option, for health promotion and illness prevention 	<ul style="list-style-type: none"> • <i>Tension:</i> Expected value of DS use vs. Difficulty in evaluating DS efficacy in health promotion/illness prevention (due to the nature of DS & the weakened authority of health professionals) • <i>Tension:</i> Expected safety of DS use vs. Technology might bring unintended and unpredictable risks
<ul style="list-style-type: none"> • Globalization of Western DS products/brands • Development of social media in distribution • Development of social media in communication 	<ul style="list-style-type: none"> • <i>Choice:</i> Purchasing high-quality Western DS products/brands easily through social commerce • <i>Choice:</i> Searching for information of Western DS products/brands easily through social media 	<ul style="list-style-type: none"> • <i>Tension:</i> Product choice vs. Excessive and complex product offerings • <i>Tension:</i> Information search vs. Overloaded and contradictory flows of information
<i>Habitus enhances both choices and tensions</i>		
<ul style="list-style-type: none"> • Morality in femininity • Guanxi • Low trust culture • Ideology of Yin-Yang balance 	<ul style="list-style-type: none"> • Choices are <i>enforced</i> by the local moral responsibility in ideal beauty pursuit and in family-level self-care • Choices are <i>enforced</i> by the Guanxi-based culture and low trust culture (as social commerce meets Chinese individuals' guanxi-based trust standard) 	<ul style="list-style-type: none"> • Tension surrounding product choice is <i>aggravated</i> by moral values in fulfilling individual-level self-care and family-level self-care responsibilities • Tension surrounding information search is <i>aggravated</i> by Guanxi-based culture and low trust culture (as word-of-mouth is facilitated by guanxi and low trust culture) • Tensions about DS safety & efficacy are <i>aggravated</i> by the ideology of Yin-Yang balance (as everything needs a balance)

Note that “choice for self-care” is the initial choice that has been generally activated by all informants. By activating the general choice, informants confront the common tensions resulting from the changed conditions in their environment and the structure-agency interplay; then, they start to selectively and differentially act upon the various additional choices offered by the mind-map (the habitus) and by the structural changes (as summarized in Table 5.5 and 5.6) and form different strategies (will be discussed in next section).

In turn, new specific tensions grow in different strategies, pushing individuals to further employ the choices for solutions. Thus, we emphasize that the structure-agency interplay is an ongoing and iterative process in which the individuals activate the choices, meet the tensions, and activate new choices for dealing with the tensions. Here, we focus on the initial general choice for participating in self-care, and the tensions resulted from the initial activation.

First, the technology and science development in Western health care give our informants an option to practice self-care because they can simply do that by purchasing and using Western DS products. From a dualistic view in the Western culture, the body that changes in unwanted ways and deteriorates overtime is readily seen as a natural object to be controlled by reason, knowledge, and technology (Thompson & Hirschman, 1995, p. 143). Thus, the DS represents human’s capability in developing science and technology to control nature. The connection between science and technology and mind-over-body ideology persuades our informants to rely on DS consumption for achieving their self-care objectives. As Wushuang illustrated:

Regarding what ingredient has been added to the product, I don't know. But I trust this brand [...] and I trust that there is some science feeling in the product.

For Wushuang, the DS product gives her a 'science feeling' due to the involvement of experiments, scientific labs, and/or research statistics. And this scientific feeling activates her confidence in using this product for skincare benefits. Even though she is aware that the science feeling might be an advertising technique, she is still leaning towards the power of science. As we introduced in the last section, almost all informants are committed to the Western DS brands and products. Actually, cultural globalization research demonstrates that the Western lifestyle is a myth constructed within the national discourse of the low industrialized countries (LICs) (Ustuner & Holt, 2010). For example, Ustuner and Holt (2010) demonstrate that the Western lifestyle myth, central to the construction of Turkish upper-middle-class status, is taken up by peasants living in urban squatter neighborhoods. The cultural discourse of Western lifestyle myth is also present in our study. A typical example is how Ruoxi used DS consumption as well as other consumption to construct an "exquisite" and "Western" lifestyle:

Interviewer: Do you think you needed those DS products at that time?

Ruoxi: No! Now I look back; I don't think I needed those DS at all.

Interviewer: Can we go back to those days? When you started to crazily, as you described earlier, crazily, stock up and use DS products during the first a few years, what did you think?

Ruoxi: Let me see...Back then [trying hard to recall] I was doing my master's study...and I got married...So I bought those products.

Interviewer: You mean, you bought those DS because you did master or because you got married?

Ruoxi: Ah...because I was married! Because I moved into a new house with my husband. Then I started to fill in new stuff. For our home, I searched and purchased furniture and decorations...the Western-style...[laughter] For myself, I bought a lot of international fashion brands...I'm a fashion fan! And I bought nutritional products, of course...a lot came from an American brand if I remember correctly. I

wanted to live as exquisitely as possible. I ate a bunch of DS every morning! Right, a lot!

Ruoxi's description of her early DS use reflects the influence of the Western style on her living such as decorating her new home based on the Western modes and investing in health by taking Western DS products.

Building on the 'scientific' and 'Western' meanings embedded in Western DS products, the choice of participating in self-care is activated by the high accessibility of DS products in China and easy access to DS information, aided by the global communication network and the prevalent use of the Internet and social media (Barbo, 2007). As we described in the last section under the theme of "the development of social media in marketing communication and distribution", Western DS products are highly accessible to our informants through social commerce channels.

From Table 5.3, we can see that all of our informants are able to buy Western DS brands through personal guanxi networks (i.e., asking social acquaintances living abroad to purchase and deliver the products) and/or through social commerce (i.e., paying Daigous, the surrogate shoppers living abroad, to buy DS). Moreover, a large amount of information regarding DS products and brands is easily accessible to our informants via social media platforms. Our informants acknowledged the benefits brought by the use of social media in terms of information search and knowledge accumulation:

Interviewer: How did you learn about the liver detox tablets?

Yunhan: It is pretty easy. There are many [sources] on WeChat. You can search the name directly, and then many articles will pop out. Do you know the keyword search function on WeChat? [...] Over the past years, information technology has been developed so much. In the past, I might just have an awareness of health maintenance. But there was no platform for me to learn about how to practice. As we have more platforms...Now, I can dig deep to accumulate much more knowledge about health.

Yunhan shared her learning experience on social media and acknowledged the convenience and usefulness of social media in terms of health information search and knowledge accumulation.

To summarize, the choice for participating in self-care is provided by the changes that have been brought to the Chinese environment by the development of late modern conditions. Moreover, we want to emphasize that the choice for participating in self-care is enhanced by old Chinese habitus – morality in femininity, which emphasizes pursuit of a youthful look and a moral obligation of taking care of the whole family’s health. For the mass elite females in our study, DS consumption might become an effective and efficient solution for fulfilling their responsibilities and relieving their pressures. In addition, the choice is enforced by the guanxi-based social relationships and low trust culture, as the channels of social commerce meet individuals’ unique Chinese-style trust standards.

However, while the science and technology development, the use of social media, and the commercialization and globalization are enabling our informants’ opportunities to pursue self-care, these forces, also cause problems for consumers’ daily life. See how Yinuo talks about the current Chinese health promotion culture:

I think China is developing too fast. Not long ago, we were still in a stage where people didn’t have enough food. All of a sudden, we have so much material wealth. We have so many available options...The nutritional products and dietary supplements are included. Too many options. All of a sudden, people start to concern about health [...] These years, we are experiencing more health issues, like the “three highs” [high blood pressure, hyperglycemia, and hyperlipidemia]. People become increasingly aware of the importance of health. And the environment...and economy...give us opportunities for doing self-care, like applying dietary supplements, health regimens, or alternative medicines [...] People become...They don’t believe that eating healthy foods is already enough, and eating healthily is the number one rule [...]

So, I do believe, people are eating nutritional products for health. They want health, but they want to achieve it in an effortless way. Then, the nutritional product comes, like a short-cut [laughter].

Yinuo's description vividly illustrates the current health promotion culture in China.

Indeed, enabled by the economic development in China, people have accumulated affluence and created a need for health maintenance and illness prevention.

The availability and accessibility of Western DS products through globalization and social media development assist them in engaging in self-care. However, also due to the globalization and social media development, individuals confront a complex marketplace and overloaded (even contradictory) flows of information, which, in turn, result in tensions for the individuals in maximizing their health improvement outcomes.

Indeed, as Balbo (2007) highlights, in late modernity, as a consequence of the development and advancement in modern conditions (e.g., digital media, economic interests, and profit mechanisms) women's stress in fulfilling their responsibilities in health promotion are exacerbated.

Consistent with Balbo (2007) and Giddens (1990), our research identified the following tensions: 1) the tension between the expected value of DS use vs. the difficulty in evaluating DS efficacy in health promotion/illness prevention; 2) the tension between an expected safety of DS use vs. the unintended and unpredictable risks contained by technology; 3) the tension between product choice vs. excessive and complex product offerings; 4) the tension between information search vs. overloaded and contradictory flows of information.

See the following example that illustrates the tension experienced by our informants in product choice due to the excessive and complex product offerings:

Yiran: I bought a bottle [of blueberry extract] for my son. I'm still not very sure if I will let my son use it. I don't want to let him take too many kinds of nutritional products. But I just bought it [...] Don't you think there are too many kinds of products in the marketplace? I don't know which one I should choose. Like multivitamin, there are a lot of different kinds. I bought women's multivitamins, protein powder, fish oil, and so on...but to be honest...I don't have any related health issues...And, even if I do have some issues, I don't know which one I should take.

Yiran described some struggles she has experienced during DS consumption. She was hesitant to let her son use blueberry supplement, however, she still purchased it; she did not have health issues but still purchased a lot of DS products associated with those health issues. She has raised the concern that there are too many types of DS in the marketplace and she does not know which ones to take.

Further, the tensions that are caused by the changed conditions are exacerbated by old Chinese habitus. Just as the tension surrounding product choice is aggravated by moral values in fulfilling individual-level self-care and family-level self-care responsibilities, the tension surrounding information search is aggravated by guanxi-based culture and low trust culture, as word-of-mouth is facilitated by these factors, and the tension about DS safety & efficacy is aggravated by the ideology of Yin-Yang balance, as Chinese believe in the balance maintained by the universe.

To illustrate the tension in information processing due to information overload, we refer to the multiple social media platforms and social media influencers mentioned by our informants in Table 5.4. Here, we emphasize that our informants are practicing multi-platform information searches during DS consumption. Moreover, they not only refer to social media influencers and other online information; due to the habitus of Chinese guanxi social structure, they have a habit of referring to the offline influencers in their social networks for trustworthy information and advice, which inevitably increases

the difficulty in information processing and requires extra time and energy. In Table 5.8, we summarize the multiple information sources that have been adopted by our informants during DS consumption.

Table 5.8 Multi-platform Information Search Adopted by Our Informants

Informant	Social media normal reviewers	Social media health experts	Social media bloggers & celebrities	Ecommerce product page & reviews	Online search engine	Offline health experts	Offline friends who are health experts	Offline friends who have used the DS
Zixuan	X			X				X
Mengqi		X				X	X	X
Yunhan	X	X		X	X		X	X
Yiran	X			X	X			X
Ruoxi	X	X	X				X	X
Yinuo		X			X	X		X
Shiqi			X	X				X
Yuxin	X	X				X	X	X
Meimei			X			X		X
Chun		X		X		X	X	
Yuchang		X				X	X	X
Hong		X	X					
Haoran			X					X
Junjie	X			X	X			X
Yuanyuan	X	X	X	X				X
Panpan	X		X					X
Qianxi			X	X		X		X
Luying	X	X						X
Fangxue	X	X				X		X
Xiaoxi	X					X		X
Xiangyi		X			X	X		
Wushuang		X	X					

While a large amount of information awaits processing, what's worse is that our informants are often facing contradictory information from authorities and non-authorities regarding the functional value of DS products. Due to the prevalent use of social media, health professionals and experts (e.g., doctors, nutritionists, and dietitians) build their social media professional accounts and try to educate consumers on health-related knowledge and help them make informed decisions regarding DS consumption.

However, non-authorities' voices are also widely broadcasted and spread over social media, such as brands, product reviewers, and social media key opinion leaders like bloggers and celebrities. Our informants confirmed the existence of contradictory information flows from authorities and non-authorities:

Yuanyuan: [...] Things like collagen are controversial. There are good comments, and there are bad comments [...] Some people say that when you take collagen, it will be digested and broken into amino acids, which will hardly be re-built as collagen in the skin.

Interviewer: Where did you learn that? I mean, who are the 'some people'?

Yuanyuan: The educational articles. They are published by those professional accounts on social media like WeChat.

Yinuo: [...] But there is a lack of knowledge [...] People don't know how exactly I can do to promote my health. Some experts in nutrition, like Professor Zhihong Fan, are giving some guidance through her social media channels like Weibo account. But there are so many other voices as well! And the public seems more likely to be influenced by those voices, for example, the commercials from the brands and the suggestions from the Internet Stars [...] Their voices are much louder than the experts' voice. They let people believe, yes...I must add some extra nutrients.

Both Yuanyuan and Yinuo agreed on the fact the authorities and non-authorities both exist on social media and often disseminate conflicting messages. Moreover, our informants expressed their stress and anxiety during DS consumption due to the often contradictory flows of information:

Mengqi: I always have some concerns...lingering in my mind [...] I'm worried...what if adding too much DS might actually be harmful to my child's health? Because I heard about these kinds of thoughts online while I learned about the products' benefits...like, adding too much calcium brings side effects...[laughter]...now... society seems to be very anxious.

Interviewer: Anxious?

Mengqi: Yes...I mean, now, there are too much information and knowledge sources...bringing us, all of us, the mothers, even more anxieties.

Luying: [...] I found that I became increasingly anxious [...] You know that I added a calcium supplement for my child. I originally heard that, for

calcium, the more, the better. But recently, I start to think about whether it is correct. Maybe it is not a good thing to add too much calcium.

Interviewer: Why?

Luying: Because recently, I read Doctor Cui's post about calcium supplementation. The other day, I scanned all his posts published on his social media app, and I happened to see this article. It says calcium cannot be added too much...

From the above examples, we see our informants' anxiety resulting from the complex information surrounding children's DS use. The same concern is also shown frequently during the use of skincare DS products. As illustrated in Yuanyuan and Yinuo's descriptions earlier, the effect of skincare DS products such as collagen and grape seed extract are often advocated by non-authorities but criticized by authorities. This complex information environment, combined with individuals' moral stress for achieving a youthful look, leads to confusion regarding product value. Throughout our interviews, when the informants were asked to evaluate the effectiveness of their DS use, they usually provided answers similar to the ones below:

Interviewer: Have you seen the effectiveness of skincare DS products, like collagen?

Yunhan: For me...[Sigh] I think maybe because I didn't use them every day? Not strictly every day? I don't see a big change after using all those things.

Interviewer: How do you evaluate the performance of the DS products you have been using?

Hong: Mm...I think...vitamins are really needed...calcium is also necessary. But things like collagen are not so good as claimed. But perhaps...I don't know...eating them does not hurt...so I continue my consumptions.

Obviously, Yunhan and Hong are confronting the dilemma of justifying the value of their DS use. The dilemma is also led by the nature of DS products as they are for health promotion and illness prevention, which is difficult to evaluate (similar to credence goods). From the examples above, we can have a sense that our informants are looking

for various ways to justify their consumption value and looking for reasons that could support their continuing use. In the next section, we will describe informants' specific strategies in detail.

Lastly, consistent with previous research on late modernity (Giddens, 1991), we confirm that there is a tension caused by the technology and science embedded in DS products – the unintended but unpredictable risks associated with DS use. In the Chinese context, the tension is further increased by the ideology of Yin-Yang balance (e.g., every medicine contains thirty percent of toxicity). See the following examples that demonstrate our informants' concern of the unintended but unpredictable risks:

Interviewer: Regarding the efficacy of the skincare DS you are using, what's your expectation?

Fangxue: It's complicated. Really. [laughter] How to say...for example, if they are not effective, I will be disappointed. However...if they are really effective, like, making my skin glowing in a short time, then I will probably start to be worried...like, whether it contains some substances that might cause unknown effects?

Interviewer: So, you think the normal DS products in the market, such as collagen and calcium, could create a burden for your body?

Qianxi: Yes. More or less. But there must be something bad. You know “是药三分毒”, right? The bad effect might be minimal in the short term. But in the long term, I'm not sure...These pills might lead to some problems...

Fangxue and Qianxi expressed her concern about the systemic risks that might be contained by the DS products. They expected for the products to be effective; on the other hand, they were worried if the effective performance would indicate some unknown risks accompanied with technological and scientific advancement. While mentioning this concern, our informants always referred to an old Chinese saying originating from Traditional Chinese Medicine beliefs – 是药三分毒 – which literally means “Every medicine contains thirty percent of toxicity.” We can see that the tension starts with risk

concerns of contemporary science and technology but is intensified by local Chinese habitus.

To conclude, scientific and technological development in Western medicine, commercialization, and globalization of Western DS products, along with prevalent use of social media, have resulted in structural changes in the field of health consumption in China. These changes indeed bring a promising choice to Chinese individuals to actively participate in self-care for health promotion, especially to mass elite females who have the disposable income to support health consumption, who are equipped with cultural capital to understand the importance of self-care and appreciate the value of DS products, and who bear the moral responsibilities for individual self-care and family-level self-care.

However, by acknowledging the advancements and benefits resulting from these changed conditions, we are inspired to think about the risks and tensions caused by the changed conditions in an individual's daily life. Moreover, the choices and tensions are both enhanced by the unique culture and social structure in China.

In this context, a woman, as the person who is in charge of the whole family's health arrangements, is expected to gain reflexivity in late modernity (Giddens, 1991). This reflexivity refers to the social practices involved in attempts to exercise control over aspects of our world (Beck et al., 1994). In order to gain reflexivity (i.e., increasing control over aspects of their social world to aid decision making), our informants might adopt various strategies for practice. Such as, they might do self-learning to accumulate the scientific agency and make well-informed decisions. Alternatively, they might develop a favorable attitude towards improvising, as well as to "self-interpreting" and "self-monitoring" (Balbo, 2007, p. 134) by employing unscientific agencies.

Our study identified four strategies adopted by our informants in the field of DS consumption for practicing self-care. The four strategies are: 1) *gaining agency by self-learning*, 2) *gaining agency by disciplined use*, 3) *gaining agency by consumerism*, and 4) *gaining agency by socializing*. We emphasize that these strategies are developed by the informants by selectively and differentially employing the choices provided by the changed conditions and the habitus in the field. That means, although the formation of a strategy reflects individuals' free will (agency accumulation), it cannot avoid the influence from the habitus, and the outcomes of the strategy may reproduce the old habitus. But, in the process of gaining agency, individuals make the most appropriate decisions and practice accordingly through social interactions and capital exchanges, accumulations, and transmissions (e.g., economic, social and cultural capitals in Bourdieu's theory of practice), which, in turn, may transform their old habitus.

In addition, as informants practice different strategies to exploit the initial common choice and to relieve the initial common tensions, they may experience new tensions that are specifically generated by each strategy and the conflicts between Western and non-Western values. Consequently, an important task of the strategies is to look for and make use of additional choices in the structure, in order to overcome the new challenges and relieve the new tensions. By emphasizing this, we highlight the iterative and ongoing structure-agency interplay in individual practice.

In the end, different strategies result in different types of agency and ultimately form distinctive lifestyles that express aspects of self-identity and indicate social status. Thus, lifestyles are indicative of the real underlying benefits pursued by different groups of people, i.e., lifestyles reveal '*What are the benefits achieved by Committed DS users.*'

By uncovering the benefits achieved by our informants, we dive deep under the field of DS consumption in China to understand and interpret the different layers of meaning that are uniquely attaching to DS products and consumption in China. Moreover, the layers of meaning are socially constructed during individuals' DS consumption practice and interaction, and lifestyles are a result of individual agency and are represented by their daily actions and routines. Hence, by illustrating the different strategies, we are able to describe “*how do they practice in order to achieve those benefits.*” In this way, both of our research questions are answered. In Figure 5.1, we present the four strategies and the choices and tensions in each strategy. In the next section, we illustrate and discuss the four strategies.

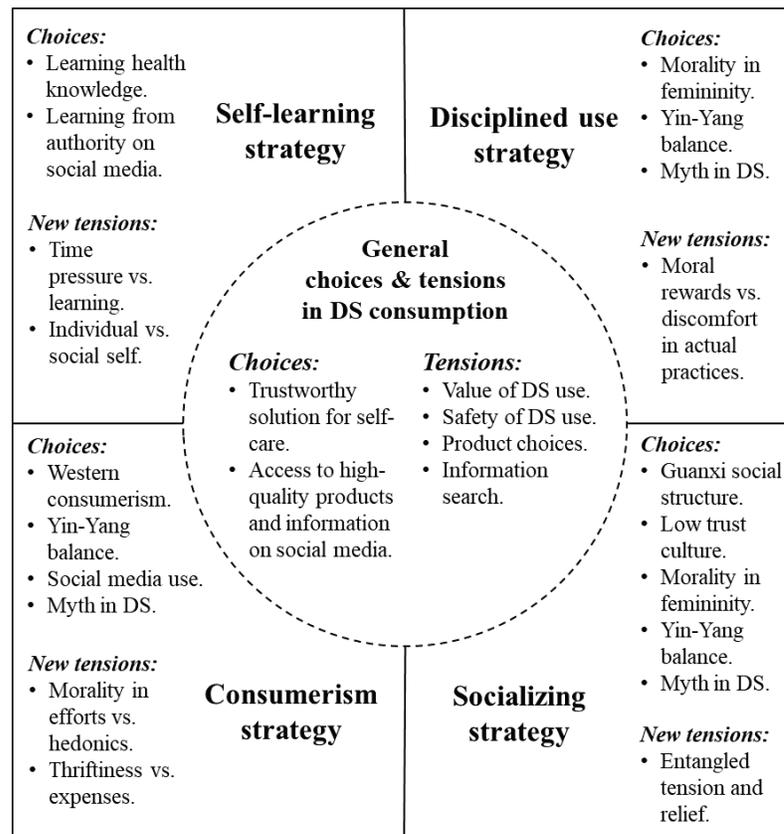


Figure 5.1 Choices and Tensions in the Four Strategies

5.3 Agency – Strategies for Participating in Self-care

As we introduced in the last section, our informants are provided with new choices by the structure for participating in self-care (a compounded effect of habitus and changed conditions in the field). However, they might also confront tensions existing in the structure, such as the difficulty in evaluating the value of DS use and avoiding the potential risks associated with technology, the overloaded and often contradictory information, and the large number of product offerings. While trying to grasp the promising opportunity for health promotion, our informants make attempts to deal with the confusion, stresses, and emotional anxieties surrounding DS consumption.

That means, in order to actively participate in self-care in this contemporary social world, individuals need to keep a reflexivity for decision making more than ever before, which refers to the social practices involved in attempts to exercise control over aspects of our world (Beck et al., 1994). To attain the reflexivity, our informants develop different strategies for practice and accumulate different forms of agency; grounded on the reflexivity, individuals are able to develop a particular lifestyle that indicates a specific form of self-identity and social status. As Giddens (1991, p 70) finds,

What to do? How to act? Who to be? These are focal questions for everyone living in circumstances of late modernity – and ones which, on some level or another, all of us answer, either discursively or through day-to-day social behavior.

In this section, we introduce the strategies adopted by our informants in the field of DS consumption. These strategies show us how these mass elite females in China accumulate agency in different ways to increase control over aspects of their social world for the purpose of engaging in self-care. In sum, four strategies are introduced: 1) *gaining*

agency by self-learning, 2) gaining agency by disciplined use, 3) gaining agency by consumerism, and 4) gaining agency by socializing.

All of the four strategies serve to help our informants grasp the opportunity for self-care and attenuate/avoid their tensions. Moreover, in each strategy, individuals meet new specific tensions so that they selectively act upon the choices in the structure to relieve the new tensions. By illustrating their strategies, we are able to see how they deal with the co-existing choices and tensions, how they selectively act on the old habitus and new chances in the structure, and how they actualize their health promotion objectives and eventually formulate their lifestyles, express identities and achieve social distinction.

Before moving on to the four strategies, we highlight that no matter what strategies these informants have adopted and practiced, all of them have acted upon the following general choices for participating in self-care offered by the structure: 1) they all engage in DS consumption, a technology and science-based Western solution for the purpose of health promotion and illness prevention; 2) they all purchase high-quality Western DS products and brands through social commerce; 3) they all search for information about Western DS products and brands through social media platforms.

Based on the common choices, informants adopt different strategies to selectively activate other choices (offered by both habitus and changed conditions) in the structure, in order to alleviate their tensions during DS consumption. We next introduce the first strategy – gaining scientific agency through self-learning.

5.3.1 Gaining Scientific Agency by Self-learning

In the previous section, we have introduced that our informants adopted and practiced different strategies in order to gain reflexivity, which refers to the social practices involved in attempts to exercise control over aspects of our world (Beck et al., 1994). In our research context, we used ‘reflexivity’ specifically to refer to consumer’s increasing control over aspects of their social world to aid decision making. Knowledge accumulation plays an important role in reflexivity because social practices for exercising control over our social world continuously transform and are transformed by the knowledge they generate (Beck et al., 1994).

According to Bourdieu (1984), knowledge exists in three primary forms: embodied as implicit practical knowledge, skills, and dispositions; objectified in cultural objects; and institutionalized in official degrees and diplomas that certify the existence of the embodied form (Holt, 1998). The three forms of cultural capital are inter-dependent and transformable. In particular, embodied cultural capital is highly invisible, comprising perceptions, skills, and knowledge; objectified cultural capital comprises books, paintings, machines, technical tools and other material forms, whose utility value is dependent upon embodied cultural capital of the agent; and institutionalized cultural capital, which is the most visible and provides social acceptance and credibility for the agent, referring mostly to educational degrees, status ascription and professional titles (Bourdieu, 1984).

Among the three states of cultural capital, Bourdieu pointed out that the embodied cultural capital is the most substantive and distinctive component of habitus as well as lifestyle. It is incorporated inside the human body and closely linked to the uniqueness of

the actor, and social agents learn to use a symbolic representation of this capital, wherever and whenever it supports their action (Bourdieu, 1984).

Cultural capital is accumulated in three primary sites of acculturation: family upbringing, formal education, and occupational culture (Bourdieu, 1984). In 1986, Bourdieu added that, for the accumulation of embodied cultural capital, the duration of education might be the “least in-accurate” measure (Bourdieu, 1986, p. 244). He further suggests that embodied cultural capital can only be personally acquired through a lifelong learning process; all stages and forms of lifelong learning like peer group socialization should be included.

The concept of lifelong learning and the role of cultural capital is also emphasized in the health promotion research area: Abel (2007) underscores that cultural capital plays a decisive role in constructing and differentiating health-related lifestyles; Balbo (2007, p. 133) suggests that health knowledge accumulation should be called “continuous learning” or “lifelong learning”, which emphasizes the main shift in paradigm from learning in the early years of life and in the context of specialized institutions, to continuous, lifelong learning.

Through our research, we confirmed the existence of a lifelong learning strategy. In particular, a specific form of lifelong learning stood out in our study – self-learning. Although family upbringing, formal education, and occupational culture are still confirmed as sites of acculturation by our study, self-learning is found to be the most effective strategy for accumulating health knowledge and gaining scientific agency. In Figure 5.2, we present the self-learning strategy adopted by our informants in which they gain scientific agency for actively participating in self-care.

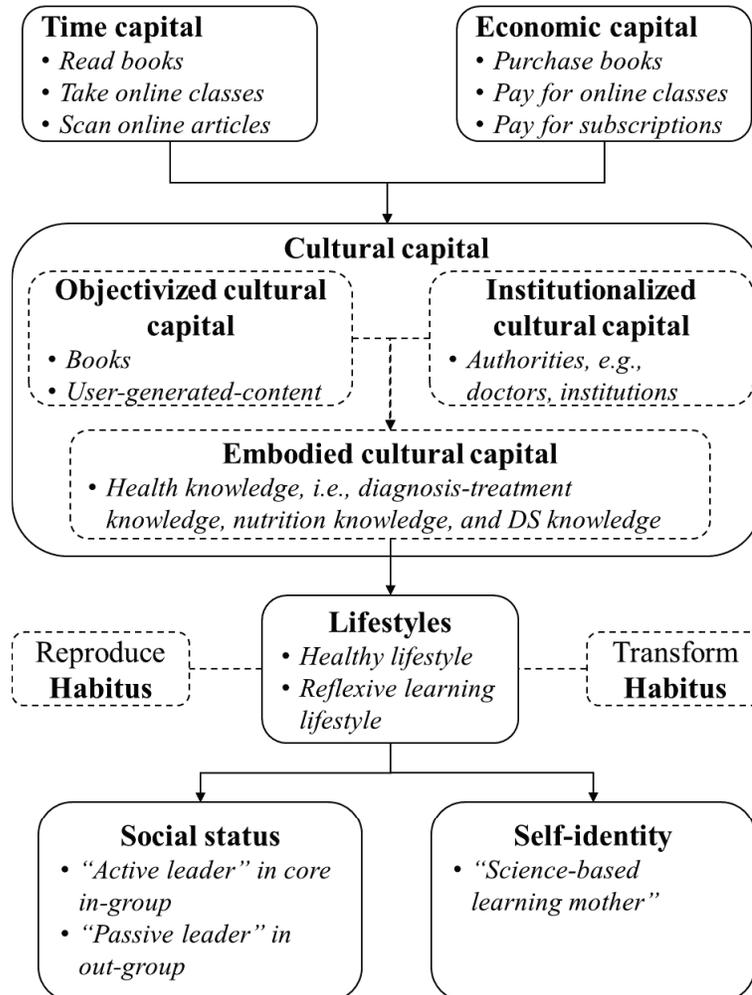


Figure 5.2 Self-learning Strategy for Participating in Self-care

First, we define “scientific agency” as the agency enabled by Western medical science knowledge (i.e., diagnosis-treatment knowledge) and mainstream health promotion knowledge (i.e., nutrition knowledge and DS knowledge), which are reflexively learned by our informants through the self-motivated learning process. Building on a self-motivated learning process, a self-learning strategy enables our informants to gain scientific agency by achieving the highest level of health knowledge (including diagnosis-treatment knowledge, nutrition knowledge, and DS knowledge),

which builds a solid foundation for making well-informed health decisions. The scientific agency permeates the discourses during our interviews:

Interviewer: Do you do an information search before making decisions about DS consumption?

Xiangyi: Yes, I do. Definitely. I have started to do a complete information search since I had my child. Now, we emphasize “scientific parenting”, don’t we? It’s based on evidence-based medicine. I’m learning about this area. Like, the evidence levels [of the treatments]. I must make sure, which evidence level the DS product belongs to, and then decide whether to use it or not.

Yuxin: [...] What I did is called “scientific pregnancy” [laughter] I searched information and learned from doctors and nutritionists on social media...

Xiangyi and Yixin mentioned terms like “scientific parenting” and “scientific pregnancy” when they described their philosophy for their child’s healthcare, and they taught themselves about evidence-based medicine and then applied the evidence-based logic as a principle for guiding their DS consumption. Among our informants, Xiangyi, Yinuo, and Yuxin are mainly adopting the self-learning strategy. All of them are mothers. They all started the systematic self-learning process when they became pregnant or prepared for pregnancy (i.e., when they realized that they would become a mother). Driven by the moral obligations built into the Chinese social role as a wife/mother, they have become the decision maker in their families who is responsible for the whole family’s health-related consumption and practice.

In order to catch the opportunity for engaging in self-care and relieve the tensions distributed in the environment, these females developed and practiced a self-learning strategy to gain mainstream health knowledge and eventually attain the reflexivity that aids their decision making. By adopting the self-learning strategy, these females selectively act upon the choices offered in the field – choices for learning Western

medical science knowledge and mainstream health promotion knowledge from selected online/offline authorities.

We apply Bourdieu's theory of practice to explain how individuals act to make use of these choices. First, informants invest economic capital to get access to high-quality knowledge resources from health authorities, e.g., purchasing health-related books published by health professionals, paying for the fees associated with health experts' social media subscriptions, and registering in online training sessions offered by authorities. They only choose selective social media channels as knowledge sources. Only the social media accounts verified as authorities, e.g., doctors, nutritionists, and medical institutions are trusted and adopted. Moreover, different from other strategies, they go back to traditional print media (i.e., books) to learn health knowledge. In this way, they succeed in avoiding the tensions raised by the difficulty in seeing DS value and risks, because they gain confidence in the DS efficacy and safety through referring to professional and authoritative voices and referring to the learned health knowledge. Tensions caused by overloaded/conflicted information and the crowded marketplace are dissolved, because they have filtered out a large amount of noise from social media, and, more critically, they gradually become self-aware of their health needs and self-reflexive about the choice of DS products.

Compared to economic capital, time capital plays a more important role in this strategy. From the conversation below, we can see that Xiangyi gains knowledge from various channels, and the learning process is ongoing because the knowledge is "constantly updated".

Interviewer: How do you build your health knowledge?

Xiangyi: First, by reading. The most authoritative book must be the American Academy of Pediatrics Parenting Encyclopedia. On its institution website, information is constantly updated. So, I check on their website often for the most updated knowledge. What else. Ah, I also registered in a learning session before. Nowadays, some private medical institutions in China have social media accounts, like WeChat official accounts. I have followed some trustworthy institutions on WeChat, like Yihe and Zhuozheng. And I registered their online classes in which doctors and nutritionists work as instructors. The session I registered was a systematic session that covers complete content on how to take care of babies, like, diets, nutrition, and commonly seen children's health problems.

Interviewer: How much time did you spend on that session?

Xiangyi: Mm...half-hour to one-hour class on each day. The whole session lasted three months.

It is obvious that, for Xiangyi, a 33-year-old white-collar worker and mother of a 2-year-old child, reading books and taking online classes requires a high level of time and effort as an investment. Our research concurred with previous studies in regard to the pressure experienced by adult females when they confront multiple moral responsibilities and demanding time schedules (Balbo, 2007). Consider how Yinuo describes her time pressure:

Yinuo: Lately, I bought a few more books about nutrition, such as the books published by Professor Zhihong Fan. But...to be honest, I am too busy to sit for quiet reading. I can only get a chance to read a few pages while I'm using the toilet [laughter]. Can you imagine that?

Interviewer: How come? Why are you so busy?

Yinuo: Well, I need to work. And I need to take care of my child. Besides, I have so many other things I want to learn in addition to nutrition! I also want to do some fitness activities!

Interviewer: What are the other things you are learning about?

Yinuo: Actually, I am always curious [Laughter] For example, a few days ago, I read Poor Charlie's Almanack and got to know that we had better keep some cross-disciplinary thinking...we could build some kind of cognitive model and apply this model to all kinds of live events for verification. I'm curious about that. So, I need to learn a little bit about math...and physics...modes of thinking in different disciplines. I bought books in these areas [...] I also want to improve my English. My knowledge of English is for work purposes. But I want to be prepared for my child's language learning. I also need to learn new skills for my work,

like marketing, management theories, and psychology...I'm also curious about cheese making...[laughter]

Yinuo is a 30-year-old project manager in an IT company. She is also the mother of a one-year-old son. From the conversation above, we can see that she is taking the responsibility of managing and arranging her son's healthcare and education; she is also active in career development and has her own personal interests. Even by focusing on book reading and avoiding social media noise, she still experiences challenges in time arrangement and organization, due to the co-existing roles of a responsible "mother" and a modern independent woman. This time conflict is also mentioned by other informants. Yuxin is a 31-year-old project manager in an insurance company and a mother of a one-year-old son. After she gets her son to sleep every night, she still needs to make her son's meals for the next day. When asked about when she learns about the child's nutrition and diet plan, she says:

I can only use those small gaps throughout the day. Like, when I use the toilet, or while I take a bath, or when I take some breaks at work.

Yuxin has to exploit "small gaps throughout the day" to learn about her child's healthcare because she lacks a whole chunk of disposable time to accomplish learning tasks. Our research shows that the pressure due to a lack of disposable time further evolves to a feeling of anxiety when our informants feel the conflict between actualizing their individual self (e.g., personal interest, pursuit, and development) and their social self (their identity as a mother). As Yinuo describes:

I have been anxious. Actually, I was pretty anxious this afternoon. My son asked me to play with him in the park. I had my plan for Sunday...I could finally get some time to read, you know? So, I asked him if he could just play with his grandparents [Yinuo's parents-in-law live with her and help to take care of her son]. But he dragged my hands and asked me again and again...[Sigh]...What can I do? On weekdays I am not able to play with

him in the park...how can I say no to him on a Sunday? So I went to the park with him. However, mixed feelings in my heart...it is complicated.

Obviously, Yinuo struggled to find a balance between fulfilling her responsibility as a mother and achieving personal enrichment as an individual. Although she made her choice (to spend the Sunday afternoon with her child), she had “mixed feelings”.

It is clear, while general tensions are solved by adopting the self-learning strategy, specific new tensions are experienced by our informants. We next explain how these individuals make use of the choices provided by the structure to dissolve the tensions created by the time pressure and the conflict between the actualization of the individual self and the social self.

First, to earn more disposable time, they all approach their parents and/or parents-in-law for help – Xiangyi’s mother helps her take care of her child during the day time; both Yinuo and Yuxin’s parents-in-law moved in with them to help. In addition, they grasp every available moment, which Yuxin describes as “small gaps throughout the day”, for study. We emphasize that time has become an essential capital in contemporary adult females’ life that plays a pivotal role in gaining reflexivity. Another effective solution for dealing with these tensions is individuals’ self-identity development and the feeling of self-actualization – individuals in the self-learning strategy develop a self-identity of “science-based learning mother”, from which they achieve a sense of accomplishment by actualizing both individual self-value and social self-value.

Implicated by Bourdieu and Giddens’s theories, we next introduce the lifestyles formed in this strategy (i.e., “self-learning lifestyle” and “healthy lifestyle”), which build a foundation for individuals’ identity work. As illustrated earlier, our informants invest money and time in exchange for objectivized cultural capital (i.e., books and course

tutorials) and institutional cultural capital (i.e., authority from health experts). Enabled by the learning process and actual practice, these two forms of capital are transformed as embodied cultural capital that plays a decisive role in informants' DS consumption.

Embodied cultural capital accumulated in this strategy consists of three aspects of health knowledge: diagnosis-treatment knowledge (Western medical science) and health promotion knowledge (nutrition knowledge and DS knowledge). Based on the embodied cultural capital, our informants heavily rely on evidence-based medicine (EBM) and mainstream health promotion beliefs as their orientations in making health-related decisions, e.g., they evaluate the safety and efficacy of DS products based on EBM evidence levels, they believe in the rule of “diet comes first” and DS is supplementary but not necessary, and they emphasize the equal importance of eating healthily and exercising regularly in health promotion.

Moreover, they gradually generate a set of DS use activities and health promotion routines, e.g., they select a restricted category of DS products, they use DS products as instructed, but they are also capable of making adjustments flexibly. A typical illustration is that informants adopting this strategy are the only ones in our study who add nothing but Vitamin D3 for their children and stop the use immediately when their children start to get Vitamin D3 from natural sources.

By holding a unique set of behaviors, orientations, and resources, distinctive lifestyles are formulated (see Table 5.9). Giddens (1991) defines a lifestyle as comprising “a cluster of habits and orientations” (p. 82); Abel (2007) refers to a healthy lifestyle as “interactive patterns of health-related behaviors, orientations and resources” (p. 61). Implicated by their work, we illustrate the lifestyles by presenting DS consumption and

other health promotion behaviors, orientations, and resources in Table 5.9. According to Bourdieu, the formation of lifestyle involves changes made to the old habitus, including reproduction of the habitus and transformation of habitus. Hence, the influence of lifestyles on habitus is also included in Table 5.9.

Table 5.9 Lifestyles Formed in the Self-learning Strategy

	Healthy Lifestyle	Self-learning Lifestyle
DS Consumption and Use	<ul style="list-style-type: none"> • Very focused use of DS (e.g., only add Vitamin D3 for their children). • Use DS based on authoritative instructions (e.g., only use Vitamin D3 within one year old). 	<ul style="list-style-type: none"> • Flexibly arrange the use of Vitamin D3 (e.g., skip the intake when their children get enough sunshine). • Keep learning about other DS products but make independent decisions (e.g., didn't add the commonly used DS products like DHA for their children).
Health-related Behaviors	<ul style="list-style-type: none"> • Make diet plans to guarantee nutrient intake. • Must keep regular physical exercises. • Educate their children about healthy behaviors. 	<ul style="list-style-type: none"> • Keep learning about diet plans and nutrition. • Keep learning about diagnosis-treatment and nutrition knowledge. • Distance themselves from the influence of social structure.
Orientations	<ul style="list-style-type: none"> • DS is supplementary, not necessary. • Diet comes first. • A healthy lifestyle is the key. • Evidence-based medicine. 	<ul style="list-style-type: none"> • Evidence-based decision making. • Logic and rationality are important in decision making. • Be self-reflexive and self-aware.
Resources	<ul style="list-style-type: none"> • Time capital (e.g., time for reading books and taking online classes) • Objectivized cultural capital (e.g., books, online course tutorials, social media educational articles) • Institutionalized cultural capital (e.g., trust health authorities like doctors and nutritionists). • Embodied cultural capital (e.g., diagnosis-treatment knowledge, nutrition knowledge, DS knowledge) 	
Influence on Habitus	<ul style="list-style-type: none"> • Transform habitus in low trust culture (e.g., build trust on local distribution channels) • Transform habitus in the ideology of Yin-Yang balance (e.g., distrust Traditional Chinese medicine as it lacks experiment and evidence) • Reproduce habitus in Guanxi (e.g., guanxi-based social status) • Reproduce habitus in feminine morality (e.g., the social self as a mother) 	

A healthy lifestyle is formulated from this strategy. Research has identified two fundamental elements that are essential for a healthy lifestyle – healthy diets and physical exercise (Cockerham, 2005; Abel, 1991). Abel (2007) further suggests that a “healthy lifestyle” incorporates the highest level of embodied cultural capital because a healthy

lifestyle requires individuals to select and arrange single elements (e.g., healthy diets, physical exercise) as complementary to one another. Other types of health-related lifestyle, for example, a “health-promoting lifestyle”, do not necessarily require that consistency (i.e., in a health-promoting lifestyle, individuals might not perceive healthy diets and physical exercise to be necessary and equally important).

First, our informants succeed in developing a healthy lifestyle through adopting a self-learning strategy. They emphasize that a healthy lifestyle should involve both healthy diets and sufficient physical exercise; these two elements cannot be replaced by the consumption of health products. It is important to transmit the embodied cultural capital to the next generation to cultivate their habitual health behaviors. See how Yinuo influences her child’s dietary habits in an implicit manner:

I want to help my baby build correct health and diet knowledge. My child is able to eat real food now. I have been paying attention to our everyday diet. I hope that I could make a positive influence on my baby by arranging the meals in a balanced and nutritional way. It is an implicit influence, which helps cultivate his awareness. For example, eating less salt and fat. If I can make it become a habit in my family, my child will be used to this dietary structure when he grows up.

Yinuo recognized the importance of the transmission of implicit knowledge between generations in cultivating habitual behaviors that are beneficial for health. She also made an attempt to influence the dietary habits of her parents and parents-in-law by arranging daily meals. However, she admitted that it was difficult to change the older generation’s habits as they have been ingrained in their mind and lifestyle.

Second, a self-learning lifestyle is formulated from this strategy. Through the ongoing and self-motivated accumulation of knowledge, individuals are capable of reflecting on the causes and consequences of their actions from time to time, so as to

maintain or revise their daily practices and routines (Giddens, 1991). In our research, through self-learning strategy and practice, individuals are updating their knowledge but are increasingly self-reflexive and self-aware.

That means they are capable of distancing themselves from the influence of social structure (e.g., habitus, social media noise) and making decisions independently based on the scientific agency they have accumulated (e.g., evidence-based medicine). Moreover, they are capable of being flexible and improvising during health promotion practices (e.g., remain or skip Vitamin D3 intake according to the child's outdoor activity and sunshine exposure level). They have been applying evidence-based logic to aid decision making in other life events.

Xiangyi: I also apply the evidence-based decision making to other things. I think it might be relevant to how I think...I majored in law in college. I need evidence, I need logic, in every aspect of my life.

Xiangyi has applied evidence-based logic to other aspects of life and she relates the need for logic and evidence to her major in college. As education in college plays an important role in an individual's personal and career development, we suppose that Xiangyi incorporates the need for evidence-based logic with her identity. In the interview, she used a very affirmative tone when describing her need for evidence and logic (e.g., "I need evidence." "I need logic.")

We emphasize that the self-learning lifestyle assists our informants with distancing themselves from the influence of social structure. In particular, the influence of some old habitus on these individuals has been decreased. For example, traditionally, the low trust culture in Chinese social structure might lead individuals to distrust large businesses on e-commerce platforms, as we presented in the habitus section. Indeed,

individuals adopting a self-learning strategy still purchase DS products from interpersonal purchasing networks (e.g., asking friends who live abroad to help buy and deliver) because these mass elite females are equipped with the corresponding social capital. But we observed that they had made attempts to buy DS products and other health-related products from e-commerce businesses and/or local stores.

Individuals build trust in the purchasing channels based on their self-learning outcomes. Once they find evidence that proves the trustworthiness of these channels, they will decide to choose these channels and cut out the influence of the habitus. For example, Yinuo purchased multivitamins from the brand's flagship store on the Tmall platform recently because she is sure about the product quality (i.e., she clearly knows the ingredients and the number of effective ingredients contained by the product) and she can see an authorization certificate on this platform that proves the reliability of the flagship store.

Another influence of habitus, the ideology of Yin-Yang balance, and its resulting Traditional Chinese medicine (TCM) beliefs seem to show a weakened impact on these informants as "TCM lacks experiments and evidence to prove its safety and effectiveness." (Xiangyi). The informants are capable of reflexively reflecting on the causes and consequences of health-related activities like TCM application, and make innovative decisions based on specific situations. As Yuxin indicates, "TCM and Western medicines both have their strengths that can be acted upon when appropriate." To summarize, the reflexivity (i.e., the capability of exercising control over aspects in our social world) is developed from self-learning practices and enhanced by science-endorsed knowledge accumulation.

It is clear that the self-learning lifestyle is functioning for detraditionalization by transforming the influence of old habitus on individuals' minds. On the other hand, our research acknowledges the influence of habitus on individual agency (i.e., the reproduction of habitus in lifestyle). We know that lifestyles not only fulfill utilitarian needs but also provide the material form to one's self-identity (Cockerham et al., 1997) which is negotiated and constituted through the structure-agency interplay; lifestyles reproduce the old habitus which links to how social status is distinguished and expressed in the field (Bourdieu, 1984).

In a self-learning strategy, when individuals actively free their agency to grasp opportunities provided by the structure, they are also inevitably affected by two elements of habitus ingrained in that structure: the morality in femininity of taking care of the family and the face-empathy-based social status in Chinese *guanxi*. The former pushes our informants to constitute a self-identity of "science-based learning mother"; the latter plays an important role in the unique expression of social status in this field – the "active leader" in their core family and "passive leader" in their social network.

By acknowledging the dialectic between the structure and the agency, we next describe how the lifestyles function as an expression of individual self-identity and social status.

On the welcome page of a popular social media medical application focusing on scientific parenting, we see only one sentence: "*We serve learning mothers!*" Our study identified that through a self-learning strategy, a self-identity of "science-based learning mother" had been constituted. We underscore that both dimensions of the self – the individual and social dimensions – are actualized by this identity development. That is,

these females perceive themselves as independent and rational decision makers based on science and logic; they perceive themselves as responsible mothers who apply scientific rules and guidelines to raise their children. Furthermore, they obtain a sense of achievement from becoming a learning mother, which, in turn, helps relieve their tensions between pursuing personal development and fulfilling moral responsibility; they become self-motivated to invest a large amount of time in learning and find a balance between achieving the individual self and the social self. See the following example:

Interviewer: Can I ask if all those decisions are made by you? Decisions related to child health.

Yuxin: Yes, basically. I'm the only one who can make those decisions.
[laughter]

Interviewer: Why? So, after searching for information or learning, you make decisions by yourself? Do you discuss it with your husband?

Yuxin: Mm...Most of the time, I would just let my husband know [the decision]. Unless I am not certain enough, I will not discuss it with him. If I'm very certain, then I make a decision by myself.

Interviewer: Are you usually certain or not?

Yuxin: Mm... You see, I was a student of science and engineering in college. If I collect a lot of information...and based on my learning...usually, I am able to make a conclusion.

Yuxin shows self-actualization by being “the only one who can make those decisions”.

Xiangyi also expresses this self-fulfillment feeling by introducing that she is the decision maker who does “all mind work,” and her husband is the implementor who does all “labor work”. Similar to Yuxin, Xiangyi also mentions her major in law in college and emphasizes the importance of logic and science in her decision making. Yinuo is also self-motivated to buy books and learn about science, including math and physics.

Based on the learning experience and scientific knowledge accumulation, they perceive themselves as equipped with the capability of doing rational thinking and reflection. Yinuo and Yuxin both tried skincare and beauty DS like collagen and grape

seed extract a few years ago and stopped the use when they learned about the nutritional knowledge behind the product:

Interviewer: Do your friends use DS products?

Yinuo: Most of them use skincare DS products, like collagen [laughter]. Actually, I tried collagen a few years ago. My friends are still using collagen, grape seeds, cranberry, evening primrose, and so on. Right, blueberry. Many kinds. Ever since I knew the nutrition knowledge, I have stopped using those products. It is related to digestion and absorption. I mean, after eating those products, they are digested. They are not necessarily used to nourish the skin collagen.

Interviewer: Do you know this from the book?

Yinuo: Exactly. Collagen is broken into amino acids after digestion. In fact, protein plus Vitamin C could build collagen. How about eating some beef and orange? [laughter]

Interviewer: Do your friends still take those skincare DS products?

Yuxin: As far as I know, some loyal fans are still taking those things.

Interviewer: Any influence on you?

Yuxin: No. Not a little bit. I have become very rational [about these things].

According to Yinuo and Yuxin, endorsed by advanced scientific knowledge, they have accumulated a scientific agency which increases their rationality and confidence in controlling social lives. In their interviews, they describe their plans for their children, family, and themselves, and they usually use an assertive tone in descriptions, all of which reflect that the “scientific agency” empowers these agents to enforce their free will.

Yuxin: [...] Each person should experience different life stages in which you should take different responsibilities and do different things. I always made my own plans, like, to get married at twenty-seven or twenty-eight, and to enjoy a few years of two-person world, no child, you know, and to have a child when I prepare well [...] I mean, I have my own schedules. When I enter a new stage, I must be prepared...that I will get something but also lose something. There's always a balance. I know that. And I accept that [...] I try my best to control things that I can control [laughter]

Yinuo: [...] You must be able to flexibly arrange your life, like, when to read and learn, and when to relax. You see, there are many things going on

in my life, my interests, my job, my baby... You are normally in a very busy status. You don't have enough time. So, it is extremely important, when you feel you are approaching the peak of anxiety, you must stop, no matter what you are working on, and arrange some time for yourself to do something you enjoy and relax [...] In this way, you can peacefully face everything in your life and have the power to deal with everything...

From Yuxin and Yinuo's descriptions, we can see that they both express a strong intent for planning their life, living based on their plans, and making adjustments whenever necessary to regain power.

In addition to the construction of a "science-based learning mother" identity, individuals have achieved a unique social status in their social world. The social distinction is largely influenced by the guanxi structure in Chinese culture, as we described in the habitus section.

First, Chinese culture tends to divide people into categories according to in-group (family as the core in-group) and out-group boundaries (Shaan et al., 2013). Based on a high trust in core in-group and low trust in out-group, and the face-saving and empathy-centered mechanism (Shaan et al., 2013), social status is found to have different expressions in the core in-group and out-group network. In the core ingroup, i.e., family, individuals are "active leader"; in the out-group, i.e., social network surrounding DS consumption, individuals are "passive leader". As for the "passive leader", we have provided a detailed description in the habitus section – Chinese individuals avoid becoming active opinion leaders in social networks in order to show empathy to and save face for others. Our study found that, despite the fact that they actually played the role of opinion leaders, they were unwilling to admit their high social standing. Hence, their prestige and reputation can only be evidenced by the fact that others in their networks

actively ask for and follow their opinions. In these cases, our “opinion leaders” make endeavors to describe themselves as “allies” or “supporters” instead of “leaders”.

Next, we describe the social position of “active leader” in the core in-group, i.e., family. First, our informants confirm that they perceive health consumption and promotion activity as a family-level practice:

Interviewer: Do you persuade your friends to use DS in this way?

Yinuo: No. I think I only have the right to provide suggestions to my friends. Or, if someone comes to me and asks about these things, I will definitely tell them what I have known [...] But I won't try to persuade them to accept, or to be, bossy. I don't think I have the right.

Interviewer: Then, do you ever have the urge to share your knowledge with others, for example, share your experiences with others on social media?

Yinuo: Mm...still, no. Because...I actually believe that health...diet...is a family thing. How to eat...should be discussed within a family and decided by the family.

By acknowledging that health promotion is a family-level practice, our informants like Yinuo are actively engaging in their family's DS intake and other health-related arrangements like diet. They do information search and purchase DS products for their child, husband, and the elderly in their family; they check on family members' health condition regularly; they try to implicitly change/adjust their family's dietary habit for health purposes:

Yinuo: Although I try my best to arrange our meals based on the dietary guidelines, we may not be able to guarantee the practice every day. So, I still purchase some multivitamins for my family. In my family, we are all people with special needs, except for my husband. You see, we have a breastfeeding mother, me [laughter], an infant, and old people. I think we could add some extra multivitamins.

Yinuo is actively leading health promotion activities in her family. Moreover, she is also the active agent who needs to search DS information and purchase products for the whole family. Informants like Yinuo don't just make arrangements on a technical level (e.g.,

purchase DS products and make meal plans); rather, they have become the decision maker in their family:

Yuxin: Mm...I'm the oldest in my generation in our family. I have cousins to take care of [...] I'm a big sister to them. My grandparents and my aunt, usually ask for my opinions...or ask me to handle some things for them [...] I have become the one who manages businesses and makes big decisions in my family. They need to buy something or do something. They come to me asking for my suggestions. Basically, that's my role in my family.

Interviewer: What role?

Yuxin: How to call it...Household manager...? [laughter]

From Yuxin's example, we can see that she is acting not only as the decision maker in her family regarding health promotion, but also as the leader ("household manager") whom other family members would like to consult and respect. According to Bourdieu, social status is constituted when specific forms of capital are recognized as legitimate bases for claiming prestige, respect, and authority (Bourdieu & Wacquant, 1992). In our research, we identified that the embodied cultural capital plays a key role in legitimating these informants' social status no matter if they are actively or passively taking the role of leader.

In this subsection, we introduced the self-learning strategy adopted by our informants in order to actively act upon the choices provided by the structure for self-care and dissolve tensions. As they practice the strategy, they selectively utilize the choices in the structure to achieve their purpose of gaining scientific agency but also meet new conflicts and tensions that need to be dealt with. By investing in economic capital and time capital, they accumulate a high level of cultural capital. Then, the accumulated embodied cultural capital functions to form their distinctive lifestyles – a healthy lifestyle

and a self-learning lifestyle, as a result of the reproduction and transformation of the old habitus.

Comprised of a set of behaviors, orientations, and resources, these lifestyles are indicative of individuals' social status in the field and are expressions of individuals' self-identity which, in turn, supports individuals to commit to the self-learning process and relieve the tensions (time conflicts, the individual self and social self conflicts). To summarize, through self-learning, these individuals gain scientific agency and become self-aware and self-reflexive in DS consumption. They gain reflexivity as they have confidence in their power to control aspects of their social world to flexibly and independently practice self-care.

5.3.2 Moving from Scientific Agency to Lay Agency

In this section, we introduce the other three strategies adopted by our informants to actively participate in DS consumption for health promotion. Before moving on to the three strategies, we first explain the major difference between the self-learning strategy and the following three strategies (i.e., self-learning strategy is based on scientific agency but the other three strategies are based on lay agency), and the reason for the difference (i.e., self-learning and other modes of learning lead to different levels of mainstream health knowledge accumulation).

Other modes of learning. As mentioned before, cultural capital plays an important role in health-related lifestyles (Abel, 2007). Among the three states of cultural capital, the embodied cultural capital is the most substantive and distinctive component of lifestyle (Bourdieu, 1984). Bourdieu states that the embodied cultural capital could be

accumulated in four primary sites of acculturation: family upbringing, formal education, occupational culture (Bourdieu, 1984) and peer group socialization (Bourdieu, 1986).

Our study identified that the four modes of acculturation exist in DS consumption and confirmed that they show an influence on individuals' DS consumption as well as health-related practice. We highlight that these acculturation sites indeed enable our informants to build some mainstream health knowledge and/or help them form a healthy lifestyle, but the enabling effect stays at a very limited level. Compared to the self-learning, the four modes of acculturation influence our informants in a more habitual and implicit manner, and thus expose them to the influence of lay health theories and beliefs.

Family upbringing functions more effectively than other modes in terms of cultivating a healthy lifestyle. We have mentioned the two fundamental elements that are essential to a healthy lifestyle – healthy diet and physical exercise (Cockerham, 2005; Abel, 1991). We found that the informants who do not practice self-motivated lifelong learning but grow up in a healthy lifestyle family might still keep a healthy diet and regular physical exercise. They learned about a healthy lifestyle from their parents in an implicit way. This finding resonates with one of our previous findings – the “science-based learning mothers” perceive family education as very important for improving the next generation's health. For individuals who are significantly influenced by family upbringing, taking regular exercise and eating healthily are habitual and are part of their life. Meimei is a 30-year-old securities analyst and a mother of a 1-year-old child. She is one of our informants who keeps a high level of healthy lifestyle:

Meimei: I eat almost every meal at home or at the cafeteria in my workplace. You know that the cafeteria in the state-owned key enterprise usually provides balanced and nutritious meals. The taste is just so-so, of course. [laughter]. I rarely dine out. But I buy fruit. [...] I do regular

physical check-ups. So far so good! I don't stay up late. Many people don't sleep on time or don't eat three meals on time. I'm not one of them.

Interviewer: What time do you usually go to bed?

Meimei: Ten thirty. Eleven o'clock. That's the latest. [laughter]

Interviewer: How about exercise? Do you take exercise regularly?

Meimei: I'm walking right now! [laughter] I take a walk every day after my dinner...about 30 minutes. I'm not a super fitness fan. I just keep it as a habit that I need to do regularly. Otherwise, my body feels uncomfortable. I take walks...and yoga. Sometimes I play tennis, badminton, or rope skipping.

Interviewer: Since when have you built the habit? Since you went to the UK for a master's study?

Meimei: Ah...actually...no. Since I was very young. From elementary school...as I remember...my parents took me to play badminton...learn swimming...And we went out for walking or jogging together. Very often.

In addition to the two basic elements of healthy diet and regular physical exercise, we see that Meimei also keeps higher-level healthy behaviors such as keeping a regular sleep/eating pattern and doing regular physical check-ups, all of which meet the standard of a healthy lifestyle (Abel, 1991). When being asked how she developed a healthy lifestyle and being primed with an alternative choice (i.e., influenced by UK living experience), she did cognitive thinking, rejected the priming choice, and confirmed that the habit resulted from her family upbringing.

However, due to the lack of self-learning process, Meimei does not explicitly know the mainstream diagnosis-treatment, nutrition, or DS knowledge, as our informants who apply the self-learning strategy do. Meimei has been purchasing and using DS products for five years, because, according to her, "Everyone is using DS".

Similar to Meimei's case, we see other informants who have the habit of keeping healthy diets and maintaining physical exercise due to family influence but keep using skincare DS products and believe, "all those activities together contribute to my good skin condition" (Hong). Or, we see informants who are aware of the elements of a

healthy lifestyle due to family education, but treat DS use as a short-cut and perceive that elements like a healthy diet and physical exercise could be replaced by DS use.

Shiqi: I know it's better to take some exercise but I don't get happiness from exercise. I would rather rely on DS consumption.

Shiqi has acquired some level of health promotion awareness and knowledge but failed to practice accordingly (e.g., she does not take regular physical exercise) and she justified her behavior by emphasizing the importance of emotion in keeping healthy (e.g., she values happiness).

In addition to family upbringing, occupational learning assists individuals to access and accumulate health-related cultural capital (i.e., health knowledge). Ruoxi and Chun work in a hospital so they both learn from their colleagues. Although they learn from the doctors about the possible ineffectiveness of skincare DS like collagen, they both participate in the skincare DS consumption. They avoid talking about their use in their colleague network – “I don't mention the skincare DS, like collagen or anti-glycation product, in front of my colleagues. It's kind of embarrassing” (Ruoxi).

Occupational learning is closely associated with learning through peer group socialization. As individual adults are holding multiple identities in the contemporary social world, their peer groups extend to not only include colleagues at work. Our informants are learning about DS consumption from their peers, such as classmates, personal friends, and social media communities. As a result, individuals are not necessarily appreciating the value of DS products but still engaging in DS consumption due to peer influence, e.g., “Usually I try a product because my friends recommend it to me, or I see my friends are using it” (Zixuan).

Formal education also plays a role in health knowledge learning. Yunhan majored in exercise rehabilitation in college, and both Hong and Xiaoxi majored in bioengineering. They all build a certain level of health knowledge (e.g., aware of the importance of diet and physical activity in keeping health) and/or engage in these healthy practices. But they are more open to DS use than informants adopting a self-learning strategy (e.g., constantly exploring DS subcategories and products rather than focused and limited use), and they are not necessarily aware of the nutrition/DS knowledge (e.g., the effective ingredients contained by DS).

To summarize, the four primary acculturation sites for health-related cultural capital indeed help individuals gain some extent of scientific agency in an implicit and/or habitual manner. But these learning experiences do not provide scientific agency as sufficiently as the self-learning strategy does. In Table 5.10, we present the differences in cultural capital accumulation between individuals who practice self-learning to gain the scientific agency and informants who do not. Examples are included for illustration.

We can see that the former group of individuals is capable of explicitly stating the logic and science behind DS products; they are self-aware and self-reflexive when processing nutritional and DS information; they can make DS consumption decisions independently and flexibly; they live in a healthy lifestyle and argue for the equal importance of eating healthily and taking regular exercise, both of which cannot be replaced by taking DS products.

However, the latter group fails to build an explicit mainstream knowledge of the Western medical science or health promotion so that they apply both scientific agencies,

and lay theories of medicine and lay beliefs in health (e.g., Yin-Yang balance ideology) to understand health, nutrition, and DS consumption.

Table 5.10 Health-related Cultural Capital in Different Learning Modes

	Self-learning	Other Modes of Acculturation
Diagnosis-treatment knowledge	<ul style="list-style-type: none"> • Apply Western medical science (e.g., evidence-based medicine) • Example <i>"...Mainly on evidence-based medicine...Like, the evidence levels. I must make sure, which evidence level the DS product belongs to, and then decide whether to use it or not."</i> (Xiangyi) <i>"...unless symptoms show up and my doctor suggests, I won't consider adding other DS."</i> (Yinuo) 	<ul style="list-style-type: none"> • A mix of Western medical science & Lay theories of medicine and lay beliefs in health (e.g., Chinese ideology of Yin-Yang balance) • Example <i>"You cannot see its effectiveness unless you take it for a very long time."</i> (Yiran) <i>"Good things need to be taken for a long time, say, three to five years."</i> (Shiqi)
Nutrition knowledge	<ul style="list-style-type: none"> • Can process and apply nutritional information to make health promotion decisions • Example <i>"...We can get calcium from tofu, beans and milk. Get iron from beef or liver. We eat multigrain every day for micronutrients, carbs, and fiber. We eat leafy greens, roots, and mushrooms regularly. And...I drink 500 to 1000 ml of milk. Even for DHA, we can eat fish, shrimp and other seafoods...So, I guess, we don't need to add anything. Maybe some multivitamin, just in case."</i> (Yinuo) 	<ul style="list-style-type: none"> • Cannot process/apply nutritional information to, or apply lay beliefs to, make health promotion decisions • Example <i>"...I know that we should eat vegetables and meat every day. I don't know why. But I know we should. And I know we should eat starch and drink milk every day."</i> (Yuehang) <i>"...we could get calcium from bone soup..."</i> (Qianxi) <i>"...black sesame could treat hair loss..."</i> (Ruoxi)
DS knowledge	<ul style="list-style-type: none"> • Can process/apply DS information to make DS consumption decisions (e.g., ingredients, dosage) • Example <i>"Because breastfed baby within one year old only needs 400 UI Vitamin D3."</i> (Yinuo) <i>"My calcium supplement contains Vitamin D as well. VD assists the absorption of calcium...Actually, the best source for calcium is milk. But most of Chinese, including me, don't drink</i> 	<ul style="list-style-type: none"> • Cannot process/apply DS information, or selectively process/apply DS information to make decisions (e.g., focus on "use directions" rather than "ingredients") • Example <i>"My son takes a calcium supplement...called Ddrops."</i> (Meimei) (Ddrops is a Vitamin D3 supplement) <i>"I add calcium and DHA for my child. Mothers always choose these two – calcium is said to help build a strong body, DHA is for a clever mind."</i> (Fangxue)

milk or eat dairy products. So, I must take some calcium as supplement.”
(Xiangyi)

<p>Healthy lifestyle</p>	<ul style="list-style-type: none"> • Can keep a healthy lifestyle, e.g., perceive healthy diets, physical exercises as complementary to one another; believe that they cannot be replaced by DS consumption. • Example <i>“A healthy life requires a good life attitude...then, take more exercises, eat more healthily, and keep a regular sleep pattern...”</i> (Yuxin) 	<ul style="list-style-type: none"> • Can keep a healthy lifestyle, but easily influenced by lay health beliefs and open to DS consumption. • Cannot keep a healthy lifestyle, e.g., do not perceive healthy diets, physical exercises as complementary to one another; believe that they can be replaced by DS consumption. • Example <i>“Diet is important, fitness is important as well. But I think they can be replaced by each other. I focus on healthy diet because it is easier for me.”</i> (Yuanyuan)
---------------------------------	---	--

As a result, by acknowledging the effect of family upbringing, occupational culture, peer group socialization, and formal education on acculturation, we admit that individuals might be able to develop a healthy lifestyle. But without the self-learning process, they might not be aware of the logic and science behind health promotion. In particular, they might be more open to DS consumption, and they might only process some DS information (e.g., use directions) and omit other information (e.g., ingredients, dosage, warnings) during DS consumption. Moreover, they might not be able to develop a mainstream healthy lifestyle; rather, they apply lay health beliefs to justify and support their understanding of health as well as their behaviors (e.g., believing that DS use could replace a healthy diet).

We want to underscore that, in the process of applying lay health beliefs and lay theories of medicine to justify and support their DS use, individuals are still gaining their agency and reflexivity (i.e., increasing control over aspects of social life) for participating in self-care practices. We categorize this form of agency under a broad term – lay agency. As there are different types of lay theories of medicine and lay health beliefs, different strategies are adopted to gain different forms of lay agency.

Moving from scientific agency to lay agency. Our study identifies that, in addition to the self-learning strategy, individuals have adopted another three strategies for grasping the choice of self-care and for relieving tensions. The three strategies include: *gaining agency by disciplined use, gaining agency by consumerism, and gaining agency by socializing.* As we stated, due to the selective activation of lay medical and health beliefs in each strategy, individuals eventually gain different forms of lay agency in support of their activities. However, we emphasize that there is one commonality existing across the different forms of lay agency. That is, all lay agencies draw on a common conventional view – science and technology, the empowering and liberating forces (Foucault, 1994) omnipotently embodied in consumer goods (Stivers, 1999), bring magical/mythical solutions to consumer’s life problems (St. James, 2011; Thompson, 2004).

Our research identified that mythology was constructed in the DS marketplace and ideologically used by advertisers of DS products and consumers seeking alternatives to their life problems. Specifically, Thompson (2004) proposes two types of mythic metaphors and their corresponding mythological promises that are conveyed in the technocratic rhetoric in product commercials: 1) *technology-as-divine-tool* that conveys the mythic promise that the products have distilled, enhanced, and standardized the healing powers of nature, rendering them more efficient and effective; 2) *technology-as-liberator* that conveys the mythic promise of boundless vitality, i.e., the product has energizing properties that liberate individuals from the restrictions of nature (p. 168).

We see these two discourses prevailing in the advertising rhetoric of DS products and utilized by our informants to justify and support their health promotion behaviors. To

summarize, mythic beliefs that circulate in the DS marketplace function as basic lay beliefs that position DS products as a safe, effective, and effortless solution for health-related problems, based on the mythic metaphors of technology-as-divine-tool and technology-as-liberator.

The purpose of this section is to underscore this common ideology, which builds a general and solid foundation for different lay agencies. That is, by treating DS use as a safe, effective, and effortless solution, our informants are already on halfway to relieving the general tension regarding DS safety and efficacy. Based on the common lay belief of treating DS products as scientific and technological solutions derived from the developed Western world, they differentially act upon the choices provided by the structure and the habitus embodied in their mind to develop three different strategies for practice. Eventually, they attain three forms of lay agency and achieve different types of benefits from DS consumption.

In the next section, we will introduce and discuss the three strategies.

5.3.3 Gaining Lay Agency: Three Different Strategies

Note that, in Section 5.2, we have described how the structure provides a general choice for all of our informants in terms of participating in self-care but also results in a series of general tensions that might be experienced by the informants. Then, in Section 5.3.1, we have introduced the self-learning strategy adopted by our informants in order to catch the general opportunity for participating in self-care and relieving the general tensions. Moreover, we have mentioned that while the informants practice the self-learning strategy, they are inevitably experiencing new tensions that are specific to this

strategy; they are selectively acting upon the habitus in their mind and the choices provided by the structural changes to dissolve their specific issues.

Although moving from scientific agency to lay agency (as described in Section 5.3.2), we underscore that, consistent with the self-learning strategy, the three new strategies aim to fully exploit the general choice of doing self-care as well as relieving those general tensions (e.g., difficulty in evaluating DS value and safety, overloaded/conflicted information, and complex offerings in the marketplace). Also, by practicing the three different strategies, informants might experience new specific tensions and then selectively activate the habitus and interact with external choices for solutions, which leads to distinctive lifestyles, self-identities, and social status.

In Figure 5.3, we summarized the three strategies. By sharing the same lay belief – DS is a magical solution that equips consumers with the technology-enhanced healing power of nature (i.e., technology-as-divine-tool) and a technology-enhanced boundless vitality (i.e., technology-as-liberator), three strategies are constructed: 1) “the disciplined use strategy” focuses on actualizing a disciplined and persistent use that requires effort and deprivation, and gains agency by achieving the self-gratification and self-esteem from moral accomplishment in self-control; 2) “the consumerism strategy” focuses on consumption (i.e., spending money on consumption in the realm of healthcare) and gains agency by seeking hedonic values and happiness that is justified as a pivotal factor for keeping physical health; and 3) “the socializing strategy” focuses on socialization activities around DS consumption and gains agency through guanxi relationship development such as conforming to referent others and social norms and bonding by using DS for gift giving.

The process of gaining lay agencies is led by individual's free will but restricted and shaped by local traditional habitus, e.g., a moral achievement in self-control has been localized to fit the ideological belief in Yin-Yang balance, consumerism has been localized by integrating Western consumption values with the Chinese value of thriftiness, and symbolic meanings embedded in DS products have been socially constructed in Chinese guanxi structure. We next go through each of the three strategies.

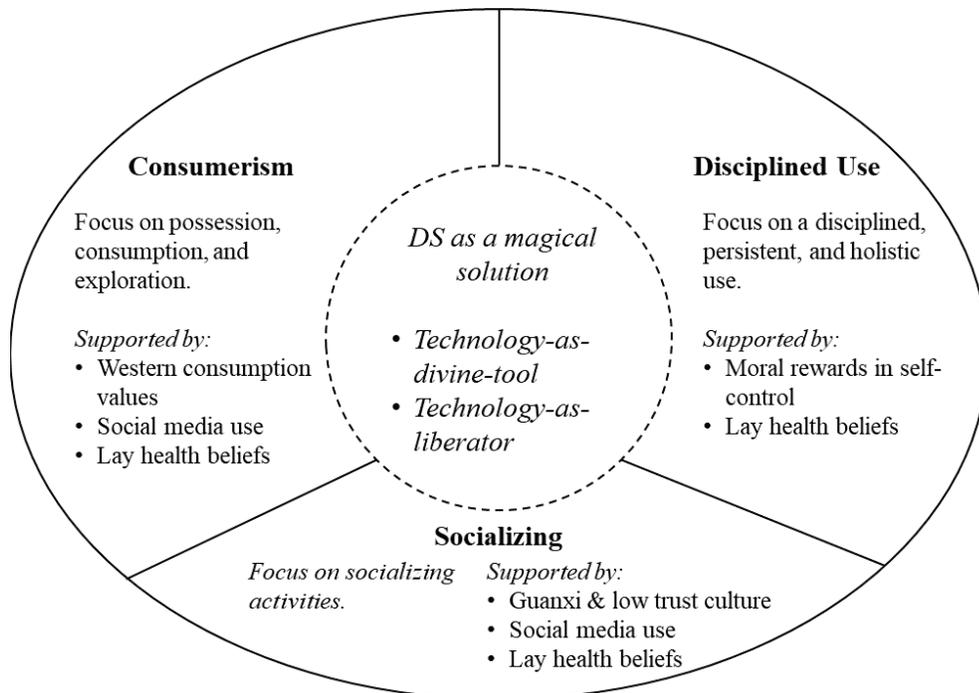


Figure 5.3 Gaining Lay Agency: Three Different Strategies

Disciplined Use & Agency in Moral Rewards. As we mentioned, our informants (females from the mass elite class) aim to actively participate in self-care as well as dissolve the possible tensions that emerge in the social structure. The strategy of disciplined use enables our informants to achieve these goals. Firstly, as this strategy is grounded on a common ideological belief that DS is a technology endorsed magical

solution, informants successfully dodge the tension regarding the safety concerns of DS products.

Moreover, by adopting a disciplined use strategy, informants are committed to limited types of DS products and brands (rather than constantly updating and expanding products and brands) and shift their focus to the actual daily use. In this way, they only need to conduct an information search at the very early consumption stage and then keep making purchases in the same manner over the years. Thus, they successfully escape the pressure from overloaded social media information and complex marketplace offerings; they do not worry about questions such as “what to choose” and “how to search”. Last but not least, in order to dissolve the tension surrounding the effectiveness of DS use, which has permeated their social structure due to the co-existing and contradictory voices from authorities and non-authorities, informants accumulate and eventually hold reflexivity (i.e., confidence in exercising control over their life) to justify their use of DS by emphasizing and practicing a disciplined and persistent DS use.

In specific, this agency is based on a common lay health belief that health maintenance and promotion require deprivation and effort. Hence, disciplined DS use based on the achievement of self-control is perceived by our informants as a moral behavior that should be rewarded. This form of agency expresses an expectation consistent with Christian asceticism (Thompson & Hirschman, 1995) and involves the universal moral belief where good actions are rewarded, and bad deeds are punished (St. James, 2011). Further, its expression in our research context has been polished by the Chinese local moral beliefs ingrained in the ideological Yin-Yang balance. Drawing on the Yin-Yang ideology, Traditional Chinese Medicines emphasize the slow effect nature

of the treatment. Accordingly, our informants emphasize a lay health belief that a long-term persistent use plus a short-term disciplined use should be rewarded with good health outcomes. By gaining this lay agency, informants avoid the tension rooted in the difficulty of seeing the DS effect and intensified by the conflicting views advocated by authority and non-authority.

Wushuang is a 30-year-old lawyer who has been committed to the use of two general DS products (multivitamin and calcium) and three anti-aging DS products for seven years. Consider how she describes her persistent and disciplined use of DS products.

Interviewer: How often do you take your DS products?

Wushuang: I take them every day [...] I take Pola every morning with warm water. It is suggested to be taken with an empty stomach. I take collagen immediately after lunch. Then, I take the other Pola product before I sleep [...] I rarely forget these routines. If I really forget during the day, I will take them all at night before I go to bed.

Interviewer: Have you felt any positive changes after three years' use of these DS products?

Wushuang: About this...I'm not very sure. You know that women should do various things in order to make the skin stay young and good. For example, I take these products. But I also pay attention to my diet. I also take exercises. So, which aspect is working exactly? I cannot be so sure. But I insist on doing all those things. It's just that I'm using DS products more regularly, persistently, and self-disciplined than doing other activities [...] I did find out that many people cannot persist taking these DS. [laughter] actually, these DS perform very very slowly. My yoga teacher told me that exercises and yoga could show an effect on you in a few years. I believe that deeply. Because I have the same experience with DS use. I see the effect after years of use. It's impossible to see it in a short time.

Wushuang focuses on a limited number of DS products and brands; she uses the DS products strictly according to the instructions (e.g., using products at different times and conditions); she emphasizes a persistent and disciplined use of DS products (e.g., long-term regular use is the key to show DS efficacy). Moreover, this lay health belief is

enhanced by one of the beliefs in morality in femininity in China, i.e., women should make various endeavors to pursue a youthful look and good skin condition because they symbolize the expected female moral qualities and feminine temperaments, e.g., purity, innocence, nobility, and elegance. Wushuang, Zixuan, and Hong, the three informants who primarily adopt this strategy all express their strong desire to prevent aging and their expectation for a vibrant and youthful look:

Wushuang: I'm mainly doing these activities for prevention. Now it might not be obvious. But, after three or five years, the difference between my peers and me must be seen. I must keep going! [laughter]

Zixuan: For prevention. I don't have any of these issues now. Just for prevention. Like cardiovascular diseases, or the three highs [high blood pressure, hyperglycemia, and hyperlipidemia] [...] And, I take collagen or grape seed for preventing oxidation.

Hong: [...] I especially believe in "nip in the bud". You can do nothing but to accept if you really see a wrinkle appearing on your face.

By bearing a moral responsibility in pursuing and keeping femininity, Wushuang, Zixuan, and Hong all insist on a persistent and disciplined use of DS products (they have been regularly using DS for seven years, ten years, and fifteen years, respectively). Further, they understand the pursuit from a moral perspective. As Wushuang states, "women should do various things in order to make the skin stay young and good." And as Hong quotes, "we all know the principle of self-disciplined lifestyle...the rule of 30% gym, 70% diet."

The moral responsibility pushes informants to adopt a self-disciplined lifestyle and a whole set of activities as moral endeavors. They do not treat DS use as a short-cut; rather, they emphasize the importance of a holistic set of self-care activities, including DS use, skincare routines, healthy diets, and physical exercise. The moral value

embedded in making serious efforts for self-care is, in turn, enhanced by the Chinese ideology of Yin-Yang balance that argues for the holistic nature of the treatment, i.e., a holistic set of treatment is the key to health.

Making “painful” endeavors for self-care is seen by these informants as a good deed that is rewarded. And the moral rewards endow the informants with the power of increasing control over their social life. Moreover, the discipline and persistence shown in DS use have worked to offset their lack of control over other aspects like taking physical exercise and eating more healthily. As Wushuang mentions, “...I insist on doing all those things...but I’m using DS products more regularly, persistently, and self-disciplined than doing other activities...” She gains more agency from DS use – she sees positive health outcomes produced from her holistic self-care routines, but she attributes the key success to her persistent and disciplined DS use by calling it her “biggest accomplishment regarding persistence”.

[Wushuang shares with the interviewer a debate between her and her friend, who is a doctor, about DS efficacy]

Wushuang: Why doesn’t she believe in its efficacy? You know why? Because she never keeps using the products for more than one year. I know that. Then she comes to tell me it doesn’t work. How can I believe her? I will never believe her. [laughter]. Because she has never been persistent in this. She does not make any effort...she does not take pains...at all! But I do. And, I do think my skin condition looks good [...] I have been working really hard for this. Now I feel my status is perhaps better than my peers. Better than them...a little bit. [laughter] [...] And, taking DS products is my biggest accomplishment regarding persistence among all the endeavors I have done.

According to Wushuang, she has been “working really hard” so that she is rewarded with good skin and body condition; her friend “does not take pains”, “does not make any effort” and “has never been persistent” so that she is not able to get the reward. To prove that Wushuang takes pains and works hard to improve her health and treats the effort and

deprivation as a prerequisite for moral rewards, we include how Wushuang describes her feelings when she makes endeavors for self-care:

Interviewer: When you take the DS products every day and do other routines every day, do you feel happy or...? What do you feel?

Wushuang: No. No happiness. Because I use them every day. Where does the happiness come from? [...] Mm...if you only do those things occasionally, you might feel happy inside. But for me, it's already like finishing your daily tasks. You know? No happiness.

We can see that all the Wushuang's narratives cited above are saturated with an expectation of moral rewards entitled by making efforts and depriving pleasure. She especially emphasizes that reward is measured by persistence and self-discipline, i.e., a disciplined use over many years, and enhanced by a holistic set of endeavors, that is, a whole set of self-care routines.

This lay health belief is also highlighted by other informants as a force that leads to their trust in DS efficacy. Zixuan and Hong both express satisfaction with their current skin and body condition and they both argue for the persistent and disciplined use of DS products and the holistic endeavors for self-care. More than that, this lay health belief is also employed by informants who fail to keep a persistent and disciplined use as an explanation for the perceived inefficacy of the DS use:

Yiran: We have a common belief, I think. That is, the use of all DS products shouldn't be a one-time thing. They must be taken for a very long time.

Panpan: I know we need to be persistent in terms of DS consumption. Otherwise, it does not work. But I failed.

Yunhan: For me...[Sigh] I think maybe because I didn't use them every day? Not strictly every day? I don't see a big change after using all those things.

All of the three informants expressed a common understanding that persistent and disciplined use is the condition under which DS consumption shows its functional effectiveness.

Hence, we can conclude that a disciplined, persistent, and holistic endeavor has offered an agency for our informants to have confidence in their choice of employing DS intake for health care. It is not the scientific and rational principles (e.g., Wushuang does not know the exact ingredients and their medical principles) that empower our informants to believe in their choice. Rather, it is the symbolic moral actions that play the role, i.e., the disciplined, persistent, and holistic endeavor is good behavior that entitles moral rewards.

While the strategy of disciplined use empowers our informants to choose DS use for self-care and relieves the possible general tensions existing in the field, it also brings some new tensions for the informants to deal with, e.g., the difficulties of practicing disciplined use and the discomfort due to disciplined use. Correspondingly, this strategy produces a set of unique behaviors and routines. For example, in order to make sure they use DS products regularly and strictly as instructed, informants set up alarms that remind them of the DS intake; they store DS at home and at the office; they store DS in an easy-to-find place:

[During the first interview, Shiqi's cellphone rings twice]

Shiqi: Sorry about the interruption again...That was my alarm again...reminding me of my DS intake. [laughter]

Interviewer: No problem at all. Any other techniques?

Shiqi: Yeah...I put all my DS products at a place that I can see and easily access, like, my dining table. I always unpack my DS products and move the individual sachets out from the original boxes, and mix different products together and put them into my own big storage box. It is transparent. I can clearly see all products inside. So, I can easily get the one I need [...] I also store a set of the same DS products at my office.

Interviewer: Have you set up an alarm to remind you of the use?

Yunhan: No. I don't. Because I put the multivitamin on my nightstand. It's beside my bed. I don't need an alarm.

Interviewer: Can you tell me why do you put all your DS at your office?

Hong: Mm, it is easier for me to remember [...] When I arrive at my office, I log in to my computer, and I get myself a glass of warm water or make a coffee, and then I take my DS. It's natural. A set of routines.

The three examples above illustrate the actions and routines designed by our informants adopting the disciplined use strategy in order to facilitate their DS use. More than that, our informants have tried to facilitate the long-term disciplined use of DS by searching for and purchasing products with particular attributes, e.g., individually packed, good flavor, and lower-priced products, which assists them to flexibly take the DS out of the home to ensure the proper use at the right time, to decrease the level of discomfort of DS use, and to financially allow them to purchase the products over a long term.

Interviewer: Do you care about the taste?

Hong: First, it's better to taste good. Second, it's better to be comfortably swallowed. In this way, it becomes a little bit easier for you to keep the use long-termly.

Interviewer: Do you care about the price?

Hong: Not to a large extent. But I do care. Because the price is related to your capability of making a continuous purchasing. Right. If it is too expensive, you will probably not be able to keep purchasing it in a long time. It is not a good thing.

Hong showed her preference for well-flavored and easy-to-use DS products and lower price. But different from individuals who pursue DS products with good taste for the hedonic value, Hong requires a good taste and comfortable swallowing experience due to a utilitarian consideration about how to make her DS consumption more sustainable. Consider her different attitudes towards taste and experience of daily meals and DS products:

Interviewer: You mentioned that you cook your meals in a very simple manner. Does that sacrifice the taste and enjoyment?

Hong: Ah...I don't mind a bland taste, actually.

Interviewer: But for DS, you would mind about its taste?

Hong: Yes. Because...eating a meal does not bring you any burden, right?

It is not difficult at all. But...for DS products in order to keep the willingness to continue eating them...for this kind of sustainability...I would need them to be tasty...and easy to carry...[laughter]

This example demonstrates that Hong does not treat good taste as a factor that determinates her product choice. Rather, she avoids bad taste product in order to sustain her long-term disciplined DS consumption.

To summarize, by taking the “disciplined use” strategy, informants are accumulating reflexivity from their actual practice, which is built on the universal moral belief in self-control, i.e., a disciplined behavior entitles rewards. Through the indigenization process (Ustuner & Holt, 2010) in Chinese culture, a context-dependent moral belief in self-control emerges, i.e., a persistent, disciplined, and holistic endeavor entitles rewards. In our research context, a persistent and disciplined DS use, plus a holistic set of self-care efforts, are rewarded with positive health-related outcomes.

Informants do not necessarily understand the mainstream scientific logic behind DS products, but they, first, develop trust in the products based on the lay health belief that DS is a magical solution for health problems, and then they develop expectations for positive health outcomes based on the symbolic moral value of deprivation and restriction, construing positive health outcomes as a reward for self-denial (St. James, 2011). We summarize the disciplined use strategy and its outcomes in Figure 5.4 below. As a result of persistent and disciplined use, and a holistic set of self-care endeavors, a healthy lifestyle is formulated. Moreover, a self-disciplined lifestyle is formed, which

expresses the identity of a “self-disciplined and independent woman” and is positioned and respected in the field as a feminine role model.

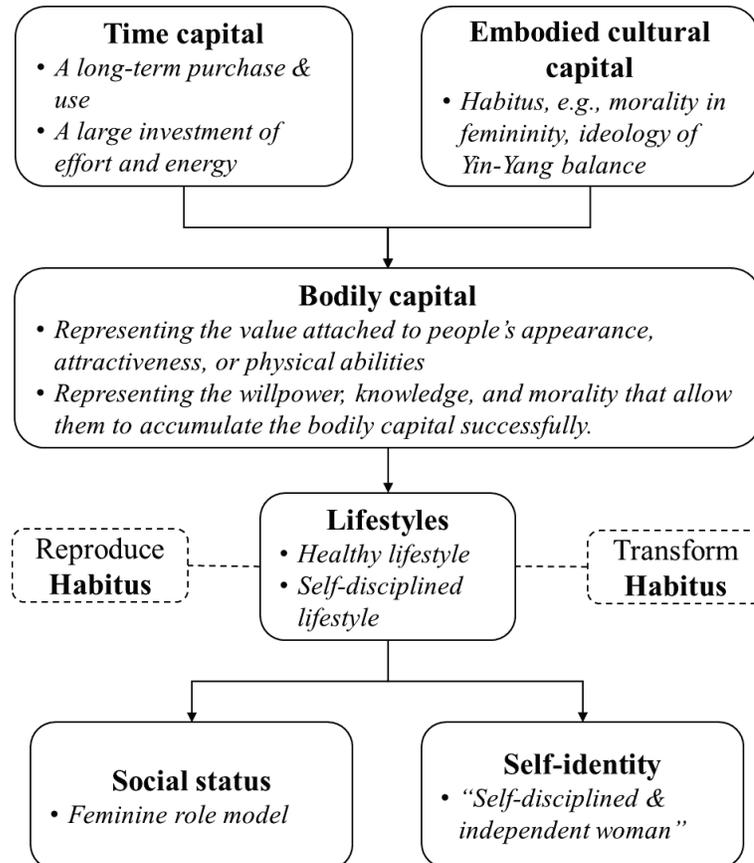


Figure 5.4 Disciplined Use Strategy for Participating in Self-care

Figure 5.4 helps us to better interpret informants’ disciplined use strategy and its foundation of winning moral rewards from accomplishing self-control. It is intuitive that time capital plays an important role in this strategy because it requires individuals to continue DS use in a very long term, and to spend a large amount of time and effort on diet, exercise, and skincare routines each day. It is also clear that the traditional habitus, including the morality in femininity and the ideology of Yin-Yang balance, build the foundation of this strategy; they are acted upon as embodied cultural capital in support of

their lay health belief of healthcare requiring effort and deprivation. Based on the lay health belief, by investing time and effort into daily practices, this strategy aims at an exchange of bodily capital (Bourdieu, 1984).

By proposing embodied cultural capital, Bourdieu has viewed that the human body constitutes physical capital, which is transformed into cultural capital as a result of social practices. Based on the conceptualization, he discusses the physical manifestations of taste and of the symbolism of the body in social practice (Bourdieu, 1984). As Bourdieu introduces, the investment of time, energy, and resources into one's body might constitute a way to increase status and may be exchanged for economic, social, or cultural goods (Bourdieu, 1984). In this strategy, the accumulation and possession of bodily capital have become the key for lifestyle development, identity work, and social distinction.

Previous research has suggested that Bourdieu's concept of bodily capital indicates the value attached to people's appearance, attractiveness, or physical capabilities that may be exchanged for other forms of economic, social, or cultural capital (Hutson, 2013, p. 64), and bodily capital represents individuals' willpower, knowledge, and morality that allow them to carry out health work successfully (Hutson, 2013, p. 66).

Consistent with previous research, our study identified the accumulation and possession of bodily capital through the disciplined use strategy. First, there is an ideal female beauty, i.e., a youthful look and good skin condition, existing in Chinese culture; this ideal is pursued and emphasized by the informants who adopt the disciplined use strategy. Moreover, by investing a large amount of time, effort, and energy, these informants all confirm that they have successfully accumulated and possessed the bodily

capital, i.e., they have successfully maintained a younger look and better skin condition than their peers and they attribute the success to their disciplined use strategy. Over a long time of strictly conducted self-care routines (e.g., seven years for Wushuang, ten years for Zixuan, and fifteen years for Hong), this strategy results in the creation of a self-disciplined lifestyle and a healthy lifestyle (see Table 5.11).

Table 5.11 Lifestyles Formed in the Disciplined Use Strategy

	Healthy Lifestyle	Self-disciplined Lifestyle
DS Consumption and Use	<ul style="list-style-type: none"> • Very focused use of DS (continually use the same products). • Use DS as instructed (time, amount). • Use DS in a very long term. 	<ul style="list-style-type: none"> • Set up reminders to help keep the disciplined use (e.g., alarms). • Favor easy to use and well tasted DS but not for hedonics value.
Health-related Behaviors	<ul style="list-style-type: none"> • Keep healthy activities (e.g., exercise, diet) and body/skincare routines. • Keep activities in a long-term but perform less control compared to DS use. 	<ul style="list-style-type: none"> • Conduct a strict set of self-care endeavors. • Endure hardships in the self-care endeavors. • Manage their own well-being rather than others'
Orientations	<ul style="list-style-type: none"> • DS intake is effective and necessary. • A holistic, persistent, and disciplined effort is the key to health. 	<ul style="list-style-type: none"> • Healthcare requires efforts and deprivation. • Effort, persistence, and self-discipline entitle rewards.
Resources	<ul style="list-style-type: none"> • Time capital (e.g., time for investing efforts and energy into practices) • Embodied cultural capital (e.g., morality in femininity, Yin-Yang balance) • Bodily capital (e.g., values attached to ideal beauty and morality in willpower) 	
Influence on Habitus	<ul style="list-style-type: none"> • Transform habitus in morality in femininity (individual self) • Transform habitus in guanxi (decreased influence from referent others) • Reproduce habitus in Yin-Yang balance (slow effect and holistic nature of treatments) • Reproduce habitus in feminine morality (making efforts for rewards) 	

It is worth noting that, despite the fact that both the disciplined use strategy and the self-learning strategy lead to a healthy lifestyle (i.e., informants perceive a whole set of health behaviors as complementary to each other), their underlying motive and reasoning are different. In a self-learning strategy, it is the self-learning orientation that motivates informants to constantly learn about health-related knowledge and accumulate scientific agency as a foundation for constructing their healthy lifestyle. In the disciplined

use strategy, informants are motivated by the self-disciplined orientation in which a variety of self-control behaviors and persistent endeavors lead to moral rewards.

Accordingly, although both strategies produce a healthy lifestyle (i.e., informants adopting these two strategies emphasize the importance of physical exercise and healthy diet in keeping health), they refer to different foundations (i.e., the embodied cultural capitals are different in these two strategies). Specifically, while the self-learning strategy results in a high level of mainstream diagnosis-treatment knowledge, nutrition knowledge, and DS knowledge, a disciplined use strategy does not necessarily guarantee the same level of knowledge. As we compared and illustrated in Table 5.10, only a self-learning strategy focuses on mainstream health knowledge and relies on mainstream scientific agency for decision making. The disciplined use strategy, together with the upcoming two strategies, builds on the lay beliefs of DS products and consumption for decision making. As a consequence, the former leads to a high level of mainstream health knowledge; the latter leads to an intertwined web of mainstream and lay health knowledge.

As we stated earlier, through this strategy, the following habitus is reproduced: Chinese traditional morality in femininity (e.g., pursuing a youthful look that symbolizes innocence and purity) as well as the ideology of Yin-Yang balance (e.g., the holistic nature of treatment and the slow effect nature of treatment). Next, we want to emphasize that some of the old habitus is transformed, e.g., the inclination to be influenced by referent others in close *guanxi* relationships, and the emphasis on the social dimension in femininity and weighing the social self as more important than the individual self. The reproduction and transformation of the old habitus is closely related to the development

of identity as a “self-disciplined and independent woman”. Consider how Wushuang expresses her opinions on contemporary female responsibilities:

Interviewer: You mentioned that you and your girlfriends have a WeChat group chat. You discuss health-related issues there?

Wushuang: Yes. All girls. Actually, we talk about this stuff much less frequently now. A few years ago, all of us were concerned about these things. But not now. Only me! When I find some good products, I will post in our group chat and recommend them to try. They do not.

Interviewer: Why?

Wushuang: Probably because their focus has been moved to other areas. Like, children, or family. [Sigh] I think women, most women, do not focus on themselves any more once they get married. They do not care about their looks or health anymore. That’s my personal opinion. [laughter]

Interviewer: What if you get married someday?

Wushuang: I probably will not change my focus. [laughter] I don’t want to, at least.

Interviewer: How do you feel about marriage?

Wushuang: If it takes me a lot of time...I probably don’t want to...at least, for now, I don’t think I will have children. I do not expect marriage, anyway. I’m not interested [...] Women should love themselves more...pay more attention to themselves. I mean, your focus should be put a little bit more on yourself. Women after 30 years old should concern more about their health.

Wushuang’s description expresses an opinion of “females do not need to get married or have children”, which is not socially accepted in traditional Chinese culture that emphasizes the value of collectivism and tends to divide people into categories according to in-group and out-group; family is perceived as the core in-group (Shaan et al., 2013). Consistent with Wushuang, another informant who adopts this lifestyle is 38 years old but remains unmarried and has no children. Narratives in this strategy are saturated with a strong orientation in self-focused healthcare and fear of aging. Moreover, they are not influenced by their referent others nor social media influencers. They accumulate agencies by independently practicing the disciplined use of DS products as well as other self-care routines and deeply believe in the positive health outcomes. That is, individuals

adopting this strategy express their satisfaction with their body/appearance condition and attribute the success to their committed use of DS products and holistic self-care endeavors. For them, the time, energy, and effort invested in practices have been transformed as bodily capitals:

Zixuan: [...] Compared to my peers, I think I look younger. Does that count as a change? [...] I don't see any skin issues [laughter] I'm keeping doing these things for prevention.

Hong: [...] Others said to me, "you look so young, younger than me!" But later, we got to know that I was actually a few years older than her. Maybe people are giving me compliments. But...it happens more than once. [laughter]

Wushuang: [...] I do think my skin condition looks good [...] I have been working really hard for this. Now I feel my status is perhaps better than my peers. Better than them...a little bit. [laughter] [...] And, taking DS products is my biggest accomplishment regarding persistence among all the endeavors I have done.

From the three examples, we can see that the conversion of time and effort into bodily capital has been acknowledged by our informants, and witnessed and aspired to by other people in their social life. In addition to the aesthetic values attached to the ideal body and appearance, bodily capital also represents the willpower and morality that empower the individuals to produce a positive health outcome. As a result, the self-disciplined lifestyle that is embodied in the bodily capital functions as a way to achieve social distinction. Research has suggested that the ideal body and appearance is strongly linked to class-dependent gender and social roles (Robinovich et al., 2018), and the ideal quite visibly stands as a type of "corporeal credibility" that allows individuals to convert their bodily capital into other forms of capital (Hutson, 2013, p. 68). During our interviews, a moral judgment based on body appearance and aspiration for such a self-disciplined lifestyle has been expressed by many informants:

Yuxin: [...] A girl's appearance is the most significant indicator of her lifestyle. For example, some women are likely to have belly fat as they sit for a long time at work. It is very obvious to see. Your belly could show others if you live healthily, like, whether you eat healthily, whether you take regular exercise.

Xiaoxi: It's better to be self-disciplined. Like, taking exercise regularly, keeping a balanced diet and regular sleep pattern.

Interviewer: You mentioned that you wanted to do a whole set of activities for achieving health purposes. Do you come up with that idea on your own? Or, are you influenced by someone in your life?

Haoran: I have a friend, who is a "fitness expert", very self-disciplined. She has persisted in doing fitnesses for three years. Compared to other friends, she looks great. the difference is very obvious [...] And, there are many people sharing their healthy diets on social media, like RED. They keep doing those meals every day! And their body shape seems to become better and better! When I look at those people, I'm kind of inspired...I could do that too! [laughter]

From the examples above, we can see that symptoms on the body (e.g., belly fat) are seen as an indicator of the female's lifestyle (e.g., unhealthy diet and lacking physical exercise), which links to her moral character (e.g., self-disciplined). Moreover, a female with a socially accepted bodily capital (e.g., the body of a "fitness expert") is seen as self-disciplined, and then, respected and admired by other people (e.g., "I'm kind of inspired.")

According to Bourdieu, social status is constituted when specific forms of capital (e.g., economic, social, cultural, bodily capitals) are recognized as legitimate bases for claiming prestige, respect, and/or authority within a given field (Bourdieu & Wacquant, 1992). In our research, females who live in self-disciplined lifestyle have been treated by our informants as feminine role models. Their bodily capital represents the socially accepted values attached to female beauty and the morally accepted values attached to their persistence and self-discipline. Hence, the bodily capital works as a type of

corporeal credibility that allows these individuals to convert their bodily capital into symbolic capital, i.e., they have been socially distinguished as a group of females who have the willpower, capability, and morality that allow them to successfully achieve and maintain the cultural ideal of health and appearance.

In this section, we introduced the first strategy in gaining lay agency for participating in self-care and relieving the possible tensions that exist in the structure. Next, we introduce the second strategy – relying on consumerism for self-care.

Consumerism & Agency in Consumption. Research has suggested that, since the Economic Reform Era (1980-1991) and the Era of Globalization of China (1992-present), noticeable changes in China include hedonic consumption (Wang et al., 2000), growing consumerism (Podoshen et al., 2011), and a growing tendency toward individualism (McEwen et al., 2006). Our research provides evidence that corroborates the existence of consumerism in the realm of health promotion. Through our interviews, we identified a strategy of relying on consumerism for participating in self-care. We summarize this strategy in Figure 5.5.

Consistent with the self-learning strategy and disciplined use strategy, the consumerism strategy acts upon the choice for self-care enabled by the structural changes (i.e., availability of Western DS products and brands, and access to DS product and DS information on social media). Different from the self-learning strategy but consistent with the disciplined use strategy, the consumerism strategy relies on a lay health belief to gain agency in helping individuals attenuate the general tensions in evaluating DS use value and risks, i.e., a lay belief of treating DS as a technology-enabled magical solution. Different from the disciplined use strategy, the consumerism strategy further amplifies

the magical power of DS products, and adopts DS as a short-cut and replacement for other health promotion efforts like physical exercise and healthy diet.

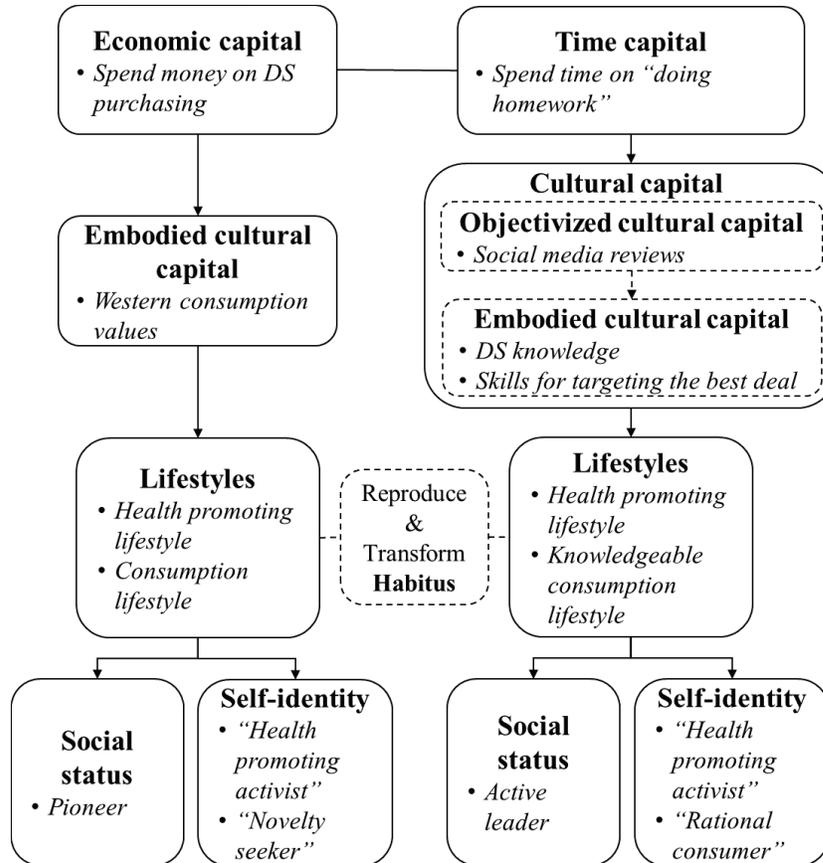


Figure 5.5 Consumerism Strategy for Participating in Self-care

As consumerism in healthcare sector emphasizes a transfer of power and responsibility in controlling individual health from medical authorities and health professionals to individuals (Tang & Guan, 2018), informants adopting this strategy hold a stronger belief in the magical technological power in DS and stay more open to the voices from non-authorities on social media that advocate for the DS myth. By leaning towards the non-authoritative information, individuals do not experience the tension raised by conflicting views from authority and non-authority regarding DS performance.

In addition, since consumerism involves Western consumption values such as hedonics, happiness seeking, and individualism, individuals adopting this strategy keep exploring different products and/or brands offered in the DS marketplace. They achieve happiness from the novelty seeking experiences, which dissolve the general tensions that are likely to be caused by a complex and crowded marketplace. Further, informants adopting a consumerism strategy are mainly investing money in DS consumption in exchange for the symbolic capital that indicates Western affluence and well-being (Balbo, 2007, p. 140) and Western health promotion culture (Potvin & McQueen, 2007), to gain agency in making DS consumption decisions.

While the consumerism strategy assists our informants to grasp the choice of self-care and relieve the general tension, it also leads to new tensions that are specifically emerging in this strategy. The tensions include: the conflict between Chinese moral value in femininity – making a holistic set of body/skincare endeavors to earn rewards – and the hedonics and experience value embedded in Western consumption culture; the conflict between Chinese moral value in femininity – keeping thriftiness for a sustainable household management – and the large amount and continuing expense of DS products.

To solve the first type of tension, building on the ideological beliefs of technology-as-divine-tool and technology-as-liberator, informants in this strategy further reinforce the magic power of DS consumption and believe it can replace other healthy activities such as healthy diet and physical exercise:

Qianxi: [...] DS is actually extracting the good substances contained in real foods and transforming those substances into smaller particles that are easier for digestion and absorption [...] people who are not willing to, or don't have enough time to prepare fruits or vegetables, could take DS for convenience.

Qianxi: [...] We might not be able to eat a sufficient amount of vegetables. It is related to the ratio. For example, how much Vitamin C is contained by one pound of vegetables? Nobody tells me that. But, if it is a DS tablet, the ratio is very accurate.

Interviewer: Do you think a regular physical exercise is necessary for keeping healthy?

Shiqi: I don't take exercise. I don't have enough motivation. I cannot get pleasure from exercise. It takes a lot of my time and energy. I think it is not a good deal for me. I would rather spend money [...] I invest a lot of money on skincare and bodycare. Most of my salary...[laughter] But I'm satisfied with my life now. Since I started to take these DS, I feel they have been functioning to improve my health condition.

From Shiqi's example, we can clearly see that she would rather "spend money" than taking exercise for health because physical exercise takes her a lot of "time and energy" and fails to bring her "pleasure". Further, to support the choice of using DS consumption as a short-cut for health care, informants employ a lay health belief, i.e., mental or emotional health largely affects physical health (Hughner & Kleine, 2008). That is, they emphasize that taking DS products brings them happiness, and it is beneficial for promoting physical health (see descriptions from Shiqi and Panpan below).

By adopting this lay health belief, our informants do not perceive healthy diet and physical exercise as complementary to each other; for them, choosing and accomplishing one aspect that guarantees a positive emotion and healthy mentality is already sufficient for keeping a healthy body (e.g., they can achieve the purpose of health maintenance and promotion by taking DS products, or keeping a healthy diet, or doing physical exercise) (see Yuanyuan's description below). Accordingly, they pay particular attention to the taste and comfort of the DS consumption experience, and they prefer products that provide good taste and use experiences (See examples from Xiaoxi and Junjie below).

Shiqi: One of my friends is very cautious about DS products. She knew that I had been taken DS for a long time, and she came to me asking about

the effectiveness. I told her, it is really hard to see some significant changes. But you feel emotionally better. And I think mental health...psychological comfort...are also important factors for keeping healthy.

Interviewer: You mentioned that you felt happy after taking collagen, you looked at the mirror and felt like you have become prettier. Can you talk about that a little bit more?

Panpan: [laughter] Does that sound stupid? I know that some people are saying these DS are useless. But...anyway...I think happiness is extremely important for health. People used to say, a good personality determines fate. Actually, I believe that attitude...mentality...determines everything.

Interviewer: Do you think a regular physical exercise is necessary for keeping healthy?

Yuanyuan: I think diet is also important. Of course, you can see physical activity as important. But, for me, they could be replaced by each other. I focus more on my diet. For me, it is much easier to continue. Exercise is harder. So...I just take fitness very occasionally.

Interviewer: In terms of Vitamin C, how often did you use?

Junjie: Almost every day. It tastes good like candy, sweet and tart. There is no obstacle for me to take it every day. I feel happy when I take it.

Interviewer: Did you start to purchase Vitamin C and Vitamin E after you started your career?

Xiaoxi: Exactly. But I purchased and used VC much more often than VE. Because VC tastes great, but VE doesn't.

Interviewer: What do you mean by "tastes great"?

Xiaoxi: VC is sweet, like sugar. Also tart, like orange. And, I can put it in my mouth and enjoy the taste. It's really like candy. But VE is very big...transparent...and oily...and needs to be swallowed!

The abovementioned examples show that informants who adopt the consumerism strategy perceive happiness and comfort as an important factor that determines physical health. They talked about phrases repeatedly such as "mental health" and "psychological comfort". By referring to the lay health belief that mental health determines physical health, informants justify their choice of relying on consumerism for self-care and

naturally relieve the tension caused by the moral belief that health maintenance and promotion requires effort and deprivation (Thompson & Hirschman, 1995).

In addition, a Western cultural value of individualism is employed by the informants to critique the dominance of the self-disciplined lifestyle advocated by mass media in China. They express their view against one unified lifestyle and argue for the freedom of selecting and living in different lifestyles. For example, Panpan is using DS products but does not exercise which is required by the self-disciplined lifestyle:

Interviewer: What is your opinion about the popular word ‘self-discipline’ nowadays in China?

Panpan: Ah, I hate that word. I don’t like the propaganda of it. Because I think every person could have different lifestyles, attitudes, and pursuits [...] Besides, I don’t think, for example, weight control...I think some girls with chubby faces are very cute. Personally, I am against the advocates for a single lifestyle, the so-called self-disciplined lifestyle. I believe individuality needs to be freed. Every time I came across some articles on social media talking about self-discipline, I would skip that article immediately. Nonsense! I want to live in my own way. Don’t need to follow others’ lifestyles. As long as you feel comfortable, it would be fine. Nobody really cares about how you live.

According to Panpan, there should be more than one type of lifestyle in the world and people should be given the freedom of choosing the way they want to live. As she said, “I want to live in my own way.”

Lastly, the traditional Chinese habitus in mind and body dualism suggests that the human body and mind are indeed dualistic, but the mind is not superior to the body as they are equal organisms. Acting upon this habitus, our informants develop another lay health belief that their body should be respected as an independent organism that can self-adjust and self-heal (Hughner & Kleine, 2008). It is not appropriate for the mind to compulsively command the body to do activities that the body does not feel comfortable

with. Consider how Xiaoxi describes the body as a self-healing organism, and how Panpan illustrates the fight between her body and mind:

Interviewer: You don't take calcium or multivitamin every day as instructed. Why?

Xiaoxi: I'm afraid that, someday, my body cannot live without these supplements.

Interviewer: Live?

Xiaoxi: Yes. I think our body can get nutrients from food, and create energy and other things through its own system. If it becomes dependent on the supplements, it might lose its self-healing capability.

Interviewer: Do you think a regular physical exercise is necessary for keeping healthy?

Panpan: I'm too lazy to exercise. Sometimes, my heart shouts, "go to gym!" I know that. But my body...my limbs...tell me that they cannot...they don't want to. [laughter] My rationality cannot beat my feelings. My body wins.

Interviewer: Did you ever feel guilty about that?

Panpan: Why? [laughter] No. I don't. I don't want to be too bossy.

We can see that both informants clearly differentiate the body and the mind (i.e., rationality and feelings, heart and body/limbs) and treats them as separate but equal organisms. Panpan justifies her unwillingness to take physical exercise by emphasizing the need to respect her body (i.e., "I don't want to be too bossy").

To summarize, by reinforcing the magic power of DS consumption and perceiving it as a short-cut that could replace other healthy efforts, informants dissolve the tension caused by moral belief in "no pain, no gain." The reinforcement is further enhanced by lay health beliefs such as: mental happiness determines physical health, and the body itself is a living organism that needs respect from the mind. It is also supported by the individualism value from Western culture. As a consequence of relieving the tension in morality, informants in the consumerism strategy demonstrate unique DS consumption and use behaviors.

Different from the disciplined use strategy in which individuals strictly use DS as instructed and form routines, informants in the consumerism strategy use DS products much more flexibly. However, this flexibility is different from that in the self-learning strategy, in which individuals are able to flexibly adjust DS consumption based on cognitive thinking and mainstream health knowledge. The “flexibility” in the consumerism strategy leads to a more random use pattern of DS products, i.e., in the long-term, individuals are committed to the DS use; in the short-term, they randomly and selectively use DS products.

Shiqi: My husband uses his DS more regularly and consistently than me. He eats four types of DS, liver detox, multivitamin, prostate protection, and calcium. He only has these four. But I have too many kinds. I cannot take each one every day.

Interviewer: Have you ever made a waste? Is any of your DS expired?

Shiqi: Yes...[laughter]...A lot...I threw away many bottles of multivitamin. I always forgot to take it, but I still want to keep it at home...

Interviewer: Why?

Shiqi: I don't know...Feel safe? I like stocking up. I have a large storage box on my dining table. I put all my DS in that box. Otherwise...I don't feel safe.

Similar to Shiqi, informants in this strategy usually ensure the storage of DS products at home, but they do not keep a regular and disciplined use of each DS product. Moreover, even if they know they might not be able to finish up the products, they still re-purchase to ensure the supply if the current products expire. Consider another example from

Xiaoxi:

Xiaoxi: Since I started my work in 2013, I have tried VC, VE, multivitamin, calcium, and others like weight-management products and skincare products. Some are purchased from Tmall. But more products are purchased from Daigous.

Interviewer: How about your use?

Xiaoxi: Off and on. Off and on. Take for a few weeks and stop...and restart.

Interviewer: Did any of your DS go expired?
Xiaoxi: Yeah...I did see some expired.
Interviewer: How did you feel when you found that they went expired?
What did you do?
Xiaoxi: Just threw them into the trash. What do you mean? I don't feel anything...I suppose.
Interviewer: By asking how you feel, I mean, the product costs you some money, right? Don't you think that was a waste of your money?
Xiaoxi: Mm...I really didn't feel that way probably because the price of these DS products is okay. Not very expensive.
Interviewer: Okay. May I ask whether you purchased those products again?
Xiaoxi: Yes. When I felt the need. I purchased them again. But it might be a different brand.
Interviewer: Any change in terms of use?
Xiaoxi: You want to know if I change and finish the new bottle, right?
[laughter] No. Still the same.

As Shiqi and Xiaoxi illustrate, informants in this strategy aim for a feeling of safety through DS possession and storage. Hence, when they realize the current products have expired, they would like to purchase new ones. Then, it is not a surprise that this strategy does not require a strictly disciplined use of DS products. As Xiaoxi mentions, the price of DS products is not high, so that she does not feel guilty when she disposes of the expired products. In other words, she is willing to spend that amount of money on the symbolic value attached to the possession of DS products rather than the functional value. Previous research has suggested that “our possessions are a major contributor to and reflection of our identities” (Belk, 1988, p. 139). Our research confirms that the symbolic meanings attached to the DS possession contribute to the informants’ identity work – they view themselves as “health promoting activists” by possessing DS, as it represents mainstream Western health promoting culture (Potvin & McQueen, 2007) and Western style wellbeing and affluence (Balbo, 2007):

Ruoxi: [...] I bought nutritional products...a lot came from an American brand if I remember correctly. I wanted to live as exquisitely as possible. I ate a bunch of DS every morning! Right, a lot!

Yiran: [...] Western people would take a handful of DS every day. They are in very good health condition. [laughter] [...] Indeed, in our eyes, a lot of Western people are physically stronger. Our first hypothesis is that they are strong because they are eating those nutritional products.

Shiqi: My husband's prostate support product is from the West. Most of the Chinese people do not tend to use this product. People like us, who travel to the West and personally see these DS products displayed on the shelves of the supermarket, start to use these products for protection.

These narratives reflect individuals' desire to participate in the health promotion culture that originates from the West. In addition to Shiqi, we see other informants mentioning that when they travel to the Western countries (e.g., UK and USA), they specifically dedicate a day or half a day to purchase local DS products. Health promotion has become a paradigm, a shared culture in contemporary Western society (Balbo, 2007). By consuming DS products, a form of Western-style health promoting effort, individuals differentiate themselves from "most of Chinese people" and perceive themselves as activists in health promotion.

Moreover, influenced by the Western consumption values in seeking hedonics and pursuing experiences, individuals are not restricted to the current set of DS products; rather, they are actively trying new DS products and brands and keep exploring DS categories. Combined with the influence from the mythical beliefs in technology (technology-as-divine-tool and technology-as-liberator), these individuals become more open to the most advanced technological solutions in the self-care marketplace (e.g., high-technology skincare appliances and cosmetic surgery). Consider the following examples:

Yuanyuan: [...] I bought gummy bears as well [...] Purchasing it was purely out of curiosity...Novelty seeking! Not for its functions or performances [...] I have been trying DS, but I'm not sticking to any product. I always want the same functions, but I switch between different products.

Interviewer: Why do you keep switching?

Yuanyuan: Because...you will be bored if you use some product for a very long time. You want to see if there is any better product [...] No matter how great a product is, you still want to find something new to replace the old one.

Ruoxi: [...] I have tried various brands. Many brands. Like Pola...Fancl...and I try various products under these brands.

Interviewer: Can you describe your pattern of use?

Ruoxi: I buy...I forget...I leave them there...and I realize they go expired...and I throw them away.

Interviewer: Any more details? [laughter]

Ruoxi: Okay. Let me walk you through briefly. When I became financially capable of purchasing DS products, I started to buy. When I found out a new one, I bought it, and I used it for a few weeks. Then I probably stopped. Then, I might hear about another one. I buy it and use it for a while. I mean, I have been purchasing and using DS since 2011...but I have not become committed to any specific product. You know what I mean? I like new things. Feeling new things.

Interviewer: Do you see yourself as an explorer, a fan of fashion? Or, any other role?

Ruoxi: Mm...explorer! Just like that! Recently I'm trying a new one, wheatgrass powder. I was recommended by others, as usual. I thought, "give it a try?" Why not? Then I try it.

Yuanyuan and Ruoxi perceive themselves as explorers and pursue excitement from the exploration of DS products ("feeling new things", "novelty seeking"). They focus on the pre-purchase and purchase stages in DS consumption, and feel the most happiness when they receive the new product (when they possess the product):

Interviewer: During the whole consumption process, in what moment you get the greatest joy?

Shiqi: Probably when I received the product [...] You want to unpack it quickly, look at it, and try one. The purchase was only a moment of spending your money. You will not be able to feel the value of the consumption until you hold it...you possess it.

Shiqi is an explorer who keeps trying new DS products and she thinks the greatest joy in her DS consumption comes from the moment when she holds the product. In addition to exploration in DS marketplace, as activists in health promotion and believers in technological myths, individuals also stay more open to the most advanced technological solutions in the self-care marketplace. In our interviews, informants adopting a consumerism strategy are the ones who have tried various kinds of technological devices at home (e.g., high-technology anti-aging massage devices). Moreover, they are more open to cosmetic surgeries for skincare benefits. Critically, they are not only self-identified but also perceived by others as pioneers. During the interview with Fangxue, she described the group of people that she perceived as pioneers:

Fangxue: Some of my friends are more active in using DS products. They use a lot, such as collagen, anti-glycation, and anti-oxidation products. They deeply trust in these DS. I think they are more likely to try cosmetic surgery. When they are not satisfied with these DS products anymore, they would like to try cosmetic surgeries.

According to Fangxue, some of her friends who are more active in using DS and exploring the DS marketplace are more enthusiastic about trying cosmetic surgeries. Hence, the pioneers are not just self-identified but recognized by other people in the social network.

To summarize, by investing a large amount of economic capital in exchange for the cultural meanings attached to DS possession, consumption, and exploration, individuals adopt a consumerism strategy to develop a health promoting lifestyle and consumption lifestyle, which constructs the identity of a health promotion activist. Through a continuous exploration of DS products as well as other high-technological solutions, they are self-identified as novelty seekers and are also distinguished as

pioneers in the field who favor happiness, excitement, and novelty seeking. They mainly achieve value from the exploration and possession of the products rather than the functional value from the daily use of the products.

Although the price does not become a concern for these mass elite consumers, we identified a tension due to the conflict between the Chinese moral value of thriftiness for sustainable household management and the continuing expense of DS products. To solve this tension, some of our informants appropriate their behaviors by adding a cultural capital element to their consumption. That means this strategy diverges into two streams. Different from the first stream where people purely invest an economic capital to buy DS products, the second stream emphasizes that they invest a large amount of time in doing research on DS products and brands. This is what they called “Doing homework.”

Interviewer: What if you purchase some products that are not suitable for you?

Yuanyuan: Usually, I do my homework before making purchases. The possibility of meeting a bad purchase is very low.

Interviewer: What do you mean by “do homework”?

Yuanyuan: You need to do research to know the ingredients contained by the product, the production technology, or its use instructions. For example, if the tablet is too big, if the use is very complicated.

Interviewer: Do you do homework every time when you make a purchase?

Yuanyuan: Almost every time. Not just for DS products but also for skincare products or small appliances. If I want to buy something, I want to optimize my purchase. I want to make sure it is the best deal.

Interviewer: Have you recommended products for your friends?

Qianxi: Yes. Some friends would come to ask me what brand of DHA I use for my child. I would share the brand with them. They will buy the same brand as me.

Interviewer: Wow, they really trust you.

Qianxi: Yes. Because I’m a person who likes doing homework before making purchases. If I want to buy a toy for my child, I will not target the most expensive one. I would do my homework and choose the best deal. I read a lot of comments and reviews, and I make comparisons. Based on all kinds of information, like price, the convenience of use, effective ingredients, I choose the best one.

From the examples, we can see that informants “do homework” before making purchases; the habit of doing homework extends from DS consumption to every type of purchase in their life. Specifically, our research shows that they heavily rely on social media for information; the social media resources include key opinion leaders who post summaries and comparisons of different products and brands for others and normal users who share their use experiences and feedback on social media. Through the “research”, informants believe that they could find the best deal (not the most expensive product), and they perceive themselves as rational consumers (not impulsive buyers).

By adding time capital into their consumption practice, these informants aim to distinguish themselves from people who only spend money. That is, they invest a large amount of time and energy in learning about products and brands from social media; in the learning process, they get access to objectivized cultural capital, i.e., user-generated-content published on social media, and transform it into embodied cultural capital by learning and practicing, i.e., knowledge about DS products/brands, and skills of locating the best deal and purchasing the most appropriate product.

In this way, informants perceive themselves as rational consumers. In addition, the social status of “active leader” is generated in their social networks. From Qianxi’s description above, we can see that she identifies herself as “a person who likes doing homework” and her friends come to ask for her advice and trust her suggestion. Different from informants adopting a self-learning strategy who only perform the leader role actively in their core in-group, i.e., family, informants adopting the consumerism strategy are actively playing the role and providing suggestions for friends and other social acquaintances.

Interviewer: Do you recommend products to your friends?

Yuanyuan: Yes! I do! [laughter] And many of my friends know that I especially like recommending products to them! They like to come to me as well, asking if I have some good products. I like this kind of sharing [laughter]

Yuanyuan is invited by her friends to provide suggestions, and she enjoys playing the role of opinion leader.

To conclude, two streams of consumption style are generated in the consumerism strategy. Both streams build on the orientation of relying on consumption as the primary force for self-care. While one stream invests economic capital in exchange of the symbolic meanings embedded in the possession and exploration of DS products, the other stream invests both economic capital and time capital for the accumulation of cultural capital (i.e., knowledge of the DS products/brands and skills for targeting the best deal). Accordingly, both streams lead to a health promoting lifestyle, which leads to an identity of a health promoting activist. Individuals in the former stream also identify themselves as “novelty seekers” and are seen by others as “pioneers”; individuals in the latter stream are self-identified as “rational consumers” and play the social role as “active leaders”. In Table 5.12, we summarized the lifestyles formed in this strategy.

Table 5.12 Lifestyles Formed in the Consumerism Strategy

	Health Promoting Lifestyle	(Knowledgeable) Consumption Lifestyle
DS Consumption and Use	<ul style="list-style-type: none"> • Very extensive use of DS • Do not use DS regularly and as instructed. • Use DS in a long term. 	<ul style="list-style-type: none"> • Prefer DS with good taste and use experience. • Constantly explore new DS products and brands. • Stock up and repurchase DS products. • <i>Extensive pre-purchase information search.</i>
Health-related Behaviors	<ul style="list-style-type: none"> • Do not keep physical exercises or healthy diets. • Treat DS use as a short-cut for keeping health. 	<ul style="list-style-type: none"> • Stay active in trying cutting-edge technological solutions for self-care. • <i>Extensive pre-purchase information search.</i>
Orientations	<ul style="list-style-type: none"> • DS intake is effective and necessary. 	<ul style="list-style-type: none"> • Experiencing (happiness, novelty seeking).

	<ul style="list-style-type: none"> • Healthcare does not require efforts and deprivation. • Mental happiness is the key. 	<ul style="list-style-type: none"> • Symbolic values attached to product, possession, and consumption. • <i>Do homework to target the best deal.</i>
Resources	<ul style="list-style-type: none"> • Economic capital (money spent on DS products). • <i>Time capital (do homework).</i> • <i>Embodied cultural capital (consumerism values, DS knowledge, skills for finding the best deal).</i> 	
Influence on Habitus	<ul style="list-style-type: none"> • Transform habitus in feminine morality (make efforts for self-care). • Reproduce habitus in Yin-Yang balance (mind & body dualism) • <i>Reproduce habitus in thriftiness (rational consumption by doing homework).</i> 	

Note: italics represent knowledgeable consumption lifestyle.

Socializing & Agency in Guanxi. In this section, we introduce the last strategy that emerged in our interviews – socializing around DS consumptions. Consistent with the disciplined use strategy and the consumerism strategy, the socializing strategy also builds on a DS myth based on technological and scientific power. But different from the former two strategies which stimulate motivations internally and then form specific DS use patterns, the socializing strategy is empowered externally from social relationships and socializing activities.

That is, instead of looking for internal resources to build individual beliefs to resolve concerns about DS value and risks, informants look for external resources in support of their information search and product choice. In this way, informants seem to put down their burdens by relying on suggestions and opinions from referent others in their social networks in terms of DS consumption, so as to dissolve tensions raised by the excessive and complex product offerings in the marketplace and the overloaded and contradictory flows of information.

However, these informants failed to successfully overcome the two root tensions by adopting this strategy, i.e., the tensions raised by the difficulty in making DS value salient and the possibility of meeting unintended risks associated with technology advancements. That means informants adopting the socializing strategy are more likely to

be immersed in an ongoing entanglement of positive and negative perceptions of DS use. Accordingly, compared to informants adopting other strategies, informants adopting the socializing strategy are more frequently going back and forth between DS use and non-use. The entangled tensions and relief and the corresponding DS consumption patterns are further developed by the habitus, e.g., Chinese traditional guanxi-based culture, low trust culture, Yin-Yang balance ideology, and morality in femininity. We will introduce the consumption behavior pattern formed through this strategy and illustrate the roles of habitus in the formation process.

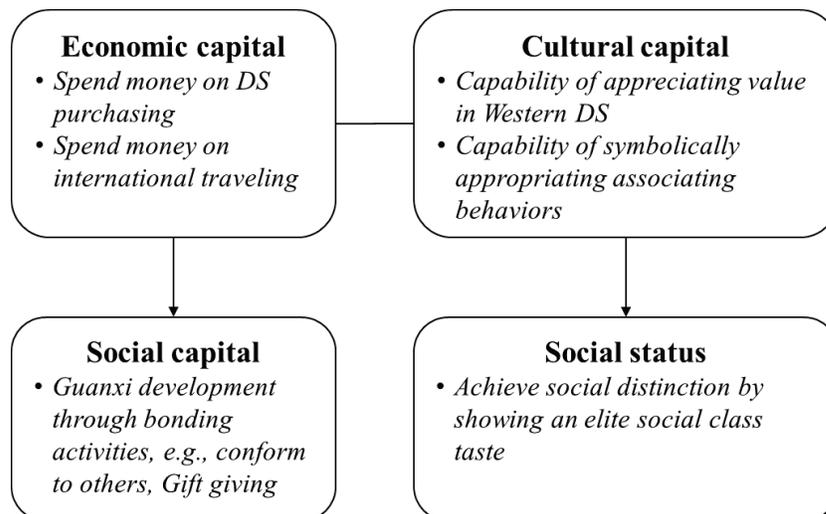


Figure 5.6 Socializing Strategy for Participating in Self-care

Figure 5.6 demonstrates the socializing strategy adopted by our informants for participating in self-care. In the last section, based on Bourdieu’s (1986) conceptualization of lifelong learning, we have introduced the four primary modes of acculturation in addition to self-learning. Resonating with the “peer group socialization” mode, we identified that informants in the socializing strategy largely rely on referent others in their personal social networks for DS purchase decisions.

Referent others are close social ties in their life, such as personal friends, relatives, and colleagues. Two criteria must be met for these social ties to become referent others: 1) they are trustworthy based on their good taste in DS consumption; 2) they have personally tried and used the recommended DS products. The former guarantees that the referent others have the necessary cultural capital in health promotion and DS consumption so that their opinions and suggestions could be trusted. Meeting this requirement helps our informants to increase faith in the value performed by the DS products and brands. Further, we can see from this requirement that high social prestige and respect are held by people who have a high level of cultural capital. The latter criterion guarantees that the referent others personally tried the recommended DS products and brands, which, in our informants' eyes, ensures the safety of the DS use. The rationale resides in the Chinese guanxi social structure and the low trust culture. It reproduces Chinese individuals' habitus in trusting in-group members and distrusting out-group strangers (e.g., I know my friends and colleagues well so that I'm able to know if they told me the truth and I'm able to make a judgment regarding their advice). The following example illustrates the two criteria:

Luying: I think the largest influence comes from the persons in my life...friends who are trustworthy [...] If they recommend me some products, I will follow their instructions without any concerns. The next would be my colleagues. Compared to other people, they are closer to me. I probably know them better...I know what kind of person he or she is...and I can make a judgment on whether to accept their advice or not, based on my previous experience with them.

Interviewer: You don't have any concerns if it is your close friends who recommend a product to you?

Luying: Yeah...Of course...it must be a friend that I trust. She must have got a lot of experience. She must have been familiar with DS. And...if my girlfriend suggests to me some product, I will firstly clearly ask her, "Do you really use this product?" I will make sure about that before I make my decision.

Luying chooses to trust her personal friends and colleagues because she knows them personally; she accepts their suggestions only if they have tried the suggested products. The logic behind her choices lies in the guanxi relationship in Chinese culture.

Since guanxi in Chinese social culture is equal to social capital, it functions as a “credential for credit” (Bourdieu, 1986) to build Chinese individuals’ trust in personal contacts; the personal relationship and personal use experience of DS products from referent others provides credit for the informants to believe in the safety and efficacy of the DS products.

Specifically, by meeting the first criterion, the referent others trusted by our informants are mainly people 1) who live in Western countries and are perceived to be knowledgeable about Western DS products, and 2) who have accumulated knowledge about health promotion (nutrition knowledge and DS knowledge). As a result, our informants trust their social ties who live in Western countries regarding DS products and brand recommendations.

Facilitated by the features of guanxi-based social structure, e.g., empathy-reciprocity mechanism, they ask their social ties to do them a favor to buy and deliver Western DS products. Also, our informants trust Daigous (surrogate shoppers) who live in Western countries and prefer to buy products from the channel of a Daigou. In addition, they trust their social ties who have learned about DS products/brands as well as nutrition knowledge, and they actively ask and follow their suggestions regarding product and brand choices. Thus, we can see that informants adopting the socializing strategy become opinion seekers in the DS consumption field, and informants adopting the self-

learning strategy and consumerism strategy might become passive/active opinion leaders in the field. Consider the following two examples:

Interviewer: As far as you know, is it common to purchase DS products as gifts for parents?

Yunhan: As I see it, it is very common. Actually...I remembered that...I was influenced by one of my close friends. She has come to Canada to study. A few years ago, when she came back for a visit, she brought her parents DS products as gifts. I don't remember the name or the function of the DS. But I clearly remember that she brought two bottles of DS products.

Xiangyi: [...] You know, nowadays, there are many "free riders". They don't want to make an effort to learn...they don't invest time in learning knowledge...These "free riders" come to me frequently, asking for my suggestions about products or advice on child healthcare.

Yunhan's example demonstrates the impact of referent others who live in Western countries on our informants' decision making during DS consumption, and Xiangyi's example shows us the role played by individuals adopting the socializing strategy as "free riders" who seek opinions from referent others who have accumulated a high level of DS knowledge.

So far, we have illustrated that Chinese individuals are largely influenced by referent others in their personal life; the use experiences and DS knowledge from referent others function as a credential for increasing the individual's belief in DS use. We want to further emphasize that, in a guanxi-based social structure, the influence from referent others is intensified by a tendency for collectivism and conformity to social norms. An example from Yiran describes the persuasive power carried by a lay health belief that "everyone is using DS so that it must be somehow beneficial." Importantly, we can see that this lay health belief is enhanced by Chinese morality in femininity, including the

female moral attempts for pursuing a beauty ideal and the female character for taking care of the family (see Yiran's example below).

Interviewer: Do you have concerns about the side effects of the DS products?

Yiran: Not really [...] If it is a hot product and brand that is recommended and used by everyone, I surely trust it. If you are talking about a product that no one has tried before, I won't try either.

Interviewer: How do you come to know the specific brands?

Yiran: Usually, it starts with my friends. Then, I might go to search a little bit online. To make sure if it is a well-known brand, with good comments.

Interviewer: Which friends?

Yiran: Usually my girlfriends...in my age...also have children...We hang out and have coffee or something. And then we talk about this stuff [...] Like, sharing some information about new products or brands. Or, we place orders together.

Yiran: Because...it seems every mother would add calcium for their children. Actually, to be honest, I don't know why. Our parents didn't add calcium to us when we were young [laughter]. But every mother does that now. It's natural for you to believe, you should give your child some calcium as well.

From Yiran's description, we can see that she would choose and use DS products and brands that have been tried by other people and she never tries products that have not been used by others. Moreover, she seems to be unclear about the scientific logic of adding DS (like calcium), but she keeps using it because "every mother does that now."

Another important piece of information we can get from Yiran's interview is that she and her girlfriends talk about DS consumption when they "hang out and have coffee" and they might "place orders together". It is not a random occurrence. During our interviews, we have seen many informants mentioning their DS consumption experience together with their friends. In specific, they conform to their friends' opinions and behaviors of DS use, in order to show their social support for others and attain a sense of belongingness to their social group. These behaviors, such as participating in DS conversation, accepting friends' recommendations, and placing orders together, are all

categorized into bonding activities that frequently happen in Chinese guanxi relationships. These bonding activities are effective for maintaining and improving a long-term guanxi relationship and turning the guanxi into social capital that might receive future returns.

Shiqi: Let me tell you something interesting. My best friend and I patronize the same spa. We take the same weight-management DS products. One of the products should be taken before a meal. When we dine out together, you can see the two of us do the same set of routines at the same pace...bring the orange color sachet out from our purse, put the powder into our mouths, and drink a glass of water. We are like twin sisters. [laughter] Other girls see us doing these things and become curious and ask about the products.

Ruoxi: [...] Recently, I'm trying a new one, wheatgrass powder. I was recommended by others, as usual. I thought, "give it a try?" Why not? Then I try it.

Interviewer: Do you ask your doctor friends if you can use the wheatgrass product?

Ruoxi: I don't mention the skincare DS, like collagen or anti-glycation products, in front of my colleagues. It's kind of embarrassing.

Interviewer: So, who recommends you the wheatgrass product?

Ruoxi: One of my friends who is doing the Daigou business. She sells this product.

[Yuxin mentioned she bought anti-aging DS from her friend who lives in the UK a few years ago. Now she talks about her child's DS purchase]

Yuxin: I choose that UK brand again [...] My friend living in the UK, I mentioned earlier, started to do business [of selling UK products]. I want to show my support for her business, you know. Besides, she is my personal friend. I think her channel must be trustworthy.

Shiqi's description shows us a group-level DS use behavior and experience sharing behavior among her girlfriends; Ruoxi discusses and accepts product recommendations from her personal friends but avoids relevant discussion with her colleagues, in order to feel socially accepted by both groups; Yuxin clearly states her motivation of showing social support for her friends by purchasing DS products.

To summarize, our informants are largely influenced by referent others in their social life in terms of DS product and brand choice; living in a guanxi-based social structure, our informants develop DS-related social behaviors and interactions that facilitate the development and maintenance of guanxi relationships.

However, as these informants are influenced by traditional referent others in their personal life and apply the lay health belief of “everyone is using DS so that it must be somehow beneficial” to justify the safety and value of DS in support of their DS consumption, they are inevitably accessing online information that permeates the contemporary social environment (similar to Yiran, many of our informants also conduct “a little bit” of research online for a double check, after they hear suggestions from their referent others). Moreover, as they are adopting a socializing strategy, it is possible that they may be influenced by the information disseminated through online social networks. However, the online information might be contradictory to the social expectation of “everyone should use DS”.

Mengqi: I always have some concerns...lingering in my mind [...] I'm worried...what if adding too much DS might actually be harmful to my child's health? Because I heard about these kinds of thoughts online while I learned about the products' benefits...like, adding too much calcium brings side effects...[laughter]...now... society seems to be very anxious.
Interviewer: Anxious?

Mengqi: Yes...I mean, now, there are too much information and knowledge sources...bringing us, all of us, the mothers, even more anxieties.

Luying: [...] I found that I became increasingly anxious [...] You know that I added a calcium supplement for my child. I originally heard that, for calcium, the more, the better. But recently, I start to think about whether it is correct. Maybe it is not a good thing to add too much calcium.

Interviewer: Why?

Luying: Because recently, I read Doctor Cui's post about calcium supplementation. The other day, I scanned all his posts published on his

social media app, and I happened to see this article. It says calcium cannot be added too much...

Both Mengqi and Luying are influenced by online and offline information and are aware of the conflict between the two information sources. They both feel anxious due to the conflict. It seems that the voices from authorities on social media and other online resources, which are contradictory to what our informants have heard from their personal social networks, bring a feeling of anxiety back to our informants. That is, tensions over DS value and safety result from the conflicting flows of information. Furthermore, the anxiety is intensified by Chinese traditional beliefs in Yin-Yang balance, such as everything in the universe is dualistic but also holistic so that every human conduct should keep a balance (see Yunhan's example below):

Interviewer: What do you mean by “bring some burden”?

Yunhan: There are some ingredients contained in DS products that need to be processed by the kidney or liver. How to explain this to you. Do you know the old Chinese saying that goes as “是药三分毒”? It means we need to consider a balance whatever we do, right?

Interviewer: Why did you say that women should start adding supplements at the age of 35?

Yunhan: You don't know the old saying about women's uphill and downhill path in physical condition? There is an uphill...so there must be downhill, right? It's always like that...30s to 40s is like a turning point...Women start to walk on a downhill path since their 30s. They must start paying attention to self-care.

Yunhan has a need for DS products, but she has a concern about the possible “burden” that may be caused by DS consumption; her need and concern are both supported by some Chinese traditional beliefs in Yin-Yang balance.

To summarize, subjected to the influence of a guanxi culture and traditional Yin-Yang beliefs, our informants in the socializing strategy are inclined to conform to both sets of voices regarding DS safety and efficacy, which leads to an intermittent but

reoccurring need to deal with tensions. To solve the problem, informants selectively act upon habitus in their mind map. Specifically, they refer to an ancient Chinese TCM belief that “chance” is one of the important forces that determine human health outcomes. It implies that there is an invisible force that exists in the universe and functions to affect human life, including well-being. Hence, TCM emphasizes harmony between humans and the universe, a respect for nature, and an inner peace, which indicates that humans actually do not have complete control over their health:

Yiran: [...] I have an uncle. He was a doctor...He was highly knowledgeable of health maintenance, and he was doing a great job of self-care. But he died...a long time ago [...] I would think...our Chinese people...a lot of Chinese people are not paying that much attention to self-care or diet...but they are still exceptionally long-lived. These examples were comforting myself...when I didn't want to take DS on someday...I told myself...it is okay to skip a day or two [...] It is related to how you want to treat your life...I wouldn't expect too much...wouldn't be too determined...you know what I mean?

By employing this lay health belief to relieve the abovementioned tensions, informants like Yiran develop their pattern of DS use. Such as, they purchase DS products but do not really use and they keep DS products in the long-term but flexibly use DS products in the short-term. When they make purchases or use the products, they apply the self-control beliefs to motivate their behaviors; when they do not use the products, they apply the lay health belief of “chance locus of control” to justify their behaviors.

We emphasize that, while informants are intermittently using DS products, they remain committed to DS consumption in the long term. The motivation for long-term consumption is embedded in the symbolic meanings that are socially constructed along with the socializing activities surrounding DS consumption.

We underscore that informants not only pursue the functional value of DS (i.e., DS efficacy) but, more importantly, pursue its symbolic value in representing a taste appreciated by an elite social class. As we illustrated earlier, health-related cultural capital has been recognized as a legitimate base for claiming prestige, respect, and/or authority within the DS consumption field, which leads to the generation of taste and constitution of symbolic capital (i.e., social status) (Bourdieu & Wacquant, 1992). That means the capacity to appreciate the value of DS and symbolically appropriate associated behaviors indicates individuals' taste so as to distinguish them from others in the field. To illustrate, we introduce a distinctive behavior generated in this strategy – using DS in gift-giving. First, see a typical example below:

[Yiran bought a lot of DS products when she traveled to Canada a few months ago]

Interviewer: Have you finished the products you bought when you were in Canada?

Yiran: Well...Actually, a lot of the products I brought back were gifts for others.

Interviewer: For whom? What did you buy?

Yiran: Things like bee propolis. If you want to use it as a gift, it is appropriate to buy products like bee propolis. For whom...let me see, for example, the elderly in my family...and my colleagues [...] I bought quite a few. Ten bottles or so. I gave bee propolis to my colleagues and said, "it's a gift for your mother" [laughter] Ah! I also bought some multivitamins! Some of my colleagues have children, so I gave multivitamins to them and said it was good for their children. I also gave some to my office manager...and the teacher of my son...

Yiran bought "ten bottles or so" of Canadian DS products as gifts for the elderly in her family, her colleagues, her office manager, and her son's teacher. As illustrated earlier, bonding activities on a tactical-level are required by guanxi norms in Chinese culture.

Similar to the behaviors of conforming to others' suggestions or discussing DS use for social acceptance, individuals prepare DS products as gifts for their social

contacts as a bonding activity without specific intentions but with the purpose of maintaining a good long-term relationship in case of future reciprocity. In this way, social capital is accumulated for our informants. More than that, informants are using DS products as gifts to accomplish another primary purpose – to distinguish themselves from other gift-givers, because they are capable of appreciating the value in DS, a health promotion product based on Western science and technology, and they are capable of going to Western countries and purchasing the Western DS products. Consider a description of the gifts from Yiran:

Yiran: We usually don't just buy DS products. DS is part of the package. The products must be something that can only be purchased in Canada. There is usually a maple leave tag on the product packaging.

Interviewer: Can you list some of the other products that you included in your gift package?

Yiran: Sure...I purchased cosmetics...ice wine...bee propolis...and...what else...right, the Atlantic Sea Cucumber. They seem to symbolize Canada...so I bought these products.

What Yiran chose as gifts are products that “symbolize Canada” and that “can only be purchased in Canada”. When she gives the gifts to her social contacts, she introduces that “it's a gift for your mother” or “it is good for your children”, which indicates her knowledge of the DS value in health promotion. Throughout our interviews, we see various informants mentioning their travel experiences to Western countries, and we confirm with all of them that they always arrange some time specifically for DS purchasing in the destinations. Recall how Shiqi describes the taste that is particularly embodied by “people like them” in using Western DS for health promotion:

Shiqi: My husband's prostate support product is from the West. Most of the Chinese people do not tend to use this product. People like us, who travel to the West and personally see these DS products displayed on the shelves of the supermarket, start to use these products for protection.

We see Shiqi's attempt to distinguish the social group she belongs to ("people like us"), who are capable of traveling to the Western countries, personally seeing the DS products, and using the products, from other Chinese people ("Most of the Chinese people do not tend to use this product.") The capability of appreciating Western DS products and the capability of purchasing authentic Western DS products indicate her taste and social status.

The use of DS in gift-giving does not only exist in the bonding activities with social contacts for social capital accumulation; it also exists within core families, i.e., individuals are using DS as a gift for their family members as an expression of their caring for them and a way to fulfill their responsibility. Such as, Meimei purchased local DS products for her parents and parents-in-law every time when she traveled to Western countries. Fangxue purchased Western DS products from Daigous (surrogate shoppers living in Western countries) and sent them to the elderly in her family as gifts during festivals:

Interviewer: Since 2015, where have you been?

Meimei: Hawaii, Australia, and Japan.

Interviewer: You purchased DS products every time you traveled abroad?

Meimei: Yes! I remember the time we traveled to Hawaii, and we did separate a whole morning...to buy DS products. I was already married back then, and we were planning on having a child. So I purchased folic acid. All of the others were for our parents. We have had an awareness [of purchasing Western DS for health promotion]. So, mainly for parents. We just looked for the best-selling brands, and for the commonly used ones like calcium and bee propolis, and a multivitamin.

Meimei: Ah! I missed one place. We also went to Bali last year.

Interviewer: Purchasing DS as well from Bali?

Meimei: No. [laughter] Not that time. Bali is not a developed place.

Interviewer: Can I confirm with you? You only purchased DS for your family when you traveled to Hawaii, Australia, and Japan?

Meimei: Exactly.

Fangxue: [...] I started to buy and use some DS products. Then, I bought the DS for the elders in my family. In the beginning, I bought local brands from the supermarket to give the older people in our family as gifts during festivals, like calcium and fish oil. As I started to do some more research on this product area, I started to buy international brands for them. Mainly bone improvement products like glucosamine.

Meimei only purchases DS as gifts for family members when she travels to developed Western countries (the only exception is Japan, which is perceived by our informants as a developed country that is largely influenced by Western health promotion culture). And Fangxue evolves to purchase Western DS products as gifts as she does “more research” on this area, which implies that she accumulates relevant cultural capital and becomes capable of appreciating the best options in the marketplace. Different from the self-learning strategy, in which individuals also purchase DS products for their family (husband, parents, and children), the socializing strategy focuses on the symbolic value embedded by DS products in China rather than the functional value (i.e., the nutritional supplementation value).

These individuals are adopting the gift-giving behaviors as one way to enhance the affection and trust in Chinese guanxi relationships; the need for using DS for gift-giving is further enhanced by the moral responsibilities carried by Chinese adult females' social roles (as mother, daughter or daughter-in-law). They do not supervise or manage their family members' actual use of DS; rather, they concentrate on the purchasing of DS products and treat it as an expression of their caring for the family.

Ruoxi: There are a lot of calcium supplements in my parents' place. I know many of them are expired. But...I still buy some for them for storage. They can have some supplies whenever they think of it.

Interviewer: Are you believing in the effects of calcium supplements?

Ruoxi: Half-half. But if she thinks it is effective, I will buy it for her. Why not?

Meimei: My parents always forget to take DS. I know that. Many products go expired.

Interviewer: But you will still buy DS for them next time when you travel abroad?

Meimei: I will. I will. This is what I meant, psychological comfort.

Interviewer: For your parents?

Meimei: Mm...mainly for me. I have psychological comfort. It's expressing that I care for them. Of course, it has psychological comfort for my parents as well. They always say that they get less cold, fewer ills after taking the supplements. [laughter]

Both Rouxi and Meimei keep purchasing DS products for their parents even though many of the products might not be used by their parents. They make the purchases and ensure the “supplies” to show their concern for their core family members and they attain gratification by taking the moral responsibility for taking care of the whole family (like Meimei described, purchasing DS for her parents brings “psychological comfort” to herself).

We conclude that, by using Western DS products/brands as gifts, our informants actively engage in bonding activities to accumulate social capital and achieve morality in femininity; they successfully distinguish themselves from other gift-givers in the field by showing their appreciation for Western health promotion culture and their capacity to purchase Western health products.

5.3.4 Summary of the Four Strategies

We have introduced and detailed the four strategies that emerged in our interviews for participating in DS consumption for health promotion. In Table 5.13, we summarized the four strategies by answering the two research questions: *1) What are the benefits achieved by committed DS users? 2) How do they practice in order to achieve the benefits?* In terms of the first question of “what”, we listed the values attained by our

informants from DS consumption, the lifestyles that have been developed, the actualization of the self, as well as the achievement of social distinction. In regard to the second question of “how”, we summarized how individuals do information search, purchase, and use DS products, as well as how they practice in areas outside of, but associated with, DS consumption.

Table 5.13 Summary of the Four Strategies

	Self-learning	Disciplined Use	Consumerism	Socializing
RQ1: What are the benefits achieved by DS users?	<i>Value of DS</i>			
	<ul style="list-style-type: none"> • Functional value of DS. 	<ul style="list-style-type: none"> • Functional value of DS. • Symbolic value of DS use. 	<ul style="list-style-type: none"> • Functional value of DS. • Symbolic value of DS possession. • Experience value of DS consumption and exploration. 	<ul style="list-style-type: none"> • Functional value of DS. • Symbolic value of DS in gift giving.
	<i>Lifestyle</i>			
	<ul style="list-style-type: none"> • A healthy lifestyle. • A self-learning lifestyle. 	<ul style="list-style-type: none"> • A healthy lifestyle. • A self-disciplined lifestyle. 	<ul style="list-style-type: none"> • A health promoting lifestyle. • A consumption lifestyle OR a knowledgeable consumption lifestyle. 	
	<i>Self-actualization</i>			
	<ul style="list-style-type: none"> • “Science-based learning mother.” (individual and social self) 	<ul style="list-style-type: none"> • “Self-disciplined & independent woman.” (individual self) 	<ul style="list-style-type: none"> • “Health promoting activist.” • “Novelty seeker” OR “Rational consumer.” 	
<i>Social distinction</i>				
	<ul style="list-style-type: none"> • Active leader in core in-group. • Passive leader in out-group. 	<ul style="list-style-type: none"> • Feminine role model. 	<ul style="list-style-type: none"> • Pioneer OR Active leader. 	<ul style="list-style-type: none"> • An elite social class taste.
RQ2: How do they practice in order to achieve	<i>Information search</i>			
	<ul style="list-style-type: none"> • Self-motivated lifelong learning of health knowledge. • Learn from authority. 	<ul style="list-style-type: none"> • Early-stage information search of DS products and brands. 	<ul style="list-style-type: none"> • Extensive level of search on social media. • Learn from non-authorities on social media including key 	<ul style="list-style-type: none"> • Limited level of search on social media. • Learn from referent others in social life who have a taste in DS

the benefits?	<ul style="list-style-type: none"> Learn from selective social media source. Learn from traditional print media. 	<ul style="list-style-type: none"> Limited level of search on social media. 	opinion leaders and normal users.	consumption and who have accumulated DS use experiences.
<i>Purchase</i>				
	<ul style="list-style-type: none"> Buy Western DS brands. Use social commerce and guanxi-based favors but stay open to other channels. 	<ul style="list-style-type: none"> Buy Western DS brands. Use social commerce and guanxi-based favors. Prefer easy-to-use and well tasted products. 	<ul style="list-style-type: none"> Buy Western DS brands. Use social commerce and guanxi-based favors. Prefer easy-to-use and well tasted products. Try new products and brands. 	<ul style="list-style-type: none"> Buy Western DS brands. Use social commerce and guanxi-based favors. Try new products and brands.
<i>Use</i>				
	<ul style="list-style-type: none"> Focused use of DS. Follow instructions. Do flexible adjustment. 	<ul style="list-style-type: none"> Focused use of DS. Strictly follow instructions. Set up reminders. Strictly keep a regular and long-term use. 	<ul style="list-style-type: none"> Extensive use of DS. Flexible use in short-term. Continuously use in long-term. Cycle of purchase, non-use, disposal, and repurchase. 	<ul style="list-style-type: none"> Extensive use of DS. Flexible use in short-term. Continuously use in long-term. An ongoing entanglement of use and un-use.
<i>Extended behaviors</i>				
	<ul style="list-style-type: none"> Healthy diet. Regular exercise. Family-level education on health. Keep updating information but independently and reflexively make decisions. 	<ul style="list-style-type: none"> Healthy diet. Regular exercise. A strict and holistic set of healthcare/skincare routines. Manage their own health rather than others'. 	<ul style="list-style-type: none"> Healthy diet and/or physical exercise are replaced by DS consumption. Stay active in trying cutting-edge technological healthcare solutions. Stay active in recommending products/brands for others. 	<ul style="list-style-type: none"> DS use are not necessarily been associated with other health activities. DS consumption is an opportunity for bonding. DS is used in gift giving among social acquaintances as well as core family members.

As a summary of this section, we want to first emphasize the commonality of the four strategies. All of the four strategies are built on the general choices offered by the structure. We can see that all informants have engaged in DS consumption for its functional value (nutrient supplementation function) to achieve the purpose of health

promotion; all informants have purchased Western DS products through social commerce; all informants have been searching for DS information and health promotion information on social media platforms. All of the four strategies serve to help our informants grasp the opportunity for self-care and attenuate/avoid the general tensions existing in the structure, i.e., difficulty in evaluating DS value and risks, overloaded and contradictory flows of information on social media, and complex marketplace offerings.

However, as individuals choose to adopt different strategies, they selectively and differentially activate other choices (offered by both habitus and changed conditions) in the structure, and they inevitably meet new specific tensions in real-world practices and interactions. As a result, individuals are gaining different forms of agency and accumulating different levels of reflexivity (i.e., different levels of control over the aspects in their social world) in support of their decision making; symbolic and experience values of DS consumption, other than its functional value, are socially constructed through individual behaviors and interpersonal interactions.

Thus, we emphasize the differences across the four strategies. While the self-learning strategy focuses on the accumulation of scientific agency by continuously and reflexively learning health knowledge, the other three strategies draw upon lay agency, which is based on a series of lay health beliefs. Moreover, while the three strategies share the same foundational ideology – DS is a magical solution enabled by technology and science, they are grounded on divergent lay health beliefs as well as other resources.

To put it in a simple way, the self-learning strategy allows individuals to exercise and increase control over aspects of the social world (in Giddens's word, the reflexivity) by accumulating and holding mainstream health knowledge as embodied cultural capital,

which has been recognized as a legitimate base for claiming prestige, respect, and authority in the field of DS consumption. The disciplined-use strategy endows individuals with reflexivity by emphasizing the importance of self-control behavior and promising a moral reward for a persistent, disciplined, and holistic self-care endeavor. The consumerism strategy enables individuals to gain reflexivity by enhancing the mythical power of consumerism in the realm of health and enhancing DS value in the possession and experiencing. Finally, the socializing strategy offers individuals the lowest level of reflexivity externally rather than internally by leveraging on Chinese guanxi relationships and social capital accumulation.

Thus, guided by different health beliefs and theories, individuals engage in DS consumption in different manners and directions, develop different use patterns as well as extended health practices and routines, and form different lifestyles that express individuals' identities and indicate their social status in the field.

Lastly, as reflected in Table 5.13, we observed that different strategies might lead to the same DS consumption and use behaviors. However, we want to underscore that, in spite of the appearance of the same behaviors, their underlying rationales are different. For example, in the disciplined-use and consumerism strategies, some product attributes, such as easy-to-use and good taste, are preferred by our informants; however, the preference in a disciplined-use strategy is due to a cognitive consideration of facilitating a long-term persistent DS use in order to achieve the functional value of DS, whereas the preference in a consumerism strategy is due to the pursuit for happiness and experience value. Another example is that, in both consumerism and socializing strategies, individuals keep trying new DS products and/or brands; but the former is motivated by

the identities of novelty seeker and health promoting activist whereas the latter is motivated by a need to conform with others or bond with others for the purpose of guanxi (social capital) development.

Now, we recall our methodology that has been applied to guide our research in order to answer our research questions and understand DS consumption in social commerce in China. In a nutshell, based on an interpretive and exploratory research approach, this thesis project applied an active interviewing strategy for data collection and the constructivist view of grounded theory for data analysis. We particularly emphasize one of the essential procedures that has been constantly conducted throughout the whole data collection, analysis, and interpretation process – required by the research approach and methods, we have been making comparisons at each level of analytic work, e.g., initial coding, focused coding, theoretical category development, and refinement.

It is the cross-case comparisons that enable the researchers to identify commonalities and reveal differences across interviews and then summarize theoretical categories for interpretation. But it is the construction of individual idiographic profiles that build a solid foundation for cross-case comparisons and interpretations. Moreover, we did within-case comparisons while developing the idiographic profile for each individual, which produced a comprehensive understanding of the individual's consumption and use practice, and their reflexively constructed identity expressions. Based on an interpretivist perspective, we believe that knowledge of consumer behavior is generated in an idiographic, time-bound, and context-dependent way.

Therefore, idiographic profiles play a critical role in facilitating focused coding and theoretical category and theme identification. Moreover, as our research methods

feature an ongoing and iterative nature, the development of theoretical categories is, in turn, used to review and refine individual consumption profiles. That is why we conducted our last step in data analysis - as a final step, we applied the analytical framework and theoretical categories to re-code all 22 informants' transcripts for verification and refinement. The result of this step was the refined theoretical categories explaining the logic of practice in the field, and, more importantly, the refined idiographic profiles.

At the end of our research, a consumption profile was built for each informant that described their practices inside and outside of the DS field and benefits they have achieved from DS consumption. The comparisons and iterations allow the researchers to apply the categories as a guide for organizing the idiographic profile for each individual. The final idiographic profile was used to gain a better, more detailed sense of the shared experience across cases, which, in turn, provided a more contextualized understanding of the individual experience.

We use the next section to give an example of the idiographic profiles. This case functions as a typical and comprehensive illustration of an individual's DS consumption story. More than that, we want to apply it as evidence to emphasize that, although four distinctive strategies are identified, they are not exclusively and separately adopted by individuals. That means, our informants could adopt a single strategy for practice, but they might also selectively combine different strategies for engaging in DS consumption as well as health promotion.

5.3.5 Example of the Idiographic Profiles

This section contains the idiographic profile of Xiangyi's DS consumption.

Xiangyi is a 33-year-old administrator working in a state-owned company; she is married and has a 2-year-old child; she attained her bachelor's degree from one of the top law schools in China. She has been committed to DS consumption for about five years. Products she has been regularly purchasing and using include: her child's Vitamin D3, her parents' calcium supplement, and her own calcium supplement and skincare products (grape seed extract and collagen). In addition, she tried other skincare products before but stopped the use. Recently she is trying a new product – wheatgrass powder. The researcher conducted two rounds of interviews with Xiangyi; the second round was conducted three months after the first interview. Xiangyi introduced her new trial with wheatgrass powder during the second interview, which she was not using when we conducted the first interview with her.

Next, we illustrate her DS consumption story based on our DS consumption model, i.e., introducing the input, process, and output in her DS consumption.

Individual input. As we mentioned in the section of the self-learning strategy, Xiangyi is a representative of individuals who adopt a self-learning strategy for participating in DS consumption and health promotion. She has invested money, and a large amount of time, into the learning activities. As a result, she has accumulated a high level of health knowledge (including diagnosis-treatment knowledge, nutrition knowledge, and DS knowledge), and then invested that knowledge into DS consumption, which functions as a scientific agency for making confident choices and arrangements in terms of DS consumption and health promotion.

Marketer input. Consistent with other informants, who all come from the mass elite social class in China, Xiangyi has been purchasing Western DS brands from Daigous (i.e., surrogate shoppers, a form of social commerce initiated by social acquaintances who live in Western countries). In particular, she has been focusing on brands from the US, Canada, Australia, and New Zealand. She summarized and explicitly stated her criteria for selecting brands: 1) she prefers an old brand with a long history; 2) she prefers a brand that focuses on specific product area(s) rather than a brand that contains tons of product lines; 3) she avoids brands that have had product safety or quality scandals in their histories. All of the three criteria are for product safety concerns. According to Xiangyi, an old brand with longevity proves its reliability; a brand specializing in certain product lines demonstrates its professional practice and responsibility for customers, and a long and clean history without product quality scandals offers her evidence to trust the brand's product safety.

Environmental input. We confirmed a significant influence from referent others on Xiangyi regarding DS consumption. Referent others include: 1) her parents; 2) medical authorities (e.g., doctors, medical institutions, and health experts); 3) social ties who live in Western countries and/or do Daigous. Her parents' influence on her is implicit and behavioral. According to Xiangyi, she is responsible for selecting and purchasing and guaranteeing the supply of calcium supplements for her parents. But her parents have a significant influence on her own use of calcium supplements. As she described, her parents have been using calcium supplements for over ten years, and she joined in the consumption in the last four or five years. Before she got to know DS knowledge, her parents have been purchasing local brands of calcium supplements from

local pharmaceutical stores. This confirms our finding regarding the acculturation effect of family upbringing, as one form of lifelong learning, on an individual's DS consumption. In fact, Xiangyi clearly states that she performs a much better job in the regular use of calcium than the use of skincare products because of her mother's influence:

Interviewer: How do you use calcium supplements?

Xiangyi: One tablet each day, after lunch.

Interviewer: Can you always remember about calcium supplements?

Xiangyi: Yes. Because my mother reminds me every day. [laughter] She passes one tablet to me after we have lunch. So, if she does not forget, I will not forget.

Medical authority is treated by Xiangyi as the most trustworthy resource in DS consumption. When being asked about how she learned health knowledge, she mentioned that she learned from the parenting encyclopedia published by the American Academy of Pediatrics (AAP), and she updated her knowledge by scanning the official website of AAP. In addition, she learned from social media accounts, which were owned by reliable medical institutions, and she registered for online classes held by these institutions. She trusts these medical authorities because they not only allow her to get access to the concrete DS related information, but, more importantly, they educate her on the scientific knowledge and skills of how to process information, to independently make decisions, and to reflexively think about her practice and make flexible adjustments.

Through the learning experience, she has gained agency and become self-aware and self-reflexive. As a result, the enhanced influence of medical authorities is accompanied by a weakened influence of social ties who live in Western countries and/or do Daigous. As we illustrated earlier (in the socializing strategy section), social acquaintances who live in Western countries and individuals who live in Western

countries and do Daigous are perceived as trustworthy referent others in the field of DS consumption, because they are perceived to be equipped with DS knowledge (i.e., knowledge of DS products/brands) which is recognized as a legitimate base for claiming prestige, respect, and authority. In Xiangyi's account, we see the influence of this group of people on her DS consumption at the early stage of her DS consumption history. As she gains scientific agency and accumulates a high level of health knowledge, she herself is positioned as an authority in her social network and a referent other to other people. At this point, she does not treat that group of people as her referent others anymore. To illustrate, at the beginning of the interview, she mentioned how she started DS consumption:

...At that time, I was told by my relatives and friends about DS benefits. Some of them traveled to other countries. Some of them immigrated to, for example, the US. They told me relevant information. They sent the brochures...the pictures of the products to me. And, some of them might already start to do Daigou. That's how I got access to this product area. Me and my family started to use it...

As the interview unfolded, the researcher asked Xiangyi whether her brand choices were influenced by her social acquaintances who did Daigou and purchased products for her in Western countries, she mentioned:

No. Usually, it works in this way – I searched the brands by myself, I have some alternatives in my notebook, and then I ask them if they can find the particular product for me. They live in the US and New Zealand. There are a lot of brands that I can choose from.

We can clearly see from Xiangyi's narrative that she experiences a transfer of power from others to herself when making decisions in DS consumption, which is indicative of a generation of reflexivity and construction of self-identity.

As Giddens writes, a person “must continually integrate events which occur in the external world, and sort them into the ongoing ‘story’ about the self” (Giddens, 1991, p. 54). In addition to referent others, we confirmed the following environmental inputs: 1) influence of culture; and, 2) influence of social media. By confirming these two inputs, we have verified the value of the two research opportunities identified and utilized by this thesis project.

Empowered by the accumulated scientific agency, Xiangyi is one of the informants that successfully distances herself from social influences when making DS consumption decisions. However, we still acknowledge that she is not absolutely escaping the influence of habitus hidden in the social structure. First, she is influenced by the Chinese moral beliefs in adult females’ femininity. In particular, she perceives herself as the household manager in her family so that she needs to learn and take charge of the family-level healthcare. And she perceives anti-aging and a youthful look as an important task for women to accomplish, which pushes her to purchase and use skincare products despite the fact that she consciously knows they might not be effective.

Second, she is influenced by the Chinese *guanxi*, which emphasizes empathy and face so that she is not willing to accept the social role as an active opinion leader in her social group. Lastly, she is influenced by the low trust culture in China, where close social ties are unconditionally trusted, but strangers (businesses are perceived as strangers) are pervasively distrusted. Hence, even with a high level of DS knowledge and explicit recognition of “As long as it is a trustworthy brand, I don’t worry about the risks in using its products”, Xiangyi still purchases two trustworthy brands of Vitamin D3 for her child, and interchangeably use these two brands:

to spread the risks...Just in case...what I can do is to make sure these two brands do not have product quality issues in their histories...but, what if these brands are reported with some product scandals in the future?

As for the influence of social media, Xiangyi is aware of the “tons of information on social media” and she exercises her control by only referring to selective high-quality social media accounts and channels for authoritative information regarding health knowledge, such as prestigious pediatricians’ social media accounts and medical institutions’ official accounts. Compared to social media platforms, she prefers to search for information directly through search engines (e.g., Google and Baidu) or through institutions’ official websites (e.g., the website of American Academy of Pediatrics), and she prefers to learn knowledge systematically from traditional print media (e.g., books) and educational sessions and training (e.g., online classes for parenting).

In regard to DS knowledge (including DS brand knowledge), she acknowledges the advantage of using social media (e.g., RED) to become aware of the emergent or popular brands. However, she does not rely on the reviews provided by social media key opinion leaders or comments from other normal users. Rather, she always does her own research on the alternative brands, such as searching the brands’ websites for company/product information and reading relevant news articles for historical information, in support of her brand choice.

Process: DS use & extended behaviors. Based on the self-motivated learning of the diagnosis-treatment knowledge in Western medical science (evidence-based medicine) and nutrition knowledge, Xiangyi accumulates scientific agency and applies evidence-based logic to guide her decisions for her child’s DS consumption. In particular, she only adds Vitamin D3 for her child, which is different from other mothers

participating in our study who have added multiple products such as Vitamin D3, DHA, and milk calcium for their children. She describes her rationale for only targeting Vitamin D3:

Xiangyi: [...] My daughter is taking Vitamin D. This is necessary. It is like a rigid demand. Other stuff, like DHA, are belonging to the 'might be effective, but safe' evidence level. Some mothers might add it. It's fine. But only VD is necessary.

Interviewer: Is VD recommended by the doctor you visited in the hospital?

Xiangyi: I myself have known that already. But yes, the doctor also recommended VD, of course. Doctors always recommend it for every breastfeeding child. I don't consider others like DHA or multivitamins. My daughter is not picky about food...

From this dialogue, we can see that Xiangyi has built a habit of making her choices based on evidence-based logic (she searches about the evidence level of DS products), which provides her confidence in arranging and managing her daughter's health care (she gains agency). Due to the power endowed by scientific agency, she does not consider DS other than Vitamin D; she follows the rule of "diet always comes first" and educates her child to "live in a healthy lifestyle".

Moreover, the accumulation of health knowledge helps her become self-reflexive about DS use – she can make flexible adjustments to her daughter's DS use according to different conditions ("My daughter is not picky about food" is the condition under which she determines that her daughter does not need additional dietary supplements). Further, she differentiates herself from other mothers ("Some mothers might add it") by emphasizing her knowledge of DS and nutrition ("I myself have known that already").

As we introduced earlier, Xiangyi actively takes the responsibility embedded in the social role of mother/wife in Chinese culture: she is responsible for all "mind work" while her husband does all "labor work and chores"; she never forgets about her

daughter's DS intake, and she believes that her husband would not remind her of the intake if she really forgets about it someday. As she explains, "...It is impossible to expect a man to do this type of work. Trust me. It is too hard for them to accomplish."

From the excerpt above, we can see that Xiangyi tries to legitimize the moral responsibility of being a good mother/wife by prioritizing "scientific parenting" as a task that requires "mind work" which is hard for men to accomplish. By accomplishing mind work, which asks for intelligence, knowledge, and skills, Xiangyi attains self-gratification. Moreover, as she follows "scientific parenting" which resonates with her individual faith in applying logic and rationality for decision making, self-gratification is enhanced, and self-esteem is achieved. As she describes:

I also apply evidence-based decision making to other things. I think it might be relevant to how I think...I majored in law in college. I need evidence, I need logic, in every aspect of my life.

As Giddens (1991, p. 53) points out, self-identity is "the self as reflexively understood by the person." Self-identity, therefore, is routinely created and maintained through the practices of the individual and his or her intersubjective interactions. While Xiangyi applies evidence-based decision making to "every aspect of my life", including DS consumption, she attributes the application to her personal characteristic as an individual ("I majored in law in college. I need evidence, I need logic"). Combined with influence from the morality in femininity, she reflexively finds a balance between achieving the social self and individual self by constructing her self-identity as a "science-based learning mother", which, in turn, has been symbolically employed by her to interpret reality and relieve her tensions caused by the conflict between time pressure and fulfilling her responsibilities.

However, by acknowledging the influence of morality in femininity on Xiangyi's DS consumption, we uncover that Xiangyi keeps using skincare DS products, i.e., grape seed extract and collagen, for fulfilling another moral responsibility – keeping a youthful look. Regarding the product and brand choice, she still applies the evidence-based logic:

Lately, I'm looking at research about the evidence-level of DS. Some products are clearly evidenced as effective, like Vitamin D and calcium. But some products, like collagen and grape seed extract, are not evidenced to be effective. But, they are proved to be safe. This is their evidence level – might not be effective, but must be safe. Under this situation, it depends on your expectation. Then you can make an evaluation of the benefit and the cost. If you are willing to pay the price for your psychological comfort, just go. Go for it!

Different from other informants who adopt lay health beliefs to endorse their DS performance (e.g., informants who practice the disciplined use strategy or consumerism strategy), Xiangyi clearly knows the products she uses “might not be effective”. However, as these products meet her expectation of evidence-level, she is willing to use the products to attain a “psychological comfort”. In other words, she does not expect to receive the functional value of DS products like grape seed extract and collagen; rather, she attains happiness from consuming these products:

It is like a superstition. [laughter] In this way, I can have expectations. It's kind of like, helping me realize my dream, a sweet dream, a pursuit of beauty... Can you see the trick here? After you take these DS products, you are actually never able to judge if they are effective or not. Right? Because they are claimed to 'postpone aging effect'. How to see a postpone effect? No way! So, you might just convince yourself... yeah... you are not aging that fast... But, [laughter] the truth is, you only live for once. You will never know if you are aging more slowly or not because you don't have a reference to compare.

By using words like “superstition” and “realize my dream, a sweet dream”, Xiangyi connects the DS consumption with some supernatural power in nature, which reflects our finding regarding the lay belief in the mythical power held by DS products. But, different

from informants who develop a strong faith in the functional value of DS products based on the lay belief, Xiangyi applies her scientific agency to run cognitive and rational thinking in terms of the benefits and costs of using these DS products. Thus, Xiangyi is self-aware of the “might not be effective” result; she purchases and uses these DS products for the happiness and a feeling of hope brought by the symbolic value in DS consumption:

Xiangyi: I like dancing. Dancing is a kind of physical exercise that keeps me in a good mood. I also like plants and flower arrangements. Watching movies. Reading books. And traveling. Ah, I like doing research on skincare products and cosmetics as well!

Interviewer: Anything you want to share with me in terms of skincare?

Xiangyi: Actually, ...skincare products are just like grape seeds. They can only perform the basic functions like keeping the moisture in your skin. The other claimed functions, like anti-aging and reducing wrinkles...Not true! And they actually cost you a lot of money. Right? However, while you do those routines, you feel happy. After use, you have expectations. Hopes. I think getting these feelings are good enough. After all, a good mood is a key to a good body. Emotional health determines physical health. As for the real effective skincare solution, I would consider cosmetic surgery, like Thermage technology. The modern medical science and technology is the only solution.

According to Xiangyi, skincare DS consumption is similar to skincare products and cosmetics consumption. They might fail to perform most of the claimed functional value; however, they are safe, and the use and routines bring her happiness, a good mood, and expectations and hopes. She is aware of the expense on these consumptions (“they actually cost you a lot of money”), but she weighs the benefits and costs and makes a decision, a rational decision in her eyes.

Based on a pursuit for the experience and symbolic value, Xiangyi’s account demonstrates the similar use behaviors with people practicing the consumerism strategy – she purchases grape seed extract and collagen but uses them irregularly and intermittently

(two or three times a week); she does not design and practice any technique for reminding her of the intake; she always refills the products once the old ones expire otherwise she does not feel safe.

Also, consistent with the behaviors in the consumerism strategy, she emphasizes the consumption experience more than the functional result and refers to a lay health belief in mental health determining physical health; she tries new products for the exploration experience (she uses wheatgrass powder recently); she is more open to cutting-edge technologies in the self-care marketplace (cosmetic surgery, Thermage technology) and is willing to try them.

By describing her use of skincare DS products, we highlight that while Xiangyi mainly practices a self-learning strategy for DS consumption, she also refers to a consumerism strategy for realizing her “sweet dream” of anti-aging. What’s different in her case is that Xiangyi combines the scientific agency and the lay agency and reflexively makes her consumption decisions. For example, she tried another type of skincare DS called Pola White Shot Inner Lock Tablet years ago, but she stopped the use immediately after she learned about its evidence-level of “must not be effective, might not be safe”. In other words, self-learning is the cornerstone, and consumerism is the add-on – before she applies the consumerism strategy and refers to the lay health beliefs, she first applies her scientific agency.

Output: knowledge, self-identity & status. The first striking output in Xiangyi’s account is the knowledge accumulation, including all three aspects in health knowledge: diagnosis-treatment knowledge, nutrition knowledge, and DS knowledge. For example, regarding DS consumption, she is very clear of the claimed benefits of DS products, the

effective ingredients, use instructions, and their safety/efficacy level. In fields out of DS consumption, she demonstrates a high level of knowledge, such as: she makes meal plans to pursue a balanced diet based on the Dietary Guidelines for Chinese, she treats diet, exercise, regular sleep pattern, and physical examination as necessary elements for keeping a healthy life, and she is able to make a preliminary diagnosis for her child's illnesses at home according to the knowledge she learns from authorities.

By accumulating health knowledge and transforming the knowledge as her embodied cultural capital, Xiangyi gains a scientific agency that allows her to become self-reflexive in decision making. As we mentioned earlier, through her daily practices in aspects of her life, she gradually develops a self-identity of a science-based learning mother, which functions to help her accentuate both the individual self and social self. In addition, although she is influenced by the features in Chinese guanxi and cares about harmony, showing empathy and saving others' face, she is still treated by others in her social network as the trustworthy opinion leader (she becomes the significant referent other for the social ties in her life). She does not initiate discussion of health or DS knowledge with others, but they actively ask for her suggestions and opinions and are likely to follow her instructions.

Building on the scientific agency, Xiangyi also applies lay health beliefs to support her participation in women's self-care routines. The discourses of "technology-as-a-divine-tool", "technology-as-liberator", and "DS might be a mythical solution" are shown in her interviews. She trusts in the power of science and technology so that she is planning to try cosmetic surgery and believing that "Modern medical science and

technology is the only solution.” Scientific symbols, like statistics, are demonstrated by her during the interviews to illustrate her knowledge of health.

Hence, based on the lay belief in DS as a mythical solution, she uses skincare DS consumption as a solution to overcome the tension between aging and the responsibility in anti-aging. She continuously uses two types of DS products that are safe (but might not be effective) based on her research. But she focuses on the happiness resulting from the consumption experience and emotional comfort from the symbolic meanings embedded in a mythical solution. In this direction, Xiangyi is applying a consumerism strategy and constructing the identity of “health promoting activist” and “rational consumer”.

A final comment is that Xiangyi is reproducing some of the habitus in her lifestyles and practices, but she is also able to transform some of the habitus as a consequence of the self-learning strategy. For example, unlike many of our informants, she does not trust Traditional Chinese Medicines (TCM) anymore after she learns about Western medical science. According to her, TCM lacks a sufficient amount of experiment and evidence to prove its safety and effectiveness. And she proves her point by making reference to her learning outcomes:

Interviewer: So, are you against the plant-based treatment? A lot of DS products produced by Western brands are also plant-based.

Xiangyi: No. I’m not against plant-based treatment. I’m just...For example, some compounded remedies in TCM for curing the flu contain herbs like heartleaf, which has been clearly proved to be harmful to health. I’m against this kind of application. Most of TCMs have these concerns. I read an article before. It was a global statistical report...about the ratio of liver damage in different countries. It seems that China ranks very high. I think it might be relevant to our prevalent use of TCM. We have no evidence to prove its safety!

Xiangyi's description shows that she successfully distances herself from the influence that exists in her social structure (e.g., influence of TCM) based on her self-learning outcomes.

5.4 Conclusion

In this chapter, we analyzed and interpreted our data, and presented and discussed our findings. Findings are organized by two major themes: *structure* and *agency*. We started with the structure by presenting *the habitus and changed conditions in the field of DS consumption in China*, and discussing *the choices and tensions for participating in self-care*. Next, we focused on the theme of agency by describing and discussing the four primary strategies our informants have developed and practiced in order to effectively grasp the choices and relieve the tensions in self-care. The four strategies are: 1) *gaining agency by self-learning*, 2) *gaining agency by disciplined use*, 3) *gaining agency by consumerism*, and 4) *gaining agency by socializing*.

While discussing the four strategies, we provide a detailed description of the forms of agency gained through individual practices, the lifestyles developed in the agency accumulation process, and the impact of agency accumulation and lifestyle formation on self-identity development and social distinction. Based on the structure-agency dialectic, we uncovered the multiple layers of meaning attached to DS products and consumption in the specific context of China, and we answered our research questions by revealing the benefits achieved by our informants and their practices to achieve those benefits. This chapter ends with a typical and comprehensive illustration of

an informant's DS consumption story that works as a reflection of the shared experience across cases and a concluding remark of the chapter.

CHAPTER 6: CONCLUSION

6.1 Introduction

The goal of this research was to improve our understanding of DS consumption in social commerce in China – what benefits are achieved by mass elite females in China from DS consumption and how they practice in order to achieve those benefits. In order to address this goal, the choices offered by the structure, including those existing in an individual's mind as habitus and those enabled by the changed conditions in the field, were identified and summarized. Subsequent to this, the focus shifted to examining individuals' agency – the strategies they adopted and practiced for grasping the options for participating in DS consumption for health promotion. While strategies were chosen and practiced, various benefits were achieved, tensions were relieved, and multiple layers of meanings of DS consumption were socially constructed in the specific context of China.

Structure-agency dialectic was relied on in order to reveal what happens in the field and how it happens. Structure-agency dialectic was related to a mechanism that individuals can achieve self-determination by inhibiting or altering their dispositions, but categories of perception and appreciation (the foundation for self-determination) are themselves largely influenced by individuals' social relationships and conditioning processes (Bourdieu, 1984).

The setting for this research allowed for the discussion of structure-agency dialectic associated with the benefits and practices produced in DS consumption, especially as it relates to individuals' increasing free will for actively engaging in self-

care and the restriction and shaping caused by the structure including the habitus and changed conditions.

This chapter discusses, first, the contribution of the current research to the DS consumption literature organized by implications for research and implications for marketers. Following this, the chapter discusses additional contributions to health promotion literature and consumer behavior literature. The chapter concludes by discussing the limitations of the current research and making suggestions for future research.

6.2 Contributions to the DS Consumption Literature

This section discusses the dissertation's contribution to the DS consumption literature, organized by the themes of moving from purchase to use; commitment, target and practice; and implications for marketers.

Moving from purchase to use. Previous DS consumption research has identified the mixed findings regarding various aspects in DS consumption, such as: DS purchase intention is suggested to be predicted by social norms in some research (Fogel & Rivkin, 2013) but not in others (Ren et al., 2011), and is suggested to be predicted by self-efficacy in some studies (Fogel & Rivkin, 2013) but not in others (O'Connor & White, 2010); the value attained from DS use is shown to be more functional in households without children, but more symbolic and moral in households with children (Barrena & Sanchez, 2010); and the impact of DS use on a healthy lifestyle is indicated to be positive in some research (Sheldon & Pelletier, 2003) but not in others (Bolton et al., 2015).

Part of the reason to see the mixed (and often contradictory) findings is that current research studies mainly focus on a pre-purchase stage and apply psychological theories like Theory of Planned Behavior (TPB) to predict individuals' purchase intention. We acknowledge the significant contribution made by this stream of research in predicting consumer behavior. However, there is a distance to be traversed from purchase intention to the actual purchase (Manstead, 2011); many factors, in addition to the TPB-based psychological and cognitive factors, might separately or interactively influence the final act of purchasing. These factors might include but are not limited to habits, emotion, situational factors, and individual characteristics.

Moreover, there is a further distance to be traversed from purchase intention to the actual use. We may observe behavioral variance in different stages in consumption, such as the pre-purchase and post-purchase, and initial use and committed use (France & Bone, 2005), and the changes in motivations that are associating with self-image and self-identity (Mason & Scammon, 1999).

Hence, our research makes a contribution to the DS consumption research by comprehensively examining DS consumption research and identifying that current research fails to fully explain the variance in DS consumption behavior (Thompson & Nichter, 2007). More importantly, we make a contribution by comprehensively describing the variety of ways in which people consume, by understanding how these differences vary across groups and situations, and by explaining the unacknowledged conditions that structure how different groups consume and the unintended consequences of such patterning (Holt, 1995).

Our research project achieved its objective by conducting a context-dependent and in-depth exploration of DS consumption, i.e., we specifically targeted mass elite females in China who are committed to DS consumption and examined their practices in the specific context of social commerce. As a result, we are able to uncover the divergent patterns of DS use, and, more importantly, to interpret the underlying social mechanisms that form the specific patterns of DS use.

In particular, we extend current research regarding factors affecting DS consumption to include non-TPB factors such as emotion and habit. First, consumers might be committed to DS use due to the pursuit of positive emotions (e.g., happiness) and the attenuation of negative emotions (e.g., anxiety). For example, some of our informants use skincare DS (e.g., grape seeds and collagen products) to pursue happiness and decrease the stress of keeping a youthful look; some of our informants purchase supplements for their children, such as DHA and calcium, to ease their anxiety caused by the moral responsibility of being a good mother.

Second, some of our informants attribute their capability for keeping continuous DS use to the habitual behavior that has been acculturated in family upbringing or daily practices and routines. In addition, we confirm the value of a context-dependent investigation by identifying the significant influence of the local traditional culture (in the manner of habitus) on individuals' DS consumption intention and behavior. In each of the four strategies identified by our study, individuals are influenced by the habitus but also selectively activate a set of habitus as cultural resources in support of their use practices and flexible adjustment.

Moreover, our interview data concurred with previous research findings in terms of the divergent patterns formed in various aspects of DS consumption. For example, consistent with the findings illustrated at the beginning of this section, we found that social norms differentially influence individuals' DS use intention and actual use behaviors. The value of our research is to not only identify the existence of divergence but also explain why it happens. For example, individuals practicing a self-learning strategy are not inclined to be affected by social norms because they gain a scientific agency and become self-aware and self-reflexive which effectively distances them from the social structure and allows them to make independent decisions; individuals practicing a socializing strategy are more likely to be influenced by normative beliefs and then conform to others as they pursue the symbolic value of DS products in bonding and gift-giving rather than its functional value.

Another example is that, consistent with Barrena and Sanchez's (2010) research, we found that DS consumption may bring symbolic value to the household with children; critically, we also revealed why it happened – females take moral responsibility of taking care of the whole family, especially their children, and they purchase and add DS products for their children to fulfill their moral obligations.

A final example is that we confirmed a mixed role played by DS consumption in improving individuals' healthy lifestyle, i.e., some individuals are actively and regularly engaging in physical exercise and healthy diet, but some are taking DS consumption as a replacement for other healthy activities.

Our research finds an explanation for the mixed impact – some individuals are committed to the Western medical science and mainstream health promotion knowledge

so that they follow the mainstream healthy lifestyle, whereas some individuals would like to combine Western medicine beliefs (and/or other Western modern beliefs like consumption values) with the local traditional lay health beliefs (e.g., Traditional Chinese Medicines) and find a compromised solution that might be contradictory to the mainstream health promotion beliefs and behaviors.

To summarize, by moving the research focus away from the prediction of purchase intention in the static pre-purchase stage and towards the exploration and interpretation of actual consumption behaviors, our research includes more factors than the TPB-based psychological and cognitive factors to understand DS consumption. Moreover, we understand individuals' divergent DS consumption patterns and propose possible explanations for the divergence.

Commitment, target, and practice. By focusing on the committed use stage in DS consumption, our research makes contributions to our understanding of commitment in DS consumption. First, based on a comprehensive literature review, we have identified a difference between daily/continuing/heavy use (the terms commonly used in the previous DS literature, see Mason et al., 2007) and committed use. We argue that taking supplements on a daily basis does not necessarily mean that consumers are actively engaging and participating in the phenomenon of DS consumption. Through our interviews, we confirmed with previous research that consumers might choose healthcare strategies that were built around a preference for the familiar, such as engaging in habitual behaviors or strategies that delegated health responsibility to social others (Adkins & Corus, 2009, p. 209).

Further, our findings agree with Mason and Scammon (1999) and France and Bone (2005) in terms of the meaning of ‘committed user’, which should describe the users who undertake DS use as a way to improve their perception of self or who actively engage and are enduringly involved in DS consumption. However, the current studies have not explicitly given ‘committed DS users’ a definition that helps the reader clearly understand the motivation and behavior of this group of consumers.

Our research has implications in this aspect, as we, first, clearly defined the concept related to the ‘committed user’, i.e., the commitment. We used Moorman et al.’s (1992) definition of commitment, which defined commitment as an enduring desire to maintain a valued relationship. Further, we agreed with Gundlach et al. (1995) to acknowledge three core components of the DS commitment: committed users are those who 1) invest instrumental inputs, like money, in DS consumption (i.e., instrumental component); 2) consume DS consistently over a long term (i.e., temporal component); 3) are intrinsically motivated by the high degree to which a DS product or DS consumption is related to the individual’s self-image and pleasure (i.e., attitudinal component).

In this way, our research has distinguished the daily/heavy/continuing users from committed users by emphasizing that Committed DS users would have built an enduring involvement in DS use which requires ‘shared values’ between consumers and the consumed objects about what is appropriate or inappropriate, and right or wrong (Morgan & Hunt, 1994).

Moreover, our conceptualization requires at least two parties in order to form a relationship; namely, consumers need to have a commitment target, e.g., DS consumption in general, specific DS product, DS seller, or DS community. The existence of multiple

targets of commitment might be another contribution of our research, as it relates to our understanding of DS consumption as a complex phenomenon that involves multiple layers of meanings.

For example, our research confirmed that individuals adopting a self-learning strategy only acknowledge the functional values of DS consumption; individuals in a disciplined use strategy would pursue the symbolic values residing in the actual DS use as it represents moral rewards; individuals practicing a consumerism strategy recognize and embrace the experience values brought by DS consumption as well as the symbolic values in DS possession; and finally, individuals employing the socializing strategy value the symbolic meanings of DS consumption that are uniquely socially constructed in Chinese guanxi structure. Accordingly, based on the different layers of meanings, Committed DS users might build trust and loyalty to distinct targets. To summarize, our research has implications for clearly defining and identifying the commitment in DS consumption.

Moreover, as DS consumption constructs different layers of meanings and creates different targets for commitment, it leads to unique behavior routines and patterns. Our research provides implications for research on committed DS consumption because we suggest that the daily use is not a sufficient nor a necessary condition for committed use. Individuals might use DS products on a daily basis strictly; they might use DS products for a few weeks/months, stop for a while, and re-start; they might be able to flexibly arrange their DS use according to specific conditions. But, they all belong to committed users of DS because they 1) invest instrumental inputs (e.g., money) in DS consumption; 2) consume DS consistently over a long term; and 3) form an enduring intention to

develop and maintain a stable long-term DS consumption. By rejecting equating daily use with committed use, we emphasize that there is no universal pattern of committed DS use – committed users might demonstrate diversified actions and routines and are committed to different targets.

Implications for DS marketers. Our research provides implications for DS marketers in terms of targeting, product design, branding, and communication. First, our research confirms that it is reasonable and effective to target adult women in China for DS marketing as well as other health solutions (e.g., complementary and alternative medicines) and issues related to health promotion. We agree with Balbo (2007) that it is women who take primary responsibility for their own health and their family members' health, such as child-rearing and caring for those who are in ill or aging. Moreover, in contemporary modern society where a higher degree of individuality and reflexivity is developed, adult women are experiencing increasing obligations and pressures in time demand and organization because they have to cope with often contradictory flows of information by adjusting themselves to expectations of self-learning (Balbo, 2007, p. 134-135). As a consequence, by understanding the needs of this group of individuals, DS marketers could get the right information about the right targets at the right time.

Based on our research, adult women are significantly influenced by the habitus in morality in femininity, which includes two main dimensions: an individual dimension of pursuing feminine beauty ideal and a social dimension of looking after all core family members' health decisions and arrangements (e.g., child, husband, parents, and parents-in-law). Accordingly, the prenatal and pregnancy stages are the perfect time for DS marketers to take action for targeting and promotion; women in the 30 to 40 years old

segment are a perfect target for promoting skincare and bodycare DS products as these women become anxious about their “obligation to fight against aging” due to the influence from Traditional Chinese medical belief where this age has been indicated as a turning point of woman’s health condition.

In addition, our data show that these individuals are influenced by a moral responsibility in keeping thriftiness for the purpose of perpetuating the family. Combined with the moral obligation in child-rearing, they care more about the expense of their own DS consumption and try to find a lower price product, but not for their children’s DS. Based on Chinese cultural emphasis on social self, i.e., viewing the self in social relationships and the inter-generational perspective (West, 1989), the individuals express a willingness to sacrifice their own benefits for fulfilling the next generation’s needs. By recognizing their tradeoff in price and product category, DS marketers could make a more effective pricing strategy. Moreover, our research suggests that some individuals (those adopting a consumerism strategy) are more inclined to try new technologies and innovations in the self-care marketplace (e.g., home appliances, cosmetic surgeries). It is more effective to locate and target these individuals for new products and services.

Our research provides implications for the design of the DS product attributes. Our findings reflect consumers’ need for easy-to-use products and well-flavored products. Both requirements link to the experience values of DS products. Consumers might hold various reasons for requiring a good consumption experience. For example, individuals who adopt the consumerism strategy seek hedonic value and novelty-seeking experience from DS consumption and exploration. Hence, they are more interested in products with a good taste and swallowing experience. In addition, they build a positive

attitude to the products packaged in a manner that shows aesthetics and fun, such as “pink bottle” and “candy shape”. Another group of consumers adopt the disciplined use strategy and emphasize the long-term persistent and strictly regular use of DS products. Thus, they look for and become committed to products with good design, which could help them weaken the discomfort and overcome the challenge in keeping a persistent and disciplined use.

In addition to the implications for product design, our research helps DS marketers recognize the pivotal role played by the brand in Chinese DS consumers’ product choice. Despite the fact that our informants are practicing different strategies and pursuing different benefits from DS consumption, they show one commonality in DS consumption behavior – all of them purchase Western DS brands. For Chinese consumers, the choice of Western DS brands is because the brands have a long history, have a specialty in DS innovation and production, and do not have quality issues due to the strict supervision and oversight from governments. All these criteria are considered for the purpose of guaranteeing the safety and quality of the product; the strong concerns regarding product safety and quality is rooted in Chinese culture where the impersonal and institutional trust is low.

Moreover, for many Chinese consumers, the choice of Western DS brands results from the word-of-mouth effect (i.e., everyone uses Western brands, so Western brands must be the best choice). The strong power of word-of-mouth (including offline and online word-of-mouth) is enhanced by the Chinese *guanxi* relationship where bonding and conformity are weighed as important. Therefore, for Chinese local DS brands, how to build good word-of-mouth, and trust becomes the most urgent task.

Lastly, our research has implications for brand-to-consumer communications. Consumers pay attention to the information provided by product packaging and labeling, especially the information in terms of use instructions, effective ingredients, and the number of effective ingredients (the higher amount is indicative of higher quality). In addition, consumers pay attention to the information provided by the brand website and brand advertising brochure regarding the science and technology elements of the product. For example, consumers have a more positive perception of product safety and efficacy if they learn about the experimental evidence and statistical reports that prove the effectiveness of DS products in health promotion. More than that, consumers are likely to perceive DS products as mythical solutions for health problems as the mythical narratives are included in DS product communications (e.g., the name of DS product, the advertising materials); supplemented with the scientific and technological evidence, consumers are more convinced of the lay ideological belief in DS as a mythical solution.

In addition to brand-to-consumer communication, our research highlights the critical role played by influencer marketing in the context of China, where people are living in a guanxi social structure. The key influencers include: health professionals who have social media accounts; key opinion leaders who conduct product trials, do reviews, and provide suggestions for users; normal users who post product use experience and feedback on social media; normal users in personal social life who have accumulated a high level of health and health promotion knowledge. We confirmed that all these influences exist in the marketplace but to a different extent for different individuals.

For example, self-learning consumers trust and refer to health professionals only; consumerism consumers learn about “internet star” products from key opinion leaders on

social media (e.g., celebrity, blogger); disciplined-use consumers check about other normal users' consumption experiences at their early stage of consumption; socializing consumers mainly rely on the referent others in their personal social life for opinions. When targeting different groups of people, DS marketers could consider adopting different influencer marketing strategies, to maximize their impact on individual decision making.

6.3 Contributions to the Health Promotion Literature

The improvement of health and the reduction of health inequalities have been defined as two equally important overarching goals in the field of public health; health promotion is well established as one of four core functions of public health, at the same level as prevention, protection, and surveillance (Potvin & McQueen, 2007). Our research confirms the importance of health promotion in a contemporary individual life – individuals from the mass elite segment in emerging markets like China are actively participating in health promotion by engaging in DS consumption.

Moreover, we concur with previous research in terms of the updated understanding of health, which is recognized as a social phenomenon as well as biological and psychological one (Potvin & McQueen, 2007). In particular, our research resonates with health promotion literature by uncovering that, as individuals are increasingly self-motivated to manage and improve their health, they rely on practical learning through various kinds of socialization; they formulate and employ lay health knowledge and beliefs as a legitimate source that complements the mainstream scientific

knowledge in the construction of evidence to support or evaluate health-related actions (McQueen, 2001).

Further, we suggest that it is not fair to perceive lay health beliefs as irrational, which can only lead to negative health outcomes. Our research supports St. James' (2011) critique of the view that regards "magical thinking" as a cognitive distortion that leads to irrational and naïve behavior. To illustrate, in our research, some informants have accumulated a high level of mainstream health knowledge (e.g., Western diagnosis-treatment knowledge, mainstream nutrition knowledge, and DS knowledge) and mainly rely on the scientific knowledge for making a rational health-related decision; however, these individuals also keep using DS products that might not be functionally effective.

According to them, they are aware of the ineffectiveness of the DS products, but they are willing to pay the price for achieving a happiness/feeling of hope, which is brought by the symbolic meanings contained in the DS products. They apply both lay beliefs, e.g., emotional health, or mental health, largely determines physical health, and scientific knowledge, e.g., they do self-learning about the DS products and make sure the DS products might not be effective, but must be safe, in their decision making for health promotion.

In addition, to confirm the possibility of getting a positive effect by applying lay beliefs, we further suggest a boundary condition. Based on our findings, we suggest that, as long as individuals are capable of combining mainstream scientific knowledge and lay health beliefs, they could become self-reflexive enough to improvise their actions for maximizing health improvements.

Thus, in order to help individuals equip themselves with scientific knowledge that assists with their information processing regarding lay health beliefs, learning programs and educational intervention are called for by researchers. Our research has implications in this aspect. First, we identify the value of a multi-stakeholder perspective. Due to technological development and globalization, multi-dimensional lifelong learning is facilitated, in which multiple stakeholders play a role. In our research, the stakeholders include: individuals, close social ties in their life, health professionals, marketers, and social media influencers.

The different voices indeed offer choices for individuals. But they also create new tensions and stresses due to information overload and sometimes contradictory flows of information from authorities (e.g., health professionals) and non-authorities (e.g., marketers, social media influencers). The tensions and stresses are enhanced by the weakened power held by health authorities like doctors. For better or for worse, individuals often feel that they have a more informed understanding of their bodies and health conditions than their medical doctors. Lay health meanings and values serve to legitimate the voice of consumers whenever they choose a holistic path that diverges from mainstream medical recommendations and pronouncements.

Hence, it is important to organize learning programs in which health professionals are able to amplify their voices in an effective and efficient way. Our research identifies the obstacles in individuals' learning from health professionals, for example, the pressure in time arrangement, and the noise created by marketers on social media. Our research provides implications for overcoming the obstacles. For example, we suggest the effectiveness of going back to traditional media, e.g., books, and move traditional formats

of education to the social media environment, e.g., online training and tutorials, in health knowledge education.

Further, we confirm the stress felt by individuals in taking time to learn from reading books or taking online classes. In order to save more disposable time for individuals, we suggest a further combination of traditional media and digital media. For example, we could develop programs consisting of fragmented learning through health professionals' and medical institutions' social media accounts. In this way, aided by information technologies, individuals could make use of fragmented time throughout the day to learn health knowledge, and quickly search for reliable information whenever they have the need.

Lastly, our research emphasizes the role of family upbringing in healthy lifestyle development and the importance of health knowledge transmission between generations. Family upbringing influences individuals in an implicit and habitual manner; although individuals might not have the capability of explicitly processing health promotion information, they are likely to maintain healthy activities as routines, which leads to a healthy lifestyle. The acknowledgment of influence from family confirms that health-related lifestyles, despite the fact that they may be relevant for health, may be practiced habitually, or with no deliberate intention towards any specific health-related outcome (Abel, 2007, p. 61).

Importantly, we agree with health promotion research in terms of the key role of adult females in family-level health promotion activities and arrangements. It is reasonable to introduce a gender perspective into health promotion research and focus on women who are primarily in charge of their own health as well as the wellbeing and

health of family members (older people, children, and husbands). Hence, it is crucial to examine the socialization activities and the possible social consequences surrounding adult women's health promotion, as they are confronting increasingly demanding tasks regarding the social expectations from a learning-based society.

6.4 Contributions to the Consumer Behavior Literature

Our research findings have additional implications for consumer behavior literature in the following aspects: the influence of habitus, structure-agency interplay, the role of cultural capital, and time capital in consumption.

Bourdieu (1977) develops the concept of habitus, the “internalization of externality” (p. 72), to overcome subjective-objective dualism. Consisting of enduring habits, embodied predispositions, and naturalized styles of thought, the habitus draws a cognitive map of an individual's social world that offers various choices appropriate for that person in a particular situation (Bourdieu & Wacquant, 1992). By proposing the concept of habitus, Bourdieu emphasizes that an individual indeed has agency, i.e., he or she is able to figure out his or her circumstances and generate strategies and practices appropriate to a particular situation; but the individual's agency is restricted and/or shaped by the structure, i.e., his or her perceptions are typically shaped by their habitus as the individual mind is socially bounded and constructed within the limits of experience, upbringing, and training (Bourdieu & Wacquant, 1992).

However, Bourdieu's theorization of structure-agency dialectic and his conceptualization of habitus has been criticized by social science researchers; for example, the concept of habitus is judged to be incompatible with his practice theory, and

said to retreat into objectivism (King, 2000). Our research findings decline the critique in this aspect and provide evidence for the significant influence of habitus on individual practice and as a useful construct for theorizing.

Our research identified the various forms of habitus in the field of DS consumption in China, including the guanxi social structure and its sub-constructs such as empathy, reciprocity, bonding, affection, trust, and face; the low trust culture where in-group members are unconditionally trusted, but out-group members are pervasively distrusted; the morality in femininity consisting of both individual dimension and social dimension; and the ideology of Yin-Yang balance which has created multiple health-related beliefs such as the emphasis of a holistic and balanced health input, the slow effect nature of the treatment, and the equality between mind and body. Discourses of the abovementioned four major types of habitus permeate our interviews; our informants selectively act upon the multiple types of habitus and their sub-dimensions in order to make the best decisions in particular situations and to relieve the tensions and stresses they meet in the actual health practices.

We have provided detailed descriptions and illustrations for the four strategies practiced by our informants in DS consumption and health promotion. It is clear that, in each strategy, individuals have activated the predispositions rooted in their minds in support of their decision making and improvising activities in daily life. Furthermore, the lifestyles developed through their daily practices either reproduce their old habitus or transform their old habitus, which not only reflects Bourdieu's concept of habitus but also verifies and supports Bourdieu's theorization on the structure-agency mechanism.

To further illustrate the power of Bourdieu's structure-agency mechanism in interpreting and explaining consumer behavior, our research extends its application in consumer behavior research and targets a new research context – we examine the consumption behaviors of a specific social class, the mass elites, in a specific context, China. Holt (1998) has stated that Bourdieu's theory offers the most comprehensive and influential attempt to develop a theoretical framework to measure the social patterning of consumption in the contemporary social world. In particular, Bourdieu's theory of structure-agency dialectic has been applied to examine contemporary consumption in the US (Holt, 1998), and has made contributions to consumer behavior research by emphasizing a shift from focusing on consumption objects to actual practices and highlighting the importance of taking socio-historical settings into account. Accordingly, consumer behavior researchers highlight the disconnect between consumer research literature and new patterns of the broader socio-economic structures that are emerging throughout the global economy (Ustuner & Thompson, 2012), for example, the mass elite segment from less industrialized countries (Ustuner & Holt, 2010).

Therefore, China, as one of the less industrialized countries, represents the cultures that are opening to the West but keeping their own cultural roots. Mass elite females in China represent a specific socio-economic context worthy of in-depth exploration. We apply Bourdieu's theory of structure-agency dialectic and theory of practice to investigate the consumer behaviors of mass elite females in China, where various forms of habitus are deep-rooted in its long history while forces in contemporary West (e.g., the digital revolution and global economy) have entered and made an impact on individuals' social life. By combining Giddens's (1991) theory on late modernity, we

dig deep into the social world of Chinese mass elite females' DS consumption and comprehensively analyze and present the aspects in the 'structure', the corresponding practices for gaining 'agency', the interplay between structure and agency, and the consequences of the interplay including the formation of particular lifestyles, self-identity development, and social distinctions.

Based on the findings in terms of structure, agency, and their interplay, we contribute to our understanding of the role played by cultural capital in contemporary consumption and social interaction. We confirmed that consumption objects no longer serve as accurate representations of consumer practices, and social distinction is more a matter of practice (Holt, 1998). That is, the actual practices accentuate consumers' embodied cultural capital instead of the goods consumed. In our research context, individuals are taking the same product category – DS, but adopting different strategies to accumulate and eventually hold different forms and levels of cultural capital (e.g., knowledge of medical science, knowledge of DS products and skills for targeting the best deals), which form unique lifestyles that help differentiate them from others in the field.

Our research illustrates that the embodied cultural capital is the most substantive and distinctive component of habitus as well as lifestyle. As the habitus structures action through a process of creative typification to particular situations (Holt, 1998), individuals start to internalize the emergent complex of rules, norms, values, and expectations as a form of embodied cultural capital; the form of embodied cultural capital, in turn, represents a set of socially rare and distinctive tastes, skills, and knowledge that are recognized as legitimate bases for claiming prestige, respect, and/or authority within a given field (Bourdieu & Wacquant, 1992).

In addition, we emphasize the importance of treating time as a capital in the field of health consumption. For the accumulation of embodied cultural capital, Bourdieu argues that the duration of education might be the “least in-accurate” measure (Bourdieu, 1986. p. 244). We confirmed that “time of education” would have to include all stages and forms of lifelong learning, including acculturation such as family education, peer group socialization, work environment experience, and self-motivated learning in personal time.

To pursue self-learning, individuals need an investment of a large amount of disposable time for achieving learning outcomes. Thus, the disposable time has become an essential capital that makes a large impact on health consumption and promotion. In addition, the time capital invested in the consumption has become an asset owned by the consumer which certifies his or her morally responsible practice (e.g., the disciplined and persistent DS use) and his or her cultural capital accumulation and expertise (e.g., taking time to ‘do homework’ for finding the best deal), which, in turn, legitimizes their prestige and status in the given field.

6.5 Limitations and Suggestions for Future Research

This section discusses the limitations of, and outline opportunities for future research that can build on the foundation laid by, the current research. Based on our empirical research findings, suggestions for future research are made concerning: 1) the roles played by other stakeholders in DS marketplace (e.g., other demographic groups, such as different age groups and socioeconomic status and non-users); 2) the consumption behaviors of specific product sub-categories and behavioral changes before

and after major events such as Covid-19 pandemic; 3) the global goods/services marketing; 4) product market evolution and social media; and 5) the transformation process from an initial user to a committed user. In addition to the suggestions based on our data analysis and interpretation, we highlight the suggestions for future research based on the DS consumption research model developed by our systematic literature review. We re-emphasize that our current research study only addresses a few but not all research opportunities identified from the literature review; future research could focus on other research opportunities to conduct investigations of DS consumption.

The roles played by other stakeholders in the DS marketplace. Our research targets individuals who are mainly in charge of the family's DS consumption as a research sample. But, as we stated earlier, multiple stakeholders exist in the DS marketplace, each of whom may have an influence on the DS consumption pattern and culture. Health and wellness have been seen within the context of profit-making and market mechanisms, and have experienced a dramatic shift affecting relations of authority, trust and legitimization between doctors and patients as well as the official health system and everyday health practices. Hence, we suggest future research to target other major stakeholders in the DS marketplace, such as the health experts (doctors and nutritionists), DS sellers, and DS advocates on social media. Hearing different voices and looking at the DS consumption phenomenon from multiple perspectives could provide us a more comprehensive and dialectical understanding of the social mechanism inside the DS marketplace.

In addition, the actual users of DS products from other demographic groups (e.g., the older people in the family) could be interviewed since their use experience and

feedback regarding product performance seem to have an influence on the decision makers and purchasers (the next generation) in the family. Also, non-users and occasional users should be interviewed so that we could discover more negative opinions (or positive) of DS consumption; including these control groups and investigating their different perspectives will enhance our understandings of DS benefits and risks.

The consumption behaviors of specific product sub-categories and behavioral changes after Covid-19 pandemic. Our research spotted some commonly used DS sub-categories in the marketplace, e.g., multivitamin and multimineral, skincare DS products, weight management DS products, and children's DS products. As a first step, we treat DS consumption as more of a gestalt and holistic experience with various parts that cannot be separated. Hence, we view each person's DS consumption as a whole, to uncover the benefits they have achieved in DS consumption which are related to their healthy lifestyle, social status, and self-identity.

That means we did not separate the sub-categories and examine each one specifically. But we admit the potential values of more specific examinations, and we suggest future research focus on specific product categories in the marketplace, as we may attain a deeper understanding of an individual's motivations when investigating one particular product category. For example, as illustrated in the idiographic example in the last chapter, our informant maintains continuing and daily use of calcium but uses skincare DS products much more casually. The discrepancy in use behaviors implies the informant's different attitudes and perceptions of those sub-categories of DS. By conducting more specific investigations, we could provide more implications for the marketers and health promotion campaigns.

Moreover, as the interviews were conducted from January 2020 to May 2020, our informants in China were experiencing social distancing during the Covid-19 pandemic. Since our research focused on their retrospective account of DS consumption story, we did not go deep to the changes within pandemic or possible changes after pandemic. We suggested future research to address the possible changes and new patterns regarding DS consumption as well as other complementary and alternative medicine consumption.

The global goods/services marketing. The use of complementary and alternative medicines (CAM) has become widespread worldwide. In the context of what is now a global market and of global communication networks, an extraordinary variety of options are offered in both Western marketplaces and non-Western marketplaces. We revealed the large influence of the pursuit of a youthful look on Chinese DS users, their use practices and patterns, and the impact of DS use on their lifestyles. The pursuit of anti-aging also exists in Western cultures. Only through comparative studies can we uncover the similarities and differences in Western and non-Western consumers' perception, attitude, and the actual behavior with the same DS products. We suggest future research to conduct cross-cultural comparative studies, which will contribute to our understanding of the globalization and localization dyad and help uncover additional implications for global goods/services marketing.

Product market evolution and social media. Moving a step forward from the last point, we argue for the pivotal role of social media in product market evolution, especially product that is closely related to emerging technologies and advanced science. Our research findings indicate that DS consumerism practitioners are very open to cutting-edge healthcare solutions that involve advanced technologies (e.g., home massage

appliances, and cosmetic surgeries). Moreover, they stated that they became familiar with the most emerging technological products through social media interactions with key opinion leaders (e.g., bloggers on RED). However, they also recalled their tensions regarding the overloaded and sometimes contradictory information on social media.

In fact, research has suggested that the emergence of social media has resulted in the development of new arenas where multiple stakeholders, including consumers, discuss and debate forthcoming product innovations (Seidel, Hannigan, and Phillips, 2020). Seidel et al. (2020) integrated insights from the sociology of rumor and the affordances of social media to explain how stakeholders on social media exchange “rumors” and “propositions” about new product innovation, and also shape technological frames in a way not accounted for by prior models of innovation or product market evolution. Essentially, they suggested that the influence of social media on product market evolution exists beyond the release to the pre-release stage. We suggest future research projects to integrate sociological theories into the investigations of health promotion product development in the context of social media.

The transformation process from an initial user to a committed user. The thesis project focuses on the “committed DS users” and interprets their committed use behaviors and underlying social mechanisms. Further, we identified that the different strategies are not exclusively adopted and practiced by our informants, e.g., individuals who primarily practice self-learning still apply consumerism values in their consumption. If the different strategies are not exclusive to each other, we want to know the mechanisms and dynamics in their interplay process. How do consumers transform from initial users to committed users? What is the relationship between the strategies? And,

what are the factors that affect their differential use of the strategies? We suggest future research to find answers to these questions.

Combining our empirical findings and our DS consumption research model. As a concluding remark of the dissertation, we link our empirical research findings back to the DS consumption research model developed from our comprehensive literature review of DS consumption research. First, we emphasize that we have developed a research model for DS consumption and identified many research gaps and opportunities based on the literature review. Second, we highlight that the current study started by addressing only a few research opportunities, but ended up with producing research findings that support many research gaps proposed in the DS consumption research model. Third, we underscore the additional insights that are specifically gained through the current study and added to the research model.

In Figure 6.1, we present the extended DS research model. It is important to note that we summarized and synthesized all important elements in inputs, processes, and outputs in DS consumption that have been mentioned by extant literature, including the ones that have been widely researched and the ones that lack research attention. To illustrate, we underscore the aspects that have been widely investigated in previous research by using the grey font color in Figure 6.1, which leaves us many research gaps and opportunities (the texts in black font color). We have provided a detailed description and discussion of the research gaps and opportunities in Chapter 2. Future research could address these research opportunities and fill in the gaps to help us develop a better understanding of DS consumption.

As we stated earlier, the current study can only address a few (not all) research opportunities (as illustrated in Figure 2.4). In Figure 6.1, we use italic texts to demonstrate the proposed elements in the model that are supported by our empirical research findings. By comparing Figure 2.4 and Figure 6.1, we can clearly see that many more elements are covered by our research than that we originally planned. For example, in terms of the “inputs”, we identified that we would mainly address the research opportunities of social media’s influence on individual’s DS consumption and culture’s influence on individual’s DS consumption. However, based on our research findings, we have evidenced the existence and large influence of consumer inputs such as habitual behavior, emotion, time and money, marketer inputs such as product category and design, business-to-consumer communication, and digital channels, and environmental inputs such as influence of referent others, on individual’s DS consumption.

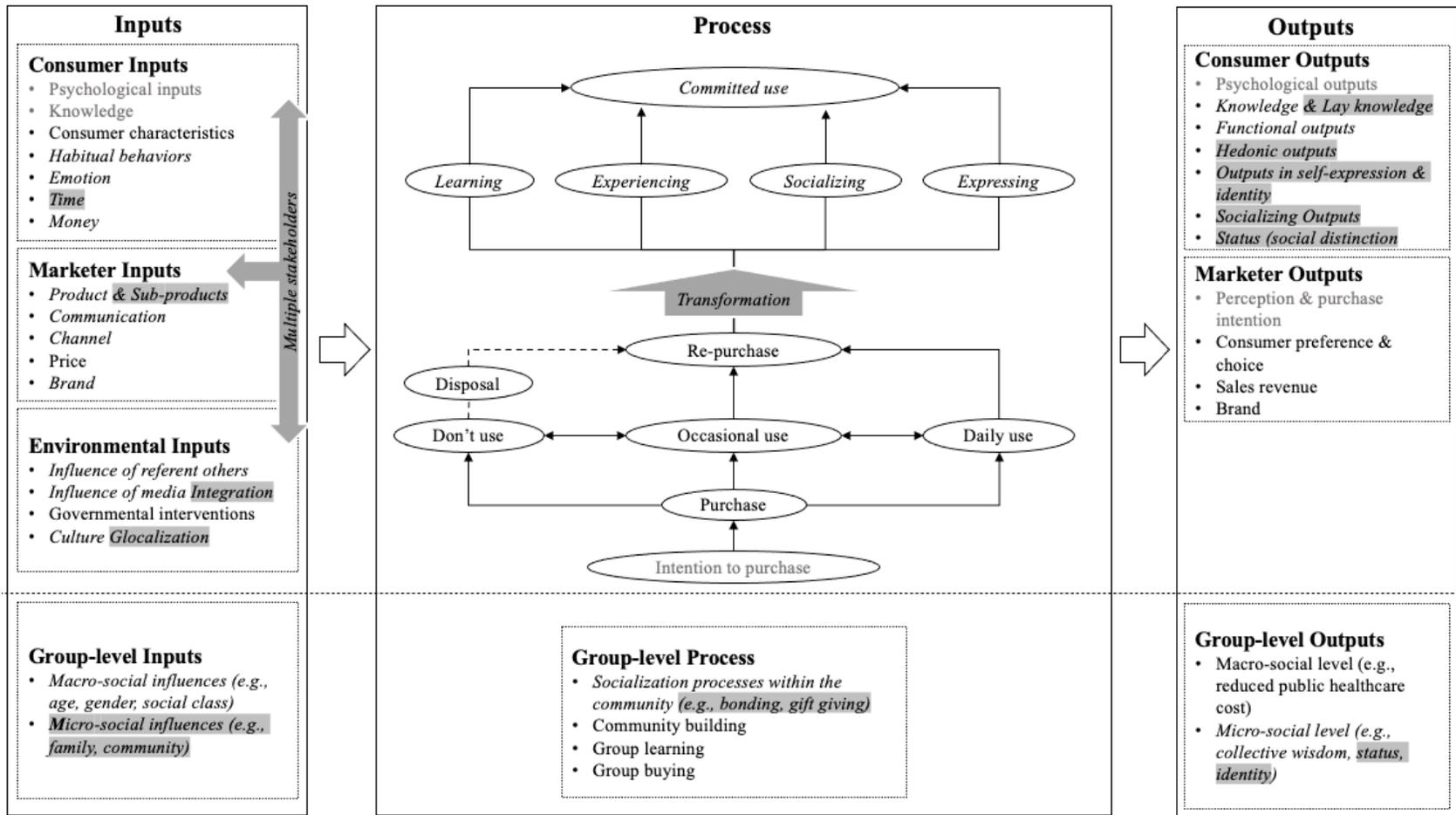


Figure 6.1 Extended Model of Dietary Supplements Consumption

The additional implications are attributed to the exploratory nature and the interpretivist research approach of our study. By collecting, analyzing, and interpreting a rich set of in-depth interview data, we are able to understand individuals' DS consumption behaviors more comprehensively.

Moreover, our research findings are not only providing support for the research model, but also extending the research model by adding additional insights. We use texts highlighted in dark grey to show the additional implications of our empirical research in Figure 6.1, which have been discussed in the previous sections in this chapter. For example, our research not only demonstrates the value of investigating consumer inputs, marketer inputs, or environmental inputs, separately, but proposes the importance of undertaking a multi-stakeholder perspective in conducting DS consumption research. By treating "DS social commerce in China" as a field and health promotion as a social phenomenon, examinations with multiple stakeholders in the field (e.g., consumers, marketers, media, government) will help us understand the social interactions within the field and make sense of the social mechanism underlying the logic of practice in the field. That is, our research underscores the holistic and dynamic process view of DS consumption. Another example that emphasizes the dynamic process view is that we suggest future research to examine the transformation process from the initial user to committed user and examine whether it is a variance or process model.

Some other insights added to the model include but are not limited to: personal disposable time has become a valuable capital in contemporary social life; sub-categories in the DS marketplace are associated with different meanings and benefits by consumers; an integration of traditional print media and digital media might be essential for health

knowledge education; lay health knowledge and mainstream health knowledge may collectively assist consumers to gain reflexivity and aid decision making; and the globalization-localization dyad plays a pivotal role in constructing divergent consumption meanings across cultures. In addition, by locating a specific context to conduct our research, we are able to uncover the unique consumption behaviors and social processes in China, such as using DS in bonding and gift giving, the influence of family on DS consumption, and actively leading DS use in in-group but not out-group, which offers implications for further research on health consumption in China as well as other similar cultures which are open to the West but retain their traditions.

To conclude, Chapter Six discusses the contribution of the dissertation to the DS consumption literature, organized by implications for research and implications for marketers. Additional contributions of the dissertation to health promotion literature and consumer behavior literature are discussed. The chapter concludes by discussing the limitations of the current research and making suggestions for future research. By linking our research findings back to the DS research model developed by our literature review, we highlight the implication of our research for building a research road map for DS consumption studies.

References

- Aaker, D. A. (1991). *Managing brand equity*. New York: Free Press.
- Abel, T. (1991). Measuring health lifestyles in a comparative analysis: Theoretical issues and empirical findings. *Social Science & Medicine*, 32(8), 899-908.
- Abel, T. (2007). Cultural capital in health promotion. In D. V. McQueen, I. Kickbusch, L. Potvin, L. Balbo, T. Abel, & J. M. Pelikan (Eds.), *Health and modernity* (pp. 43-73). New York: Springer.
- Abel, T., & Frohlich, K. L. (2012). Capitals and capabilities: Linking structure and agency to reduce health inequalities. *Social Science & Medicine*, 74(2), 236-244.
- Abel, T., Cockerham, W. C., & Niemann, S. (2000). A critical approach to lifestyle and health. In J. Watson & S. Platt (Eds.), *Researching health promotion* (pp. 54-78). London: Routledge Press.
- Adkins, R. N., & Corus, C. (2009). Health literacy for improved health outcomes: Effective capital in the marketplace. *Journal of Consumer Affairs*, 43(2), 199-222.
- Agrawal, N., Menon, G., & Aaker, J. L. (2007). Getting emotional about health. *Journal of Marketing Research*, 44(1), 100-113.
- Ahn, B. I., Bae, M. S., & Nayga, R. M. (2016). Information effects on consumers' preferences and willingness to pay for a functional food product: The case of red ginseng concentrate. *Asian Economic Journal*, 30(2), 197-219.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50, 179-211.
- Akerlof, G. A. (1978). The market for "lemons": Quality uncertainty and the market mechanism. In *Uncertainty in economics* (pp. 235-251). Academic Press.

- Alavi, M., & Leidner, D. E. (2001). Knowledge management and knowledge management systems: Conceptual foundations and research issues. *MIS Quarterly*, 25(1), 107-136.
- Alexander, I. E. (1988). Personality, psychological assessment, and psychobiography. *Journal of Personality*, 56, 265-294.
- Allott, J., Gibb, J., & Akoorie, M. (2017). Low propensity to trust and guanxi: A model of creation strategies in Chinese small businesses. In *Academy of Management Proceedings* (2017, No.1, p. 12030). Briarcliff Manor, NY 10510: Academy of Management.
- Alp, Z. Z. & Öğüdücü, Ş. G. (2018). Identifying topical influencers on twitter based on user behavior and network topology. *Knowledge-Based Systems*, 141, 211-221.
- Aral, S., Dellarocas, C., & Godes, D. (2013). Introduction to the special issue social media and business transformation: A framework for research. *Information Systems Research*, 24(1), 3-13.
- Arnould, E. J., & Thompson, C. J. (2005). Consumer culture theory (CCT): Twenty years of research. *Journal of consumer research*, 31(4), 868-882.
- Arsel, Z., & Bean, J. (2013). Taste regimes and market-mediated practice. *Journal of Consumer Research*, 39(5), 899-917.
- Bailey, R. L., Gahche, J. J., Lentino, C. V., Dwyer, J. T., Engel, J. S., Thomas, P. R., ... & Picciano, M. F. (2010). Dietary supplement use in the United States, 2003-2006. *The Journal of Nutrition*, 141(2), 261-266.
- Baker, D. W., Parker, R. M., & Clark, W. S. (1998). Health literacy and the risk of hospital admission. *Journal of General Internal Medicine*, 13(12), 791-798.

- Balbo, L. (2007). Thinking Health Promotion Sociologically. In D. V. McQueen, I. Kickbusch, L. Potvin, L. Balbo, T. Abel, & J. M. Pelikan (Eds.), *Health and modernity* (pp. 129-143). New York: Springer.
- Barnes, K., Ball, L., Desbrow, B., Alsharairi, N., & Ahmed, F. (2016). Consumption and reasons for use of dietary supplements in an Australian university population. *Nutrition, 32*(5), 524-530.
- Barrena, R., & Sánchez, M. (2010). The link between household structure and the level of abstraction in the purchase decision process: An analysis using a functional food. *Agribusiness, 26*(2), 243-264.
- Barthes, R. (1972). *Mythologies* (A. Lavers, Trans.). London: Cape.
- Bauman, Z. (2000). *Liquid modernity*. New York: Polity Press.
- Beck, U. (1992). *Risk society: Towards a new modernity*. London: Sage Publication.
- Beck, U., Giddens, A., & Lash, S. (1994). *Reflexive modernization: Politics, tradition and aesthetics in the modern social order*. Stanford, CA: Stanford University Press.
- Becker, H. S. (1960). Notes on the concept of commitment. *American Journal of Sociology, 66*(1), 32-40.
- Belk, R. W. (1985). Materialism: Trait aspects of living in the material world. *Journal of Consumer Research, 12*(3), 265-280.
- Belk, R. W. (1988). Possessions and the extended self. *Journal of Consumer Research, 15*(2), 139-168.
- Belk, R., & Sobh, R. (2019). No assemblage required: On pursuing original consumer culture theory. *Marketing Theory, 19*(4), 489-507.

- Belk, R. W., Østergaard, P., & Groves, R. (1998). Sexual consumption in the time of AIDS: A study of prostitute patronage in Thailand. *Journal of Public Policy & Marketing, 17*(2), 197-214.
- Berger, P. L., & Luckman, T. (1967). *The social construction of reality: A treatise in the sociology of knowledge*. New York: Irvington Publishers.
- Bhattacharjee, A., Bolton, L., & Reid, A. R. (2009). The effects of drug and supplement marketing on a healthy lifestyle. *ACR North American Advances, 36*, 833.
- Bishop, F. L., Yardley, L., & Lewith, G. T. (2008). Treat or treatment: A qualitative study analyzing patients' use of complementary and alternative medicine. *American Journal of Public Health, 98*(9), 1700-1705.
- Björkman, I., & Kock, S. (1995). Social relationships and business networks: The case of western companies in China. *International Business Review, 4*(4), 519-535.
- Blanck, H. M., Serdula, M. K., Gillespie, C., Galuska, D. A., Sharpe, P. A., Conway, J. M., Khan, L. K., & Ainsworth, B. E. (2007). Use of nonprescription dietary supplements for weight loss is common among Americans. *Journal of the American Dietetic Association, 107*(3), 441-447.
- Blendon, R. J., DesRoches, C. M., Benson, J. M., Brodie, M., & Altman, D. E. (2001). Americans' views on the use and regulation of dietary supplements. *Archives of Internal Medicine, 161*(6), 805-810.
- Blumer, H. (1969). *Symbolic interactionism: Perspective and method*. Englewood Cliffs, NJ: Prentice Hall.

- Bolton, L. E., Bhattacharjee, A., & Reed, A. (2015). The perils of marketing weight-management remedies and the role of health literacy. *Journal of Public Policy & Marketing*, 34(1), 50-62.
- Bolton, L. E., Reed, A., Volpp, K. G., & Armstrong, K. (2008). How does drug and supplement marketing affect a healthy lifestyle? *Journal of Consumer Research*, 34(5), 713-726.
- Borgmann, A. (1992). *Crossing the postmodern divide*. Chicago: University of Chicago Press.
- Bourdieu, P. (1977). *Outline of a theory of practice*. Cambridge, U.K.: Cambridge University Press.
- Bourdieu, P. (1984). *Distinction: A social critique of the judgement of taste*. Cambridge, Mass: Harvard University Press.
- Bourdieu, P. (1986). The forms of capital. In J. G. Richardson (Ed.), *Handbook of theory and research for the sociology of education* (pp. 241–258). New York: Greenwood.
- Bourdieu, P. (1990). *The Logic of Practices*. Cambridge, U.K.: Polity Press.
- Bourdieu, P., & Wacquant, L. J. D. (1992). *An invitation to reflexive sociology*. Chicago: University of Chicago Press.
- Brannen, M. Y. (1992). Cross-cultural materialism: Commodifying culture in Japan. In F. Rudmin & M. Richins (Eds.), *Meaning, Measure and Morality of Materialism* (pp. 167-180). UT: Association of Consumer Research.

- Bryant, C. G. A., & Jary, D. (2003). Anthony Giddens. In G. Ritzer (Ed.), *The blackwell companion to major contemporary social theorists* (pp. 247-273). MA: Blackwell Publishing.
- Burke, R. R., & Srull, T. K. (1988). Competitive interference and consumer memory for advertising. *Journal of Consumer Research*, *15*, 55-68.
- Burrell, G., & Morgan, G. (1979). *Sociological paradigms and organizational analysis*. London: Heinemann.
- Busalim, A. H., & Hussin, A. R. C. (2016). Understanding social commerce: A systematic literature review and directions for further research. *International Journal of Information Management*, *36*(6), 1075-1088.
- Campbell, C. (1987). *The consumer ethic and the spirit of modern hedonism*. London: Basil Blackwell.
- Cardinal, B. J., & Engels, H. J. (2001). Ginseng does not enhance psychological well-being in healthy, young adults: Results of a double-blind, placebo-controlled, randomized clinical trial. *Journal of the American Dietetic Association*, *101*(6), 655-660.
- Celsi, R. L., Rose, R. L., & Leigh, T. W. (1993). An exploration of high-risk leisure consumption through skydiving. *Journal of Consumer Research*, *20*(1), 1-23.
- Chan, K. (2003). Materialism among Chinese children in Hong Kong. *International Journal of Advertising and Marketing to Children*, *4*, 47-61.
- Chandra, A., Miller, K., & Willis, W. K. (2005). Perceptions, attitudes and beliefs of elderly consumers towards vitamin and mineral supplements. *Journal of Medical Marketing*, *5*(4), 353-362.

- Charmaz, K. (1983). The grounded theory method: An explication and interpretation. In R. M. Emerson (Ed.), *Contemporary field research* (pp. 109-126). Boston: Little Brown and Company.
- Charmaz, K. (2003). Qualitative interviewing and grounded theory analysis. In J. A. Holstein & J. F. Gubrium (Eds.), *Inside interviewing: New lenses, new concerns* (pp. 311-330). Thousand Oaks, CA: Sage.
- Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis*. Thousand Oaks, CA: Sage.
- Charmaz, K. (2008). Constructionism and the Grounded Theory. In J. A. Holstein & J. F. Gubrium (Eds.), *Handbook of constructionist research* (pp. 397-412). New York: The Guilford Press.
- Chen, C. Y., Mathur, P., & Maheswaran, D. (2014). The effects of country-related affect on product evaluations. *Journal of Consumer Research*, *41*(4), 1033-1046.
- Chen, H., Chiang, R. H., & Storey, V. C. (2012). Business intelligence and analytics: From big data to big impact. *MIS Quarterly*, *36*(4), 1165-1188.
- Chen, K. C., & Jang, S. J. (2010). Motivation in online learning: Testing a model of self-determination theory. *Computers in Human Behavior*, *26*(4), 741-752.
- Chen, S. Y., Lin, J. R., Kao, M. D., & Hang, C. M. (2005). The usage of dietary supplements among elderly individuals in Taiwan. *Asia Pacific Journal of Clinical Nutrition*, *14*(3), 230-237.
- Choo, C. W. (1998). *The knowing organization: How organizations use information to construct meaning, create knowledge, and make decisions*. Oxford: Oxford University Press.

- Chou, L. F., Cheng, B. S., Huang, M. P., & Hsu, W. L. (2004). Guanxi networks and members' effectiveness within Chinese work team: The mediating effect of trust networks. *Asian Journal of Social Psychology, 9*, 79-95.
- Cobb-Walgren, C. J., Ruble, C. A., & Donthu, N. (1995). Brand equity, brand preference, and purchase intent. *Journal of Advertising, 24*(3), 25-40.
- Cockerham, W. C. (2005). Health lifestyle theory and the convergence of agency and structure. *Journal of Health and Social Behavior, 46*(1), 51-67.
- Cockerham, W. C., Rütten, A., & Abel, T. (1997). Conceptualizing contemporary health lifestyles: Moving beyond Weber. *Sociological Quarterly, 38*(2), 321-342.
- Conner, M., Kirk, S. F., Cade, J. E., & Barrett, J. H. (2001). Why do women use dietary supplements? The use of the theory of planned behaviour to explore beliefs about their use. *Social Science & Medicine, 52*(4), 621-633.
- Conner, M., Kirk, S. F., Cade, J. E., & Barrett, J. H. (2003). Environmental influences: Factors influencing a woman's decision to use dietary supplements. *The Journal of Nutrition, 133*(6), 1978-1982.
- Cook, K. S., & Emerson, R. M. (1978). Power, equity and commitment in exchange networks. *American Sociological Review, 43*(5), 721-739.
- Cova, B., & Cova, V. (2002). Tribal marketing: The tribalisation of society and its impact on the conduct of marketing. *European Journal of Marketing, 36*(5/6), 595-620.
- Cox, A. D., Cox, D., & Mantel, S. P. (2010). Consumer response to drug risk information: The role of positive affect. *Journal of Marketing, 74*(4), 31-44.

- Curry, R. G., & Zhang, P. (2013). Website features that gave rise to social commerce: A historical analysis. *Electronic Commerce Research and Applications*, 12(4), 260-279.
- Davis, T. C., Jackson, R. H., George, R. B., Long, S. W., Talley, D., Murphy, P. W., ... & Truong, T. (1993). Reading ability in patients in substance misuse treatment centers. *International Journal of the Addictions*, 28(6), 571-582.
- De Jong, N., Ocke, M. C., Branderhorst, H. A., & Friele, R. (2003). Demographic and lifestyle characteristics of functional food consumers and dietary supplements users. *British Journal of Nutrition*, 89(2), 273-281.
- Descartes, R. (1984). *The philosophical writings of Descartes*. J. Cottingham, R. Stoothoff and D. Murdoch (trans.), Cambridge University Press, Cambridge.
- Dickinson, A., Shao, A., Boyon, N., & Franco, J. C. (2011). Use of dietary supplements by cardiologists, dermatologists and orthopedists: Report of a survey. *Nutrition Journal*, 10:20.
- Dietary Supplement Health and Education Act of 1994, Pub L No. 103-417, 108 Stat. 4325. October 25, 1994.
- Divine, R. L., & Lepisto, L. (2005). Analysis of the healthy lifestyle consumer. *Journal of Consumer Marketing*, 22(5), 275-283.
- Dodds, S., Bulmer, S., & Murphy, A. (2014). Consumer value in complementary and alternative medicine (CAM) health care services. *Australasian Marketing Journal*, 22(3), 218-229.

- Dodge, T., Litt, D., & Kaufman, A. (2011). Influence of the dietary supplement health and education act on consumer beliefs about the safety and effectiveness of dietary supplements. *Journal of Health Communication, 16*(3), 230-244.
- Dwyer, T. J., Garceau, A. O., Evans, M., Li, D., Lytle, L., Hoelscher, D., ... & Zive, M. (2001). Do adolescent vitamin-mineral supplements users have better nutrient intakes than nonusers? Observations from the CATCH tracking study. *Journal of the American Dietetic Association, 101*(11), 1340-1346.
- Euromonitor. (2018a). Consumer lifestyles in China. Retrieved September 1, 2019, from Passport GMID database.
- Euromonitor. (2018b). Consumer health in China. Retrieved September 1, 2019, from Passport GMID database.
- Euromonitor. (2018c). Digital commerce in China. Retrieved September 1, 2019, from Passport GMID database.
- Euromonitor. (2019a). Country report: Dietary supplements in China. Retrieved April 11, 2019, from Passport GMID database.
- Euromonitor. (2019b). Market sizes: Vitamins and dietary supplements in world. Retrieved July 24, 2019, from Passport GMID database.
- Fan, Y. (2002). Guanxi's consequences: Personal gains at social cost. *Journal of Business Ethics, 38*(4), 371-380.
- Farquhar, P. H. (1989). Managing brand equity. *Marketing Research, 1*(3), 24-33.
- Fingeret, H. A. (1992). Adult literacy education: Current and future directions. An update. Information Series No. 355.

- Flambard-Ruaud, S. (2005). Relationship marketing in emerging economics: Some lessons for the future. *Vikalpa: Journal for Decision Makers*, 30(3), 53-63.
- Fogel, J., & Rivkin, L. (2013). Intentions and behaviors to use oral supplements for computer vision syndrome. *Journal of Medical Marketing*, 13(3), 151-159.
- Foucault, M. (1979). *Discipline and punish: The birth of the prison*. New York: Vintage.
- Foucault, M. (1994). The ethic of the care for the self as a practice of freedom. In J. Bernauer, & D. Rasmussen (Eds.), *The Final Foucault* (pp.1-20). Cambridge, MA: MIT Press.
- France, R. K., & Bone, F. P. (2005). Policy makers' paradigms and evidence from consumer interpretations of dietary supplement labels. *Journal of Consumer Affairs*, 39(1), 27-51.
- French, M. R., Barr, S. I., & Levy-Milne, R. (2003). Folate intakes and awareness of folate to prevent neural tube defects: A survey of women living in Vancouver, Canada. *Journal of the American Dietetic Association*, 103(2), 181-185.
- Fukuyama, F. (1995). *Trust: The social virtues and the creation of prosperity*. New York: Free Press.
- Geddie, M., DeFranco, A., & Geddie, M. (2005). A comparison of relationship marketing and guanxi: Its implications for the hospitality industry. *International Journal of Contemporary Hospitality Management*, 17(6/7), 614-632.
- Ger, G., & Belk, R.W. (1990). Measuring and comparing materialism cross-culturally. *Advances in Consumer Research*, 17, 186-192.

- Giddens, A. (1979). *Central problems in social theory: Action, structure and contradiction in social analysis*. Berkeley and Los Angeles: University of California Press.
- Giddens, A. (1990). *The consequences of modernity*. Stanford, CA: Stanford University Press.
- Giddens, A. (1991). *Modernity and self-identity: Self and society in the late modern age*. Cambridge: Polity Press.
- Glaser, B. (1978). *Theoretical sensitivity*. Mill Valley, CA: Sociology Press.
- Glaser, B., & Strauss, A. (1967). *The discovery of grounded theory*. Chicago: Aldine.
- Glassner, B. (1990). Fit for postmodern selfhood. In H. S. Becker & M. M. McCall (Eds.), *Symbolic interaction and cultural studies* (pp. 215-243). Chicago: University of Chicago Press.
- Goh, K. Y., Heng, C. S., & Lin, Z. (2013). Social media brand community and consumer behavior: Quantifying the relative impact of user- and marketer-generated content. *Information Systems Research*, 24(1), 88-107.
- Granovetter, M. S. (1977). The strength of weak ties. In *Social networks* (pp. 347-367). Academic Press.
- Gundlach, G. T., Achrol, R. S., & Mentzer, J. T. (1995). The structure of commitment in exchange. *Journal of Marketing*, 59(1), 78-92.
- Gunther, S., Patterson, R. E., Kristal, A. R., Stratton, K. L., & White, E. (2004). Demographic and health-related correlates of herbal and specialty supplements use. *Journal of the American Dietetic Association*, 104(1), 27-34.

- Haley, G., Tan, C., & Haley, U. (1998). *New Asian emperors: The overseas Chinese, their strategies and competitive advantages*. Oxford: Butterworth-Heinemann.
- Han, C. M. (1990). Testing the role of country image in consumer choice behaviour. *European Journal of Marketing*, 24(6), 24-40.
- Hemsley, J., & Mason, R. M. (2013). Knowledge and knowledge management in the social media age. *Journal of Organizational Computing and Electronic Commerce*, 23(1-2), 138-167.
- Ho, S. (1997). The emergence of consumer power in China. *Business Horizons*, 40(5), 15-21.
- Holbrook, M. B., & Hirschman, E. C. (1982). The experiential aspects of consumption: Consumer fantasies, feelings, and fun. *Journal of Consumer Research*, 9(2), 132-140.
- Holstein, J. A. (1993). *Court-ordered insanity: Interpretive practice and involuntary commitment*. Hawthorne, NY: Aldine de Gruyter.
- Holstein, J. A., & Gubrium, J. F. (1994). Phenomenology, ethnomethodology, and interpretive practice. In N. K. Denzin & Y. Lincoln (Eds.), *Handbook of Qualitative Research* (pp. 262-272). Thousand Oaks, CA: Sage.
- Holstein, J. A., & Gubrium, J. F. (1995). *The active interview*. Thousand Oaks, CA: Sage.
- Holt, D. B. (1995). How consumers consume: A typology of consumption practices. *Journal of Consumer Research*, 22(1), 1-16.
- Holt, D. B. (1998). Does cultural capital structure American consumption? *Journal of Consumer Research*, 25(1), 1-25.

- Holt, D. B. (2002). Why do brands cause trouble?: A dialectical theory of consumer. *Journal of Consumer Research*, 29, 70-90.
- Homer, P. M., & Mukherjee, S. (2018). The impact of dietary supplement form and dosage on perceived efficacy. *Journal of Consumer Marketing*, 35(2), 228-238.
- Hoyer, W. D. (1984). An examination of consumer decision making for a common repeat purchase product. *Journal of Consumer Research*, 11(3), 822-829.
- Huang, C. C., Fan, Y. N., Chern, C. C., & Yen, P. H. (2013). Measurement of analytical knowledge-based corporate memory and its application. *Decision Support Systems*, 54(2), 846-857.
- Hudson, L. A., & Ozanne, J. L. (1988). Alternative ways of seeking knowledge in consumer research. *Journal of Consumer Research*, 14(4), 508-521.
- Hughner, S. R., & Kleine, S. S. (2008). Variations in lay health theories: Implications for consumer health care decision making. *Qualitative Health Research*, 18(12), 1687-1703.
- Hutson, D. J. (2013). "Your body is your business card": Bodily capital and health authority in the fitness industry. *Social Science & Medicine*, 90, 63-71.
- Ishihara, J., Sobue, T., Yamamoto, S., Sasaki, S., & Tsugane, S. (2003). Demographics, lifestyles, health characteristics, and dietary intake among dietary supplements users in Japan. *International Journal of Epidemiology*, 32(4), 546-553.
- Jain, V., Roy, S., Damle, N., & Jagani, K. (2016). Communicating nutraceuticals: A multi-stakeholder perspective from a developing nation. *Health Marketing Quarterly*, 33(3), 239-254.
- Jenkins, R. (2002). *Pierre Bourdieu*. London: Routledge Press.

- Jeong, W. S., Stoel, L., & Chung, J. E. (2012). Impacts of store type importance and country of origin: Exploring the case of dietary supplements in the Chinese market. *International Journal of Retail & Distribution Management*, 40(6), 471-487.
- Johnson, A. E., Donkin, A. J., Morgan, K., Neale, R. J., & Lilley, J. M. (2000). Dietary supplement use in later life. *British Food Journal*, 102(1), 40-51.
- Jordan, M. A., & Haywood, T. (2007). Evaluation of internet websites marketing herbal weight-loss supplements to consumers. *The Journal of Alternative and Complementary Medicine*, 13(9), 1035-1043.
- Joy, A. (2001). Gift giving in Hong Kong and the continuum of social ties. *Journal of Consumer Research*, 28(2), 239-256.
- Joy, A., & Venkatesh, A. (1994). Postmodernism, feminism, and the body: The visible and the invisible in consumer research. *International Journal of Research in Marketing*, 11(4), 333-357.
- Kahle, L. (1983). The nine nations of North America and the value basis of geographic segmentation. *Journal of Marketing*, 50(2), 34-47.
- Kaplan, A. M., & Haenlein, M. (2010). Users of the world, unite! The challenges and opportunities of social media. *Business Horizons*, 53(1), 59-68.
- Kaufman, S. (1986). *The ageless self: Sources of meaning in late life*. Madison: University of Wisconsin Press.
- Kava, R., Meister, K. A., Whelan, E. M., Lukachko, A. M., & Mirabile, C. (2002). Dietary supplement safety information in magazines popular among older readers. *Journal of Health Communication*, 7(1), 13-23.

- Keller, P. A., & Block, L. G. (1999). The effect of affect-based dissonance versus cognition-based dissonance on motivated reasoning and health-related persuasion. *Journal of Experimental Psychology: Applied*, 5(3), 302-313.
- Kim, J., Kim, J., Lee, S., Lee, S., Park, Y., & Park, Y. (2016). A visual context-based market analysis of mobile application services. *Management Decision*, 54(9), 2106-2132.
- Kimmons, J. E., Blanck, H. M., Tohill, B. C., Zhang, J., & Khan, L. K. (2006). Multivitamin use in relation to self-reported body mass index and weight loss attempts. *Medscape General Medicine*, 8(3): 3.
- King, A. (2000). Thinking with Bourdieu against Bourdieu: A 'practical' critique of the habitus. *Sociological Theory*, 18(3), 417-433.
- Kofoed, C. L., Christensen, J., Dragsted, L. O., Tjønneland, A., & Roswall, N. (2015). Determinants of dietary supplement use – healthy individuals use dietary supplements. *British Journal of Nutrition*, 113(12), 1993-2000.
- Leonard, D., & Sensiper, S. (1998). The role of tacit knowledge in group innovation. *California Management Review*, 40(3), 112-132.
- Levina, N., & Arriaga, M. (2014). Distinction and status production on user-generated content platforms: Using Bourdieu's theory of cultural production to understand social dynamics in online fields. *Information Systems Research*, 25(3), 468-488.
- Liang, T. P., & Turban, E. (2011). Introduction to the special issue social commerce: A research framework for social commerce. *International Journal of Electronic Commerce*, 16(2), 5-14.

- Lin, X., Li, Y. & Wang, X. (2017). Social commerce research: Definition, research themes and the trends. *International Journal of Information Management*, 37, 190-201.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. CA: Sage.
- Lyle, B. J., Mares-Perlman, J. A., Klein, B. E., Klein, R., & Greger, J. L. (1998). Supplements users differ from nonusers in demographic, lifestyle, dietary and health characteristics. *The Journal of Nutrition*, 128(12), 2355-2362.
- Magee, J. C., & Galinsky, A. D. (2008). Social hierarchy: The self-reinforcing nature of power and status. *Academy of Management Annals*, 2(1), 351-398.
- Man, E. K. W. (2000). *Bodies in China: Philosophy, Aesthetics, and Politics*. Hong Kong: The Chinese University of Hong Kong Press.
- Manstead, A. S. R. (2011). The benefits of a critical stance: A reflection on past papers on the theories of reasoned action and planned behaviour. *British Journal of Social Psychology*, 50(3), 366-373.
- Marchand, R. (1985). *Advertising the American dream*. Berkeley and Los Angeles: University of California Press.
- Markus, H. R. & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion and motivation. *Psychological Review*, 98(2), 224-253.
- Markus, H. R., & Oyserman, D. (1988). Gender and thought: The role of the self-concept. In M. Crawford & M. Hamilton (Eds.), *Gender and Thought* (pp. 100-127). New York: Springer-Verlag.
- Markus, M. L., & Robey, D. (1988). Information technology and organizational change: Causal structure in theory and research. *Management Science*, 34(5), 583-598.

- Marshall, M. J., & Larimer, D. M. (1995). The Cinderella syndrome. *Journal of Psychological Practice, 1*(2), 67-71.
- Martin, E. (1994). *Flexible bodies: Tracking immunity in American culture from the days of polio to the age of AIDS*. Boston: Beacon Press.
- Marx, W., Kiss, N., McKavanagh, D., & Isenring, E. (2016). Attitudes, beliefs and behaviours of Australia dietitians regarding dietary supplements: A cross-sectional survey. *Complementary Therapies in Clinical Practice, 25*, 87-91.
- Mason, M. J., & Scammon, D. L. (1999). Consumers and nutritional supplements: Could this be me? This is me! *ACR North American Advances, 26*, 107-113.
- Mason, M. J., & Scammon, D. L. (2011). Unintended consequences of health supplements information regulations: The importance of recognizing consumer motivations. *Journal of Consumer Affairs, 45*(2), 201-223.
- Mason, M. J., Scammon, D. L., & Fang, X. (2007). The impact of warnings, disclaimers, and product experience on consumers' perceptions of dietary supplements. *Journal of Consumer Affairs, 41*(1), 74-99.
- Mauss, M. (2000). *The gift: The form and reason for exchange in Archaic societies*, New York: W. W. Norton.
- McAdams, D. P. (2011). Exploring psychological themes through life-narrative accounts. In J. A. McHolstein & J. F. Gubrium (Eds.), *Varieties of narrative analysis* (pp. 15-32). Thousand Oaks, CA: Sage.
- McClymont, H., Gow, J., Hume, M., & Perry, C. (2015). Factors influencing back pain treatment behaviour change. *Journal of Service and Practice, 25*(5), 592-620.

- McEwen, W., Fang, X., Zhang, C., & Burkholder, R. (2006). Inside the mind of the Chinese consumer. *Harvard Business Review*, 84(3), 68-76.
- McQueen, D. V. (2001). Strengthening the evidence base for health promotion. *Health Promotion International*, 16, 262-268.
- Mechanic, D., & Schlesinger, M. (1996). The impact of managed care on patients' trust in medical care and their physicians. *The Journal of the American Medical Association*, 275(21), 1693-1697.
- Miller, M. F., Bellizzi, K. M., Sufian, M., Ambs, A. H., Goldstein, M. S., & Ballard-Barbash, R. (2008). Dietary supplements use in individuals living with cancer and other chronic conditions: A population-based study. *Journal of the American Dietetic Association*, 108(3), 483-494.
- Miller, M. L., Manning, P. K., & Maanen, J. V. (1995). Series editors' introduction. In J. A. Holstein & J. F. Gubrium, *The active interview* (pp. vii). Thousand Oaks, CA: Sage.
- Moorman, C., Zaltman, G., & Deshpande, R. (1992). Relationships between providers and users of market research: The dynamics of trust within and between organizations. *Journal of Marketing Research*, 29(3), 314-328.
- Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing*, 58(3), 20-38.
- Morris, C. A., & Avorn, J. (2003). Internet marketing of herbal products. *The Journal of the American Medical Association*, 290(11), 1505-1509.
- Myers, N., & Kent, J. (2004). *The new consumers: The influence of affluence on the environment*. Washington, DC: Island Press.

- Myers, N., & Kent. J. (2003). New consumers: The influences of affluence on the environment. *Proceedings of the National Academy of Sciences of the United States of America (PNAS)*, 100(8), 2963-4968.
- Nagler, M. G., Kronenberg, F., Kennelly, E. J., & Jiang, B. (2011). Pricing for a credence good: An exploratory analysis. *Journal of Product & Brand Management*, 20(3), 238-249.
- Newman, J. W., & Werbel, R. A. (1973). Multivariate analysis of brand loyalty for major household appliances. *Journal of Marketing Research*, 10(4), 404-409.
- Nichter, M., & Thompson, J. J. (2006). For my wellness, not just my illness: North Americans' use of dietary supplements. *Culture, Medicine and Psychiatry*, 30(2), 175-222.
- Noor, N. A. M., Yap, S. F., Liew, K. H., & Rajah, E. (2014). Consumer attitudes toward dietary supplements consumption: Implications for pharmaceutical marketing. *International Journal of Pharmaceutical and Healthcare Marketing*, 8(1), 6-26.
- O'Connor, E. L., & White, K. M. (2010). Willingness to trial functional foods and vitamin supplements: The role of attitudes, subjective norms, and dread of risks. *Food Quality and Preference*, 21(1), 75-81.
- Ordonez, C. (2017, April 3). New global briefing launch: Vitamins and dietary supplements (VDS) – trends and prospects. *Euromonitor International: Opinion*. Retrieved March. 17, 2019, from Passport GMID database.
- Ordonez, C. (2018, May 21). Four takeaways from the dietary supplements regulatory summit 2018, *Euromonitor International: Opinion*. Retrieved March. 17, 2019, from Passport GMID database.

- Ou, C. X. J., Pavlou, P. A., & Davison, R. M. (2014). Swift Guanxi in online marketplaces: The role of computer-mediated communication technologies. *MIS Quarterly*, *38*(1), 209-230.
- Pajor, E. M., Eggers, S. M., Curfs, K. C. J., Oenema, A., & de Vries, H. (2017). Why do Dutch people use dietary supplements? Exploring the role of socio-cognitive and psychosocial determinants. *Appetite*, *114*, 161-168.
- Pan, Po-Lin. (2014). Toward an integrated model of purchase intention of dietary supplements in sexually oriented advertising. *Journal of Food Products Marketing*, *20*(2), 132-145.
- Patterson, R. E., Neuhouser, M. L., Hedderson, M. M., Schwartz, S. M., Standish, L. J., & Bowen, D. J. (2003). Changes in diet, physical activity, and supplement use among adults diagnosed with cancer. *Journal of the American Dietetic Association*, *103*(3), 323-328.
- Payette, H., Boutier, V., Coulombe, C., & Gray-Donald, K. (2002). Benefits of nutritional supplementation in free-living, frail, undernourished elderly people: A prospective randomized community trial. *Journal of the American Dietetic Association*, *102*(8), 1088-1095.
- Pearson, S. D., & Raeke, L. H. (2000). Patients' trust in physicians: Many theories, few measures, and little data. *Journal of General Internal Medicine*, *15*(7), 509-513.
- Pelletier, D. L., & Kendall, A. (1997). Supplements use may not be associated with better food intake in all population groups. *Family Economics and Nutrition Review*, *10*(4), 32.

- Perkin, J. E., Wilson, W. J., Schuster, K., Rodriguez, J., & Allen-Chabot, A. (2002). Prevalence of nonvitamin, nonmineral supplement usage among university students. *Journal of the Academy of Nutrition and Dietetics*, *102*(3), 412-414.
- Peters, C. L. O., Shelton, J., & Sharma, P. (2004). An investigation of factors that influence the consumption of dietary supplements. *Health Marketing Quarterly*, *21*(1-2), 113-135.
- Pillitteri, J. L., Shiffman, S., Rohay, J. M., Harkins, A. M., Burton, S. L., & Wadden, T. A. (2008). Use of dietary supplements for weight loss in the United States: Results of a national survey. *Obesity*, *16*(4), 790-796.
- Podoshen, J. S., Li, L., & Zhang, J. (2011). Materialism and conspicuous consumption in China: A cross-cultural examination. *International Journal of Consumer Studies*, *35*(1), 17-25.
- Pollay, R. W., Tse, D. K., & Wang, Z. Y. (1990). Advertising, propaganda, and value change in economic development: The new cultural revolution in China and attitudes toward advertising. *Journal of Business Research*, *20*(2), 83-95.
- Potvin, L., & McQueen, D. V. (2007). Modernity, public health, and health promotion. In D. V. McQueen, I. Kickbusch, L. Potvin, L. Balbo, T. Abel, & J. M. Pelikan (Eds.), *Health and modernity* (pp. 12-20). New York: Springer.
- Price, L. L., & Arnould, E. J. (1999). Commercial friendships: Service provider – client relationships in context. *Journal of Marketing*, *63*(October), 38-56.
- Qi, X. (2013). Guanxi, social capital theory and beyond: Toward a globalized social science. *The British journal of sociology*, *64*(2), 308-324.

- Quinones, R. L., Winsor, R. D., Patino, A., & Hoffmann, P. (2013). The regulation of dietary supplements within the United States: Flawed attempts at mending a defective consumer safety mechanism. *Journal of Consumer Affairs*, 47(2), 328-357.
- Rad, A. A., & Benyoucef, M. (2011). A model for understanding social commerce. *Journal of Information Systems Applied Research*, 4(2), 63-73.
- Radimer, K. L., Subar, A. F., & Thompson, F. E. (2000). Nonvitamin, nonmineral dietary supplements: Issues and findings from NHANES III. *Journal of the American Dietetic Association*, 100(4), 447-454.
- Radimer, K., Bindewald, B., Hughes, J., Ervin, B., Swanson, C., & Picciano, M. F. (2004). Dietary supplement use by US adults: Data from the National Health and Nutrition Examination Survey, 1999-2000. *American Journal of Epidemiology*, 160(4), 339-349.
- Rajamma, R. K., & Pelton, L. E. (2010). Choosing non-conventional treatments: Consumers' attempt at controlling health care. *Journal of Consumer Marketing*, 27(2), 127-138.
- Rao, V. R., Agarwal, M. K. & Dahlhoff, D. (2004). How is manifest branding strategy related to the intangible value of a corporation? *Journal of Marketing*, 68(4), 126-140.
- Rayner, L., & Easthope, G. (2001). Postmodern consumption and alternative medications. *Journal of Sociology*, 37(2), 157-176.
- Reber, A. S. (1989). Implicit learning and tacit knowledge. *Journal of Experimental Psychology: General*, 118(3), 219-235.

- Ren, J., Chung, J. E., Stoel, L., & Xu, Y. (2011). Chinese dietary culture influences consumers' intention to use imported soy-based dietary supplements: An application of the background/theory of planned behavior. *International Journal of Consumer Studies*, 35(6), 661-669.
- Rice, D. (1992). *The dragon's brood: Conversations with young Chinese*. London: Harper Collins.
- Robinovich, J., Ossa, X., Baeza, B., Krumeich, A., & van der Borne, B. (2018). Embodiment of social roles and thinness as a form of capital: A qualitative approach towards understanding female obesity disparities in Chile. *Social Science & Medicine*, 201, 80-86.
- Romanyshyn, R. D. (1989). *Technology as symptom and dream*. London: Routledge.
- Royne, M. B., Fox, A. K., Deitz, G. D., & Gibson, T. (2014). The effects of health consciousness and familiarity with DTCA on perceptions of dietary supplements. *Journal of Consumer Affairs*, 48(3), 515-534.
- Royne, M. B., Myers, S. D., Deitz, G., & Fox, A. K. (2016). Risks, benefits, and competitive interference: Consumer perceptions of prescription drug versus dietary supplement advertising. *Journal of Current Issues & Research in Advertising*, 37(1), 59-79.
- Sackett, D. L., Rosenberg, W. M., Gray, J. M., Haynes, R. B., & Richardson, W. S. (1996). Evidence based medicine: What it is and what it isn't: It's about integrating individual clinical expertise and the best external evidence. *BMJ: British Medical Journal*, 312(71), 71-72.

- Sánchez-Fernández, R., & Iniesta-Bonillo, M. Á. (2007). The concept of perceived value: A systematic review of the research. *Marketing Theory*, 7(4), 427-451.
- Sassen, S. (2006). The ideas interview with Saskia Sassen. *Guardian*, Retrieved July 18th, 2019, from <http://www.guardian.co.uk/world/2006/jul/04/globalisation.comment>.
- Schnettler, B., Ruiz, D., Sepúlveda, O., & Sepúlveda, N. (2008). Importance of the country of origin in food consumption in a developing country. *Food Quality and Preference*, 19(4), 372-382.
- Seidel, V. P., Hannigan, T. R., & Phillips, N. (2020). Rumor communities, social media, and forthcoming innovations: The shaping of technological frames in product market evolution. *Academy of Management Review*, 45(2), 304-324.
- Shaalan, A. S., Reast, J., Johnson, D., & Tourky, M. E. (2013). East meets West: Toward a theoretical model linking guanxi and relationship marketing. *Journal of Business Research*, 66(12), 2515-2521.
- Shaw, P., Zhang, V., & Metallinos-Katsaras, E. (2009). A content analysis of the quantity and accuracy of dietary supplement information found in magazines with high adolescent readership. *The Journal of Alternative and Complementary Medicine*, 15(2), 159-164.
- Sheldon, J., & Pelletier, D. L. (2003). Nutrient intakes among dietary supplement users and nonusers in the food stamp population. *Family Economics and Nutrition Review*, 15(2), 3-15.

- Shin, S. K., Ishman, M., & Sanders, G. L. (2007). An empirical investigation of socio-cultural factors of information sharing in China. *Information & Management, 44*, 165-174.
- Siu, N. Y. & Wong, H. (2002). The impact of product-related factors on perceived product safety. *Marketing Intelligence & Planning, 20*(3), 185-94.
- Smart, A. (1993). Gifts, bribes, and guanxi. *Cultural Anthropology, 8*(3), 388-408.
- Smirnova, M. H. (2012). A will to youth: The woman's anti-aging elixir. *Social Science & Medicine, 75*(7), 1236-1243.
- Snyder, F. J., Dundas, M. L., Kirkpatrick, C., & Neill, K. S. (2009). Use and safety perceptions regarding herbal supplements: A study of older persons in southeast Idaho. *Journal of Nutrition for the Elderly, 28*(1), 81-95.
- Spence, M., & Ribeaux, P. (2004). Complementary and alternative medicine: Consumers in search of wellness or an expression of need by the sick? *Psychology & Marketing, 21*(2), 113-139.
- Spiggle, S. (1994). Analysis and interpretation of qualitative data in consumer research. *Journal of Consumer Research, 21*(3), 491-503.
- St. James, Y., Handelman, J. M., & Taylor, S. F. (2011). Magical thinking and consumer coping. *Journal of Consumer Research, 38*(4), 632-649.
- Stang, J., Story, M., Harnack, L., & Neumark-Sztainer, D. (2000). Relationships between vitamin and mineral supplements use, dietary intake, and dietary adequacy among adolescents. *Journal of the American Dietetic Association, 100*(8), 905-910.
- Starr, R. R. (2015). Too little, too late: Ineffective regulation of dietary supplements in the United States. *American Journal of Public Health, 105*(3), 478-485.

- Steinhardt, H. C. (2012). How is high trust in China possible? Comparing the origins of generalized trust in three Chinese societies. *Political Studies*, 60, 434-454.
- Stivers, R. (1999). *Technology as Magic: The Triumph of the Irrational*, New York: Continuum.
- Strauss, A. L., & Corbin, J. (1990). *Basics of qualitative research: Grounded theory procedures and techniques*. Newbury Park, CA: Sage.
- Suen, H., Cheung, S. O., & Mondejar, R. (2007). Managing ethical behaviour in construction organizations in Asia: How do the teachings of Confucianism, Taoism and Buddhism and globalization influence ethics management? *International Journal of Project Management*, 25(3), 257-265.
- Tang, L., & Guan, M. (2018). Rise of health consumerism in China and its effects on physicians' professional identity and the physician-patient relationship and communication. *Health communication*, 33(5), 636-642.
- Tarn, D. M., Paterniti, D. A., Good, J. S., Coulter, I. D., Galliher, J. M., Kravitz, R. L., ... & Wenger, N. S. (2013). Physician-patient communication about dietary supplements. *Patient Education and Counseling*, 91(3), 287-294.
- Taylor, S., & Bogdan, R. (1984). *Introduction to qualitative research methods: The search for meanings*. New York: John Wiley.
- Thompson, C. J. (1997). Interpreting consumers: A hermeneutical framework for deriving marketing insights from the texts of consumers' consumption stories. *Journal of Marketing Research*, 34(4), 438-455.
- Thompson, C. J. (2003). Natural health discourses and the therapeutic production of consumer resistance. *Sociological Quarterly*, 44(1), 81-107.

- Thompson, C. J. (2004). Marketplace mythology and discourses of power. *Journal of Consumer Research*, 31(1), 162-180.
- Thompson, C. J., & Hirschman, E. C. (1995). Understanding the socialized body: A poststructuralist analysis of consumers' self-conceptions, body images, and self-care practices. *Journal of Consumer Research*, 22(2), 139-153.
- Thompson, C. J., & Tambyah, S. K. (1999). Trying to be cosmopolitan. *Journal of Consumer Research*, 26 (3), 214-242.
- Thompson, C. J., & Troester, M. (2002). Consumer value systems in the age of postmodern fragmentation: The case of the natural health microculture. *Journal of Consumer Research*, 28(4), 550-571.
- Thompson, J. J., & Nichter, M. (2007). The compliance paradox: What we need to know about "real-world" dietary supplement use in the United States. *Alternative Therapies in Health and Medicine*, 13(2), 48-55.
- Troppmann, L., Gray-Donald, K., & Johns, T. (2002). Supplements use: Is there any nutritional benefit? *Journal of the American Dietetic Association*, 102(6), 818-825.
- Urala, N., Schutz, H., & Spinks, J. (2011). Consumer perceptions of "functional food" in the United States. *Journal of Food Products Marketing*, 17(4), 407-419.
- Üstüner, T., & Holt, D. B. (2010). Toward a theory of status consumption in less industrialized countries. *Journal of Consumer Research*, 37(1), 37-56.
- Üstüner, T., & Thompson, C. J. (2012). How marketplace performances produce interdependent status games and contested forms of symbolic capital. *Journal of Consumer Research*, 38(5), 796-814.

- Vos, L., & Brennan, R. (2010). Complementary and alternative medicine: Shaping a marketing research agenda. *Marketing Intelligence & Planning*, 28(3), 349-364.
- Wallston, K. A., Wallston, B. S., & DeVellis, R. (1978). Development of the multidimensional health locus of control (MHLC) scales. *Health Education Monographs*, 6(2), 160-170.
- Wang, C. (2007). Guanxi vs. relationship marketing: Exploring underlying differences. *Industrial Marketing Management*, 36(1), 81-86.
- Wang, C. L., & Lin, X. (2009). Migration of Chinese consumption values: Traditions, modernization, and cultural renaissance. *Journal of Business Ethics*, 88(3), 399-409.
- Wang, C. L., Bristol, T., Mown, J., & Chakraborty, G. (2000). Alternative modes of self-construal: Dimensions of connectedness-separateness and advertising appeals to the cultural and gender-specific self. *Journal of Consumer Psychology*, 9(2), 107-115.
- Wang, C., & Zhang, P. (2012). The evolution of social commerce: The people, management, technology, and information dimensions. *Communications of the Association for Information Systems*, 31, 105-127.
- Wang, W., Keh, H. T. & Bolton, L. E. (2010). Lay theories of medicine and a healthy lifestyle. *Journal of Consumer Research*, 37, 80-97.
- Wei, R., & Z. Pan (1999). Mass media and consumerist values in the People's Republic of China. *International Journal of Public Opinion Research*, 11(1), 75-96.
- Weick, K. (1995). *Sensemaking in organizations*. Thousand Oaks, CA: Sages.

- Weinstein, N. D. (1993). Testing four competing theories of health-protective behavior. *Health Psychology, 12*(4), 324-333.
- West, P. (1989). Cross-cultural literacy and the pacific rim. *Business Horizons, 32*(2), 3-13.
- Wong, N. Y. & Ahuvia, A. C. (1998). Personal taste and family face: Luxury consumption in Confucian and western societies. *Psychology and Marketing, 15*, 423-441.
- Yap, S. F., Noor, N. A. M., Marshall, R., & Liew, K. H. (2014). Promoting preventive health behaviour among young Malaysian consumers: Toward an integrated conceptual framework. *Australasian Marketing Journal, 22*(3), 268-278.
- Yau, O., Lee, J., Chow, R., Sin, L., & Tse, A. (2000). Relationship marketing the Chinese way. *Business Horizons, 43*(1), 16-24.
- Zhang, K. Z., & Benyoucef, M. (2016). Consumer behavior in social commerce: A literature review. *Decision Support Systems, 86*, 95-108.
- Zhang, Y. (1996). Chinese consumers' evaluation of foreign products: The influence of culture, product types and product presentation format. *European Journal of Marketing, 30*(12), 50-68.

Appendices

Appendix A Glossary of Terms in This Study

Term	Definition
Agency	Individuals' power (i.e., control over different forms of capital) and capability to actively choose from the range of dispositions to act.
Bodily capital	The value attached to an actor's appearance, attractiveness, or physical capabilities that may be exchanged for other forms of economic, social, or cultural capital, which, in turn, represents the actor's willpower, knowledge, and morality that allow them to succeed.
Capital	An accumulated resource, either embodied in a person or objective in an object, which, when appropriated on a private, i.e., exclusive, basis by actors or groups of actors, allows for influence.
Commitment	An enduring desire to maintain a valued relationship, comprising three components: instrumental, temporal, and attitudinal components.
Committed DS users	Individuals who 1) invest instrumental inputs in DS consumption, for example, the money they spend on DS (i.e., the instrumental component); 2) consume DS consistently over a long term (i.e., the temporal component); and 3) form an enduring intention to develop and maintain a stable long-term DS consumption (i.e., the attitudinal component).
Cultural capital	A set of socially rare and distinctive tastes, skills, knowledge, and practices; cultural capital exists in three primary forms: embodied as implicit practical knowledge, skills, and dispositions; objectified in cultural objects; and institutionalized in official degrees and diplomas that certify the existence of the embodied form.
Daigou	Literally referring to "surrogate shoppers", an emerging type of consumer-to-consumer social commerce channel in contemporary China that mainly exists in Chinese social networking mobile applications (e.g., WeChat).
Diagnosis-treatment knowledge	Beliefs about the nature of illness, i.e., the relationship between symptom and disease, and the nature of treatment, i.e., the focus and goal of the treatment (e.g., alleviation of symptoms or achievement of an underlying cure) and action rapidity of the treatment (i.e., the speed of treatment).
DS knowledge	Consumer knowledge and comprehension of information about DS products.
Economic capital	One's control over physical and financial resources such as income, property and other financial assets.
Field	A network or configuration of objective relations between [social] positions, such as politics, arts, religion, education, and business. In particular, a field of practice is a social space held together and defined by 1) power relations among the agents who belong to it, and 2) an "interest" that is shared among those agents.
Field of DS consumption in China	A social space held together and defined by 1) relations and networks among individuals who participate in DS consumption and 2) their shared interest in self-care and health improvement.
Guanxi	A key construct in Chinese social structure literally meaning "interdependent relationship", consisting of six primary sub-constructs: bonding, empathy, reciprocity, personal trust, face, and affection.
Habitus	Systems of durable, transposable dispositions, structured structures predisposed to function as structuring structures; habitus consists of enduring habits, embodied predispositions, and naturalized styles of thought.
Health knowledge	The degree to which people can obtain, process, and understand the necessary health information and services needed to make appropriate health decisions.
Health lifestyle	Comprising interactive patterns of health-related behaviors, orientations, and resources adapted by groups of individuals in response to their social, cultural and economic environment.

Health promoting lifestyle	A health-related lifestyle which aims to promote health but does not necessarily require single elements as complementary to one another (e.g., individuals might not perceive healthy diet and physical exercise as necessary and equally important).
Healthy lifestyle	A health-related lifestyle which incorporates the highest level of embodied cultural capital (e.g., mainstream health promotion knowledge) and requires the individual to select and arrange single elements (e.g., healthy diets, physical exercise) as complementary to one another.
Ideology of Yin-Yang balance	Grounded on the school of Yin-Yang or the school of Naturalists in ancient China, the philosophy of Yin-Yang – the universe is dualistic but connected and balanced – has been absorbed into and has influenced Traditional Chinese Medicines (TCM). Yin-Yang represents two abstract aspects that every phenomenon in the universe can be divided into; while Yin is representative of things like the moon, female, water, Yang is representative of the opposites like sun, male, and fire.
Lay agency	The agency enabled by applying lay health beliefs and lay theories of medicine (e.g., Traditional Chinese Medicines) to justify and support health-related decision making.
Lifestyle	Objective conditions of existence combine with positions in the social structure to produce the habitus that consists of a system of schemes generating classifiable practices and works, and a system of schemes of perception and appreciation (taste), that, together, produce a specific classifiable practices and works that result in a lifestyle.
Mass elite consumer segment	An emergent global consumer segment which comprises upper-middle-class individuals with at least a college degree, professional jobs, discretionary purchasing power, and higher cultural capital. For them, the material value of consumption objects is taken for granted; instead, taste becomes a realm of self-expression, a means of constructing subjectivity and status.
Mass elites in China	Young adults (i.e., born in the 1980s) and middle youth (i.e., born in the 1990s) who have a post-secondary graduation, have a professional job, and belong to the upper-middle-class segment, living in urban areas. They are often characterized as confident, optimistic and more inclined toward spending on themselves than their older counterparts, resulting in increased demand for such items as cosmetics and personal care products; they are tech-savvy and play a key role in driving growth in online shopping, particularly shopping via social network platforms.
Mind-over-body ideology	The disembodied transcendence of an individual's essential self (i.e., the existence of our mind, spirit, selfhood, and intellectual capacity transcends the constraints of our biology); the ideal that knowledge and technology liberates the transcendent self from the forces of nature (the forces of nature include our body and biology).
Nutrition knowledge	How well people can process nutritional information to make nutrition-related decisions.
Practice	Similar to “behavior”; developed by Bourdieu in his “theory of practice” in which individual behavior is neither a mechanical reaction nor a completely free and willful power, rather, it is constituted by the dialectic of the “internalization of externality” (habitus) and the “externalization of internality” (agency).
Reflexivity	Primarily relates to the capacity of exercising control over aspects of our world which continuously transforms and is transformed by the knowledge. Individuals living in late modernity may need enhanced reflexivity for decision making as they live in a high opportunity and high risk society.
Scientific agency	The agency enabled by mainstream diagnosis-treatment knowledge (i.e., Western medical science knowledge) and mainstream health promotion knowledge (i.e., nutrition knowledge and DS knowledge), which are reflexively learned by our informants through the self-motivated learning process.
Self-identity	The self as reflexively understood by the person and created and maintained through the practices of the individual and his or her intersubjective interactions. Lifestyle choices play an important role in one's self-identity construction.

Social capital	The actual and potential resources that can be mobilized through social contacts and connections, i.e., an actor's ability to draw resources from connections within social networks.
Social commerce	The delivery of e-commerce activities and transactions via the social media environment, mostly in social networks and by using Web 2.0 software.
Social status	A type of symbolic capital which is constituted when specific forms of capital (e.g., economic, social, cultural, bodily capitals) are recognized as legitimate bases for claiming prestige, respect, and authority within a given field.
Structure	The particular type of social environment, such as the material conditions of existence characteristic of a class condition, and the collective history and language.
Taste	The capacity to materially or symbolically appropriate a given class of objects and practices as a set of distinctive preferences.
Time capital	The main source in the contemporary consumer life needed to accumulate embodied cultural capital, which is unequally distributed among social groups.

Sources: Abel (2007); Abel, Cockerham, & Niemann (2000); Beck, Giddens, & Lash (1994); Bourdieu (1977, 1984, 1986); Bolton et al. (2008); Bolton et al. (2015); Bourdieu & Wacquant (1992); Giddens (1990, 1991); Gundlach et al. (1995); Holt (1998); Hutson (2013); Liang & Turban (2011); Moorman et al. (1992); Thompson & Hirschman (1995); wang, Keh, & Bolton (2010); Yau et al. (2000).