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**TOP-OF-MIND AWARENESS (TOMA) AND
PRODUCT-COUNTRY IMAGES (PCI):
An Exploratory Study**

MBA Thesis

**Submitted by Taissa Seixas
Submitted to the Faculty of Graduate Studies and Research
In partial fulfillment of the requirements for the MBA degree**

March 2002

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The undersigned recommend
to the Faculty of Graduate Studies and Research
Acceptance of the thesis

**TOP-OF-MIND AWARENESS (TOMA) AND
PRODUCT-COUNTRY IMAGES (PCI):
An Exploratory Study**

Submitted by Taissa Seixas, B. Economics,
In partial fulfillment of the requirements for
The degree of Master of Business Administration

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Thesis Supervisor

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Director, Eric Sprott School of Business

Carleton University
March 26, 2002

Abstract

The thesis focuses on people's top-of-mind product associations with countries and investigates how rich (or poor) product-country schemata are for Japan, the USA, the respondent's home country, Sweden and Canada. It was found that respondents had well developed product schemata for their home country, Japan and the USA, but had considerably less developed ones for Sweden and Canada. TOMA product-country profiles were drawn for each of the four non-domestic target origins, where the top TOMA industries, product categories, and brands were identified. The thesis investigated whether TOMA product-country images were statistically equal across samples and found that, samples did not hold entirely equal TOMA images for countries. Lastly, the thesis included a longitudinal analysis of Canada's TOMA image. Although there was some evidence that product schemata for Canada were not completely rigid, overall Canada had a rather 'sticky' image as a prime producer of agricultural products, fish, and natural resources.

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1. Introduction

As tangible barriers to trade diminish, and as globalization pushes forward, marketers in both the public and private domains are faced with new challenges of promoting their countries and exports in the global marketplace. While trade tariffs and other formal restrictions have been eliminated in the past decades, intangible barriers, in many instances, have remained. This thesis is concerned with issues of how people's impression about origins (i.e. the country image they hold), which may act as a trade barrier or a trade facilitator, can affect the international promotion of countries' exports. In fact, a country's image may have pervasive effects on its ability to attract foreign investment, as well as affect the level of consumer acceptance towards its products.

In working to more effectively promote the image of a country's exports, businesses and governments can profit from understanding how domestic and foreign consumers comparatively view both foreign and national products.

The central benefit of knowing how foreigners perceive one's country and exports relates to perceived image strengths and weaknesses, which need to be appropriately addressed, if one is to capitalize on positive (or to correct negative) perceptions. In this light, the study of Product Country Images (PCI) is intended to help private and public marketers profit from opportunities, as well as counter threats from the images of their countries and products. It is a general belief that the study of PCI is crucial for the development of

effective strategies for export and for the attraction of foreign investment to the home country.

Country images are hypothesized by Heslop and Wall [1986] to be a function of the bundle of goods consumers think of in relation to a particular country. The present thesis examines how Top-of-Mind Awareness (TOMA) of products relates to PCI. It starts by looking into the patterns of recall of brands and product categories in response to countries' names as cues. And it essentially hypothesizes that the evaluation of an origin's products may be associated with the types of products/brands recalled for that country.

The thesis draws on concepts from the fields of cognitive and social psychology and attempts to relate the PCI phenomenon fundamentally to cognitive and behavioural learning. Within cognitive learning, it is of primary interest to understand how people – as perceivers – both perceive and cognitively organize knowledge and information in memory. Schemata, stereotypes and techniques of measuring memory all provide an initial basis for investigating both PCI and TOMA in the cognitive context. In addition, social psychology provides more background to understand how PCI can be viewed through the behavioural learning prism. Since researchers have rarely approached the combination of the themes of PCI and TOMA, the thesis is exploratory in nature.

The thesis is based on existing data, which was collected as part of larger cross-national studies of PCI by Papadopoulos, Heslop and associates. It makes use of two versions (a late 1980's and a late 1990's version) of the same cross-national study to provide a longitudinal view of Canada and Canadian products. Both studies asked consumers to evaluate the images of five countries (Canada, Sweden, Japan, the U.S., and the home country), their people, and their products.

The remaining sections of the present thesis are organized in eight chapters. The second and third chapters delve into the literature pertaining to the fields of psychology and marketing, in an attempt to provide background and guidance for the research hypotheses. Overall, the literature review is composed of two main parts: the first investigates the role of schemata and stereotypes under the prism of cognitive and social psychology; the second draws from international marketing research and looks at the phenomenon of country stereotyping and its effects on the evaluations of an origin's products. Chapter four looks at the research objectives and their associated research questions. Next, the research methodology is considered in chapter five, which discusses the data collection approach, the nature of the research instrument, and the pre-analytic stages of the study. The sixth chapter focuses on the demographic profile of the samples; chapter seven presents a general overview of the TOMA responses; while chapter eight tests each of the 30 hypotheses. Finally, chapter nine contemplates the implications of the findings and discusses the possibilities for future research.

2. Literature Review on Cognitive and Social Psychology

On the whole, the literature review benefits from research in the fields of: cognitive psychology, social psychology, consumer behaviour and international marketing. The present chapter addresses issues in both cognitive learning (i.e. information processing, memory, schemata, stereotype formation) and behavioural learning (i.e. classical conditioning and operant conditioning). It then progresses to review the literature on how images may play a role in influencing behaviour, by looking at the literature on attitudes and behaviour. For the purpose of this research, an image is defined as “the holistic view of the network of concepts associated with an object” [Mehrkens 2000, p. 6], whereby “the information associated with an object can be its physical properties and attributes as well as associated benefits, feelings, *and beliefs*” [Mehrkens 2000, p. 5, italics added]. Chapter three focuses on PCI and attempts to relate the issues encountered in cognitive and social psychology to issues of country images.

The rationale for reviewing the cognitive learning, behavioural learning, and attitude theories in this order is because both types of learning are assumed to form beliefs and be at the core of an individual's attitudes. Attitudes, in turn, are anticipated to be partially responsible for one's behavioural responses. Only after assessing each issue separately will the focus turn to learning, attitude and behaviour in the context of PCI.

As mentioned above, the first section of the literature review will focus on cognitive learning. At this juncture, the cognitive processes of particular interest include: (a) how people perceive the many stimuli that surround them; (b) how people as perceivers interpret these stimuli, organize information in memory, and retrieve the latter from memory; (c) how people as perceivers represent this information in memory by means of cognitive structures such as schemata; and (d) how people identify and combine this information in making inferences and decisions. Of central interest is the influence of existing schemata and stereotypes on learning. The section on cognitive learning will lay the foundation to understand PCI as, above all, a cognitive and subjective representation of objective reality. In addition, it will lay grounds to understand issues relating to the concept of TOMA.

Behavioural learning, on the other hand, will provide a different perspective for the investigation of the PCI phenomenon. Specifically, it will show how the consequences of one's behaviour (action) serve to influence the recurrence (or lack thereof) of the behaviour. Examples will be provided to illustrate the two major theories – classical conditioning and operant conditioning – in the contexts of consumer behaviour and PCI.

A succinct review on the literature on how attitudes influence behaviour is also provided, so as to appreciate how images – specifically, PCI – can have an important role in influencing (buyer) behaviour. The rationale for this section is to provide empirical

justification as to why it is important to study attitudes in the wider context of marketing. The study of PCI is, thus, justified because images have been shown to play an important function in influencing behaviour – the interest is in the international consumer's buying behaviour and how country images and stereotypes influence the consumer's decision making in the global marketplace.

Finally, the literature review will turn its focus to the PCI theme itself. Here, a summary of the field will be presented and an attempt to link the concept of TOMA to issues of PCI will be made. The section will also aim at explicitly drawing connections between the fields of cognitive and social psychology to PCI.

2.1 Cognitive Learning

Cognitive learning is a stream within cognitive psychology that considers human beings essentially as processors and storers of information. It, therefore, highlights the role of information processing in producing behavioural responses to stimuli in the environment. Unlike behavioural learning theories, cognitive learning theories stress the operations of covert events in the learning experience – for example, the mental processes that accompany learning. Behavioural learning, in contrast, underscores overt events, such as the existence of reinforcing or punishing stimuli and their influence in learning. Nonetheless, as will be later explained, recent behavioural theories have interpreted

learning and conditioning in terms of cognitive functions and associations [Grusec, Lockhart and Walters 1990].

In the contexts of cognitive learning and information processing, cognitive psychologists and consumer behaviourists usually emphasize the importance of several phenomena. Specifically, they highlight the roles of: perception, involvement, the mental organization of stimuli, and the retrieval of information from memory [Solso 1995; Mowen and Minor 1998]. Each of these concepts will be dealt with separately and in greater detail in the sections to follow.

At this stage, it is worth pointing out that a central notion in information processing (cognitive learning) theory is that one's background experiences colour one's perceptions, mental organization and interpretation of information. Thus, it is hypothesized that prior experiences and knowledge influence information processing [Nadler 1988].

In the following sections, cognitive learning will be addressed through an understanding of research in perception, memory, schemata, and stereotypes.

2.2 Perception

Perception is believed to be the fundamental process by which individuals obtain and expand their knowledge about the world. Sekuler and Blake [1990] broadly define perception as an individual's personal theory of reality, whereby one's perceptual outlook guides one's mental and behavioural activities. However, a more detailed approach views perception as encompassing everything from the elementary biological operations of the sensory receptors, to the more abstract and intellectual activities of the brain [Massad, Hubbard, and Newtonson 1979].

Within the context of the latter definition, while the process of perception is thought to originate in the physical properties of the senses (sight, hearing, touch, smell, taste), it is thought to terminate in sophisticated mental activities. Perception, then, goes beyond the physical responses of the senses to include mental phenomena, whereby the perceiver also typically draws on supplementary information arising from his/her knowledge of the world. In effect, modern psychologists propose that what is perceived is a direct manifestation of interactions between input from the receptors and certain processing systems of the brain. The crucial point of interest is in understanding how the sense organs filter stimuli and in how the brain codes, catalogues, and interprets the information received from the environment [Grusec, Lockhart, Walters 1990].

Hence, in this light, perception is thought to be a three-stage process whereby individuals: (a) are exposed to a particular stimulus, (b) attend to that stimulus, and (c) comprehend or interpret that stimulus. Specifically, in the exposure stage, individuals notice a stimulus through one or more of their five biological senses. In the following stage, the attention stage, they allocate processing capacity to the stimulus so that the information is consciously processed. Here, to counter information overload, individuals engage in both selective attention and selective processing, whereby they filter out some stimuli and concentrate on only those that they deem important, giving little heed to others. In this respect, Solso [1995, p. 8] affirms “our capacity to process information seems limited in two levels – sensory and cognitive. If too many sensory cues are imposed upon us at any given time, we can become overloaded; if we try to process too many events in memory, we can also become overloaded”. Thus, selective attention and selective processing effectively serve to direct one’s attention and cognitive operations, so that focus is given to particular objects to the exclusion of others. In the third and final stage, the comprehension stage, people mentally organize and interpret the stimulus in order to derive meaning from it and transform it into information. For the interpretation task, people draw upon their experience, memory, and expectations to attach meaning to a stimulus, particularly if the latter is ambiguous [Mowen and Minor 1998; Sekuler and Blake 1990].

Within the comprehension stage, it is generally agreed that knowledge of the world inevitably colours perceptual experiences [Massad, Hubbard, and Newtonson 1979; Sekuler and Blake 1990]. People's background knowledge and experiences are believed to bias their expectations and interpretations of reality. In fact, many experiments have shown that observers who have different prior expectations about an event, consistently arrive at very different interpretations of the same event. Such differences in interpretations are usually attributed to the selective registration of information, which people abstract from a given situation. Ultimately, abstracted information is information deemed relevant by the perceiver; and relevant information depends on the perceiver's subjective bias – that, is, it depends on the perceiver's activated schema (i.e. his/her background knowledge and experiences). It is worth noting that the activated schema is responsible for selecting the details of an event to which the perceiver attends at the time of exposure. In addition, however, theorists affirm that perceivers are very selective not only in what they notice, but also in what they learn, remember, and infer [Markus and Zajonc 1985; Kellogg 1995; Massad, Hubbard, and Newtonson 1979].

Indeed, according to Mowen and Minor [1998], when people perceive things, they do so in the context of their earlier experiences retained in their memory. However, an additional variable, namely involvement, also guides the perception process and influences the extent to which individuals engage in information processing. Involvement is the perceived personal importance (interest) individuals attach to objects and

circumstances. Typically, as one's involvement increases, one has greater motivation to attend to, comprehend and elaborate on the information he/she is exposed to in the environment. Available evidence suggests that as the level of involvement goes up, individuals process information in more depth. Also, as involvement increases, individuals are more likely to attend to the information they are interested in, while screening out the stimuli not relevant and of no interest. Such selective exposure and selective attention are significant factors in filtering information to which people are exposed. Lastly, involvement is also hypothesized to be positively related to efforts in processing, understanding, and information integration [Mowen and Minor 1998].

The field of consumer behaviour generally distinguishes between two types of involvement: situational involvement and enduring involvement. Situational involvement is associated with a specific situation, such as the need to replace a damaged product, and occurs only for a transitory period of time. In contrast, enduring involvement occurs when individuals show a consistent high level of interest in a product and recurrently spend time thinking about it. It is typically thought that both types of involvement determine the complexity of individual information processing. Regardless of the type, involvement levels are related to the phenomenon of perception [Mowen and Minor 1998].

As explained in previous paragraphs, perception has a dual influence on information processing. It can selectively focus attention as well as bias the interpretation of stimuli. Thus, it is believed to influence information processing – and by extension, cognitive learning – by guiding selective attention to stimuli in the environment, as well as the interpretation of stimuli in the context of background experiences.

Sekuler and Blake [1990] identify two theories of perception: the bottom-up and the top-down models. The first model proposes that perception results from a one-way ascendant flow of information from the sensory receptors to higher and higher stages of mental processing (i.e. the stages of stimuli organization and interpretation). Under this model, information is perceived from the environment and processed to enrich the knowledge base. In contrast, the top-down model of perception proposes that information from higher stages of processing exercises an influence downward on earlier stages of processing (through selective attention, categorization, interpretation and inference-making). It proposes that one's prior knowledge base has a direct influence on what is perceived. Most of the times, nonetheless, according to Sekuler and Blake [1990], perceptual responses are the product of both types of processing – i.e. bottom-up and top-down – where each is thought to supplement and reinforce the other.

The influence of memory on perception – in guiding the individual's exposure, attention, and comprehension processes – has been made evident. Next, memory is considered

separately and the following issues will be explored throughout the review on cognitive learning: (a) the selective nature of knowledge stored in memory, (b) the information one is able to retrieve from memory, and (c) the meaning given by the perceiver to stimuli in the environment.

2.3 Memory

Memory exerts a powerful influence on the perception process, especially during the exposure and the comprehension stages. Memory can be understood as the capacity to acquire and retain skills, information and knowledge [Grusec, Lockhart, Walters 1990].

Memory is thought to be comprised of basically three stores: sensory memory, short-term memory, and long-term memory. A simplified model of memory asserts that information is first registered in sensory memory. Sensory memory consists of the immediate impression caused by the triggering of the nerve cells, as a result of the sensory organs' response to external stimuli. It corresponds directly to the exposure stage in perception, where the receptors detect the stimuli from the environment. During sensory memory, the person both engages in selective attention and unconsciously analyzes the stimuli. The result is the filtering out of some stimuli and the instantaneous decision to assign extra processing capacity to the stimulus deemed interesting or important. If additional capacity is allocated, the information will shift from sensory memory to short-term memory (also called working memory). Short-term memory is the site where information

is temporarily stored while being processed. It is assumed to be connected to long-term memory through encoding and retrieval processes. While encoding refers to the transference of information from short-term to long-term memory, retrieval refers to the opposite process, namely of accessing stored information in long-term memory so that it can be utilized in short-term memory [Mowen and Minor 1998].

The study of memory has traditionally been focused on the acquisition of new knowledge, the retention of information, and the retrieval (in the form of recollections) of such retained knowledge. Each stage represents one of the three separate components of remembering: the encoding, storage, and retrieval processes, respectively. Furthermore, the remembering process is often thought to resemble problem solving, in that, given a cue – the retrieval cue – the memory system constructs an answer within the availability and accessibility constraints of the information stored in memory [Grusec, Lockhart, Walters 1990]. The next sections will explore the concepts of encoding, storage, and retrieval of information in more depth.

2.3.1 Encoding

Encoding refers to the process that accompanies the act of perception and which converts perceptual information into a form that can be mentally retained (stored) and subsequently utilized (retrieved) [Matlin 1992]. The encoding process is assumed to begin with the sensory stimulus which enters into short-term memory for processing and

ends with the storage of the information in long-term memory. In summary, it relates to the translation of perceived stimuli into memory traces and mental representations of information [Kellogg 1995].

Matlin [1992] distinguishes between two types of encoding; one resorts to the effortful processing of information, whereas the other relies on the automatic processing of information. According to this author, when an individual undergoes effortful processing of a stimulus, there is a conscious attempt to place the latter in memory. However, when engaging in automatic processing, the person makes no deliberate effort to encode a stimulus and place it into memory.

It follows that the type of encoding an individual employs is likely to be related to the different levels of information processing one engages in. In fact, information processing can be shallow or deep, depending on whether active thinking is involved. Whereas shallow processing occurs when superficial aspects of an event/object are encoded, (i.e. when little thought is involved in encoding), deep processing occurs when thought and deliberation are actively involved. With deeper processing a greater degree of cognitive analysis is undertaken, which results in more elaborate and more distinctive memory traces than shallower levels of processing. For this reason, deeper processing is hypothesized to produce memory traces that are more easily accessible for retrieval, and are thus likely to be better remembered [Solso 1995; Kellogg 1995].

However, many factors other than the depth of processing determine how well any given material is acquired (encoded) and retained by an individual. People vary to a great extent in the way they notice, understand, and remember what happens around them. In particular, the repetition of a stimulus, as well as the roles of selective encoding, comprehension, and organization, all affect the way individuals encode events and perceive the world [Grusec, Lockhart, Walters 1990]. Each of these factors will be considered separately in the paragraphs that follow.

The frequency of exposure to any given stimulus has been assumed by many theorists to produce highly accessible memory traces. However, experimental evidence has shown that the mere exposure to stimuli may not be sufficient to acquire information, strengthen the memory trace, and retain the material. In fact, many times, it is not only the constancy of exposure, but also the nature and quality of the contact itself that is important for effective encoding. Attention, for example, is crucial for encoding; and in many instances it has been regarded as a *sine qua non* condition for memory. Selective encoding, comprehension and subjective organization of the information also facilitate acquisition and are crucial to information retention [Kellogg 1995; Grusec, Lockhart, Walters 1990].

As stated, the role of selective encoding is of great importance to the study of memory. Selective encoding refers not only to the encoding of selected stimuli in the environment, but more importantly, to the encoding of certain characteristics of the selected stimuli. It

is hypothesized that interest (involvement) facilitates remembering, because people better encode and retrieve – thereby remember – the things which they deem interesting. The underlying assumption is that interest mediates selective encoding. Moreover, selective encoding also refers to the different encoding processes that occur with expectation-congruent and expectation-incongruent information. While information that is both consistent and inconsistent with one's existing knowledge base might be picked up during perception (through one's selective attention process), the two types of stimuli are not likely to be equally encoded. Some controversy exists regarding how exactly the encoding processes differ, but many believe that expectation-consistent information is given greater weight in encoding and interpretation, whereas inconsistent information is thought to be actively discounted and distorted to fit with one's expectations [Massad, Hubbard and Newston 1979; Kellogg 1995]. More will be said about this issue under the sections of schemata and stereotypes; for now, the roles of comprehension and organization in encoding will be discussed.

According to Grusec, Lockhart, and Walters [1990], theorists generally believe that effective encoding depends on the meaningfulness of the cognitive relationships constructed from the target information. In this vein, the capacity to understand a particular material is closely related to its meaningful encoding in memory and, thus, comprehension of a given stimulus is crucial for its effective encoding. The intuitive fact that meaningful things are learned with less difficulty, and thus recalled better than those

less meaningful, has long been established in a number of experiments. As a matter of fact, an important principle of comprehension proposes that the ease with which individuals gain and retain new information is largely dependent on their background knowledge on the subject matter or on a related issue. For instance, it has been experimentally confirmed that an 'expert' on a topic (i.e. somebody with considerable previous knowledge about a given material) has a greater ability than a layperson to learn and recollect new facts pertaining to the subject of his/her expertise. The explanation for such disparity in learning capacity is that 'experts' are better able to encode the material in a meaningful and logical manner than those with little or no knowledge on the topic [Grusec, Lockhart, Walters 1990].

Finally, the way in which people view and interpret their world can also be influenced by the mental organization of information imposed during encoding. The phenomenon referred to as 'cognitive organization of information' occurs when, during encoding, the relations (associations) among the target material and prior knowledge are registered in memory. Organization is believed to facilitate both the learning and remembering phenomena. In fact, it is thought that, when encoding perceived reality, people are inclined to group together – a process called 'chunking' – what they perceive to be related things. It is worth noting that it is exactly such subjective organization which is critical in the effectiveness of cues in eliciting recollections. As will be shown in later sections, one way of organizing information in memory is through the construction of

schemata. Schemata are known to direct perception, but they further provide a basis for the screening of incoming information – which, in turn, biases the operational interpretation one gives to his/her environment [Massad, Hubbard and Newston 1979; Kellogg 1995].

Having dealt with the process of encoding incoming information, the next subsection explores the process of storing information in memory.

2.3.2 Storage

As previously mentioned, psychologists believe that once information has been encoded, it is transferred in the form of memory traces from short-term memory to long-term memory for storage. While the exact capacity of the long-term memory to store and accommodate information is unknown, the universal consent is that it is astronomical [Mowen and Minor 1998].

However, although the human long-term memory is almost limitless in its ability to store information, this does not mean that people remember everything they encounter, encode, and mentally store. Quite to the contrary, people are well known to have faulty memories and, in fact, recollection at times is impossible. The necessary, although not sufficient, condition for the retrieval of information to occur is that the memory trace exist. However, even if information has been encoded and stored in the brain – at which time

psychologists say the memory trace is available – individuals may still fail to access the information stored, and therefore become unable to recollect events or facts. As will be seen in the next section on information retrieval, events may be available in memory, but still be inaccessible to recollection without the right retrieval cues [Kellogg 1995; Grusec, Lockhart, Walters 1990].

2.3.3 Retrieval

The two most important factors under the memory retrieval process are the availability and accessibility of memory traces. The availability of memory traces refers to the existence (or not) of information stored in long-term memory. If a memory trace is nonexistent, then the information is not available for retrieval. In contrast, the accessibility of memory traces refers to the notion of being able to access a particular piece of information that has already been stored in long-term memory. Accessibility of a trace would depend on both the retrieval cues provided by the environment – as prompts to activate and access information stored in long-term memory – and the strength of mental associations the individual formed throughout his/her life between the information stored and the cue at hand [Kellogg 1995].

Naturally, the retrieval process depends very much on the existence of stored information (memory traces), but it also depends and is initiated by the retrieval cue provided. Retrieval cues are formally defined as cues or stimuli that somehow instigate or allow

access to the stored information [Grusec, Lockhart, Walters 1990]. Thus, it is the interaction between the retrieval cue and the memory traces that brings about access to available information and thus makes conscious recall possible. In this manner, cognitive psychologists propose that retrieval entails matching the information stored in memory to the relevant retrieval prompt. It is important to highlight, however, that while a necessary condition in the process of retrieval, the cue may not be a sufficient or appropriate stimulus to trigger retrieval [Grusec, Lockhart, Walters 1990].

Encoding operations, via both selective encoding and the subjective organization of information, effectively determine what is stored in memory and how this is done. Such mental organization of information determines the effectiveness of any given retrieval cue. In effect, Tulving's Encoding Specificity Principle asserts that the specific encoding operations one employs during perception determine which retrieval cues will be successful in eliciting access to the memory traces created. If there is interaction between the cue and the memory trace, then recollection takes place; if no such interaction is possible, the act of remembering fails [Kellogg 1995].

To recapitulate, a retrieval cue will be rendered inadequate and ineffective if, during encoding, the perceiver failed to relate to the target memory trace the information embodied in the cue. In this vein, retrieval cues are effective to the extent that they contain information that matches the information initially encoded about the target object

and event. Once available in memory, whether or not a fact can be recalled/recollected depends both on how the fact was originally encoded and on the specific retrieval information provided. Thus, retrieval cues are necessary, albeit insufficient conditions for remembering – the failure to provide effective retrieval of information may be due to a lack of either available or accessible memory traces [Grusec, Lockhart and Walters 1990].

The study of information retrieval is of extreme relevance in situations where the individual is expected to combine disjointed pieces of information to arrive at a subjective judgment. Interestingly, many psychological experiments have found that people are unlikely to retrieve from memory all the facts that may potentially bear on an assessment or decision. The consensus is that individuals truncate their search process – thereby avoiding the confusion and cognitive strain associated with information overload – as soon as enough information has come to mind to arrive at a decision with ample subjective certainty. Accordingly, their assessments strongly reflect the impact of the information that is most accessible in memory at the time of judgment. In this perspective, memory appears to affect not only the amount of information that enters into decision-making (via the truncation of the retrieval process), but also the type of information considered (via the relative accessibility of the memory traces) [Alba, Hutchinson, and Lynch, Jr. 1991; Schwarz 1996; Jacoby 1984; Malhotra 1984].

After considering the three components of the remembering process – namely, the encoding, storage and retrieval processes – the next section will focus on measures of memory and will address issues of how theorists often resort to cues in an attempt to improve the access to available memory traces.

2.3.4 Measures of Memory

Memory researchers have typically relied on two basic measuring techniques of memory to assess the effectiveness of retrieval processes under a number of circumstances: recall and recognition. Both techniques are commonly used to access and measure memory for traces of formerly encountered material. It is widely believed that the key to high levels of recall and recognition – or equivalently, the key to successful recollections – lies in the interaction between encoding and retrieval conditions. From a research perspective, both instruments primarily measure the ability of given material to attract attention and enter long-term memory [Kellogg 1995; Plessis 1994].

Recall tests typically ask individuals to reproduce on their own, the information they have been exposed to at a given time. There are essentially two types of recall techniques: free recall and aided recall. Free recall entails no cue aid in the process of remembering, whilst aided recall allows for the presence of prompts and cues to help one's recall of previously encountered material. An example of free recall is convenient to effectively illustrate the technique. Consider the case when individuals are exposed to

advertisements in a magazine. A free recall test would involve the individual going through the magazine and later reporting – with no imposed structure or cue to aid in remembering – the ads he/she came across. Such a test would thus measure one's ability to remember in the absence of additional cues. Similarly, and of direct relevance to the present study, the top-of-mind awareness (TOMA) technique is a subtype of the aided recall technique, and an example of a TOMA test is to ask individuals to recall the first items that come to mind when they are exposed to a cue specified by the researcher – say a country name, for instance. More will be said about the TOMA technique, but for now, it suffices to say that it attempts to verify the accessibility of an associational memory trace [Matlin 1992].

Recognition tests, in contrast, differ from recall tests in that they provide a list of alternatives for individuals to choose the correct answer from, so that people can, once again, reproduce the material to which they were previously exposed. There are also two types of recognition techniques: forced-choice and free-choice recognition. The forced-choice method is similar to a multiple-choice test, where subjects are given sets of items and are instructed to select only one of each set as the correct answer, thus discarding the other n items within a set as distracter alternatives. In contrast, in the free-choice recognition method, subjects are shown a series of alternatives that includes both target items as well as distracters, and they must then decide which items – one or more – were or were not previously encountered. To use a similar example for free-choice recognition

as the one used for the discussion on recall, the former would entail exposing an individual to advertisements in a magazine, then showing a series of advertisements, (containing both previously encountered as well as distracter items), and finally asking the individual to recognize those that were originally present in the magazine [Matlin 1992; Grusec, Lockhart, Walters 1990].

It is widely believed that the explanation for high levels of recall and recognition – or equivalently, the key to successful recollections – lies in the interaction between encoding and retrieval conditions. Plessis' [1994] paper suggests that free recall, aided recall, and recognition techniques usually obtain different numerical measures of remembering. He further contends that recognition tests produce better results than aided recall, while aided recall produce better results than free recall. Plessis [1994] attributes the differences in these measures to the differing richness of the cueing material provided for the access and retrieval of memory traces.

Although brief, the present section on measures of memory illustrates in a general way the tools commonly used by researchers in the fields of psychology and marketing to assess the existence and accessibility of memory traces. The following sections, on gestalt psychology, schemata and stereotypes, will discuss how subjective mental structures organize stimuli and how they impact the way individuals perceive, interpret, and remember information from their environment.

2.4 Gestalt Psychology

Gestalt psychology is often cited as the predecessor of schema theories [Iran-Nejad and Winsler 2000; Markus and Zajonc 1985]. It studies the principle of perceptual organization and is built on the notion that people perceive inputs from the environment in a holistic manner, as part of a total, coherent context.

Gestalt means pattern or configuration in German, which suggests that Gestalt psychologists aim to understand how people perceive patterns in the world. In essence, these psychologists attempt to identify the system of subjective laws that govern how people take stimuli from their surrounding environment and make sense out of shapes, forms, traits, and events to which they are exposed. For instance, they believe that when people form overall impressions about an object, they do not evaluate in isolation each piece of information to later integrate them into an overall judgment – in an exercise of mental gymnastics, or in a form of cognitive algebra. Rather, Gestalts contend that people look at the information given, deduce the meaning of the information from the wider context in which it is embedded, and appraise the object based on the “gestalt” – that is, based on a holistic view, on the overall pattern of information [Folkes and Kiesler 1991].

Under this line of reasoning, if gestalt is what guides people’s impressions and judgments, then it becomes intuitively evident that when one looks at an automobile, for example, one is likely not to see glass and steel, but rather to see an organized whole: a

car. But people do not stop there; it is also true that people often go beyond merely seeing a car: they also see status, a comfortable transportation, quality, style, and the like [Folkes and Kiesler 1991].

Now, consider the case of someone perceiving a Mercedes, a Porsche, and a BMW. It is possible, in the gestalt milieu, that the individual may see them as part of a wider context: that of German cars. Gestalt psychology makes it reasonable to hypothesize that people could mentally organize and chunk these car brands together into one category, i.e. that of German cars; but also, it allows them to be taken together to represent German quality. In this way, Gestalt psychology explains how the transpositions of certain attributes can be generalized to a wider population and how inferences can be made based on the “gestalt”.

The following sections will deliberate on people’s cognitive organization of knowledge and will introduce the concepts of schemata and stereotypes.

2.5 Schemata

Before delving into the literature on schemata, definitions of the term seem appropriate and follow next:

“Cognitive structures (such as schemata) are like mosaics – built up idiosyncratically by each individual from discrete parts. The ‘tiles’ are limited both by language and personal experience...” [Head and Sutton, in Torney-Purta 1991, p.191].

“A schema is an abstract structure of information ... which summarizes information about many particular cases and represents the relationships among components” [Anderson, in Torney-Purta 1991, p.191].

“Schema theory holds that (...) cognitive structures refer to a hierarchy of related and subsuming constructs, generalizations, and concepts that form a person’s intellectual framework. (...) The construct would subsume a series of relevant generalizations which relate directly to and define the construct. *Linked to* the generalizations would be a series of relevant concepts which relate directly to and define the generalization. And, lastly, facts might be imagined which fit each concept” [DeChenne 1993, pg. 177, italics added].

“A pattern of associations around a particular concept is termed a schema or schematic memory. Schematic memory is a complex web of associations (...) of various ‘chunks’ of information. ... In a schema, concepts, events, and feelings are stored in nodes within memory. ... Associative links connect

various concepts to form the complete meaning assigned to an item.”

[Hawkins, Best and Coney 2001, pp. 343-344].

The field of psychology has long studied the phenomenon whereby people are assumed to construct cognitive representations of the world. In fact, it is widely acknowledged that people experience the world mediated through such cognitive frameworks, also known as schemata. At the minimum, such mental representations can be understood as internal cognitive structures which are created by the perceiver to symbolize objective reality. In this context, theorists generally believe that these frameworks are derived from past experiences and allow the perceiver to reduce his/her complex environment to a simplified subjective version of objective reality. In addition, when external information is incomplete schemata are thought to function as interpretative templates, thus permitting people to go beyond the factual evidence made available by the environment. Above all, however, the most noteworthy role of these cognitive structures is as basic building blocks of information processing, through which the perceiver achieves meaning and understanding for the world [Markus and Zajonc 1985].

As previously alluded to in the sections on perception and memory, people unconsciously construct their own perceptions of reality. For the most part, schemata are viewed as subjective theories about how the world operates, where these theories are derived from generalizing across one's experiences with the world. Theoretically, schemata serve to

influence: (1) the way one perceives and interprets (evaluates and judges) information, and (2) the predictions and inferences one generates about one's experiences. Hence, while schemata have a selective function in focusing attention on certain aspects of information, there is also a tendency for one's schema to, albeit sometimes erroneously, "fill in gaps" in information (through inference-making). The notion that knowledge is represented in a dynamic, abstract, mental structure – a schema – evolved from the work of two well-known cognitive psychologists: Piaget and Barlett [Kellogg 1995; Markus and Zajonc 1985; Folkes and Kiesler 1991].

In 1932, Piaget proposed that children are endowed with structures (schemata) of organizing and reacting to experience. These schemata would be either behavioural or mental. According to Piaget, a young baby possesses behavioural schemata. Babies have grasping and sucking schemata, among others, which determine how they react to events in the world. Each of the behavioural schemata Piaget proposed was assumed to help infants organize and understand the environment. In contrast, older children and adults – our interest in this study – have schemata that are predominantly mental, i.e. cognitive, in nature. These cognitive structures are assumed to contain within them both mental principles for classifying events and plans for behaviour [Grusec, Lockhart, Walters 1990].

Barlett, in contrast to Piaget, essentially viewed schemata as active mental structures for the organization of information. Because his work was, at times, vague and ambiguous, many interpretations of it have arisen among cognitive psychologists. However, it is generally agreed that “one of Barlett’s major goals was to show how previous knowledge influences current mental processes” [Brewer 2000, p. 37]. Much debate exists, however, on what he meant by characterizing schemata as active. While some interpret Barlett’s active nature of schemata to be a result of the active use of past knowledge to deal with present situations, others believe Barlett’s work was challenging the notion that memory traces are fixed and changeless – this second group of researchers defends the idea that memory traces, and hence schemata, are constantly developing, and therefore active [Brewer 2000].

Leaving this debate on Barlett’s work aside, all modern schema theories have at their core the notion of previous knowledge influencing current cognitive processes. It is theorized that the knowledge represented in one’s schemata interacts with incoming information – a process called schema instantiation – and serves to selectively influence both the manner in which information is given meaning as well as the inferences drawn from the perceived situation. Two streams of theories are identified within schema research: the structural and the functional approach. While the former treats schemata as static, long-term memory templates; the latter treats them as dynamic and continuously

evolving structures [Folkes and Kiesler 1991; Iran-Nejad and Winsler 2000]. The following sections will explore the two theories separately.

2.5.1 Structural Schema Theories

Schema theorists who think of schemata as being basic building blocks of cognition, without which no information processing can occur, belong to the structural school of thought. According to Iran-Nejad and Winsler [2000], structural schema theories are characterized by two essential aspects. These theories: (1) consider schemata to be static monoliths; and (2) state that all information processing depends on the pre-existence of such structures in long-term memory. The latter aspect suggests that no learning can occur without a relevant pre-existing schema, alluding to the idea that in the absence of a relevant schema, neither perception nor comprehension can occur. In fact, the underlying premises that schemata are static and pre-exist in memory negate the line of inquiry on how people learn. Surely, people are not born knowing what a car is, they must learn and construct from scratch a schema for cars through their experiences in life. It becomes apparent that the two defining characteristics of structural models are also their two major limitations [Iran-Nejad and Winsler 2000].

Many structural theorists take the view that a schema is an associative long-term memory network. Researchers have found, for example, that semantic memory – which is involved with one's general knowledge about the world – is organized into networks,

where the fundamental building blocks of such networks are called nodes. Each node is assumed to represent a stored semantic concept and is linked to other associated nodes in a web-like manner. According to a popular theory of semantic memory, information is recalled from a semantic network via what is termed spreading activation. What spreading activation entails is a process which starts when a stimulus activates one node and the impulse subsequently spreads throughout the network, activating its other nodes. As each node is activated, a piece of information stored in memory is consciously recalled [Mowen and Minor 1998; Iran-Nejad and Winsler 2000]. Figure 1 illustrates a semantic memory network for the concept (the category label) "Corvette car".

The total package of associations brought to mind when the node "Corvette" is activated is called a schema. In the associative network framework, a schema, in effect, can be defined as "a generic knowledge structure, stored in memory, that consists of relevant attributes of some stimulus domain as well as interrelations among those attributes" [Folkes and Kiesler 1991, p. 285].

Another structural schema theory, which can be viewed as complementary to the associative model, is the Script Theory. It essentially focuses on the influence of schemata on the encoding and retrieval of schema-consistent and schema-inconsistent information. In general, script theorists have assumed that information that is inconsistent with the schema being instantiated is ignored at the time of encoding. Specifically, it is

Figure 1: A schema for the concept of “Corvette”, (extracted from Mowen and Minor 1998).

assumed that schemata act as selective filters that determine what information one attends to, what importance one attaches to it, and what happens to that information. In effect, people who have schemata formed for a particular person, situation, object, or event have been shown to resist information that is counter to their prevailing schema more strongly than aschematics – those who do not have a schema already formed for the given circumstance [Mowen and Minor 1998; Folkes and Kiesler 1991].

However, in the context of schema conflicting information, the script-pointer-plus-tag (SP+T) hypothesis has been suggested as an alternative to expand script theory and has been widely examined [Iran-Nejad and Winsler 2000]. According to this hypothesis,

when an abstract memory is constructed, it consists of a pointer and a set of tags. The pointer, in this theory, points to the generic schema, while each tag represents every inconsistent event encountered and encoded by the individual. In this manner, the SP+T enables a person to reconstruct a scenario of the original event that contains both schema-consistent generic information, as well as schema-inconsistent unique information. While script theory explains quite well the findings that generic schema-consistent information is often better recalled than schema-incongruent information, the SP+T hypothesis is able to account for the findings that if the inconsistent stimulus is striking enough – if it surprises the perceiver by the way in which it deviates from his/her expectations – then he/she may engage in more diligent processing of that stimulus, devote more cognitive capacity to that information, and produce a tag in his/her schema – albeit not fully integrate it into the schema. Tags are, in fact, not part of a schema; they remain in the periphery of the cognitive structures as separate associated information. In the structural sense, the SP+T is indeed a model of schemata preservation – that is, of schemata inflexibility and non-change – because their structures are effectively maintained intact [Iran-Nejad and Winsler 2000].

2.5.2 Functional Schema Theories

As previously mentioned, the major weakness of structural theories is their inability to consider how people acquire new, more complex, or different schemata. This weakness is especially evident when one ponders the importance of schema formation, change and

upgrading in the learning context. The functionalist approach, contrary to the structural view, allows for the dynamic nature of schemata and, unlike the latter, is able to account for how people construct schemata. In this section, focus is given to functional schema theories and their main characteristics.

The functional view of schemata defines two processes in the dynamic formation, development, and refinement of a schema: assimilation and accommodation. Assimilation entails the cognitive fitting of incoming information with pre-existing mental structures; while accommodation involves the modification of mental structures so one can process incoming information that does not readily fit the default contents of a schema. An example may suit to highlight the different concepts. Consider the case of the learning of a new concept: the individual may at first cognitively represent the concept in a rudimentary, simplified, and inaccurate fashion. This phase represents the assimilation phase. However, once the new concept has been assimilated, an individual's experiences further refine the concept so that a new schema is formed to accommodate all the facets of the new concept. The latter phase represents the accommodation phase. Whether the situation entails assimilation or accommodation of a given stimulus (information), it is clear that schemata, in the functional context – whether in the form of an associative model or a script model – are assumed to be constantly changing and not preserved in a permanently rigid structure in long-term memory [Grusec, Lockhart, Walters 1990].

In the case of script theory and schema-congruent and incongruent information, for instance, functionalism admits that there is a tendency for people to attend mostly to stimuli, to encode information, and to make inferences that are schema-consistent. Functionalism suggests that such tendency may, naturally, serve to perpetuate schemata. It logically follows that schemata are characteristically resistant to change. However, theorists note that although schema-consistent information dominates in directing the perception process, in some situations people do appear to utilize information that is incongruent with their schema. And when such information is eventually incorporated in one's existing schema (through the processes of assimilation and accommodation) it may consequently lead to a reconsideration and alteration of the established schema [Folkes and Kiesler 1991; Stangor and Lange 1994].

In the associative network model framework, functionalism also sheds some light on schemata's relative rigidity. Because information that is schema-consistent is thought to be particularly straightforward to encode and store into the knowledge structure, schema-congruent information will be more strongly associated with the schema than incongruent information. Consequently, schema-congruent information will also be easier to recall, because of its strong association with the category label, while inconsistent information will remain dormant. If the strength of association between the category label and the incongruent information increases, the schema will undergo a transformation and adapt itself to a new perceived reality [Stangor and Lange 1994]. More will be said about the

issue of associative strength and schema alterations under the stereotypes section of this literature review; the case that functional schema theories make, in summary, is that while schemata are relatively rigid, they are still amenable to change.

2.6 Stereotypes

According to Stangor and Lange [1994], stereotypes can be regarded as dominant and defining characteristics of a group of people, objects or events. Put differently, predominant associations between nodes in one's activated schema typically form stereotypes. In addition, Stangor and Lange [1994] further characterize stereotypes as socially shared perceptions of a group. In this respect, Vinacke [1957 p. 229] defines stereotypes as "a collection of trait-names upon which a large percentage of people agree as appropriate for describing some class of individuals".

Researchers have studied the stereotyping phenomenon from a variety of perspectives, but there are generally two main approaches to the nature and use of stereotypes in the social psychology field. The first characterizes stereotypes as extreme overgeneralizations of features over a population of objects, people, or events. The second and contrasting approach is the cognitive process approach, which describes stereotypes as schemata applied to the members of a category. The cognitive process approach hypothesizes that, like all other schemata, stereotypes serve a knowledge

function by helping people reduce and make more manageable the complex environment that surrounds them [O'Connell, Bowden and Ferriell 1997; Yarhouse 2000].

Within the stream of stereotype research that views stereotyping in a negative light, (i.e. as an overgeneralization process), theorists that study impression formation hold that when individuals attend to stereotypes, "the end result is an unfortunate but unavoidable distortion of ... perception in which the complexity, richness and accuracy of individuated impression formation is sacrificed for a less accurate but more efficient alternative" [Oakes et. al. 1999, p. 128]. These theorists distinguish between piecemeal integration of specifics (which gives rise to individuated impression formation), and categorization (which results in stereotyping). Both processes are positioned on opposite ends in the impression formation continuum. It is hypothesized that movements along this continuum, from entirely individuated to completely stereotypical impressions, are reliant upon the amount of the perceiver's attention at the time of encoding. Typically, the more attention one is able or prepared to invest in impression formation, the more one is likely to actually "analyze current information rather than rely on pre-digested category-based information, increasing the likelihood of individuation over stereotyping" [Oakes et. al. 1999, pp. 131-132]. Although these researchers view stereotyping in a negative light, they do consider it to be an aspect of normal impression formation under conditions where people, objects, or events are being defined as group members, as opposed to being perceived as unique and differentiated individuals.

In contrast to the negative orientation to stereotypes, where these are held as unsupported and unwarranted overgeneralizations, current cognitive psychologists have reached consensus in defining stereotypes as mentally structured characteristics that are descriptive of and associated with members of categories [Nadler 1988; Yarhouse 2000]. The key assumption in such a definition is that “people abstract knowledge representations of the characteristics they perceive to be true of the members of ... groups” [Stangor and Lange 1994, p. 361]. The focus of the remaining sections is on this cognitive approach to stereotyping.

2.6.1 The Descriptive Nature of Stereotypes

As highlighted in the preceding paragraph, cognitive psychologists consider stereotypes to be descriptive of reality. The reason for the descriptive nature of stereotypes is that their contents are developed from an individual's experiences – whether direct or indirect – and thus describe an individual's reality. From this perspective, they are not ungrounded generalizations; rather, they are illustrative of one's experiences with the world. Hence, stereotypes in this context, even if they do not correspond to objective reality, are valid in terms of the individual's field of experience [Nadler 1988]. They, in effect, correspond to all the accumulated knowledge that an individual has about a certain branch of experience. However, because individuals are ‘imperfect scientists’ – in that their experiential knowledge is limited, and in that they are subject to systematic biases

and oversimplifications – stereotypes serve only as rough representations of reality [O'Connell, Bowden and Ferriel 1997].

As ballpark approximations to reality, stereotypes are used to simplify the complex world. Stangor and Lange [1994] contend that stereotyping is one way the individual reduces his/her uncertainty about other objects and people. In this circumstance of uncertainty reduction, stereotypes are effective in providing individuals with expectations which help them: (a) understand and anticipate what other objects and people in the class are like, (b) prognosticate how these are likely to act and react, and (c) cope with and respond to the objects, people, or situation at hand. The underlying hypothesis is that stereotypes provide the stereotype-holder with a foundation for expeditious and effortless judgments that go beyond the information available and which serve to determine people's behaviour towards the stereotyped subject [Brodt and Ross 1998].

2.6.2 The Associative Nature of Stereotypes

Stereotypical characteristics are mentally linked with and related to group labels in semantic memory. Thus, stereotypes can be conceptualized in terms of mental associations, much like the schema associative model previously seen. In the associational model below, for example, a stereotyped group representation consists of a category label (e.g. German Products) and a number of mentally associated featural characteristics. These associated descriptors are featural – and thus stereotypical – to the

extent that they represent the salient or most prominent and typical features of the construct [Stangor and Lange 1994].

Figure 2: A category label and its associated stereotypical traits, (extracted and modified from Stangor and Lange 1994, p. 362).

The power of the associational model is in its explanation of how stereotypes are triggered in memory upon exposure to a category label. It is assumed that the mental excitation of a category label (a concept) instantaneously spreads from the stimulated node to the associated salient nodes. Within such associational framework, a characteristic becomes stereotypical to the degree that it is strongly associated in memory with a given category label. As will be established shortly, the strength of association between the category label and its associated nodes is hypothesized to influence the degree to which a stereotype seeps into one's judgment [Stangor and Lange 1994].

Determinants of the strength of association may include: (1) the extent to which attributes allow differentiation among groups; (2) one's need to maintain existing expectations intact; or (3) one's need to accurately model and understand the environment [Stangor and Lange 1994]. These three driving forces of associative strength may, for example, act at the perceptual level, leading one to be more or less likely to be exposed to, or to attend to, stereotype-congruent versus incongruent information. As briefly alluded to in the schemata section, changing stereotype content (or for that matter, the content of any associative schemata) involves altering the strength of association between concepts and their cognitively related features. This can be achieved either by causing the cognitive linkages between the category label and the stereotypical traits to deteriorate, or, in contrast, by strengthening those associations with non-stereotypical characteristics [Stangor and Lange 1994]. However, as will be explained below, changing the strength of association between items is not easy and is not a sure outcome from being exposed to stereotype-inconsistent information.

Stereotypical expectancies are known to influence both judgments of and behaviour towards the stereotyped subject. Expectancies, recall from the section on schemata, are also known to influence what information is sought out, given focus to, remembered, and how it is cognitively deciphered (i.e. given meaning to). A stereotype can, therefore, be understood as a specific type of schema because: it is derived from experience, it

influences the aspects of the environment to which one attends, and it affects the judgments one makes about the stimulus one perceives [Nadler 1988].

Hence, like all other schemata, stereotypes are hypothesized to sway information processing in a direction that tends to reinforce and consolidate stereotypical expectations. The main concern of many theorists has been that, while stereotyped-based processing may be potentially informative, it more often than not leads to prejudiced impressions, inaccurate judgments and biased responses to the target objects or people. In fact, regardless of “whether stereotypes are completely inaccurate or merely exaggerations of actual group differences, they lead the stereotype holders to irrationally ignore, undervalue, or reject the relevance of potentially diagnostic information about particular members of the stereotyped group” [Brodt and Ross 1998, p. 226].

Thus, the rigid adherence to stereotypes often implies that the perceiver fails to register individuating information and consequently results in the non-absorption of all stereotype-discrepant information. In line with the finding of marginal (if any) influence of incongruent information on established schemata, stereotype-inconsistent information is also unlikely to have an impact on the structure of the stereotype. Even if one encounters stereotype-inconsistent information, attends to it, remembers it, and uses it to update the representation, it is still doubtful that it will have a large effect on the overall beliefs about a group. It may, in fact, only marginally alter the probability assigned to the

characteristic (trait) associated with the category – i.e. instead of believing that all Japanese are hard-workers, one may encounter a Japanese person that is not hardworking and may update his/her beliefs to believing that, in truth, 99.9% of Japanese are hard-workers. The essence of the belief, however, is maintained, specifically that most Japanese are hard-workers. While the stereotype still persists in this case, the belief strength, nonetheless, is reduced [Nadler 1988].

Many theorize that stereotype rigidity is due to the fact that, over time, mental portrayals of recurrently encountered categories of people or objects are consolidated by many stereotype-confirming experiences. Against these robust confirmatory forces, exposure to some stereotype-incongruent information is not liable to produce much change in the abstract representation. In addition to such influences that tend to uphold stereotypical beliefs, individuals are also likely to be highly motivated to maintain their expectations intact, making the latter even more resistant to change. In fact, to keep their cognitive representations (and stereotypes) unaltered in the face of disconfirming evidence, individuals are known to perceive selectively only those pieces of information that support the image they hold in their minds, as well as to distort and/or discount incongruent information [Stangor and Lange 1994; Nadler 1988].

Nadler [1988, p. 212] eloquently summarizes three of the many potential effects discrepant information may have on stereotypical beliefs, and thus on the stereotype

associative network: "... the perceiver's initial test, entailing a comparison of the relevant stereotype with the observed individual's actual behaviour, may indicate no disparity (regardless of whether one actually exists) because the perceiver does not expect to encounter a disparity. Hence, the individual may exit the perceptual situation, thereby reaffirming the stereotype. If the perceiver does give the observed individual the 'benefit of the doubt' by operating on the environment, he/she is still likely to interpret selectively the encountered stimuli, again reinforcing the original stereotype. Alternatively, the perceiver may conclude that this individual is the exception to the rule, which also maintains the stereotype".

The latter case represents what is called the phenomenon of subtyping, where one responds to disconfirming information by making his/her stereotype more internally differentiated. Subtyping refers to the process where disconfirming information is assimilated and accommodated in the stereotype without revision of the overall stereotype, much like the SP+T hypothesis in script theory [Oakes et. al. 1999]. In any of the above situations, in summary, the strength of association between the category label and the stereotypical traits remains typically unaltered in the presence of stereotype-inconsistent information. Here, discrepant information has no effect on one's stereotype associative network.

However, even in situations when an alteration is made to the strength of association between a category label and a stereotypical trait, the fact remains that the overall belief structure is largely preserved and maintained intact. Recall, for illustration purposes, the previous example of the Japanese as hardworking individuals.

After considering the nature of stereotypes as associative networks and after looking into the impacts of inconsistent information on these, the focus now shifts to stereotypes as heuristics for inference-making and information processing.

2.6.3 The Inferential Nature of Stereotypes

Stereotypes are typically inferential in nature, because they symbolize inductive and deductive logic employed by the perceiver. The process of deduction involves the employment of a general proposition to draw a conclusion about a specific situation. In the stereotyping context, the deductive example below illustrates a perceiver utilizing previously learned general stereotypical relationships to assess a person: [Nadler 1988; Grusec, Lockhart, Walters 1990]

All Japanese are hardworking.
ABC is Japanese.
Therefore, ABC is hardworking.

In contrast, induction is the opposite process, whereby one starts from specific premises and draws general conclusions from the stated particular instances. The resulting

generalization is not articulated as a truth, but as a mere conjecture/hypothesis [Grusec, Lockhart, Walters 1990]. In the stereotyping context, the example below illustrates inductive reasoning:

ABC is hardworking.
 DEF is hardworking.
 ABC and DEF are both Japanese.
 Therefore, all Japanese are hardworking.

Having considered the two examples above, it becomes clear that stereotypes can be composed of both inductive and deductive rationalizations. While a stereotype is likely formed via induction, it is probably applied to a given situation via deduction.

The main concern of stereotype researchers has been, by far, in the indiscriminate use of stereotypical beliefs as the basis for most inferences in everyday reasoning. Whereas many have proposed that stereotypes are typically careless generalizations, others have suggested that they represent probabilistic judgments – whereby perceivers, given their life experiences and general knowledge, judge the likelihood that a given person, object or event will follow the same norms of behaviour as the group category to which such allegedly belong [Nadler 1988]. Additionally, some also posit that stereotypes are correlations between two sets of events – albeit sometimes illusory correlations, in which case they can be thought of as inaccurate probabilistic judgments, in that they do not represent objective reality. But whether stereotypes are accurate (in the sense of being

mere exaggerations of actual group characteristics) or inaccurate probabilistic judgments (thus unwarranted overgeneralizations), it is a fact that people unhesitatingly categorize others in various 'types', and use these categories (i.e. stereotypes) as the basis for much cognitive processing and inference making in everyday situations. As mentioned, researchers' main concern has been both with the dangers of overrating the strength of the relationship between the category and its stereotypical traits, as well as with the resulting inclination of indiscriminately applying this relationship to all the members of a group [Yarhouse 2000; Grusec, Lockhart, Walters 1990; Folkes and Kiesler 1991].

2.6.4 Measuring Stereotypes

Having already determined the nature of stereotypes – as descriptive, associative and inferential – attention is now turned to the issue of their measurement. Like all other covert phenomena, stereotypes have to be inferred from actions, and attitudes. At least two approaches for measuring stereotypes can be identified in the literature: whereas one relies on the availability of memory traces, the other centres on the traces' accessibility to the individual. Each approach will be explained below.

The traditional techniques for measuring the existence of stereotypes have typically provided a list of features for the respondent to indicate which are true for a given group. Characteristically, such research instruments are designed to ascertain the availability of a trait within one's associative network. In contrast, modern approaches aim at the degree

of accessibility of a trait in memory, thus fundamentally resorting to free-recall techniques. In the modern approach context, trait accessibility refers to the likelihood that the memory trace of an attribute will be retrieved and brought to conscious memory upon one's exposure to a stimulus group's label. Unlike the traditional techniques where one is constrained by a list of pre-selected traits proposed by researchers, under free-recall procedures respondents are forced to individually evoke and replicate their encoded mental associations. It is exactly this compelling benefit of not awarding cues and imposing constraints on respondents that makes modern techniques more appropriate for stereotype research than the former method [Stangor and Lange 1994; Solso 1995].

In particular, a typical procedure for measuring stereotype accessibility is by asking individuals to indicate what thoughts come to mind when they think about a relevant group. In such a situation of free-recall, by providing the group label, the experimenter's intention is to activate a subjective schema, which will simply arouse the featural (salient) traits of the target group. Such methodology is effective in measuring stereotypes, because the free-responses disclose the way the mind organizes and portrays groups; but more specifically, it is effective to the extent that the responses represent a direct indication of the associative strength between a category label and an attribute [Solso 1995; Stangor and Lange 1994; Markus and Zajonc 1985].

2.7 Behavioural Learning

The topics on learning discussed thus far – perception, memory, schemata, and stereotypes – are all components of the process of cognitive learning. General learning theory in psychology typically distinguishes between two major types of learning: cognitive and behavioural learning. While a brief definition of each type of learning has already been provided, the following paragraphs will serve to recapitulate the concepts.

“Cognitive learning is defined as the processes through which people form associations among concepts, learn sequences of concepts... and gain insights.” [Mowen and Minor 1998, p. 107]. The cognitive orientation, thus, treats learning as an active process where the individual: (1) acquires and encodes information, (2) integrates the new information with pre-existing beliefs, and, (3) if circumstances require, retrieves the knowledge accumulated to aid in decision-making and behavioural choice. Here, learning can take place through many different ways, such as through formal education, through media exposure, through personal experience, through traveling, and through personal contacts. Most cognitively oriented theorists view learning as occurring via information processing [Shimp 1991].

While cognitive learning theories stress the operations of covert events in the learning experience (i.e. the mental processes that accompany learning), behavioural learning underscores overt events, such as the existence of reinforcing or punishing external

stimuli and their influence in learning. Therefore, behavioural learning, also called stimulus-response or associative orientation learning, is a process in which exogenous factors serve to support a relatively enduring alteration in behaviour. Like all learning, it results from experience and takes place when humans (or animals) draw connections between environmental events. Two major approaches to behavioural learning are: classical conditioning and operant conditioning. It should be mentioned that sometimes the two conditioning processes overlap [Mowen and Minor 1998; Shimp 1991].

2.7.1 Classical Conditioning

Classical conditioning is principally interested in studying stimulus-response linkages. Originally, the field was only concerned with studying animals. It investigated how some stimuli (the conditioned stimuli), after being repeatedly paired with a biological stimulus (the unconditioned stimulus), induced certain behaviours in animals. Modern learning theorists, however, investigate how classical conditioning also affects humans [Matlin 1992].

Because the formal definition, offered below, of classical conditioning is somewhat abstract, an example of what it encompasses will immediately follow, so as to better illustrate the concept. The traditional view holds that conditioning results from the frequent pairing of conditioned and unconditioned stimuli and, effectively, represents the establishment of mental connections between specific external stimuli and behavioural

responses – both of which are originally not related. Classical conditioning, in fact, occurs when a neutral stimulus is paired with a stimulus that naturally elicits a response (the unconditioned stimulus), in a way that through the recurrent repetition of this pairing, the neutral stimulus eventually becomes able to evoke the same specific response in the absence of the unconditioned stimulus. At this later stage, after the neutral stimulus has become able to induce the particular behavioural response all by itself, it comes to be referred to as the conditioned stimulus [Solomon, Zaichkowsky and Polegato 1999; Shimp 1991].

Pavlov was the first researcher to put forth the idea of conditioning. In his study, he noticed that dogs had the tendency to salivate copiously every time meat powder was presented to them. The unconditioned stimulus was the meat powder and it was responsible for provoking the unconditioned response of salivation. At the same time, prior to conditioning, the dogs showed no reaction to the sound of a bell. Nevertheless, during conditioning, the sound of the bell was paired with the meat powder. Here, the conditioned stimulus was the bell and it was accompanied by the unconditioned stimulus (food), which produced the unconditioned response of salivation. After several trials, Pavlov noticed that the same dogs salivated profusely upon the mere sound of the bell that used to signal the arrival of their food. As described, in the last phase of conditioning, the bell, as the conditioned stimulus, was a sufficient stimulus to generate

salivation in the absence of the meat powder, which represented the conditioned response [Matlin 1992]. For an illustration of the Classical Conditioning process refer to figure 4.

Figure 4: An illustration of Classical Conditioning, (extracted from Matlin 1992, p. 176).

It is widely acknowledged today that humans also have a variety of stimulus-response linkages. In effect, the study of classical conditioning has much to contribute toward an understanding of how people process information and form attitudes. In the consumer

behaviour context, for example, marketers make consistent use of classical conditioning whenever they associate their brands, and products to renowned symbols (like celebrities) to reinforce the image of their offerings. In fact, the reason marketers are particularly interested in classical conditioning is because their goal is to associate their good or service with a positive stimulus, so that the product (or service) itself will elicit positive feelings and reactions whenever consumers think about or encounter it in the marketplace [Shimp 1991; Mowen and Minor 1998].

Modern theory of classical conditioning, the Neo-Pavlovian Theory, focuses on humans as subjects of conditioning and takes a cognitive approach to the subject. It theorizes that Pavlovian conditioning involves the associative learning of relations among events, thus being much more of a cognitive, rather than a behavioural, learning process. The individual is, therefore, seen as an information processor, who uses logical and perceptual relations among events, along with his/her own preconceptions, to form sophisticated representations of the world [Shimp 1991].

Originally, it was thought that the most basic requirement for effective classical conditioning to happen was to have the conditioned stimulus be consistently paired with the unconditioned stimulus. This fact alone, until the 1960s, was thought to determine the level of associative learning. The modern view, however, emphasizes, not so much the frequency of pairing per se, but the information that one stimulus gives about the other.

That is to say, modern theories acknowledge that the mere contiguity of events need not produce an association between them; rather, it is the way events communicate information together that generates logical expectations in individuals [Shimp 1991].

In reality, modern theory holds that it is the covariation between the conditioned and the unconditioned stimuli that determines the likelihood and strength of association between them. It is not necessary, for that matter, that the unconditioned stimulus always be paired with the neutral stimulus for the latter to become the conditioned stimulus and elicit independently the same response as the one provoked by the unconditioned stimulus. Instead, it is sufficient that the manifestation of neutral and unconditioned stimuli covary together for cognitive conditioning to ensue. Specifically, it is hypothesized that people learn that there is a higher probability of the unconditioned stimulus to occur when the incidence of the conditioned stimulus also takes place, than the probability of the unconditioned stimulus to occur *without* the incidence of the conditioned stimulus. Here, the strong emphasis on the cognitive nature of the Neo-Pavlovian theory of conditioning is evident [Shimp 1991].

To summarize, classical conditioning relies on the notion that an external stimulus can potentially elicit a given behavioural response in a manner that the latter has the appearance of being a reflex to the former. Many argue that what is conditioned is not behaviour *per se*, but rather the evaluative response of the individual. Consumer

researchers view such evaluative responses, i.e. attitudes, as simple associations between a given object and a given evaluation. The latter view of classical conditioning invokes the belief-attitude-behaviour theories which will be reviewed in Section 2.8 [Shimp 1991; Mowen and Minor 1998].

2.7.2 Operant Conditioning

The other theory of behavioural learning is called operant conditioning, also known as instrumental conditioning. Succinctly, the operant conditioning school of thought advances the idea that behaviour can be influenced by its consequences. Thus, in the consumer behaviour context, when a consumer buys a product (behaviour), it is reasonable to expect the consequences of that behaviour to affect the probability of it occurring again. If, for instance, the behaviour is positively reinforced – if the individual is satisfied with the product's performance, or close friends endorse the purchase – the likelihood of the purchase being repeated, in the future, increases. On the other hand, if the behaviour is punished – if the product fails to work properly or close friends disapprove of it – then the likelihood that the consumer will make the same purchase again decreases. In marketing, the most important implication of operant conditioning is in the area of product performance: how well (or poorly) a product performs will have a strong reinforcing (or punishing) effect on the consumer [Solomon, Zaichkowsky and Polegato 1999; Matlin 1992].

As illustrated in the above paragraph, the theory of operant conditioning proposes two ways of offering corroboration to behaviour; they can be either positive or negative reinforcements. Positive reinforcements occur when positive rewards are offered to the individual once the desired response has been made. Negative reinforcements, in contrast, occur when all negative consequences are removed and disassociated from the desired behaviour. Above all, both positive and negative reinforcements have similar consequences: they strengthen the likelihood that the desired behaviour will occur again [Matlin 1992].

On the other hand, the theory of operant conditioning also proposes two ways of punishing an undesirable behaviour: either a negative consequence follows the behaviour, or a positive effect is taken away following the behaviour. The core idea is that the punishment eventually discourages and, thereby, decreases the probability of the undesired response. To sum up, punishments, contrary to reinforcements, make the undesired behaviour less likely to happen in the future [Matlin 1992].

As previously stated, the basic assumption in the instrumental conditioning perspective is that an individual's behaviour is carefully considered and, thus, deliberately selected according to the environmental consequences of the action. However, once an operant response is conditioned, it is hypothesized that it will only persist so long as it is periodically reinforced. If the response is not reinforced over an extended number of

instances, it will be liable to disappear. This disappearance due to a lack of reinforcement is termed extinction [Solomon, Zaichkowsky and Polegato 1999].

Another interesting construct in operant conditioning is what are called discriminative stimuli. These are pointers suggesting to the individual that the reinforcer will certainly follow if the desired behaviour is emitted. From a marketing perspective, the messages and information a consumer receives about products and services (whether through labelling, advertisements, packaging, brand names or any other means) are regarded as discriminative stimuli. Take the case of a brand name, for example. Marketers clearly display their symbols and brand names on their products to cue consumers, via the brand's reputation, about the quality of their products. Both these pointers essentially reassure consumers that the product's performance will reinforce the purchase. It is easy to imagine that a product's country-of-origin can also play a similar role in indicating quality to consumers, thereby cuing them about the quality of the product. In this respect, brands and country-of-origin labels can be thought of as discriminative stimuli, because they attempt to show the consumer that the product quality will be reinforcing of the purchase [Mowen and Minor 1998].

The following example could be advanced in the context of operant conditioning. As consumers acquire experience with a given product, they form attitudes towards it. Whereas good quality products reinforce the purchase and elicit positive attitudes, poor

quality products ultimately elicit negative attitudes. It is not hard to imagine that these attitudes transfer to other products with the same brand name or from the same origin. For example, if the origin of products is known, then after several experiences with products from a particular origin, (i.e. country X), individuals may form their own quality perceptions of other products from origin X. Even when an origin's product quality is inconsistent, people would conceivably update their belief structure to reflect the reality they come across. In accordance with the discussion on stereotype rigidity by Nadler [1998], if an individual experiences mostly good quality products from country X, but at one time or another comes across a product of poor quality, the person's overall belief is likely to be that products from origin X are mostly of good quality, and vice-versa.

In effect, a country of origin label could, in the long-run, elicit by itself predetermined attitudes towards products from that particular origin. The conditioned response, (i.e. the attitude evoked), would be an automatic response. It would not be based on experience with the particular product; rather it would disregard the characteristics of the specific product in favour of prior experiences with other products from the same origin. In this way, the origin label, as the discriminative stimuli, essentially communicates (good or poor) quality to the individual and he/she assumes that such level of quality is the norm for all products made in country X. The example can be summarized graphically as follows:

Figure 5: An illustration of Operant Conditioning based on positive experiences in terms of Product-Country Images.

2.8 Beliefs, Attitudes, and Behaviours

The above sections on perception, memory, schemata, stereotypes, classical conditioning, and operant conditioning were all concerned with the phenomenon of learning. They have dealt with how people respond to their environment in consequence to the information provided to them. Section 2.8 is related to the issue of learning, but is

primarily interested in assessing how one's cognitive opinion after learning may translate into overt behaviour. This section on beliefs, attitudes and behaviour illustrates the current thinking on how internal predispositions may affect overt behaviour.

Research has made it increasingly apparent that the correlations between attitudes and behaviours can be understood in terms of the effects of memory on accessing and recalling information to use for behavioural choice. Social psychologists and consumer researchers have evidenced a long-standing concern with the relationship between beliefs, attitudes, and behaviour [Alba, Hutchinson, and Lynch, Jr. 1991; Mantead 1996]. A definition of each of the three concepts seems appropriate.

Firstly, beliefs can be understood as all the knowledge an individual has and all the inferences he/she makes about objects, people, countries, events, their attributes, and benefits. Secondly, many attitude researchers [Manstead 1996; Oakes et. al. 1999] assume that attitudes consist of three components: a cognitive component, made up of beliefs about the object; an affective component, constituted of emotions and feelings towards the object; and a behavioural component, comprised of behavioural tendencies (predispositions) toward the object. Lastly, behaviours are defined as people's overt responses to an object, person, or situation [Alba, Hutchinson, and Lynch, Jr. 1991; Mantead 1996].

Attitudes are hypothesized to vary on an accessibility continuum, whereby they are theorized to range from non-attitudes (when no attitude has been formed), to attitudes that are available but not promptly accessible, to those that are extremely accessible and hence are immediately retrieved after exposure to the target object. It is generally theorized that more accessible attitudes are more easily and quickly retrieved from memory than those which are not as readily accessible. In fact, Manstead [1996, p. 26] affirms: “attitudes that are easily and quickly retrieved from memory are more likely than less accessible attitudes to be activated whenever the attitude object or cues relevant to the object are presented”. In fact, if one’s attitude toward an object is accessible, researchers maintain that it is highly probable that it will colour perceptions of the object, filtering out attitude-inconsistent information and filtering in attitude-consistent information – like the effect of schema- consistent and inconsistent information on perceptions. Specifically, many researchers believe that if attitudes are formed from the direct experience with an object, they are stronger and more accessible than the ones formed from indirect experience. This is because theorists assume that the former have greater clarity and are held with greater confidence than the latter [Alba, Hutchinson, and Lynch, Jr. 1991].

The tripartite view of attitudes is one theoretical basis for expecting attitudes to be correlated with behaviour. Founded on the assumption that attitudes and behaviours are closely related, and that the former causes the latter, social psychologists have generally

hypothesized that the most effective means of changing behaviour is by modifying someone's attitudes. All kinds of promotional campaigns are based on the premise that amending the way people think or feel about a particular issue will aid in changing the way they behave towards it. It is important to stress that, of course, behaviours are not exclusively, nor principally, determined by attitudes. What is of relevance to this study is the fact that attitudes do, in some way, influence (or are correlated with) people's behaviour [Manstead 1996].

There are three main attitude-behaviour models: the Fishbein model, the behavioural intentions model, and the theory of planned behaviour. Each will be described separately below.

2.8.1 The Fishbein Model

The Fishbein model, also called the attitude-toward-the object model, is the simplest of the three theories in content and complexity. As a result it does not provide the best framework to describe the belief-attitude-behaviour relationship. Essentially, it theorizes that beliefs lead to the formation of attitudes, which finally lead to behaviours. This framework describes attitudes via multi-attribute models, whereby researchers attempt to algebraically combine people's many beliefs about an object to determine the latter's overall attitudes towards the same attitude object [Manstead 1996].

2.8.2 The Theory of Reasoned Action

Also called the behavioural intentions model, the theory of reasoned action was developed expressly to improve the ability of the attitude-toward-the-object model to predict consumer behaviour. It extends the basic model above in three main ways. Firstly, it proposes that behaviours result from the formation of specific intentions to behave. In fact, the distinguishing feature of this theory to its predecessor is that it attempts to predict intentions to behave, rather than behaviour *per se*. Secondly, it is hypothesized that attitudes are only one of the determinants of behaviour. In effect, the model introduces, among other factors, the powerful influence of reference groups on behaviour. Thirdly, the theory assesses the individual's attitude toward the overt behaviour (e.g. of purchasing a product), instead of measuring the attitudes toward the object (e.g. the product) itself. In fact, assessing the consequences of the act (purchase) rather than whether or not the object (product) possesses certain attributes, helps the researcher to take into consideration factors that may act to obstruct one's intentions to behave (such as the lack of availability of the product in the marketplace) [Mowen and Minor 1998; Manstead 1996]. Figure 3 illustrates the model of Reasoned Action.

As can be seen in the model, the immediate determinant of behaviour is assumed to be the variable of behavioural intentions. It has been shown that when behaviour is under volitional control (i.e. the behaviour can be performed at will), behavioural intention is the most efficient predictor of actual behaviour. Intention, in turn, is deemed to be

Figure 3: The Theory of Reasoned Action (modified from Manstead 1996, p. 15)

determined by the individual's attitude to the behaviour and by his/her subjective norm. Attitude to behaviour is the individual's evaluation of the behaviour in question – i.e. the extent to which the person sees performing the behaviour as good or bad. Subjective norm, the other variable to influence intentions, refers to the evaluation of important others of whether the person should (or should not) behave in a certain manner. Thus, the latter variable reflects the degree of perceived social pressure on the individual. The relative contributions of attitude to behaviour and subjective norm in determining behavioural intentions are not considered in the theory of reasoned action [Manstead 1996].

A number of researchers have tested the behavioural intentions model against the standard Fishbein model. In general, the results reveal that the theory of reasoned action is superior to the latter. However, the main weakness of the reasoned action model is in

its assumption of high volitional control. In effect, the model performs poorly in terms of predicting intentions under circumstances of low volitional control. In response to such poor performance, an alternative theory has been put forth to account for the other factors that influence behaviour, but which fall outside one's personal control. The model is called the theory of planned behaviour and will be explained below [Mowen and Minor 1998; Manstead 1996].

2.8.3 The Theory of Planned Behaviour

The goal of the theory of planned behaviour was to expand the model of reasoned action by introducing one additional construct: one's perceived behavioural control. This new variable represents the person's perception of how easy or difficult it is to perform the behaviour in question. The model holds the view that if an individual has high perceived behavioural control, he/she is more likely to form the intention to perform such behaviour and, thereby, is more likely to act on that intention in the face of obstacles and setbacks. The rationale behind this variable is the fact that one normally does not form intentions to behave unless he/she thinks there is some chance of converting those intentions into actions [Manstead 1996].

2.8.4 Measuring Attitudes

The measures of attitude obtained from the above three models are generally an indirect measure of the construct, because focus is given to measuring: (a) the strengths of

people's beliefs about the object's attributes (for example, the belief that product A is highly innovative), and (b) the evaluations of these attributes (for example, the assessment that innovativeness is a crucial attribute for the evaluation of product A's quality). Researchers have relied on mathematical models to estimate the resulting level of an individual's attitude toward an object.

When measuring attitudes, however, it is also possible to directly measure people's global evaluations of the attitudes, by assessing the overall affect or behaviour towards an object, (for example, by asking individual's to express their overall judgements of product quality). Whenever possible, researchers collect data on global attitudes as well as sufficient information to predict people's attitudes through a multi-attribute model. If global attitudes and predicted attitudes closely correspond to one another, researchers can rest assured that they have a good understanding of the factors influencing people's attitudes. But, if the predicted and the global attitudes do not correlate, researchers should recognize that additional exploration is required [Mowen and Minor 1998].

2.9 Summary of the Literature on Learning and Attitudes

The literature reviewed on learning coupled with that on beliefs, attitudes, and behaviours will serve as the foundation for the study on PCI. Thus far, although only learning (both cognitive and behavioural) has been considered, the idea of PCI has been introduced through select examples. The present section will attempt to briefly summarize the main

points of each stream of learning theory and research, so that a formal introduction of the PCI phenomenon can occur.

Cognitive learning theory takes the perspective that learning occurs as the result of internal mental processes. People are assumed to be active information processors, whereby they actively use information from the environment to control their lives and solve problems. The field studies the phenomena of perception, memory (encoding, storage and retrieval), schemata, and stereotyping.

Behavioural learning theories, by contrast, stress the relevance of external events in influencing and determining behaviour. Here, theorists assume that learning occurs as the result of responses to external events. The field studies the roles of stimuli pairing, reinforcers, punishers, and discriminative stimuli in conditioning behaviour.

As mentioned previously, however, modern behavioural learning theories emphasize the role of cognition within conditioning. The two streams of behavioural research are thus converging. Not surprisingly, it is hypothesized that people who become conditioned to behave in a particular manner, do so as a result of the rational (thus cognitive) expectation that if they respond in a certain manner, their expectations will be fulfilled.

Within cognitive learning, the sections on schemata and stereotyping described how cognitive structures facilitate information processing, as well as potentially bias people's perceptions and assessments of objects and situations. Schemata, whether stereotypical or not, are known to influence what information is sought out, attended to, remembered and how the information is ultimately interpreted. The holistic view of a schema – which is comprised of a network of attributes, benefits, beliefs and feelings – can be understood as the construct's image. Such images influence one's attitudes, which in turn are correlated with behaviour.

With the background gained through the literature review on social psychology, cognitive psychology, and consumer behaviour, the rest of the review will focus on the phenomenon of PCI itself.

3. Literature Review on Product-Country Images

3.1 Product Country Images – An Introduction

Before turning to a formal definition of PCI, a succinct description of what the concept entails will be provided to allow for a better understanding of the historical overview that follows.

PCI, also known as the “country-of-origin” or “made in” phenomenon, is concerned with the impact country images have on consumers, industrial buyers, tourists, and foreign investors. The two underlying premises in the field are that: (1) people hold schemata and stereotypes for countries, and (2) these schemata and stereotypes influence people’s perceptions and evaluations of the countries, their products, and their services. The literature has primarily focused on how origin images effectively influence consumers’ comparative evaluations of domestic products and imports. In this context, the widespread use of origin information by consumers and marketers can be traced to as far back as the 1800s, when wealthy European consumers consistently sought specialty products from distant places, like China, India, and Canada [Papadopoulos 1993].

More recently however, the 20th Century was also characterized by the widespread use of origin identifiers. For instance, according to Morello [1993], immediately after the First World War, in a move to assist consumers all over Europe recognize and *shun* imports from Germany, the victorious countries obliged all German producers to expose their

products' origin – via the label “Made in Germany”. Contrary to the allies' intent though, instead of instigating feelings of animosity and provoking a widespread boycott towards German-made goods, it was found that consumers used such origin identifiers to purchase German imports, since even in those times Germany already had the stereotype and reputation for good engineering, workmanship and superior quality. Further still, Papdopoulos [1993] points out that, even more recently, as a direct result of the energy crisis and the international recession of the late 1970s and early 1980s, protectionist attitudes pervaded the international economy, giving rise to heavy investments by both governments and domestic industries in ‘buy-domestic’ campaigns. Accordingly, this situation fostered added buyer awareness of the issue of source-country. During the same decades, companies started taking notice of the ‘Made In’ cue and began discriminating about situations when origin information would best be emphasized and when it would best be played down.

With this brief historical overview as a background, it becomes necessary to formally define and describe the stream of research on PCI. The following section will provide an in-depth description of the subject matter.

3.2 PCI – A Formal Definition

PCI is a field of study within International Marketing, which aims at investigating the images of countries as: (1) corporate entities (i.e. as producers and exporters of goods and

services), (2) tourism destinations, and (3) locations for foreign investment. The emphasis is on the role of an origin's image in affecting, respectively: (1) the evaluations by foreigners of the country's exports, and the evaluations by nationals of the domestic product/service offerings; (2) the country's attractiveness as a place for tourism; and (3) the country's appeal as a place for the inflow of foreign investment [Graby 1993; Morello 1984; Wee, Lim and Tan 1993].

Papadopoulos [1993] provides a comprehensive summary of what the theme of PCI entails. He points out that sellers and buyers alike use advertising, packaging, branding, product design, labels, and many other means to provide and obtain information about product origins. These "Made In" images, which are chiefly created by marketers, have been shown to consistently pervade one's process of product evaluations. Such "product" evaluations include not only goods and services, but also, as stressed in the preceding paragraph, countries trying to market themselves as attractive destinations for tourism and foreign investment.

Although PCI is not restricted to studying the impact of images on products – in the literal meaning of the term – the focus of the literature has been overwhelmingly on the impact of country images on an origin's goods and services. In this context, the most appropriate definition of country-of-origin (CO) images is provided by Bilkey [1993, p. xix], where they are understood as "buyers' opinions regarding the relative qualities of

goods and services produced in various countries". Agrawal and Kamakura [1999, pg. 258] also define CO as "the country with which the firm producing a brand is associated". Further still, even though the field encompasses research on both industrial buyers' and consumers' use of origin images in product evaluations, the vast majority of research has been on the impact of CO on the end consumer [Yu and Chen 1993]. This research takes this narrower view, and is primarily concerned with the issue of: (1) how consumers (as opposed to industrial buyers) view particular origins and (2) how these subjective images affect the evaluations of these countries' offerings.

Han and Terpstra [1988] maintain that all products which emanate from foreign countries are liable to suffer from origin image effects. Additionally, they support the notion that consumers form significantly different attitudes towards a given product, *ceteris paribus*, depending upon where the product is made. Manrai, Lascu and Manrai [1998] affirm that products from highly developed countries are more favourably evaluated than products sourced from developing and industrializing countries – especially when the products under evaluation are upscale, luxury and high-risk items. In all, the field of PCI purports that: (1) countries are stereotyped as producing entities of goods and services, (although these stereotypes may differ across countries), and (2) these stereotypes influence people's perceptions and evaluations of products originating from all countries, (both domestic and foreign). It is worth mentioning that, according to Han and Terpstra [1988], past studies have confirmed the tendency for domestic products to receive more

favourable evaluations at home than abroad, thus signalling a bias and a propensity of domestic consumers to assess domestic products in a more favourable light – be it due to a certain pride in the domestic industry, a degree of patriotism, or simply a better knowledge vis-à-vis foreign ones.

Within the context of a CO stereotype's influence on product assessments, it is clear that the importance of investigating origin images lies in the latter's influence on consumers' attitudes and, by extension, on their buyer behaviour. Recall that modern attitude-behaviour theories, like the behavioural intentions model and the theory of planned behaviour, hypothesize that attitudes, (which are formed by beliefs, feelings, and predispositions towards an action), indirectly influence behaviour [Manstead 1996]. More will be said on the relevance of the PCI phenomenon in later sections; a further characterization of the PCI construct, however, continues below.

While CO images customarily refer to the image of the product's origin – i.e. country of production – Papadopoulos [1993] points out that the “Made In” phenomenon which the PCI literature investigates does not exclusively refer to the case of a product being made in a given origin; rather, it also alludes to the situations where the product is “manufactured in”, “assembled in”, “designed in”, or even “wanting to look as if it were made in” a particular country – the last of which studies the case of borrowed country images. In fact, with the internationalization of firms and the trend towards globalization,

hybrid products have emerged and are prevalent in the marketplace. The emergence of hybrid products – for example, those that are designed in a country, manufactured in another and assembled in yet another country – may render the discussion of a single country-of-origin effect (i.e. whereby the product is conceived, manufactured and assembled in a single origin) misleading. Subsequently, it may prove useful to consider the individual influences on product perceptions of the various specific aspects of the CO factor – e.g. the country-of-design, the country-of-brand, the country-of-manufacture, and the country-of-assembly [Hulland 1999; Han and Terpstra 1988; Ettenson and Gaeth 1991; Insch and McBride 1998]. Whatever the case, however, the PCI literature confirms the pervasive influence an origin's image has on the evaluation of its products in the marketplace. For instance, Johansson [1993, p. 78] affirms that people use CO images “to reinforce, create, and bias initial perceptions of products”.

Having attested to the influence that PCI has on consumers' product evaluations, it becomes necessary to consider the constitution of such images: how are they formed? To this end, the literature “essentially argues that all attributes of all products from a given country, coupled with the characteristics of the country itself (*e.g. the level of industrial and market development, as well as the type of political system*) and its people (*e.g. the perceived similarity between the beliefs systems of the home and foreign country, and the latter's cultural system*), combine to create an overall ... *image* ... which is perceived

subjectively ... by buyers and influences their market choices" [Graby 1993, p. 257, *italics added*; Han and Terpstra 1988; Stewart and Chan 1993].

In line with the above view that an origin's image is formed from the combination of product, country, and people characteristics, Parameswaran and Pisharodi [1994] identify three facets of the CO image. According to them, purchase intentions and behaviours are affected by General Product Attributes (GPA), which include the level of a product's innovativeness, quality of workmanship, price-value, and product attractiveness; Specific Product Attributes (SPA), which consist of specific firm, product and marketing goodwill related attributes (in the case of a car it would include its style, fuel economy, comfort, and service); and General Country Attributes (GCA), which incorporate the economic, political, cultural, and people variables of the source country. These three facets, in fact, represent the current conceptualization of the CO image.

The CO promotional aspect (via advertising messages, packaging, branding) is without a doubt the most obvious use of the origin image variable for international marketing management. However, knowledge about the facets of the CO image (specifically, the GPA, SPA, and the GCA) allows marketing managers to go beyond a shallow reliance on CO to incorporate in their strategies more educated and efficient promotional tactics. For instance, a clear understanding of the CO facets specific to one's products (or brand) aids the marketer in efficiently reaching his/her target market. In effect, through market

research, marketers are able to confirm the product attributes on which consumers place greater importance, as well as the latter's view of all the facets of a product's country-of-origin. In this way, marketers accumulate valuable knowledge on the specific market and can more effectively promote those CO facets that align with consumers' main concerns – thus, increasing the likelihood of successfully positioning the product or brand in the minds of their target market. In summary, the CO image can aid in understanding the target market, in better positioning the product or brand, and, of course, in developing effective promotional messages [Johansson 1993].

In this sense, the importance of investigating the PCI phenomenon is paramount to better understand and either exploit the strengths and opportunities or counter the weaknesses and threats a country name poses to a company or product.

3.3 The Relevance of PCI

As previously mentioned, PCI is an important topic to be studied in international marketing, because images are known to have the power to influence attitudes and, thereby, the choice process of consumers [Parameswaran and Pisharodi 1994, Manstead 1996]. In their literature review, Parameswaran and Pisharodi [1994] report that: (1) a product is composed of both a physical nature, as well as a social and psychological one – the latter aspect referring to the cognitive and affective components of attitudes that products evoke in individuals and which are key constituents of a product's image; and

(2) images play a basic role in influencing how people affectively and behaviourally respond to brand names, products, services, promotional campaigns, and organizations. Understanding these two points is a first step for international marketers to make better use of the images their countries convey. The authors contend that among all the image variables available to the international marketer, the country-of-origin image would conceivably be the most powerful if skillfully exploited.

Naturally, the obvious appeal for exploiting “Made In” information is in its inherent power in facilitating consumer information processing through stereotyping. In addition, however, PCIs also answer the corporate requisite for brand differentiation [Morello 1993]. In fact, Morello [1993] stresses the role of marketing managers in creating, designing, nurturing, and monitoring brands’ images. Within this context of brand image management, the use of origin identifiers, (whether through label, advertising, brand names, or any other means), has established itself as a distinct marketing communications strategy that is widely employed in contemporary markets by companies and governments – the latter being exemplified by the “buy domestic” campaigns [Parameswaran and Pisharodi 1994].

Further still, Hooley et. al. [1988, p. 67] affirm that “international marketers need to understand CO images as they relate to both their own and to their competitors’ products”, so as to be able to determine and understand if their CO images are

comparatively positive, negative, or undistinguished – i.e. adding no comparative advantage over the competition. With this understanding, international marketers become well equipped to effectively exploit the opportunities related to favourable images, to overcome the liability associated with unfavourable associations, and to better position their products *vis-à-vis* the competition [Morello 1993].

In the context of an international firm, it is desirable to have one's brand associated with an origin which possesses the reputation of producing superior quality goods, of being technologically advanced, and the like. For such a country, the acceptability of its products at home and abroad is certainly much higher than if it had a negative image or no image at all. Interestingly, Parameswaran and Pisharodi [1994, p. 43] make reference to Stanton's 1975 study on brand names, in which 12% of brand names were found to help in selling the product, 36% to actually hurt sales, and the rest (surprisingly) to contribute nothing to the product's sales appeal. It would not be hard to imagine that the same could happen to the case of country names and the CO image effects on the appeal of products. The need to understand how country names influence products' sales appeal arises, once again. Specifically, if a CO has a good reputation, then it is likely to boost the sales performance of its products; if a CO has a negative image, it is likely to harm their performance; and lastly, if a CO lacks an image, then it probably adds nothing to the appeal of its products. Acquiring such knowledge about a CO image may avoid costly

mistakes in product-country associations and prove an effective tool in boosting the sales appeal of products.

Controversy still abounds in the field as to whether, in the increasingly globalized world, origin information will still be as important a cue in buyer behaviour as it has proved to be in the past. Many theorists have argued that the importance of PCI will not shrink and will actually be reinforced as: (1) international competition heightens between firms from distinct national origins; (2) the presence of hybrid products allows for selecting the most appropriate origins to emphasize; (3) national governments and trade associations join forces to promote their countries and exports abroad; (4) marketers make extensive use of origin identifiers (whether true or borrowed) to gain a competitive edge and position their products (their obvious intent being to capitalize on positive consumer perceptions about the product's origin); (5) consumers become more exposed to, more aware of and more familiar with foreign countries and their products through the media, travel, and/or the growing presence of imports in the domestic market; and finally, (6) consumers use origin information to simplify cognitive processing – whereby they use origins as surrogate measures for quality, reliability, etc. either in situations where other information is lacking or where there is cognitive overload (as products become more complex) [Johansson 1993; Papadopoulos et al. 1991; Malhotra 1984].

After formally defining PCI and delineating the factors that confirm the relevance of studying the phenomenon, it is useful to deliberate on the particulars of the PCI construct. This literature review will next consider the topics of product evaluation cues, PCI as halo and summary constructs, the role of schematic representations and stereotypes in forming CO images, and the measurement of such origin images via TOMA. The final section will turn specifically to the image of Canada and Canadian products and will lay the foundation for the analysis of the Canadian image.

3.4 PCI as an Information Cue in Product Evaluations

Researchers have proposed the idea that products may be conceived as possessing an array of intrinsic and extrinsic information attributes or cues. While the former pertain to the actual inherent/physical attributes of a product, (e.g. taste, design, components, features), the latter apply to the variable aspects of the product not inherent to its performance, (e.g. price, brand name, warranties, CO, packaging). Each cue, in essence, provides consumers with a basis for evaluating the product [Bilkey and Nes 1982; Heslop, Liefeld and Wall 1987; Mowen and Minor 1998; Heslop et. al. 1993].

Because the CO information represents only one product cue from an array of many other cues, there is some debate over the significance of its individual impact on the overall product evaluation. In fact, the early studies on PCI were highly criticized, because they were based on a single cue methodology, which consequently inflated the relevance of

the CO cue beyond its actual role in product assessments [Bilkey and Nes 1982]. Conversely, modern research has generally attempted to investigate the impact of CO amidst other cues, such as price or brand information, so as to better mimic real-life purchase situations and to better determine the real relevance of the CO information. Agrawal and Kamakura [1999] affirm that in multi-cue situations – which are undeniably more similar to reality than single-cue problems – the impact of the CO cue can be diluted amid other cues, and thus can be expected to significantly diminish. Manrai, Lascu and Manrai [1998, pp. 594-595], for instance, reiterate that “in the presence of multiple product information cues, the effects of individual cues appear to have a lesser impact”.

While the exact extent of the PCI influence, in any given purchase situation, is difficult to pinpoint, it is indisputable that PCIs can act as powerful stereotypes which serve to influence buyers on their product evaluations. It is worth noting that most of the PCI research has been limited to studying the potential effects of CO images on product quality assessments; consequently, there remains much room for research regarding the effects of an origin's image upon one's purchase intention and upon one's *de facto* purchase decision [Klein et. al. 1998; Agrawal and Kamakura 1999]. Similarly, much remains to be discovered about the relative use and importance of CO information *vis-à-vis* other intrinsic and extrinsic cues in: (1) value and quality judgements, (2) risk

assessments, (3) purchase intentions and (4) actual buyer behaviour [Liefeld et. al. 1988; Heslop et. al. 1988; Heslop et. al. 1993; Liefeld et. al. 1993].

Meta-Analytic literature reviews have attested to the fact that “although CO plays an important role in product evaluation, the effect tends to become weaker as one moves from perception of product quality to attitude formation and to behaviour intention” [Agrawal and Kamakura 1999, pg. 256]. It can be assumed that the effects of CO cues are further mitigated as one moves from purchase intentions to the actual purchase behaviour, because the latter can be affected by many external considerations like the individual’s budget, the availability and accessibility of the product in the market, and the urgency in satisfying one’s need.

Despite all the uncertainties revolving around the real impact of the PCI cue, its importance has been postulated to be especially significant in two cases. Firstly, it is thought that consumers rely heavily on extrinsic cues, like CO, to infer quality attributes when intrinsic quality information is not readily accessible or available [Han and Terpstra 1988]. Secondly, Berács et al. [2000] advance the hypothesis that lower familiarity with a product increases the importance of the origin image, since consumers are likely to rely more heavily on such an extrinsic cue – which acts as a proxy for quality – when information about a product’s intrinsic characteristics are not easily interpretable. In this vein, Parameswaran and Pisharodi [1994] confirm that, internationally, CO images

serve as useful extrinsic cues, given that consumers tend to be less familiar with foreign than with domestic goods.

In addition to the above circumstances when the CO cue is thought to be heavily employed, Papadopoulos et al. [1999], Han and Terpstra [1988], and Klein et. al. [1998] have stated that origin images can potentially play a role whose effect, in certain situations, may equal or even exceed the influence of other extrinsic cues, like the brand name or price. Four examples will follow below, providing valuable testimony to cases when origin images may potentially dominate the influence of other extrinsic cues.

Firstly, Han and Terpstra [1988, pg. 251] affirm that “although brand name may be a dominant cue in consumer evaluations of domestic products, country-of-origin may be another very important, perhaps more important than brand name, cue that consumers use in evaluations of foreign products and domestic vs. foreign products”. Secondly, Voss and Tansuhaj [1999] show that while many brands have attempted to enter foreign markets via brand alliances with domestic firms – so as to decrease expenditures of building brand awareness and avoid having to create a positive image from scratch – they have not been able to avoid or eliminate the effects of the involuntary CO stereotypes associated with them. In this situation, the CO cue is shown to potentially overpower even the strong reputation of the domestic brand, which is initially offered (via the strategic alliance) as a support for the foreign firm. Thirdly, Stewart and Chan [1993]

indicate that a brand's reputation may suffer from strategically unsound production relocation choices, if the country-of-manufacture clouds the reputation of the country-of-brand. Stewart and Chan [1993, pg. 223] suggest that multinationals should ideally evaluate the feasibility of shifting production to another country by "identifying and balancing the potential loss in brand name value against the economic advantages of producing abroad". Lastly, Klein et. al. [1998] studied the overriding effect of the CO cue on consumers' predispositions to purchase imports from origins towards which feelings of animosity prevailed. In their study, the intense animosity Koreans harboured against Japan and the Japanese overpowered and eclipsed the excellent reputation of Japanese goods, such that Koreans lacked any inclination to purchase the latter – even if these were known to be of superior quality.

Overall, while the relative strength and importance of the CO cue in real life purchase decisions may be difficult to determine, it has been widely hypothesized that country stereotypes – if appropriately exploited – can confer significant competitive advantages (equity) on brands and products. As mentioned before, managers have, many times, sought to leverage the origin attribute in an attempt to enhance perceptions of their products and services, so as to gain the desired competitive advantage [Klein et. al. 1998]. If, on the other hand, the CO cue is unwisely exploited, then it may very well hinder the acceptance of a product in the marketplace. As will be explained in the following section, the CO cue is used in mainly two ways when shaping perceptions,

assessments and actions. Essentially, it can be employed either as: (1) a surrogate for quality, when not much is known about an origin's products; or (2) as an abstract measure summarizing both an origin's producing capabilities and its known ability in producing high (or low) quality goods.

3.5 PCI as Halo and Summary Constructs

Han [1989] was the first researcher to distinguish between different situations when decision makers are likely to use origin information for product evaluation. According to this author, when consumers are not familiar with an origin's *products*, origin *image* often serves as a halo from which individuals infer a product's attributes (such as, quality and reliability). In this situation, origin image indirectly affects the individual's attitudes toward the products from that same origin. The relationship would seem to be the following:

Origin Image → *Beliefs about a Product's Attributes* → *Individual's Attitudes Toward Products in general from Origin X.*

Thus, if one focuses on products about which the consumer knows little, the ideal situation is set up for the consumer to turn to country stereotypes and have these feed into the evaluation process of its products [Papadopoulos et al. 1997]. This is known as the halo effect.

In contrast, Han [1989] also suggested that as individuals become familiar with an origin's *products*, their beliefs about these products' attributes may be summarized and transposed to the origin image itself – so that the CO image directly affects attitudes towards other products from the same origin. This relationship is encapsulated by the following representation:

Origin's Products → *Origin's Image* → *Individual's Attitudes Towards Products from Origin X.*

According to Han [1989, pg. 223], “consumers may abstract information about a country's products because brands with identical country of origin have very similar product attributes”. In this sense, people can create country-specific stereotypes by generalizing product information in such a way that the latter feed into future product assessments.

Because Han [1989], Papadopoulos et al. [1997], and many others have made extensive references to PCI as a stereotyping phenomenon, it is appropriate to consider PCI in light of the schemata and stereotyping prisms.

3.6 PCI Within a Schematic Representation Framework

As pointed out previously in the section on functional schema theories, classification of information involves two distinct stages: assimilation and accommodation. Assimilation typically occurs when exposure to entirely new information takes place and the individual attempts to fit such stimulus within existing schemata, (although this may render the mental representation to be inaccurate and rudimentary). Later, however, through more experience, the individual creates and refines, via accommodation, a schema for the exclusive representation of the new stimulus – thereby broadening the scope of cognition. It is reasonable to assert that one's exposure to totally new stimuli decreases over one's lifetime; but more importantly, it is plausible to expect people to develop their own internal rules of stereotyping, whereby they classify particular experiences into a schema and learn to correlate these with other existing schemata. In the case of PCI research, the interest lies in investigating the influence on an origin's product evaluations of schemata and subjective stereotyping rules [Papadopoulos 1993; Grusec, Lockhart and Walters 1990].

Kochunny et. al. [1993] attempted to examine CO effects within a memory-schema framework of information processing. Recall that a memory schema is defined as a body of knowledge representing a concept and which contains a network of links among the defining constituents of the concept [Iran-Nejad and Winsler 2000]. The central hypothesis is that schemata are formed by induction from an individual's experiences

with various cases of a generic concept, and are continuously developed through a process of successive refinement. Translating this idea to PCIs, schemata (and particularly, stereotypes) are believed to be both formed from and refined through consumers' prior knowledge of or experience with an origin and its products.

In line with the notion that individuals develop their own schemata and their own internal rules of stereotyping, Papadopoulos et. al. [1987, p. 197] affirm that "images of countries and their products can be thought of as basic decision rules or rudimentary theories of the 'if A, then B' type, which influence buyer behaviour (i.e. 'if it's German, it must be reliable')". As such, and as previously referred to, the underlying belief in the PCI field is that people's country schemata pervasively influence their decision-making process - whether in purchase, travel or foreign investment situations.

3.7 PCI and Stereotyping

Research on PCI is predicated on the assumption that consumers invoke a referent image – a stereotype – when exposed to information about where a product is conceived, designed, assembled, or made-in. Practically all past PCI studies have attested to the fact that consumers hold stereotyped images of both foreign countries and their own home country. Researchers have been able to prove in several ways that these stereotypes are used in evaluating products of various origins [Kochunni et. al. 1993; Papadopoulos et al. 1987].

Morello [1993] has proposed that stereotypes, in the context of consumer behaviour, serve as a system for instant communication. The reason is that stereotypes ultimately trigger a multitude of associations that may either enrich or harm a product's perceived image – and thus, influence (or even determine) its success in the marketplace. It is widely acknowledged that stereotyped country images can have useful or detrimental results for products (and even countries themselves), since these images may influence consumers' (or investors', or tourists') behaviour in a way that may be either positive or negative [Papadopoulos 1993].

Interestingly, it is not clear how a particular country's stereotype/image may converge in product evaluations. Would country images be similar across product categories, or would they differ across product categories but yet be similar on same product dimensions/attributes? On the one hand, Papadopoulos et. al. 1997 have suggested that PCI are convergent across product categories – which would mean, for instance, that although the images of Japanese wines are different from those of Japanese cars, the fact that the Japanese build cars well may lead consumers to look more favourably on wines from Japan. On the other hand, Han and Terpstra [1988, pp. 243-244, *italics added*] report that “although individual country images are different between product categories (TVs *versus* automobiles), country images on specific product *dimensions*... are generalizable reasonably well between categories, and they may contribute to the formation of general country images”. Although not in complete agreement on the

specifics of the convergence of country images, both points of view suggest that countries have an overall subjective image, and that people resort to country-specific stereotypes to aid in judgments when confronted with products from diverse origins.

As examined in the cognitive and social psychology section of this literature review, it is generally theorized that stereotyping is formed by induction. In line with the idea that stereotypes (images) stem from generalizations essentially abstracted from a limited number of observations, Kochunny et. al. [1993] affirm that CO stereotyping is a function of consumers' familiarity, experience, and knowledge of a product and its origin. The nature of the latter process, however, challenges and diametrically diverges from the scientific notion of profile representativeness; in this sense, people are seen as imperfect scientists who form and apply their stereotypes in a subjectively biased manner.

It has also been shown in the psychology section that stereotypical images tend to be somewhat inflexible to change, even if the perceiver encounters disconfirming evidence. What is not thoroughly understood is the overall impact of stereotype-disconfirming evidence on an individual's schemata. Thus, the ambiguity remains as to whether or not successive refinements of the schemata/stereotypes would occur in the face of unexpected and schema-inconsistent origin information [Nadler 1988; Brodt and Ross 1998]. The importance of this fact to PCI research is especially in understanding how to counter and improve negative or neutral CO images.

3.8 PCI and Top-of-Mind Awareness

Modern approaches to researching stereotypes have moved away from measuring attribute availability to measuring attribute accessibility. One favoured methodology consists of asking respondents to freely choose their own descriptive terms for the stereotyped group under consideration [Stangor and Lange 1994]. Such a technique is similar to the top-of-mind awareness (TOMA) technique in that they both delegate the task of choosing stereotypical descriptors to the respondents.

Bird and Ehrenberg [1966] have reported empirical findings on the TOMA technique in the context of consumer behaviour. Their study investigated the relationship between brand usage and what they coined “spontaneous brand awareness” (SBA). They defined spontaneous brand awareness as “the proportion of people who say Brand X or Y or Z, etc. when asked to name the brands of which they are aware but are given no specific prompt or recall aid except a brief description of the product-field” [Bird and Ehrenberg 1966, pg. 5]. In summary, what was found was that the proportion of people who were “spontaneously aware” of a brand and the proportion of those claiming to use the same brand varied together.

The phenomenon Bird and Ehrenberg [1966] called SBA is in fact related to the TOMA measure in the proposed research. It is worth noting that the research instrument used for the thesis’ data collection asked individuals to name products or brands when presented

with a country-of-origin as a stimulus for recall. The two measures (SBA vs. TOMA) are very similar, the only obvious difference is in the stimulus for recall: while the SBA had a product-field, the present research adopts a country-field.

As previously encountered in the cognitive psychology literature, the human brain and associated sensory organs function as a system for capturing, selecting, organizing, storing and retrieving information [Alan 1979]. Similarly, the information processing theory of consumer choice proposes that consumers have to: be exposed to a stimulus, be paying attention to information constantly supplied by the environment, comprehend the messages supplied, accept and retain the information. It would follow that the TOMA measure is likely to be directly related to both exposure and the amount of attention people pay to information their environment supplies them with. As pointed out earlier, it is largely argued that existing knowledge influences the acquisition of new knowledge, and that existing schemata guide one's selective perception and information retention – so that information which is schema-inconsistent has minor impacts on one's beliefs [Folkes and Kiesler 1991; Nadler 1988].

To sum up and to apply the notions above to the PCI context, existing schemata may be responsible for guiding perception and determining the mental associations people make about countries. The analysis of TOMA responses within and across samples, in this context, would effectively measure the strength of associations between countries and

their descriptors – thereby signalling their stereotypes. If subjects are incapable of or have difficulties in establishing connections between a country name and its product-schema representation, then poor recall and associations are likely to result [Kochunny et. al. 1993; Stangor and Lange 1994].

In fact, to test the schema associations people make about origins, Morello [1999] employed the top-of-mind technique in studying whether, in marketing communications, the use of a country's name or its derived adjective had a more favourable impact on consumers' perceptions and feelings. In the survey, consumers were asked open questions of the sort "What comes to your mind when you hear the word Sicily?" and "What comes to mind when you hear the word Sicilian?", without a system of aided recall. The questions evoked a list of both positive and negative associations, which ranged from items like beautiful island, good food, and friendship, to Mafia, slowness, and lack of organization. Morello [1999] points out that the noun – i.e. the country's name – was most often associated with somewhat tangible factors like geography, history, and natural features of the territory; whereas the adjective was generally linked to more abstract qualities such as the origin's people and their cultural characteristics. He posits that because stereotypes are plentiful in the realm of a country's people and their culture, the positive or negative nuances of these stereotypes likely determine consumer's attitudes towards products described by the origin's adjective. In effect, it was found that "the mental associations produced by the name of the country and its adjective were not

identical ... often they were even *conflicting*” [Morello 1999, p. 9, italics added]. The affective meaning of the two concepts (e.g. Sicily *versus* Sicilian) was tested and found that the noun had a more favourable impact on consumers than the adjective.

Also in line with schema associations and TOMA recall, a few PCI studies have speculated that men and women form country images in significantly different ways, depending largely, among other things, on the products they bring to mind. Specifically, it is claimed that each may use different product and non-product criteria as bases for product evaluations – where non-product principles may include factors such as political and economic ideologies. In this respect, it is thought that each gender may be using different sets of products when developing their overall country images [Heslop and Wall 1985; Wall et. al. 1988].

Heslop and Wall [1986, p. 123, italics added], for instance, affirm that “men and women may arrive at conclusions about product quality in quite different ways... such differences may be based on differences between the sexes in *experiences* with ... classes of products, general life experiences, and preferences for product attributes”. Confirming this notion that involvement with certain products guides consumers’ perception of countries as producers of goods, men seem to align their overall country images with the origins’ images as producers of technically oriented goods (i.e. cars and electronic equipment); while women seem to rate countries highly if they are thought to be (known)

producers of fashion goods (i.e. clothing and footwear). With the understanding of gender-related buying patterns, country evaluations appear to be centred on knowledge of products frequently procured by each gender. Thus, it may be primarily actual experience in the marketplace that shapes a country's image as a producing entity of (superior or inferior) quality goods, rather than general knowledge (acquired through media or educational institutions) about the origin's producer capabilities [Heslop and Wall 1986; Wall et. al. 1988].

Finally, Heslop and Papadopoulos [1993] effectively linked PCI to TOMA recall when studying Canada's image as a producer of high-technology products. In their study, respondents were asked, among other questions, to list up to four products or brands they associated with five countries: Canada, the US, Sweden, Japan, and the home country (or Great Britain when the samples were from Canada and the US). It was found that many respondents, both foreign and Canadian, were unable to associate products to Canada. And even when respondents were able to do so, the products were basically natural resource-based, rather than high-technology products (as might have been hoped for). The authors concluded by referring to the image of Canada as "a diffuse and vague one" [p. 108]. This comment effectively introduces the issue of Canada's image as a producing entity of goods and services, a topic further explored in the following section.

3.9 Image of Canada and Canadian Products

Until 1987, there had been no research assessing the competitiveness of Canadian products abroad, as PCI studies focused largely on domestic consumers and the domestic market. In 1986, Wall and Heslop published a paper investigating the images of Canadian goods (*versus* imports) in the domestic market and found that Canadian consumers were generally supportive (affect) of Canadian-made products, even if they were not necessarily willing to buy them (intention to behave). To explain such Canadian attitude-behaviour discrepancy towards its home products, researchers reported that Canadian consumers perceived Canadian-made goods as being expensive relative to imports, of inferior quality, and of having limited availability [Wall and Heslop 1986; Papadopoulos et. al. 1987].

In effect, according to Mowen and Minor [1998], the main factors which influence the extent to which attitudes predict behaviours are: situational factors (like time pressure, market availability), effects of other competing products (even if a consumer's attitude toward a product and its origin is favourable, he/she may favour a competing product from a preferred origin more, so that this latter product will be purchased), and effects of other people (the desires of other people toward the purchase and the consumer's motivation to comply with these desires) [Manstead 1996]. Attitudes, thus, often fail to predict behaviour because they do not account for attitudes toward other objects. Taking these factors into account, it has been recognized that a person may have a positive

attitude toward buying a product, but may never engage in the behaviour of buying it. The studies by Wall and Heslop [1986] and Papadopoulos et. al. [1987] confirm the existence of the attitude-behaviour incongruence for Canadian products and attribute it to the fact that people favour similar products from competing origins more, because they are perceived as being superior in terms of quality, availability, and price.

The first study published on the views of foreigners about the international competitiveness of Canadian goods was by Papadopoulos et. al. [1987]. The authors' starting point was in hypothesizing about the way foreigners would likely perceive Canada, Canadians and Canadian products. It was thought that: (1) foreigners would like Canada and Canadians as a country and as a people; (2) industrial buyers would know reasonably well and respect Canadian technology; (3) Canadian consumer products would be under-represented and virtually unknown abroad. In accordance with the last point of view, the evidence from the study suggests that Canadian products were not rated highly by foreign consumers due mainly to a lack of presence in foreign markets and a lack of consumer experience with Canadian goods. In addition, there were indications that Canadian products were perceived as being of low-cost and low quality. Lastly, it was found that the weak image of Canadian products was somewhat uniform across the countries sampled (Canada, the US, Great Britain, the Netherlands, France, the Federal Republic of Germany, Greece and Hungary) and along many of the individual

product attributes. The most favourable ratings seemed to come from less industrialized countries such as Greece and Hungary.

Heslop and Papadopoulos' [1993] study on Canada's image as a producer of high-technology products investigated consumers' attitudes toward the technological capabilities of Canada and the technological level of its products. The research was undertaken to provide empirical evidence on the image of Canadian products around the world. It was meant to address the debate where some insist that the world recognizes Canada as a leader in new technologies while others argue that Canada is still viewed primarily as a nation of igloos, grain fields and forests. The results indicated that Canada fared relatively badly among the industrialized countries with which it conducts most of its trade in manufactured goods: in brief, Canada was not found as having a competitive image as a producer of high-technology products.

A more recent report by Papadopoulos et. al. [1994], based on data from the 1987 study, also examined the international competitiveness of Canadian products from the foreign and domestic consumers' perspectives. The objective was to report on the cross-national perceptions of Canada, Canadians and Canadian products. The results indicated, once more, that neither Canadian nor foreign consumers held particularly favourable attitudes towards Canadian products. Overall, in spite of the low levels of familiarity with Canadian goods and lukewarm ratings of product quality by the foreign consumer, there

seemed to be a high level of goodwill from consumers towards Canadian exports – indicative maybe of the transposition of overall perceptions of Canada to its exports, thus offering further support for Han's halo construct.

3.10 Summary of the Literature Review

The literature review addressed the issue of PCI mainly from a cognitive perspective of schemata and stereotyping. While both cognitive and behavioural learning research were reviewed, there is an overwhelming evidence that the issue is more thoroughly explained in terms of mental associations and processes.

While the fields of cognitive and social psychology provided the basic foundation for the review, the PCI literature gave context to the research interests of the present thesis. To summarize the review in a few sentences, country images are developed from one's direct and indirect experiences with the origin, its people and its products. The subjective image formed is thought to correspond to one's schema of a particular origin, where there is support in the PCI field and the literature on schemata for the finding that (country) schemata influence (product) evaluations and behavioural choice.

Recall that stereotypes are considered to be predominant associations between nodes in one's activated schema. Here, a characteristic is deemed featural, or stereotypical, to the degree that it is strongly associated in memory with a given category label. Modern

research resorts to free recall techniques for measuring stereotypes, because the individual's responses provide a direct indication of the associative strength between a category label and an attribute. By simply providing the group label, the experimenter activates the respondent's subjective schema and instantaneously arouses the most salient traits of the target. In this context, free recall measures are currently considered ideal instruments to assess the accessibility of descriptors, and particularly, TOMA is thought to be the most appropriate technique to measure the strength of mental associations with semantic labels – whereby the first descriptors to come to mind after exposure to a category label are deemed to be the most stereotypical descriptors linked with the target group in memory.

4. Research Objectives and Research Questions

As stated in the Introduction, the overall goal of this thesis is to examine how an origin's top-of-mind products relate to the origin's broader product-country image. To address this goal, the study uses data collected in the late 1990s by Papadopoulos, Heslop, and their associates from 15 sampled countries. The data focuses on how consumers perceive and evaluate five countries (Japan, the USA, the home country, Sweden, and Canada) and their products. In addition, a similar study was carried out in the late 1980s in eight of these countries, enabling comparisons between the two time periods. Using this data, the following specific objectives were formulated to address the overall goal of the thesis.

Objective 1 – To evaluate the relative frequency of TOMA responses and non-responses, as well as to examine the extent to which consumers mention generic products versus specific brands. Two research questions flow from this objective:

- 1.1. What is the relative frequency of TOMA responses and non-responses for each country?
- 1.2. When prompted to provide mental associations of products with particular countries, do consumers provide mostly generic product classes or the names of specific well known brands?

Objective 2 – To provide a general overview of the nature of the TOMA responses for the foreign origins. The goal is, primarily, to evaluate the extent to which TOMA

product-country profiles differ across sampled nations and across genders. Note that the central intention of the second objective is to understand how the TOMA profiles of the foreign target origins compared across the 15-country samples. Thus, although a detailed look into the TOMA product associations for the 15 home countries would provide a clear picture of what the main TOMA products and brands are for each sample, this analysis was beyond the scope of the second objective. Three research questions are related to this objective:

- 2.1. What are the main TOMA industries, product classes, and brands mentioned for each foreign country?
- 2.2. Is an origin's TOMA country image consistent across samples? (Country images are defined and measured in terms of the nature of the TOMA responses.)
- 2.3. What do these TOMA product-country profiles say about consumers' mental schemata?

Objective 3 – To investigate if there are correlations between TOMA responses and product evaluations. Here, four research questions are advanced:

- 3.1. Are product evaluations linked to the bundle of products brought to mind?
- 3.2. Do men and women recall different industrial sectors for a particular origin?
Do their product evaluations differ?
- 3.3. Are consumers' top-of-mind product-country images correlated with the perceived recognizability of the country's brand names, the ease of finding the

country's products in the marketplace, and the consumer's reported knowledge and purchase frequency of the origin's products?

3.4. Is a consumer's ability to associate products and brands with a country related with his/her travel experiences? Also, is it related with education levels and the existence of family roots in the target country?

Objective 4 – To evaluate the international image of Canadian products. Using data from both the original study (late 1980s) and the new study (late 1990s) by Papadopoulos, Heslop and colleagues. Five research questions relate to the fourth objective:

4.1. Do consumers perceive Canadian products as being recognizable? How well developed are consumers' product schemata for Canada?

4.2. Is Canada's image as a producer of goods found to be weak or strong?

4.3. Is the TOMA product/brand response frequency related to consumers' reported knowledge of Canadian products?

4.4. What are the most mentioned Canadian industries?

4.5. Have consumers' product schemata for Canada remained stable over time?

The above objectives and research questions are addressed qualitatively in Chapter seven and quantitatively in Chapter eight (the latter through formal hypotheses).

5. Research Methodology

This chapter first outlines the methodology used by Papadopoulos and Heslop in the original data collection process and then presents the methodology used to analyze the data for this study.

5.1 Data Collection

The thesis, which concentrates on the consumer behaviour aspects of PCI, uses data from an existing cross-national study, where consumers from 20 urban samples (from 15 countries) were asked to evaluate five countries (Canada, the USA, Japan, Sweden, and the home country itself) and their products. The 15 evaluating countries are: Australia, Canada, France, Germany, Greece, Holland, Hong Kong, Hungary, Indonesia, Israel, Mexico, Norway, Spain, the U.K., and the USA. It is important to note that Canada had four cities sampled: Edmonton, Halifax, Montreal-E (made up of Anglophones) Montreal-F (made up of Francophones), and Ottawa; while the USA had two cities sampled: Las Crujas (New Mexico) and Seattle (Washington).

The design of the research is cross-sectional, but also contains a longitudinal orientation for Canada. The longitudinal perspective is based on a sample of eight countries only (instead of the 15), because the original study on which this section also relies included only eight origins as evaluators, (Britain, Canada, France, West Germany, Greece, Holland, Hungary, and the USA). A total of 28 databases are used, 20 from the new

study and eight from the original study undertaken in the late 1980's. Both qualitative and quantitative analyses are undertaken.

The data used in the research was collected by Papadopoulos, Heslop, and their associates in the sampled countries. The research instrument was a self-administered questionnaire, involving questions on a variety of PCI issues. The data was gathered via *ex post facto* surveys.

5.2 Research Instrument

The questionnaire design followed that of previous studies undertaken by the researchers (refer to Appendix 1 for the questionnaire). The rationale for selecting the five origins for the study was specified as "The U.S. and Japan were chosen since they are major trading nations as well as Canada's main trade partners, and Sweden because of its similarities to Canada (both countries are politically 'grey', rich in resources, advanced in technology, dependent on exports, and smaller than such major players as the U.S. and Japan). The respondent's own country was included to provide a benchmark against which foreign goods could be judged. And because Canada and the U.S. were both 'origin' and 'own' countries for the Canadian and American samples, Great Britain was used as the fifth origin" [Papadopoulos 1987, p. 199].

The questionnaires had five parts and were very similar for both the new (15-country) and original (8-country) studies. The first section asked respondents to associate four product categories, brand names or company names, (whichever came first to their minds), to the five origins selected for the study. This is the TOMA recall section. The second part of the questionnaires involved asking respondents about products from the same five origins. This section was meant to measure their perceptions and attitudes, via bipolar adjective scales, towards products in general from the respective countries. The third part was aimed at evaluating how respondents felt about the origins and their people, again using bipolar adjective scales. The fourth part, (included only in the new study), looked at how individuals evaluated another 13 origins, using only four bipolar adjective scales for each origin, so as not to overtax the respondents with too many questions. Sections one through four captured in several ways the many facets of the CO image. Finally, the last section of the questionnaire asked for background information on the respondents, including questions on gender, age, education, travel and income.

This thesis relies heavily on the TOMA recall section of the questionnaire, but also refers to the product evaluations conveyed through the bipolar adjective scales.

5.3 The TOMA Recall Section of the Questionnaire

As previously mentioned, the TOMA recall section of the questionnaire asked respondents to write down four brand names, companies or products that they recalled

and associated with each of the five selected countries. Psychological theorists generally agree that the memory process comprises a number of more or less clearly identifiable stages. While the exact number of stages still raises much debate, three major observables of a complete memory episode encompass: (1) the stimulus event perceived by the individual, (2) the instructions and cues given to him/her for the retrieval of the memory trace, and (3) the overt response he/she makes as a result of the query retrieval [Tulving 1976].

Applying the above model to this study, the cues consumers received for the retrieval of country-product associations were the origin names themselves. No system of aided recall was used, thus, no other prompts were given, nor researcher interference existed, to aid and mediate the retrieval of memory traces. Thus, the written answers – which were the overt manifestation of the process of recall – are assumed to reflect the strength of association between the category label (i.e. the origin) and the associated product node. From the discussion in section 2.6.4, on measuring stereotypes, the TOMA product associations provided by respondents in the opening of the questionnaire can be taken to represent the strongest links (or, featural associational nodes) in people's schemata for each target country. Since the interest was in capturing people's typical product associations with each target origin, asking respondents to write down the product associations that first came to their minds when they thought of country A was the most

appropriate method to measure the accessibility and availability of memory traces in their schemata.

The motivation for putting the TOMA recall section as the opening section of the questionnaire was to capture respondents' first impressions of the target origin's products. One of the underlying hypothesis was that the evaluation about the attributes of an origin's products would be associated with the products and/or brands recalled in the TOMA recall section of the questionnaire. In fact, according to Alba, Hutchinson, and Lynch Jr. [1991], an individual's memory-based judgements are founded on recalled abstractions, inferences, and summary judgements that are generated at the initial exposure to specific information. Thus, it is reasonable to expect that one's product evaluations would be founded on the TOMA recollections and the consequent inferences and summary judgements the latter induce.

Finally, the way in which the verbatim responses from the TOMA recall section were coded allowed for the identification of industry sectors, product categories and whether a specific brand was recalled or just a generic product class or category. This approach allowed both quantitative and qualitative analyses of the data, as will be later explained in section 5.5.

5.4 Pre-Analytic Stage – Data Cleanup

The verbatim responses to the TOMA recall section were inputted to each country's database using a standardized coding scheme. The coding scheme, which was devised prior to data collection, listed ten broad industries and roughly 100 product categories. The scheme included those products that the principal researchers (Papadopoulos and Heslop) reasonably expected individuals to mention for Canada, Japan, Sweden, and the USA. However, after a preliminary analysis of the TOMA responses, refinements to the coding scheme were deemed necessary. That is, where the TOMA recall data did not support a product category, it was eliminated. Similarly, if the TOMA recall data justified the existence of a separate product category, it was retained and/or created.

The coding scheme was structured in 10 industries, which were then sub-categorized in ten main products (please refer to Appendix 2). Based on the scheme, a three-digit code was assigned to each verbatim response. The first digit (from 0 to 9) corresponded to the industry sector; the second digit (also from 0 to 9) indicated the product category within the industry; and the third digit (either a 0 or a 1) specified the nature of the response (i.e. whether a generic product or a brand name mention).

Prior to undertaking statistical analyses, it was necessary to ensure that the databases contained no errors in entry, ensuring the consistency and reliability of the databases. Firstly, all the TOMA recall entries were standardized; that is, the verbatim responses

were made uniform. For example, entries such as stereos and HI-FI were entered as stereos; while lumber, wood and timber were coded as wood. The next step was to check the numerical coding of the TOMA recall entries. This was done by grouping all similar verbatim entries and checking their numerical coding against each other. Where discrepancies existed within a database, errors were corrected.

Furthermore, since several coders entered the data into the databases, it became crucial to ascertain the consistency between databases in the coding. Decision rules were developed to ensure that the classifications of all TOMA responses were consistent across the sampled countries. Consider, for example the case where one coder classified the entry "The Body Shop" as a toiletry brand, while another coder classified it as a cosmetic brand. Decision rules were developed for the correct and consistent classification of all TOMA responses.

In addition, several product category codes were merged – either because the distinction between some product categories was of little interest to the research, or because respondents, contrary to what we anticipated, were not making the distinction between them. So, for example, while televisions, radios, stereos, and videos were initially coded separately within the industry of entertainment and leisure, they were eventually combined into one category – i.e. that of consumer electronics (470 or 471, depending on whether a brand name was mentioned or not) – because they essentially represented the

same class of products. In this way, when respondents mentioned brand names such as Sony, Toshiba, Samsung and Sanyo, they were coded as consumer electronics (i.e. 471), rather than allocated randomly to the categories of televisions, stereos, and videos. Similarly, no distinction was made between metal/plastic furniture and wood furniture (previously coded as 320/321 or 330/331, respectively), because respondents apparently were not making the distinction. As a result, these categories were merged into a single group of furniture (i.e. 330/331).

Having briefly outlined the procedures followed for the coding of each TOMA recall entry, it is important to note that inaccuracies in people's overt responses are likely to occur. However, although inaccuracies may exist, the interest of the research is in consumers' perceptions of reality (whether their subjective perceptions are in line with objective reality or not).

There are essentially two possible types of respondent-inaccuracies in the TOMA mentions. These can be illustrated as follows: (1) when respondents associated snow with Canada or Sweden, for example, instead of providing a product or brand name as asked; and (2) when respondents associated a wrong product (e.g. McDonald's, which is an American brand) to Canada, for example. For the first case, snow was lumped in the miscellaneous coding category (i.e. 800), regardless of it not being a product association; as for the second case, McDonald's was coded as a fast food brand (i.e. 821), regardless

of it not being a Canadian brand. As can be seen, no verbatim association was considered inappropriate, even when inaccurate. The importance of considering all verbatim responses for analysis is because through them we were able to infer how much consumers know about a target origin and its products. In the case where people are not knowledgeable about a country's products or brands, they may provide product-unrelated responses instead.

Additionally, when respondents provided an unknown response (XYZ) to any of the five target countries, two outcomes were possible. Suppose, for instance, that some Norwegian consumers associated XYZ to Norway (the home country) and the Norwegian coder entered these verbatim as a fast food brand name chain (specifically, 821). Trusting the domestic coder's knowledge of domestic brands and products, the numerical code would not be altered during the data clean-up phase. However, if the Norwegian coder had left such verbatim associations uncoded, we would have no way of categorizing XYZ under a specific product category, but would be able to infer that it is a brand name. In this case, instead of assigning a three-digit numerical code to the verbatim response, we only assigned a one-digit code to the response – specifically, the digit 1 to represent a brand mention. In this way, an accurate count of brand versus generic product mentions could still be undertaken. Note, however, that the total count of TOMA responses from the brand/generic associations would not necessarily correspond to the count obtained from the TOMA mentions categorized in industrial sectors.

5.5 Analytic Stage – Directions for the Verbatim Analysis

Given the way in which the verbatim associations were coded – with a three-digit numerical code and with the verbatim response – there were several possibilities for analysis. The first possibility was to consider the amount of TOMA responses versus the amount of TOMA non-responses associated with a particular target origin. In this case, a probe into the frequency of non-responses allowed for the investigation of the presence or absence of product schemata for the target countries.

The second possibility of analysis was in relation to the relative frequencies of TOMA brand name and generic product mentions. This type of analysis indicated whether respondents' schema for a particular target origin held primarily associational traces to brands or generic products. The high incidence of brand name mentions might suggest that an origin's brands were well known among a specific sample's respondents. In contrast, the high incidence of generic product categories could either indicate that a sample's consumers were not well aware of an origin's brands, or that the brands consumers primarily brought to mind belonged to one same product category used to summarize the TOMA brand associations. Only further exploration of the databases, specifically, into the product scales would help explain whether generic mentions was a likely result of the poor visibility of an origin's brands or a result of the summary effects similar brands may have induced.

A third possibility for the TOMA recall analysis was in the investigation of the most mentioned industries, most mentioned product categories (within the most mentioned industries), and most mentioned brands for each foreign target origin. Thus, in addition to identifying the top industries associated with Japan, the USA, Sweden and Canada, it was possible to further characterize the nature of the majority of the TOMA mentions by identifying the main product categories and brand names in people's schemata. Here, the goal was to understand how the TOMA profiles of the four foreign target origins compared across the 15-country samples. As mentioned in Chapter four, although a detailed look into the TOMA industries, product categories and brand names of the 15 home countries would provide a thorough picture of the main domestic products and brands for each sample, this type of analysis was beyond the scope of this research.

The aforementioned three types of analyses relate to the first two objectives of the thesis (refer to Chapter four) and are considered in detail in Chapters seven and eight – both of which provide an overview of the TOMA responses.

The fourth analysis direction, which pertains to Objective three (Chapter four), considers how the TOMA responses relate to each origin's product evaluations. Consideration is given to the variables: (1) knowledge about an origin, (2) knowledge of an origin's products, (3) availability of the products from a given country, (4) recognizability of the

brands from a given country, (5) purchase frequency of products from a target country, (6) international travel experiences, (7) family roots and friends, and (8) education levels.

Finally, the fifth analysis direction, which relates to the fourth objective of the thesis, longitudinally compares the TOMA responses for Canada and considers the product evaluations of eight samples.

6. Demographic Profiles of the Samples

Before testing and analyzing the hypotheses, a brief commentary on the demographic profiles of the 28 samples – 20 samples from the new study and eight from the original study – is appropriate. To this end, a discussion of the distribution of gender, age, education, and income will be provided next.

With regards to the gender distribution of each sample, the split was practically even (close to 50%) for 23 of the 28 samples. The only notable exceptions were the samples from:

- Greece (males = 29%, females = 71%), in the original study;
- Germany (males = 58%, females = 42%), in the original study;
- Britain (males = 43%, females = 57%), in the original study;
- Israel (males = 41%, females = 59%), in the new study; and
- Hong Kong (males = 43%, females = 57%), in the new study.

As for the age distribution, the research was limited to consumers at least 18 years old. The sample profiles tended to be rather young, since at least 64% (and at most 99%) of respondents were under 50 years old. Although not likely to correspond to the real age distribution of the larger adult national populations, the fact that respondents from all 28 samples were generally young was a positive characteristic for the research, since the

ultimate interest was in accessing the viewpoints of opinion leaders, who generally set the trends and influence the behaviours of other consumer segments in the marketplace.

In relation to education levels, the fact that 27 of the 28 samples had over 75% of the respondents with at least a high school diploma – Spain being the only exception, with only 57% of the respondents with a high school degree complete – shows that the samples tended to be rather educated. It is also interesting to point out that 24 samples – with the exceptions of Hungary and Spain (from the new study), Germany and Greece (from the original study) – had over 50% of respondents with at least some college or university education, illustrating once more the high education level of the samples. Once again, the educational profile of the samples turned out to be appropriate for our research, since opinion leaders are also characteristically more educated than other consumer segments [Solomon, Zaichkowsky, and Polegato 1999].

In addition, with respect to household income, the samples were chiefly characterized as being wealthier than their corresponding national populations. The only exceptions were the French, German and Australian samples from the new study, which had income profiles similar to their broader national adult populations [Papadopoulos, Heslop and IKON Research Group 2000]. Once again, the general characteristics of the samples reflect the upscale nature of the respondents in terms of household income: a definite characteristic of opinion leaders [Solomon, Zaichkowsky, and Polegato 1999].

Finally, for a better understanding of the 28 samples, consider the international travel experience of respondents. In the questionnaire, respondents were asked to indicate the frequency with which they had traveled abroad in the previous year. In 25 samples, over 50% of respondents had traveled abroad at least once in the year prior to data collection. If 50% traveled abroad at least once in the previous year, it is reasonably safe to expect that a larger percentage of respondents had traveled abroad at least once in the past, say, five years. The importance of this variable to the study of TOMA product-country images is in its potential influence on people's knowledge of countries and their products. The rationale is that as people travel abroad, they come in contact with different national marketplaces and with wider varieties of products. The natural implication is that those people who have traveled abroad are likely to have more developed product schemata for certain countries – especially those they have personally traveled to – than those people who have not traveled abroad at all.

To summarize the demographic profiles in a few words, it is clear that although the samples were not entirely representative of the larger national populations, the respondents possessed the typical characteristics of opinion leaders – who are of crucial interest to the field of PCI, since they are known to influence the opinions of the rest of consumers and, thus, are of great value to marketers in general.

7. Overview of the TOMA Responses

Chapter seven addresses the first and the second objectives of the thesis. As stated in Chapter four, the analysis in this chapter will be qualitative, while Chapter eight will address the same objectives quantitatively. Specifically, this chapter provides a general evaluation of the frequency of TOMA responses versus non-responses and gives an in-depth overview of the nature of the TOMA responses. Product profiles are drawn for each target origin based on the frequency and the nature of the TOMA responses provided by each sample.

The discussion in the first section of this chapter will focus on the relative ease or difficulty in providing TOMA associations for each of the five target origins. Section 7.2 will consider the TOMA responses in detail, in terms of whether generic product classes or brand names were mostly mentioned. To conclude, Section 7.3 will take a closer look at the nature of the TOMA responses, investigating which industries, product categories, and brands were most heavily associated with each foreign target country.

It should be noted that the subsequent analyses in this chapter were based on the late 1990s data. Furthermore, averages were used for the five Canadian and two American samples, because it was necessary to ensure that: (1) each evaluating country would only be accounted for once and (2) the multiple samples from the USA and Canada would not load the analyses.

7.1. TOMA Responses versus Non-Responses

Before studying the characteristics of each sample's TOMA responses for a target origin, it was deemed important to first look into the incidence of TOMA non-responses. Because one cannot assume people invariably hold rich product schemata for all countries, it was crucial to determine the relative ease with which samples associated products to each target origin. As will be shown, the task of associating four products/brands to Canada, Japan, Sweden, the USA, and the home country was apparently not always an easy exercise.

Table 1 compiles the percentages of TOMA responses and non-responses for each target origin for each sample. Table 2 reports on each sample's average TOMA associations per respondent. Both tables help in understanding how developed a sample's product schema is for a given target origin. The country rankings in Tables 1 and 2 – the last column – indicate that, overall, respondents had more ease in providing TOMA product associations for the home country, followed by Japan, the USA, Sweden, and lastly, Canada.

Because of the relative stronger presence of domestic vis-à-vis foreign products in domestic markets, respondents appear to have been better able to bring to mind more domestic products and brands than foreign goods for any of the four foreign origins in the study.

In addition, given that many Japanese and American products and brands are in great evidence around the world, it was not surprising to find that their products and brands were highly recalled, while their Swedish and Canadian counterparts were generally less so.

If we look at the average number of TOMA associations per respondent for each of the five origins in Table 2, we see that for the home country, Japan and the USA, respondents provided roughly 3.1 to 3.2 TOMA responses out of a maximum of four product/brand TOMA associations. For Sweden and Canada, the average number of TOMA associations was considerably lower, at approximately 1.8 and 1.4, respectively. The interpretation of such numbers is that respondents had richer product schemata for the home country, Japan, and the USA, but less developed ones for Sweden and Canada.

From a more detailed examination of the TOMA percentages in Table 1, it can be seen that the number of non-responses for the home country, Japan, and the USA are relatively low and rather similar to each other – whereby 21%, 22%, and 23% were their average percentages of non-responses, respectively.

Table 1: TOMA Responses versus Non-Responses – Percentages ^{a, b}

TOMA Responses and Non-Responses (%)	Australia	Britain	Canada	France	Germany	Greece	Holland	Hong Kong	Hungary	Indonesia	Israel	Mexico	Norway	Spain	USA	Average	Rank
Sample Size	300	303	1519	301	295	332	300	332	303	313	301	314	294	301	586	-	-
Home																	
Responses	82	75	85	88	83	82	88	79	70	77	63	75	71	88	84	79	1
Non-responses	18	25	15	12	17	18	12	21	30	23	37	25	29	12	16	21	
Japan																	
Responses	78	81	85	81	79	81	80	92	68	85	62	74	74	74	80	78	2
Non-responses	22	19	15	19	21	19	20	8	32	15	38	26	26	26	20	22	
USA																	
Responses	75	77	87	83	80	77	78	84	62	80	62	78	74	74	hc	77	3
Non-responses	25	23	13	17	20	23	22	16	38	20	38	22	26	26	hc	23	
Sweden																	
Responses	44	55	56	49	61	50	66	34	50	33	25	29	70	39	43	47	4
Non-responses	56	45	44	51	39	50	34	66	50	67	75	71	30	61	57	53	
Canada																	
Responses	37	53	hc	40	36	42	42	41	19	21	15	37	30	36	40	35	5
Non-responses	63	47	hc	60	64	58	58	59	81	79	85	63	70	64	60	65	

^a The figure in each cell shows the number of TOMA responses provided as a percentage of all possible responses (i.e. sample size * 4 for each origin country). Figures have been rounded up to the nearest percentage point.

^b "hc" signifies a home country evaluation; accordingly, the findings are reported in the home country row.

Table 2: Average TOMA Associations per Respondent^{a, b}

Average TOMA Responses	Australia	Britain	Canada	France	Germany	Greece	Holland	Hong Kong	Hungary	Indonesia	Israel	Mexico	Norway	Spain	USA	Average	Rank
Home	3.30	3.00	3.39	3.50	3.31	3.28	3.51	3.05	2.91	2.86	2.51	3.01	3.01	3.54	3.40	3.17	1
Japan	3.12	3.24	3.41	3.25	3.15	3.25	3.20	3.66	2.82	3.23	2.49	2.96	3.11	2.96	3.26	3.14	2
USA	2.99	3.07	3.47	3.33	3.19	3.10	3.17	3.30	2.63	3.18	2.48	3.11	3.01	2.98	hc	3.07	3
Sweden	1.75	2.21	2.24	1.96	2.43	2.01	2.65	1.10	2.16	0.62	1.01	1.13	2.98	1.55	1.85	1.84	4
Canada	1.50	2.13	hc	1.77	1.41	1.82	1.71	0.83	0.75	0.86	0.60	1.34	1.29	1.67	1.80	1.39	5

^a The figure in each cell shows the average number of TOMA associations per respondent (i.e. total TOMA responses provided by a sample for an origin country / sample size).

^b "hc" signifies a home country evaluation; accordingly, the findings are reported in the home country row.

The home countries with the most TOMA associations were France, Holland, and Spain, where only approximately 12% of TOMA non-responses were found. For Japan, the sample which was best able to provide product/brand TOMA associations was Hong Kong: where respondents provided 92% of all the potential TOMA associations – averaging 3.66 out of 4.00 TOMA responses per person. For the USA, the sample with the most TOMA associations was Canada, where only 13% of TOMA non-responses was found.

In contrast, the home countries with the least number of TOMA associations were Israel, Hungary, and Norway, where the percentages of TOMA non-responses were 37%, 30%, and 29%, respectively. For Japan and the USA, the samples with the highest percentages of TOMA non-responses were once again Israel (38% for both origins) and Hungary (32% and 38%, respectively).

Now, if we look at the number of TOMA responses for Japan in isolation from the other origins, Japanese goods and brands seemed to be relatively well known internationally. The percentage of blanks for Japan was rather low and ranged from 8% (Hong Kong) to 38% (Israel). Since Hong Kong was the sample which was best able to associate products and brands to Japan, it is presumed that, for one reason or another (likely geographic proximity and cultural similarity), its citizens have a more elaborate product schema for Japan than any other country sampled. Israel, on the other hand, had the most difficulty in

making the product associations with Japan, thus suggesting that this sample had a less developed schema for Japanese products.

Similar to Japan, the percentage of blanks for the USA ranged from 13% (Canada) to 38% (Israel), indicating that American products and brands were also relatively well known by the international community. Due to factors such as geographic proximity and the NAFTA trade agreement, it would seem natural, *ceteris paribus*, to have the Mexican and the Canadian samples show the lowest levels of non-responses for the USA. However, while the Canadian sample was indeed the best able to provide product associations with the USA, Mexican respondents, contrary to expectations, had more difficulty in associating products and brands to the USA than five other samples (of which three were European and two Asian). In fact, the average number of TOMA associations per respondent for the USA by the Mexican sample was 3.11, while the samples from France, Germany, Holland, Hong Kong and Indonesia provided from 3.18 to 3.33 TOMA responses per respondent.

Interestingly, in the case of the Mexican sample, geographic proximity and trade volume with the USA apparently were not sufficient factors to predict a higher incidence of TOMA associations with the USA. With regards to trade volume, American exports in 1998 accounted for a significant share of Mexican and Canadian imports (75% and 68% respectively), but for only 13% of imports to Indonesia, 9% to France, 9% to Holland,

8% to Germany, and 7% to Hong Kong [United Nations 1999]. Yet these last six samples were all better able to associate products and/or brands to the USA than the Mexican sample. Based on these trade statistics, common sense would have us expect Mexican respondents to have richer product schemata for the USA than those from any of the other aforementioned six countries. Given that this was not the case, a reasonable explanation why Mexican respondents had more difficulty in associating products/brands to the USA – despite its close trade ties with the latter – may be because much of the imports from the USA into Mexico are industrial goods, thus not aimed at (or much visible to) the final consumer.

Table 1 shows that the percentage of blanks for the home country ranged from 12% to 37% – similar percentages to those obtained for Japan and the USA. Interestingly, this may be a first, rough indication that Japanese and American goods have as high visibility, and possibly are as easily found in the marketplace, as domestic goods. Moreover, it was also found that, overall, the number of TOMA product and/or brand associations per respondent made in relation to the home country was 3.17, which indicates that out of the five target origins, respondents were, on average, best able to make associations with their home country.

In stark contrast to the ease with which respondents provided TOMA associations with Japan, the USA and the home country, the average percentage of non-responses for

Sweden and Canada were generally a lot higher – i.e. 53% and 65%, respectively. Such high figures hint at the inaccessibility or unavailability of product and/or brand mental associations for the latter two origins.

As for Sweden, Norway was the sample which was best able to provide product/brand TOMA associations, while the Israeli sample was, once again, the least able to do so. Specifically, Norwegian respondents provided roughly 70% of all the potential TOMA responses – averaging 2.98 associations per respondent. In contrast, Israeli respondents were only able to provide 25% of all the potential TOMA responses – thus averaging 1.01 TOMA responses per person.

Finally for Canada, the British sample was the most able to provide product/brand associations, while the Israeli sample, once more, showed the most difficulty in supplying them. In particular, the former sample had 47% of TOMA non-responses, while the latter sample had a whopping 85% of TOMA non-responses.

Since the percentages of non-responses for Canada averaged a high of 65%, it becomes very evident that foreign consumers lacked awareness about Canadian goods. In effect, out of all the target origins assessed in this study, Canada emerged as the one with the least average number of TOMA associations: out of a maximum of 4.00 only 1.42 TOMA associations were provided, on average, by each respondent. Even in Canada's

main trading partner, the USA, which according to official statistics from the United Nations [1999] accounts for approximately 83% of Canadian exports, the percentage of TOMA non-responses was very high – at 70% for USA-New Mexico and 51% for USA-Seattle, averaging at 60%. As for Mexico, Canada's other NAFTA partner, the proportion of non-responses was also very high, at 63%. In all, the high proportions of non-responses for Canada serve to confirm previous findings [Papadopoulos et al. 1987, 1994] that Canadian products and brands are not visible or well known abroad.

It is interesting to note that the Israeli sample emerged as the one with the highest percentage of TOMA non-responses for every target origin in the study. This could be because: (1) respondents may not have bothered to fill out the open-ended TOMA questions; (2) respondents may have had greater difficulty vis-à-vis respondents from the other samples in providing TOMA product associations, due to unique market conditions (e.g. Israeli consumers may be less exposed to imports than consumers from the other samples. This would possibly imply low reported levels of knowledge about products from the foreign target origins. Note, however, that this explanation does not account for the lack of TOMA associations for the home country.) ; (3) consumer ethnocentrism (i.e. Israeli consumers may not be positively inclined towards imports, which would affect people's knowledge of imports. Again, this does not explain the lack of TOMA associations for the home country). From Appendix 3 (which shows the mean product knowledge scores, by sample, for each origin), it can be seen that explanations which rely

on respondents having little knowledge about an origin's products do not apply to the Israeli sample. This is because Israeli respondents generally had more product knowledge for the five target origins than many of the other samples (in 47 instances). In this scenario, the most plausible explanation for the high incidence of Israeli TOMA non-responses seems to be the lack of attention given to the TOMA questions in the opening of the questionnaire.

From the above qualitative analysis on the relative frequencies of TOMA responses and non-responses, the five target origins were ranked, from best to worst, in the following way with regards to the overall average number of TOMA responses associated with them: (1) the home country, (2) Japan, (3) the USA, (4) Sweden, and (5) Canada. Next, we consider the incidence of generic and brand TOMA mentions for each of the target origins.

7.2 Generic versus Brand Name TOMA Mentions

Table 3 compiles the valid percentages of TOMA generic product and brand name mentions for each target origin and each sample. The last two columns of Table 3 indicate the ranking of each origin with respect to the frequency of TOMA brand name and generic product mentions. The table shows that, overall, respondents had more ease in providing TOMA brand associations for the USA, followed by Japan, Sweden, the home country, and lastly, Canada.

Table 3: Brand versus Generic TOMA Mentions – in Valid Percentages^{a, b}

	Australia	Britain	Canada	France	Germany	Greece	Holland	Hong Kong	Hungary	Indonesia	Israel	Mexico	Norway	Spain	USA	Average	Rank for Brands	Rank for Generics
Japan																		
Generics	58	71	56	50	38	56	74	17	38	31	50	50	44	70	47	50		
Brand Names	42	29	44	50	62	44	26	83	62	69	50	50	56	30	53	50	2	4
USA																		
Generics	43	57	54	35	30	58	60	16	37	28	49	44	38	58	hc	43		
Brand Names	57	43	46	65	70	42	40	84	63	72	51	56	62	42	hc	57	1	5
Home																		
Generics	53	64	67	59	28	77	72	28	37	51	60	57	51	79	47	55		
Brand Names	47	36	33	41	72	23	28	72	63	49	40	43	49	21	53	45	4	2
Sweden																		
Generics	59	62	53	49	32	65	67	47	40	44	55	78	27	74	60	54		
Brand Names	41	38	47	51	68	35	33	53	60	56	45	22	73	26	40	46	3	3
Canada																		
Generics	86	85	hc	84	84	95	93	55	83	65	90	81	86	94	79	83		
Brand Names	14	15	hc	16	16	5	7	45	17	35	10	19	14	4	21	17	5	1

^a Valid percentages are equal to the ratio between the number of TOMA brand mentions and the number of TOMA responses.

^b "hc" signifies a home country evaluation; accordingly, the findings are reported in the home country row.

For Japan, the average valid percentage of brand TOMA mentions was 50%, and the average valid percentage of generic product TOMA mentions was 50%. These figures suggest that brand names were not necessarily the primary associational traces in respondents' memory for Japan. The case of the Dutch sample, which had the most apparent difficulty in associating brands to Japan, can be used as an example. The fact that as many as 74% of all the valid TOMA mentions were for generic product categories suggests that Dutch consumers either were not well aware of Japanese brands, or brought to mind too many Japanese brands within the same generic product category. Since the mean score for the perceived recognizability of Japanese brands was 5.88 (on a 7 point bi-polar adjective scale, as shown in Table 4), a lack of awareness of Japanese brands does not seem a plausible explanation for the low levels of brand name TOMA responses.

Overall, the most likely explanation for not having more TOMA brand name mentions would be the existence of summarizing forces when too many brands specialize in the production of the same select product categories.

Indeed, it could be that if: (1) many brands were brought to mind and (2) they belonged to the same industry; then the increasing strength of association between the origin and the generic product label may have induced people to summarize the Japanese TOMA brands in terms of the broader product categories. In other words, the summarizing forces of many brands in the same industry may have been responsible for creating very strong

mental linkages to the broader general product categories, so that the first memory traces accessed by respondents – i.e. the top-of-mind memory traces – were the ones for the generic product categories. Similarly, even if the top-of-mind memory traces were brands, individuals may have further processed the information so that their overt responses summarized and reflected the common nature of the TOMA brands. In both situations, specific brand names would likely have been brought to mind and/or mentioned more often if individuals were further probed.

Table 4: Recognizable *versus* Unrecognizable Brands – Mean Scores ^a

Samples	Australia	Britain	Canada	France	Germany	Greece	Holland	Hong Kong	Hungary	Indonesia	Israel	Mexico	Norway	Spain	USA	Average
Japan	5.81	6.29	5.97	5.70	5.68	6.42	5.88	6.06	6.09	6.37	5.86	5.79	5.99	6.03	5.97	5.99
USA	5.10	5.72	5.97	5.83	5.66	6.12	5.56	5.29	5.49	5.74	5.95	5.85	5.90	6.14	hc	5.74
Home	5.22	5.96	5.11	6.18	5.99	4.85	5.65	3.77	5.04	4.48	5.46	5.24	5.35	6.14	5.95	5.36
Sweden	4.18	4.13	4.03	4.01	4.56	4.17	4.91	3.73	5.03	3.38	3.77	3.08	5.43	3.06	3.72	4.08
Canada	3.55	3.02	hc	3.21	2.65	3.31	2.88	3.14	4.06	2.39	3.13	3.30	3.41	2.40	3.55	3.14

^a The scale ranges from 1 to 7, where 1 represents highly unrecognizable brands and 7 represents highly recognizable brands.

In contrast to Japan, the average valid percentage of brand TOMA mentions for the USA was higher (at 57%) than the TOMA mentions for generic product categories (at 43%). Although, on the aggregate, brands were more often recalled than generics for the USA, given that the perceived recognizability of American brands was quite high (5.74, as per

Table 4), the figures still imply that either brand names were not overwhelmingly the primary associational traces in respondents' memory for the USA or that summarizing forces were again an influential factor.

Interestingly, the sample from Hong Kong associated brands to the USA 84% of the times, suggesting that it had a higher awareness of American brands than respondents in other countries (e.g. Holland). However, the sample from Hong Kong had a slightly lower mean score for the perceived recognizability of American brands than the Dutch sample (5.29 versus 5.56). Hence, it cannot be concluded that respondents from Hong Kong had a higher awareness of American brands, as the nature of their TOMA responses would have us deduce. A plausible explanation for the higher incidence of American brands coupled with a lower score for American brand recognizability would be the prominence of only a few select American brands in Hong Kong.

Overall, since the average valid percentage of brand mentions for the USA centred around 57%, coupled with the fact that American brands were rated as highly recognizable around the world (a mean score of 5.74, as in Table 4), the most likely reason for not having had more American brands mentioned in the TOMA exercise could have been due to the tendency to summarize the TOMA brand memory traces into generic product categories. Per the previous paragraphs, this phenomenon would likely exist for both Japan and the USA.

Considering the TOMA associations for the home country, the average valid percentage of TOMA brand mentions was lower (at 45%) than for Japan, the USA, and Sweden. Overall, brands were not the most recalled category for the home country, suggesting once again that brand names were either not the primary associational traces in respondents' memories or were subject to strong summarizing forces. Interestingly, only four of the 15 samples (Germany, Hong Kong, Hungary, and the USA) mentioned more brand names than generic product categories in association to their home countries. Of these four samples, the American sample had almost a 50-50 split in their TOMA mentions regarding brand names and generic products. So, in reality, three samples had considerably more brand mentions than generics for the home country, even though these were not the samples to have the highest levels of perceived domestic brand recognizability (Table 4).

The fact that the vast majority of the samples did not mention brand names more than generic products for the home country may be because: (1) consumers may not be able to recognize domestic brands easily (not true as seen in Table 4, where the mean score for the perceived recognizability of domestic brands was 5.36); or (2) they may, as previously discussed for Japan and the USA, summarize many brand names in terms of broader product categories. Overall, since the average valid percentage of brand mentions for the home country gravitated around a low figure of 45%, coupled with the fact that the domestic marketplace is presumably swamped with domestic products, the most

likely reason for not having more TOMA brand mentions associated with the home country is the summary force factor already discussed for Japan and the USA.

As for Sweden, the average valid percentage of TOMA brand mentions was 46%. As in the case of Japan and the home country, the most basic interpretation of these figures is that respondents did not hold brand names as primary associational traces for Sweden. However, consider that (1) Sweden is a small exporting country (ranking 17th in percentage of world visible exports) [The Economist, 1998], (2) Swedish brands were considered to be, on the aggregate, neutral in terms of recognizability (attaining an average mean score of 4.08 in Table 4), and (3) Swedish brands were not overwhelmingly mentioned in the TOMA exercise. The fact that respondents recalled brands as often as 46% of the time is actually a good indication of the relatively strong image of some few Swedish brands (likely not all in the same product category).

Finally, turning to the nature of the TOMA associations for Canada, from the average valid percentage column of Table 3, it is seen that brands were oftentimes mentioned for Japan, the USA, Sweden, and the home country – ranging from 45% to 57% of all TOMA mentions. In stark contrast, the average valid percentage of brand mentions for Canada was only 17%. Since Japanese, American and domestic goods are abundant in markets worldwide, it was not surprising that their brands were widely recognized and recalled. The interesting contrast is between Sweden and Canada. It was intriguing to find

that Sweden, albeit a smaller player in international trade than Canada, was quite heavily associated with brand names; while Canada, although a major player in international trade (ranking 7th in percentage of world visible exports) [The Economist, 1998] was rarely associated with brand names.

The fact that Canadian brands occupied a rather insignificant level of consumer mind-share suggests that Canadian products are either not branded or their brands not easily recognized by the average consumer (a finding reported in Table 4, where on average all samples indicated that Canadian brands, with an average score of 3.14, were quite poorly recognizable). If we turn to Table 3, once more, it can be seen that the sample with the least brand mentions for Canada was Spain (4%), while the one with the most brand mentions was Hong Kong (45%). The average percentage of brand mentions, nonetheless, was only 17%. In all, Canadian brand names do not seem to be known abroad – or at home, since even Canadians had difficulty in providing brand associations. Although Canadians gave an average mean score of 5.11 for Canadian brand recognizability (as per Table 4), only 33% of their TOMA responses were brand names.

Lastly, if we take a different approach to Table 3, it is seen that the samples from Germany, Hong Kong, and Hungary had a greater tendency than the other samples to supply brand names rather than generic product categories to four of the target countries (all except Canada). In contrast, the samples from Holland and from Spain had the

greatest tendency than any other sample to provide generic categories as TOMA associations.

7.3. The Top TOMA Industrial Sectors, Product Categories, and Brand Names

After assessing the occurrence of TOMA responses versus non-responses and the frequency of TOMA brand versus generic mentions for each origin, we turn to analyze: (1) the most recalled industrial sectors, (2) the most recalled product categories (within the top industrial sectors), and (3) the overall most mentioned brands, for each of the four foreign target origins. A detailed analysis of the nature of the TOMA responses for each of the 15 home countries was considered to be beyond the scope of this thesis, as explained in Chapter four. Thus, the following analyses refer only to Japan, the USA, Sweden and Canada.

The purpose of Section 7.3 is to provide country profiles in terms of the most mentioned TOMA responses. It is expected that the profile of each target origin will be similar across samples, a fact that will be statistically tested in Chapter eight. Because there is no reason to expect that the images of the 15 home countries will converge along industrial sectors, product categories, or brands, the following analysis is only considered for the non-domestic origins: Japan, the USA, Sweden, and Canada. Tables 5 to 12 pinpoint the main industrial sectors, products and brands associated with the four above target origins.

The three basic criteria for determining whether industrial sectors, product categories, and brands were featural for a given origin were established as:

- Industrial sectors which accounted for at least 10% of the 15-sample average valid TOMA responses were considered to be an origin's perceived featural industrial sectors.
- Product categories which accounted for at least 10% of the 15-sample average valid TOMA responses, within a featural industry (as per above), were considered to be featural product categories.
- Brands which accounted for at least 1% of the overall valid TOMA responses (where 1% represents the 15-sample average) were considered to be an origin's perceived main brands.

7.3.1 Japan

Referring to Table 5, Japan seems to have a very well defined image as a producer of entertainment goods and transportation vehicles. In effect, entertainment goods were mentioned an average of 41% of the time, while transportation vehicles were brought to mind on an average of 36% of the time. All samples overwhelmingly associated Japan to these two industries, which together represented roughly 77% of all TOMA associations. In addition, for the most mentioned product categories within these two featural industries, it can be seen that home electronics, cameras, cars, and other land vehicles emerged as the principal generic products associated with Japan.

What is perhaps most notable in Table 5 is the consistency across samples of the industry and product category TOMA percentages. Although, obviously, there is some fluctuation in the percentages, it is undeniable that Japan's image as a producer of goods is extremely focused on two industries (entertainment and transportation vehicles) and two main product categories (home electronics and cars).

Table 5: Industrial Sectors and Product Categories for Japan – Valid Percentages

	Australia	Britain	Canada	France	Germany	Greece	Holland	Hong Kong	Hungary	Indonesia	Israel	Mexico	Norway	Spain	USA	Average
Industries^{a,b}																
N.Resources	1	0	0	1	0	1	0	0	0	0	0	0	0	1	0	0
Foodstuff/T	3	3	2	3	2	1	6	4	1	3	1	2	1	2	2	2
Clothing	3	1	2	3	1	3	2	5	5	4	4	4	3	6	2	3
Household	3	2	2	2	1	8	2	17	0	4	1	3	0	3	2	3
Entertainm.	39	47	45	44	44	31	37	45	40	41	42	52	37	35	42	41
T.Vehicles	35	31	37	34	42	42	33	19	41	41	44	23	45	28	42	36
Technology	8	9	5	6	7	6	8	2	11	3	5	9	8	13	6	7
Industrial	1	1	2	1	0	3	2	0	1	2	1	3	1	3	1	2
Services/M	2	1	1	1	0	1	2	6	1	2	1	2	1	2	1	2
Agric./Fish	5	5	4	5	3	4	8	2	0	0	1	2	4	7	2	4
Products^b																
Entertainm.																
Toys/Games	8	7	5	7	12	4	5	6	3	3	5	9	5	7	6	6
Home Electronics	78	83	79	80	66	87	74	88	85	86	89	84	69	74	85	80
Cameras	14	8	14	13	20	7	18	5	11	9	5	6	23	16	9	12
Other	0	2	2	0	2	2	3	1	1	2	1	1	3	3	0	2
T. Vehicles																
Cars	90	89	94	81	87	83	91	95	88	91	96	91	93	63	95	88
Other Land Vehicles	10	8	5	19	12	14	4	5	12	9	4	9	6	36	5	11
Other	0	3	2	0	1	3	5	0	0	0	0	0	1	1	0	1

^a N.Resources=Natural Resources, Foodstuff/T=Food/Drinks/Tobacco, Clothing=Clothing and Related, Household=Household Items, Entertainm.=Entertainment Goods and Leisure, T. Vehicles=Transportation Vehicles, Technology=Advanced Technology, Industrial=Industrial Goods, Services/M=Services and Miscellaneous, Agric./Fish=Agriculture and Fishing.

^b The figures under the heading of "Industries" correspond to overall valid percentages. The figures under "Products" correspond to valid percentages within the broader industrial sector.

If we now consider the most recalled Japanese brands, as depicted on Table 6, we see that eight brand names accounted for the vast majority of mentions in each category, with Sony dominating in entertainment products and Toyota in cars. It is worth noting that the most often recalled TOMA brands corresponded directly to the top TOMA industries and top TOMA product categories previously referred to.

Table 6: Top TOMA Brand Name Mentions for Japan – Overall Valid Percentages ^{a, b}

Brands ^a	Australia	Britain	Canada	France	Germany	Greece	Holland	Hong Kong	Hungary	Indonesia	Israel	Mexico	Norway	Spain	USA	Average
Entertainm.	18	14	19	24	24	15	9	44	26	31	21	29	18	11	23	22
Sony	6	8	10	11	11	7	6	16	14	14	11	12	8	4	11	10
Toshiba	1	1	2	2	1	1		5	1	5	2	4	1		2	2
Sanyo	3	1	1			1		1	1	3	4	2	1	2	2	1
Hitachi	1	1	1	1	1	2		4	1	2		3	1		1	1
Panasonic	1	1	1		1	1		5	2	1	1	2	1		2	1
Fuji	1		1	1	1				1	2			1		1	1
Canon	1			1	2		1	1		1				1		1
Aiwa				1	1			1		1	1	2		1	1	1
Other	4	2	3	7	6	3	2	11	6	2	2	4	5	3	3	4
T. Vehicles	21	11	22	23	32	25	14	17	30	31	27	16	34	14	30	23
Toyota	7	3	8	7	10	7	4	7	9	13	3	2	11	2	10	7
Mitsubishi	6	3	2	4	6	3	3	4	3	5	10	4	5	1	5	4
Honda	2	3	7	4	4	3	2	4	5	7	2	3	4	2	8	4
Yamaha	1		1	3	3	3	1	1	3	2		1	2	2	1	2
Nissan	1	2	2	1	4	3	1	1	1		1	5	2	2	2	2
Suzuki	1		1	1	1	2	1		5	2	1		2	2	1	1
Kawasaki	1			1	1	1			1					2	1	1
Mazda	1		1	1	2	1	1		2	1	1		7		1	1
Other	1			1	1	2	1		1	1	9	1	1	1	1	1
Other Brands	3	4	3	3	6	4	3	20	6	6	2	5	4	5	1	5
No Brands	58	71	56	50	38	56	74	19	38	31	50	50	44	70	46	50

^a The figures in bold correspond to the sum of TOMA (brand name) mentions within a given industrial sector.

^b The criterion used to decide which brands to depict in the Table was that the brands be mentioned, overall, on an average of at least 1%.

To summarize how respondents from the 15 samples perceived Japanese products: (1) the average score for Japanese brand recognizability was very high (at 5.99, Table 4); (2) the two featural TOMA industries accounted for an average of 77% of all valid TOMA associations; (3) the four featural generic products accounted for an average of 92% and 99% of all TOMA mentions within the top two TOMA industries; (4) all the featural TOMA brands belonged to the top four generic product categories; and (5) the overall average percentage of TOMA brand mentions was surprisingly low (only 50%) for brands that were reported by all samples to be highly recognizable.

With the above five points in mind, it becomes a more and more plausible explanation that the reason why respondents did not mention more Japanese brand names in the TOMA exercise was because they were subject to strong mental summary forces, whereby their overt TOMA answers were summary-responses for the many same-industry brand names brought to mind.

7.3.2 USA

Table 7 shows that, in comparison to Japan, respondents held a much more dispersed industry-image for the USA. As a matter of fact, the USA had five industries mainly associated with it. They were, in order from most often associated (on average) to less so: transportation vehicles, services and miscellaneous, advanced technologies, clothing, and food/beverages/tobacco. Overall, these top five industries accounted for an average of 85% of all TOMA responses for the USA.

Table 7: Industrial Sectors and Product Categories for the USA – Valid Percentages

	Australia	Britain	Canada	France	Germany	Greece	Holland	Hong Kong	Hungary	Indonesia	Israel	Mexico	Norway	Spain	USA	Average
Industries^a																
N. Resources	1	1	1	0	1	4	1	0	1	1	0	1	3	3	2	1
Foodstuff/T.	13	21	9	25	20	18	15	11	19	13	13	15	19	23	10	16
Clothing	12	11	12	11	12	12	13	24	13	15	30	18	13	9	9	14
Household	3	2	5	2	1	9	1	6	5	10	12	10	2	1	4	5
Entertainm.	5	3	4	7	2	4	4	3	5	2	3	6	4	6	4	4
Transportation	20	15	26	15	22	22	20	6	23	19	16	14	23	14	33	19
Technology	15	10	16	14	16	12	17	28	17	17	11	13	13	11	21	16
Industrial	2	0	3	1	2	3	1	1	1	2	1	4	2	2	3	2
Services/M	26	33	19	24	23	12	24	18	14	20	14	17	19	25	12	20
Agric./Fish	3	4	5	1	1	4	4	4	1	1	0	2	2	6	5	3
Products^b																
Foodstuff/T.																
Cereals	2	4	4	2	4	0	3	1	1	3	2	5	3	3	5	3
Cigarettes	0	7	5	8	11	18	14	14	14	24	2	3	8	17	6	10
Confectionary	11	3	4	2	4	1	6	17	2	4	9	14	3	3	7	6
Soft Drinks	53	36	32	70	53	52	36	52	60	46	45	40	64	56	34	49
Alcoholic Drinks	9	25	19	2	7	8	9	2	3	1	0	4	9	3	13	8
Pharmaceuticals	0	0	3	1	0	5	3	3	4	7	3	3	1	0	4	2
Other	25	25	33	15	21	16	29	11	16	15	39	31	12	18	32	22
Clothing																
Clothes	46	69	66	90	57	83	68	52	52	70	59	59	76	73	73	66
Footwear	49	23	29	4	41	11	30	46	45	27	36	37	24	17	26	30
Accessories	4	2	1	6	0	5	0	1	1	2	2	2	0	5	0	2
Other	1	6	5	0	2	1	2	1	2	1	3	2	0	5	2	2
T. Vehicles																
Cars	82	81	92	83	85	83	82	82	89	82	88	96	87	87	82	85
Other Land Veh.	9	3	2	3	5	3	1	6	3	1	1	1	2	2	4	3
Aircrafts	9	14	6	14	10	13	16	12	7	17	11	3	11	10	14	11
Other	0	2	0	0	0	1	1	0	1	0	0	0	0	1	1	1
Technology																
Computers/Software	85	87	86	78	89	87	86	85	72	85	79	80	82	72	86	83
Telecomm.	4	4	6	1	4	3	1	10	8	11	12	12	5	3	7	6
Aerospace	3	6	4	16	3	3	3	2	12	2	1	3	1	9	1	4
Other	8	3	4	5	4	7	10	3	8	2	8	5	12	16	8	7
Services/M.																
Restaurants	52	46	27	73	75	43	57	32	54	43	62	45	54	58	37	50
Airlines/Tourism	4	7	6	2	4	6	5	10	0	3	7	8	4	4	3	5
Large Retail Stores	0	0	10	1	0	0	0	3	1	4	1	6	1	0	9	2
Financial/Insurance	1	3	3	3	3	4	1	9	3	13	2	4	1	0	3	4
Movies/Music	28	35	38	16	15	14	28	20	27	18	8	14	27	20	23	22
Sports	3	2	4	2	0	1	0	5	0	0	7	12	1	3	4	3
Military	7	6	5	3	1	27	4	4	8	5	10	1	6	6	8	7
Other	5	1	6	0	2	5	5	17	7	14	3	10	6	9	14	7

^a The figures under the heading of "Industries" correspond to overall valid percentages.

^b The figures under "Products" correspond to valid percentages within the broader industrial sector.

Note that the distribution in all samples of the TOMA mentions among the top five industries was somewhat even. Furthermore, although to a lesser extent than for Japan, Table 7 also shows a striking similarity across samples in the percentages of the TOMA industries for the USA.

Table 8: Top TOMA Brand Name Mentions for the USA – Overall Valid Percentages^{a,b}

	Australia	Britain	Canada	France	Germany	Greece	Holland	Hong Kong	Hungary	Indonesia	Israel	Mexico	Norway	Spain	USA	Average
Brands^c																
Foodstuff/T.	12	14	5	18	15	11	7	9	12	9	8	10	16	14	5	11
Coca-Cola	6	6	2	15	9	7	5	4	8	5	5	5	11	11	2	7
Pepsi		1	1	1	1	1		1	2	1	1	1	1	1	1	1
Marlboro		1		1	1	1		1	1	2			1	1		1
Other	4	2	2	1	4	2	2	3	1	1	2	4	1	1	2	2
Clothing	7	5	5	14	9	6	6	16	11	11	14	10	10	9	5	8
Nike	4	2	2	4	4	1	2	5	5	2	3	4	3	4	2	3
Levis	1	2		5	3	3	3	4	4	4	5	2	6	3	1	3
Other	1	1	3	2	1	2	1	4	2	4	3	3	1	1	2	2
T. Vehicles	11	7	13	10	16	12	9	5	16	13	9	8	14	6	22	12
Ford	4	2	5	4	4	3	3	3	6	7	2	4	5	3	8	4
GM	2	2	5	3	5	1	2	1	3	1	2	1	4		5	3
Chevrolet	1						1		1	1	3	1	1		3	1
Boeing	1	1	1	1	1	1	1		1	1			1		3	1
Chrysler	1	1	1	1	3	2	1		2	1		1	2	1	1	1
Other	1	1	1	1	2	2	1	1	2	2	2	1	1	2	2	2
Technology	8	4	7	7	11	4	6	21	10	10	4	6	8	4	10	8
IBM	3	2	3	4	3	2	2	9	5	5	1	2	3	2	2	3
Microsoft	3	1	3	1	5	1	2	6	2	3	2	1	3	1	6	3
Other	1	1	1	2	2	1	1	2	2	2	1	3	1	1	2	2
Services/M	18	16	9	13	17	5	10	17	9	15	9	9	12	7	6	10
McDonalds	8	8	3	10	12	3	8	4	4	5	5	5	8	3	3	6
Disney	1	3	1	1	1			3				1	1	1		1
Other	3	2	3	2	3	2	2	8	2	6	3	3	2	1	3	3
Other Brands	5	1	8	4	2	5	2	19	7	16	8	13	3	2	5	7
No Brands	43	57	54	35	30	58	60	16	37	28	49	44	38	58	47	44

^a The figures in bold correspond to the sum of TOMA (brand name) mentions within a given industrial sector.

^b The criterion used to decide which brands to depict in the Table was that the brands be mentioned, overall, on an average of at least 1%.

In addition, the most mentioned product categories within the featural industries for the USA were: cars, aircrafts, restaurants, movies/music, computers/software, clothing, shoes, tobacco, and soft drinks. Unlike Japan, which only had two main generic products associated with it; the USA had as many as nine product categories accounting for at least 10% of the 15-sample average TOMA responses.

Lastly, considering the most recalled American brands, as shown in Table 8, we see that 14 brands accounted for most of the TOMA brand mentions in each of the main product categories. Similarly to the TOMA Japanese brands, the top American brand names corresponded directly to the top TOMA industries and top TOMA product categories. Overall, the number one brand associated with the USA was Coca-Cola, followed by McDonald's and Ford.

Consider the five main facts on how respondents from the 15-country samples perceived American products: (1) the average score for American brand recognizability was quite high (at 5.74, Table 4); (2) the five featural TOMA industries accounted for an average of 85% of all valid TOMA associations; (3) as many as nine quite diverse featural generic products were identified; (4) all of the featural TOMA brands belonged to the top nine generic product categories; and (5) the overall average percentage of TOMA brand mentions, although higher than for Japan (49%), was still rather low (only 56%) for brands that were judged by all samples as being highly recognizable.

From the above five points, it becomes evident that the USA had a more diffused image than Japan. Most importantly though, because the image of American products was more diversified, it is feasible to attribute the higher percentages of TOMA brand mentions to the fact that it was a much more difficult task to mentally summarize (“chunk”) American brands into generic categories than it was for their Japanese counterparts.

7.3.3 Sweden

Sweden had a more dispersed product image than Japan, but had a more focused image than the USA. While for Japan the number of featural industries identified were two and for the USA they were five, for Sweden, three industries clearly emerged as the main associational traces in respondents’ product-country schema. From Table 9, it can be seen that they were: (1) transportation vehicles (32%); (2) household items (19%); and (3) food/beverages/tobacco (12%). Together, these three industrial sectors accounted for, on average, 63% of all valid TOMA responses.

As for the main generic product categories within the main industrial sectors, cars, appliances, furniture, glassware/china, dairy products, confectionary, and alcoholic beverages were the primary mental associations respondents made to Sweden. Sweden’s TOMA image was somewhat less consistent across samples than the TOMA images for both Japan and the USA.

Table 9: Top TOMA Mentions for Sweden – Industrial Sectors and Product Categories

	Australia	Britain	Canada	France	Germany	Greece	Holland	Hong Kong	Hungary	Indonesia	Israel	Mexico	Norway	Spain	USA	Average
Industries^a																
N. Resources	2	9	3	5	5	22	16	2	1	1	4	4	2	8	3	6
Foodstuff/T	14	8	12	24	13	5	8	11	4	9	14	20	12	14	18	12
Clothing	9	2	6	2	4	4	3	11	1	8	5	22	4	5	13	7
Household	19	19	28	22	28	7	28	29	26	12	12	7	10	15	17	19
Entertainm.	4	8	6	2	2	3	3	3	1	3	3	4	2	3	7	4
T. Vehicles	32	38	29	26	34	39	27	23	40	27	46	14	50	22	29	32
Technology	3	1	2	3	3	6	2	14	7	25	5	7	10	4	3	6
Industrial	6	4	4	5	4	7	6	2	16	8	4	11	4	8	3	6
Services/M	9	8	8	3	4	3	3	3	1	7	4	5	5	8	8	5
Agric./Fish	2	3	2	8	3	4	4	2	3	0	3	6	1	13	3	4
Products^b																
T. Vehicles																
Cars	91	92	95	99	96	91	90	95	89	96	97	66	91	91	97	92
Other Land Vehicles	4	2	2	0	2	0	1	1	5	0	1	30	4	5	2	4
Aircrafts	3	4	1	1	0	7	6	2	5	2	1	0	4	2	1	3
Other	2	2	2	0	2	2	3	2	1	2	1	4	1	2	1	2
Household																
Appliances	23	9	3	6	2	18	23	11	19	44	14	8	30	3	9	15
Furniture	35	68	80	86	95	31	50	63	62	20	66	8	56	76	51	56
Glassware/China	21	8	7	3	1	41	4	16	3	6	0	29	4	7	14	11
Toiletries/Cosmetics	6	2	2	2	0	10	2	7	10	10	6	38	1	0	8	7
Other	15	13	8	3	2	0	21	3	6	20	14	17	9	14	19	11
Foodstuff/T.																
Dairy Products	19	24	19	5	3	28	8	22	9	23	9	27	13	47	17	18
Confectionary	51	18	39	7	9	16	3	57	5	43	66	21	14	32	50	29
Alcoholic Drinks	7	25	14	9	2	19	6	8	5	0	2	18	23	8	10	10
Pharmaceuticals	6	2	5	1	0	22	2	8	36	17	2	8	0	3	5	8
Other	17	31	23	78	86	15	81	5	45	17	21	26	50	10	20	35

^a The figures under the heading of "Industries" correspond to valid percentages.

^b The figures under "Products" correspond to valid percentages within the broader industrial sector.

Volvo, Saab, and Ikea were, by far, the main Swedish brands recalled. Other brands also often brought to mind were Ericsson, Absolut Vodka, Wasa, Scania, ABBA, Nokia, and Electrolux. Whereas for Japan and the USA all the main TOMA brands corresponded to the main TOMA industries and product categories, this was not the case for Sweden. In

fact, there were three top Swedish brands which did not belong to the main TOMA industries of food/beverages/tobacco, household items, or transportation vehicles, namely: Ericsson and Nokia (cellular phones), and ABBA (a musical performance group), which were listed under the "Other Brands" heading in Table 10.

Table 10: Top TOMA Brand Name Mentions for Sweden – Overall Valid Percentages^{a, b}

	Australia	Britain	Canada	France	Germany	Greece	Holland	Hong Kong	Hungary	Indonesia	Israel	Mexico	Norway	Spain	USA	Average
Brands																
Foodstuff/T	1	1	2	9	6	5	1	1	1	1	1	4	7	0	2	3
Absolut Vodka			1			5						2	1			1
Wasa				2	5		1						4			1
Other	1	1	1	7	1			1	1	1	1	2	2		2	1
Household	5	5	14	13	22	1	9	10	12	3	1	0	4	7	4	8
Ikea	4	5	14	13	22		9	7	12	3	1		4	7	3	7
Electrolux	1			2					2	4	1		2			1
Other	1					1		4							1	
T.Vehicles	24	26	23	21	30	26	16	17	32	21	38	8	40	14	25	24
Volvo	16	15	15	14	19	12	9	6	17	18	27	5	23	9	15	15
Saab	7	11	8	7	10	13	7	12	13	3	10	2	16	4	10	8
Scania					1	1			2		1	1	1	1		1
Other Brands	11	6	8	8	10	8	7	23	15	31	5	10	22	5	9	11
Ericsson	1	1	1		2	4	1	9	3	16	3	2	6	1	1	3
Nokia				1	1			3		4						1
ABBA	1	2	2		2		1									1
Other	6	2	5	5	4	3	2	10	10	7	1	8	13	4	8	6
No Brands	59	62	53	49	32	65	67	47	40	44	55	78	27	74	60	54

^a The figures in bold correspond to the sum of TOMA (brand name) mentions within a given industrial sector.

^b The criterion used to decide which brands to depict in the Table was that the brands be mentioned, overall, on an average of at least 1%.

7.3.4 Canada

Finally, the TOMA product image for Canada seemed to be the most diffused of all of the other three previous origins. Overall, five industries emerged as salient ones for Canada (Table 11). The top TOMA industrial sectors were: (1) agriculture/fishing (27%); (2) natural resources (21%); (3) services and miscellaneous (12%); (4) food/beverages/tobacco (10%); and (5) clothing and related (10%). Together, these five industrial sectors accounted for, on average, 80% of all valid TOMA responses.

Similar to Sweden, but to a greater extent, Canada's product TOMA image appeared to be somewhat inconsistent across samples. The TOMA valid percentages associated with the industrial sectors fluctuated wildly across samples (e.g. from 6% to 36% in natural resources, from 2% to 30% in food/drinks/tobacco and services/miscellaneous, from 9% to 50% in agriculture/fishing). As for the 11 main product categories within the main industrial sectors, wheat/grains, maple syrup/honey, fish, wood/lumber, airlines/tourism, sports, soft drinks, alcoholic beverages, clothing, shoes, and fur/leather emerged as main associational traces for Canada.

In contrast to Japan, the USA, and Sweden, the rationale for including brands in Table 12 was somewhat different than the rationale used in constructing the corresponding tables for the other three origins. Because the TOMA brand mentions for Canada were generally scattered and infrequent, it was decided that Table 12 should include Canadian brands that: (1) represented at least 1% of the valid TOMA responses from any given sample;

and (2) attained at least a total sum of 3% across the rows in the table. As can be deduced from Table 12, respondents did not perceive Canada as having strong and recognizable brands.

In considering the main TOMA brands for Canada, only five were identified as being possibly featural. Out of the main five brands, Air Canada was the main one brought to mind, because as many as ten samples mentioned it in at least as often as 1% of the time in relation to Canada. Other Canadian brands that were also mentioned more than 1% of the time were: Canada Dry (by six samples), Canadian Airlines (also by six samples), Molson Beer (by five samples), and Bombardier (by four samples).

While the 15 samples held a somewhat similar TOMA brand image of each of Japan, the USA, and Sweden in that the majority of samples frequently mentioned the same brands for each country, they did not hold a very well defined image for Canada. As Table 12 illustrates, a brand mentioned by one sample was often not mentioned by many others (if at all). Hence, Canada seemed to hold a specific and different TOMA brand image for each and every sample. Hence, Canada held a diverse and localized TOMA brand image. But, above all, Canada held a weak TOMA brand image among the 15-country samples – weak to the degree that, on average, 82% of samples' valid TOMA responses were non-brands.

Table 11: Top TOMA Mentions for Canada – Industrial Sectors and Product Categories

	Australia	Britain	Canada	France	Germany	Greece	Holland	Hong Kong	Hungary	Indonesia	Israel	Mexico	Norway	Spain	USA	Average
Industries^a																
N. Resources	12	19	21	16	27	36	33	6	19	22	15	11	26	35	19	21
Foodstuff/T.	5	15	10	7	5	9	7	10	10	12	13	11	7	2	30	10
Clothing	5	5	10	7	6	13	8	7	10	12	16	19	9	17	5	10
Household	2	1	4	1	1	4	1	13	6	5	10	10	3	1	2	4
Entertainm.	4	2	4	3	2	2	4	1	9	5	4	5	6	3	3	4
T. Vehicles	4	2	9	9	2	5	4	1	4	6	4	4	6	1	2	4
Technology	1	1	8	2	2	1	1	3	4	4	9	4	1	1	1	3
Industrial	4	2	3	3	3	8	4	1	15	6	2	8	5	5	3	5
Services/M.	13	11	11	12	15	2	7	30	6	19	10	11	12	6	15	12
Agric./Fish	50	42	20	40	37	20	31	28	17	9	17	17	25	29	21	27
Products^b																
Agric./Fish																
Wheat/Grains	8	10	33	1	12	35	20	1	18	14	6	10	19	7	27	16
Fruits/Vegetables	1	20	7	5	0	1	1	7	2	23	0	4	1	4	3	5
Maple Syrup	25	39	26	82	47	1	12	17	41	5	52	38	10	2	24	28
Livestock	12	4	11	2	4	17	10	6	3	9	6	5	0	15	8	7
Fish	54	25	19	9	35	38	50	58	31	23	36	35	65	67	27	38
Other	0	2	4	1	2	8	7	11	5	26	0	8	5	5	13	6
N. Resources																
Wood/Lumber	67	81	40	74	84	81	84	78	80	27	76	74	63	67	71	70
Primary Minerals	13	5	14	4	2	8	6	3	0	46	4	4	14	12	7	9
Oil/ Gas/Coal	7	8	22	1	5	8	4	3	9	7	12	2	14	9	8	8
Other	13	6	25	21	9	3	6	16	11	20	8	20	9	12	14	13
Services/M.																
Celebrities	2	3	4	13	8	0	6	1	0	8	0	2	11	23	9	6
Restaurants	2	5	6	0	2	0	3	0	38	6	6	0	0	0	4	5
Airlines/Tourism	48	47	17	76	68	75	46	34	8	39	47	38	40	46	28	44
Large Retail Stores	0	9	27	0	0	0	0	8	8	0	0	0	9	0	13	5
Financial/Insurance	0	12	12	0	2	0	9	16	15	19	6	13	11	16	4	9
Movies/Music	16	15	6	4	3	8	12	1	0	0	12	15	11	0	7	7
Sports	23	3	13	5	16	0	6	1	31	0	6	6	16	15	28	11
Other	9	6	14	2	1	17	18	39	0	28	23	26	2	0	9	13
Foodstuff/T.																
Dairy Products	0	8	12	10	0	10	0	6	0	6	4	14	12	0	3	6
Confectionary	13	3	2	25	0	2	0	45	0	6	4	14	8	0	8	9
Soft Drinks	4	14	2	28	16	6	9	11	61	31	0	10	4	11	9	14
Alcoholic Drinks	61	65	40	6	68	55	64	8	18	14	5	36	52	45	65	40
Other	22	10	43	31	16	27	27	30	21	43	87	26	24	44	16	31
Clothing																
Clothes	59	40	77	19	26	28	43	89	41	41	45	61	48	23	61	47
Footwear	9	9	12	8	22	3	7	5	9	41	24	14	10	3	11	12
Fur/Leather	18	48	7	65	48	66	48	6	45	3	24	12	39	74	22	35
Other	14	3	4	8	4	3	2	0	5	15	7	13	3	0	7	6

^a The figures under the heading of "Industrial Sectors" correspond to valid percentages.

^b The figures under "Product Categories" correspond to valid percentages within the broader industrial sector.

Table 12: Top TOMA Brand Name Mentions for Canada – in Valid Percentages ^a

	Australia	Britain	Canada	France	Germany	Greece	Holland	Hong Kong	Hungary	Indonesia	Israel	Mexico	Norway	Spain	USA	Average
Brands ^b																
John West	4															
Canadian Airlines	1				4		1	5				1	1			1
Molson	1	2	1									1			4	1
Moosehead Beer	1												1		1	
Labatt		3	1												2	
Canadian Pacific								2		1						
Air Canada		2	1	4	3	1		1		4	2		1		1	1
Canadian Club Whiskey		1				3										
Corel			1		1			1								
Bombardier			3	3	1		1									1
Roots			2					2			1					
Canada Dry		2		2				1	3	3					2	1
The Bay		1	1					1							1	
Maple Leaf Gold Coin								9								1
MAC Cosmetics								8							1	1
Bre-X										5						
Other Brands	7	4	23	7	7	1	5	15	14	22	7	17	11	6	9	11
No Brands	86	85	67	84	84	95	93	55	83	65	90	81	86	94	79	82

^a All figures correspond to overall valid percentages.

^b The criterion used to decide which brands to depict in this Table was that the brands be mentioned more than 1% by any sample and at least 3% in any row.

On a final note, the top brand names for Canada did not correspond to all the top TOMA industries and top TOMA product categories identified in Table 11. This was possibly due to the fact that the main industries/products associated with Canada were agriculture, fishing, and natural resources, which even when branded, do not traditionally lend their

brands to being noticed by the average consumer. In reality, the main top TOMA Canadian brands represented three of the main generic product categories – i.e. airlines, soft drinks, and alcoholic beverages – all of which are, generally, heavily-branded consumer goods.

7.4 Summary of Origins' Profiles

The last section of Chapter seven analyzes the premise that the main industries brought to mind for each foreign origin reflected the industrial specialization of the origins. To this end, Table 13 summarizes the findings for Japan, the USA, Sweden, and Canada.

Table 13: Overall TOMA Profiles– in Valid Percentages

	Japan	USA	Sweden	Canada
Industrial Sectors:				
Natural Resources	0	1	6	21
Food/Drinks/Tobacco	2	16	12	10
Clothing and Related	3	14	7	10
Household Items	3	5	19	4
Entertainment/Leisure	41	4	4	4
Transportation	36	19	32	4
Advanced Technology	7	16	6	3
Industrial Goods	2	2	6	5
Services/Miscellaneous	2	20	5	12
Agriculture/Fishing	4	3	4	27

The TOMA data collected for Japan from the 15-country samples were concentrated on the industries of entertainment/leisure (which included product categories like home

electronics and cameras) and transportation vehicles. Interestingly, Porter [1990, p. 394] wrote:

“The most significant clusters of competitive industries in the Japanese economy are in transportation equipment and related machinery, office machines, entertainment and leisure (noticeably consumer electronics), steel and fabricated metal products, electronic components and computing equipment and optical-related products (including cameras and film)”

It is clear that respondents' product TOMA image for Japan directly corresponded to Japan's most competitive consumer-oriented industries.

For the USA, the overall TOMA image was a little dispersed. Yet, it focused primarily on the service industry, transportation vehicles, advanced technology, food/beverages/tobacco, and clothing. Somewhat parallel with the data, Porter [1990, p. 288 and 519] wrote:

“(T)he areas of US strength during the first 2 decades after the WW2 (were) numerous ... among the strongest positions (were) semiconductors and computers, transportation equipment (automobiles, aircrafts), consumer packaged goods, power generation, chemicals and plastics, office

equipment, telecommunications equipment, defense goods, entertainment and leisure products, timber and agriculture-related products, health care related products and general business services (such as financial services, management consulting, and accounting). Indeed, in contrast to other nations, there (were) few sectors ... in which the USA (was) not significantly represented."

Hence, once again, it seems that the consumer TOMA responses around the world are in general agreement with Porter's assessment.

Although respondents may not have had as rich a product schema for Sweden as for Japan and the USA, Sweden was still perceived as being a main producer of transportation vehicles, household items and food/beverages/tobacco. Interestingly, Gullers [1963, p. 65 and 82] and Porter [1990, p.231], respectively, provided a very similar product profile for Sweden:

"Some of the (Swedish) outstanding products ... are well known to the majority of us (...). There are the ... SKF ballbearings, SAAB and Volvo cars, L.M. Ericsson telephones, Astra pharmaceuticals, ASEA (now ABB) electrical transmission equipment ... "Swedish modern" has become a household word throughout the world for furniture combining advanced

styling with functional simplicity ... AB Marabou – is well-known in Sweden as a leading manufacturer of quality chocolate.”

“For a small nation, Sweden is the home base of a striking number of large, global companies, among them such prominent firms as Volvo, Saab-Scania, Atlas Copco, SKF, and Electrolux. ... and its success in such industries as heavy trucks, cars, roller bearings, mining equipment, and others is remarkable.”

Lastly, for Canada, our data suggests that Canadian industry was not particularly well known internationally. But when respondents were able to associate products to Canada, they generally thought of agriculture/fishing, natural resources, services, food/beverages/tobacco, and clothing. In agreement with our findings, Porter [1990, p.294] wrote:

“America stands alone among nations, with the possible exception of Sweden, in possessing abundant natural resources *and* achieving a significant international position in sophisticated manufactured goods. Canada ..., [an]other nation with abundant resources ha[s] largely failed to move beyond them.”

In fact, given that Canada generally lacks the image as a producer of advanced, technology-oriented, high value-added products, the Canadian government is presently in the process of rebranding Canada as a “high-tech, business-friendly mecca” [The Ottawa Citizen, July 28, 2001]. Several reports, for that matter, have appeared in The Ottawa Citizen on the topic of Canada’s outdated, stereotypical and poor image abroad.

For instance, Ken Gray reported in The Ottawa Citizen [November 15, 2000] that the president of the Canadian Tourism Commission wanted Walt Disney Co to replace a “dated, clichéd movie about Canada” at its Epcot Center theme park in Florida. The movie, entitled ‘O Canada’, featured “Canadians in lumberjack outfits, mid 1980s-vintage clothing and cars, and a country of grizzly bears and wilderness”. The concern was that the movie, which is viewed by millions of people each year, has served only to perpetuate a false and obsolete image of Canada. Furthermore, a third report in The Ottawa Citizen [August 7, 2001] added that “for most Europeans and Asians, Canada is just not top of mind.... The Goldfarb Consultants report found that in Asia, Canada still carries its old reputation as a producer of raw materials such as forest or agriculture products rather than high tech materials.”

Hence, the existing literature and a handful of independent research have supported our findings that Canada is viewed primarily as a producer of agricultural products and natural resources.

In summary, the premise that the most mentioned TOMA industrial sectors would reflect the industrial specialization of each origin seems to hold true for all four foreign target origins. Chapter eight will advance and test specific hypotheses to analyze the findings of the research in more detail.

8. Analysis and Discussion of the Research Hypotheses

Chapter eight includes the quantitative analysis of the four objectives set out in Chapter four. This chapter, which is concerned with the analysis of 30 hypotheses, is structured in three sections. Section 8.1 provides a quantitative overview of the TOMA responses and non-responses (Objectives 1 and 2), Section 8.2 investigates the relationships between TOMA and PCI (Objective 3), and Section 8.3 examines the longitudinal profile of Canadian goods (Objective 4). While Sections 8.1 and 8.2 are based on the analysis of the new data from the late 1990s; Section 8.3 relies on the analysis of both the new and the original study from a decade earlier.

8.1 Overview of TOMA Responses

Section 8.1 follows a similar sequence of analysis as Chapter seven. It starts by looking into the incidence of TOMA non-responses, then moves on to consider the occurrence of generic versus brand TOMA mentions, and finally investigates the salient industries recalled for each foreign target origin. The primary concern of Section 8.1 is in describing the TOMA data. It has eight hypotheses associated with it.

The first seven hypotheses aim to better analyze how rich samples' schemata were for each of the target origins. They relate directly to research questions 1.1. and 1.2. in Chapter four. Specifically, H_1 through H_4 examine the levels of TOMA non-responses for Japan, the USA, the home country, Canada, and Sweden. In addition, H_5 , H_6 and H_7

investigate whether in the case of each origin, respondents mentioned mostly generic products or brand names. H_8 , which relates to research questions 2.1., 2.2. and 2.3. (Chapter four), analyzes whether or not the foreign-country profiles were consistent across all the samples from the late 1990s.

8.1.1 TOMA Responses and Non-Responses

H_1 and H_2 take a comparative look at the level of TOMA product/brand associations for the USA, Japan, and the home country; H_3 and H_4 assess the occurrence of TOMA responses (and non-responses) for Canada and Sweden.

From the qualitative examination in Chapter seven, it was found that the level of TOMA responses and non-responses for the USA and Japan appeared to be similar. Accordingly, H_1 hypothesizes that the levels of TOMA responses for Japan and the USA are not significantly different from each other. Chapter seven also showed that the levels of TOMA responses and non-responses for the USA and Japan were comparable to those for the home country. In this light, H_2 hypothesizes that the levels of TOMA responses for Japan and the USA were equivalent to the levels of responses for the home country.

On the other hand, Chapter seven also found that the number of TOMA responses and non-responses for Canada and Sweden appeared to diverge from the levels for Japan, the USA, and the home country. In fact, it was shown that the levels of TOMA non-

responses for Canada and Sweden were generally high and somewhat similar. Thus, H_3 tests if the levels of TOMA responses for Canada and Sweden were not statistically different, and H_4 proposes that the levels of TOMA non-responses for Canada and Sweden were significantly higher than those for the other three target origins.

The hypotheses are stated below in sequence, accompanied by the corresponding analysis. To test the four hypotheses, One Way ANOVA tests were performed on the number of TOMA associations per respondent, for each of the five target origins. Recall that the maximum number of TOMA associations per respondent was four. The tests were within-sample tests, because the interest was in investigating how the number of TOMA associations for origin X compared to the number of associations for origin Y, within any given sample. The null hypothesis was: "the average number of TOMA associations per respondent for country X was no different from the average number of TOMA associations per respondent for country Y". The null was rejected if $p < .05$ for the observed F-statistic. Where statistically significant differences were found, a look into the direction of the difference identified which origin had significantly more TOMA responses than the other.

Table 14 illustrates the results of the One Way ANOVA tests (refer to Appendix 5 for the actual SPSS output of the ANOVA tests). The blank cells represent those cases where the average number of TOMA associations per respondent for country X was not statistically

different from the average number of TOMA associations per respondent for country Y. In contrast, cells with the letters J, U, H, C, or S represent those cases where the level of TOMA responses for Japan, the USA, the home country, Canada, or Sweden, respectively, was statistically higher than the level of responses for the other country considered. The hypotheses are stated and discussed below.

H₁: Japan and the USA will have statistically equivalent levels of TOMA responses.

Column a of Table 14 shows that the only sample which had statistically different levels of TOMA responses for Japan and the USA was Hong Kong – where respondents had greater ease in providing TOMA associations for Japan than for the USA. For the remaining 14 samples, it was found that respondents did not provide statistically different numbers of TOMA associations for the two target origins. Hence H₁ is not rejected. The interpretation of this finding is that respondents generally held product-country schemata which were generally developed for Japan and the USA. In other words, their schemata for the former origin contained as many featural product nodes as for the latter origin. This finding is not surprising given the worldwide prominence of so many of their products and brands.

Table 14: One Way ANOVA Tests for TOMA Responses ^a

Column Reference	a	b	c	d	e	f	g	h	i	j
	J vs. U	J vs. H	U vs. H	C vs. J	C vs. U	C vs. H	C vs. S	S vs. J	S vs. U	S vs. H
Australia			H	J	U	H		J	U	H
Britain				J	U	H		J	U	H
Canada						n.a.	C	J	U	H
France		H		J	U	H	S	J	U	H
Germany				J	U	H	S	J	U	H
Greece				J	U	H	S	J	U	H
Holland		H	H	J	U	H	S	J	U	H
Hong Kong	J	J		J	U	H	C	J	U	H
Hungary			H	J	U	H	S	J	U	H
Indonesia		J		J	U	H	S	J	U	H
Israel				J	U	H	S	J	U	H
Mexico				J	U	H	C	J	U	H
Norway				J	U	H	S			
Spain		H	H	J	U	H		J	U	H
USA			n.a.	J	U	H		J	U	H
Samples in support of H	14	10	10	14	14	14	4	14	14	14

^a J, U, H, C, and S signify that there were significantly more TOMA responses for Japan, the USA, the home country, Canada, and Sweden, respectively. Also, n.a. stands for not applicable, since the comparison is between home country and home country.

H₂: Japan and the USA will have comparable levels of TOMA responses to that of the home country.

Column b of Table 14 shows that five samples had statistically different levels of TOMA responses for Japan and the home country. Of these, three samples (France, Holland, and Spain) had statistically more TOMA associations for the home country than for Japan, while two (Hong Kong and Indonesia) had statistically more TOMA associations for Japan than for the home country. For the remaining 10 samples, respondents did not

provide statistically different number of TOMA associations for Japan and the home country. What this suggests is that in 10 cases, people's product-country schemata were just as developed for Japan as for the home country; in two cases, their schemata were apparently more developed for Japan than for the home country; while in three cases, their schemata for the home country was richer than for Japan. The interesting fact is that in 12 of the 15-country samples, Japan's product-country schemata were as competitive and rich (if not more so) as for the home country. This serves as an indirect indication of how highly visible and widely available Japanese products are worldwide.

Similarly, column c of Table 14 shows that four samples (Australia, Holland, Hungary, and Spain) had statistically different levels of TOMA responses for the USA and the home country. Of these samples which did not provide support for H₂, all four had more TOMA associations for the home country than for the USA. For the remaining 10 samples, respondents did not provide statistically different levels of TOMA associations for the USA and the home country. Hence, in 10 out of the 14 cases, the product-country schemata for the USA and the home country were found to be equally developed (i.e. one with as many TOMA associations as the other). Similar to the case with Japan, this is a clear indication of how visible American products are and how widespread their presence is.

Overall, although H_2 was not supported in nine out of the 29 cases, it did still receive considerable support. In fact, 20 cases in support of H_2 means that approximately 70% of the cases corroborated H_2 . Thus, H_2 is not rejected.

H_3 : Canada and Sweden will have statistically equivalent levels of TOMA responses.

Column g of Table 14 shows that there were only four samples which did not have statistically different levels of TOMA responses for Canada and Sweden. They were Australia, Britain, Spain, and the USA. In these cases, the product-country schemata were as poor (given the high levels of TOMA non-responses) for Canada as for Sweden. For three samples (Canada, Hong Kong, and Mexico), respondents provided more associations for Canada than for Sweden. In two of these cases, it was reasonable to have more associations for Canada, since one was the domestic sample and the other, Mexico, belongs to NAFTA and is expected to know more about Canada than Sweden. For the other 8 samples, respondents provided more associations for Sweden than for Canada. In summary, because roughly 55% of the samples did not provide statistical support for H_3 , the hypothesis is rejected.

H_4 : Canada and Sweden will have significantly more TOMA non-responses than Japan, the USA, and the home country.

Column d of Table 14 shows that only one sample (Canada) did not have statistically different levels of TOMA responses for Japan and Canada (which is understandable given that the sample was comparing the home country to Japan). For all the other 14 samples, Japan was found to have significantly more TOMA associations than Canada. Similarly, column e of Table 14 shows that the Canadian sample was once again the only sample to not have statistically different levels of TOMA responses for the USA and Canada (the same rationale applies). The remaining 14 samples had significantly more associations for the USA than for Canada. Further still, column f of Table 14 shows that all 14 foreign samples had significantly more TOMA associations for the home country than for Canada. Therefore, since H_4 was supported in 42 of the 44 cases for Canada, H_4 is not rejected.

Similarly for Sweden, column h shows that only one sample (Norway) did not have statistically different levels of TOMA responses for Japan and Sweden. The reason for this may be because Norway is not only the neighbouring country to Sweden, but also because the main origin of imports into Norway is Sweden [The Economist, 1997]. Thus, Norwegian respondents would be expected to know many Swedish products and/or brands. For all the other 14 samples, Japan was found to have significantly more TOMA associations than Sweden. In addition, column i of Table 14 shows that the Norwegian sample was once again the only sample not to have statistically different levels of TOMA responses for the USA and Sweden. The remaining 14 samples had significantly more

associations for the former than for the latter. Lastly, column j shows that once more the Norwegian sample did not show statistically different levels of TOMA associations for Sweden and the home country, while the other 14 samples had significantly more TOMA associations for the home country than for Sweden. Hence, since H_4 was supported in 42 of the 45 cases for Sweden, H_4 is not rejected.

8.1.2 Generic Product versus Brand Name TOMA Mentions

For H_5 , H_6 and H_7 , the aim was to investigate if, within a sample, brand names were mentioned more often than generic product categories (or vice-versa) for a given target origin. The three hypotheses were tested via Chi-Square tests (X^2 , henceforth). For all the X^2 tests, the significance level was set at $p < .05$ and the null hypothesis stated that the number of TOMA brand mentions would not be statistically different from the number of TOMA generic product mentions. When the null was rejected, an investigation into the direction of the difference was undertaken.

Hypotheses five through seven are stated below.

H_5 : Japan and the USA will have significantly more brand names than generic product categories associated with their countries.

H₆: The home country will have significantly more brand names than generic product categories associated with it.

H₇: Canada and Sweden will have significantly less brand name mentions, and considerably more generic product mentions associated with their countries.

Table 15 presents the results of the X^2 tests. The columns labelled 'B' and 'G' contain the frequencies in which brand names and generic products were recalled. Columns labelled X^2 show the result of the X^2 tests: (1) 'G' means there were significantly more generic products mentioned than brands, (2) 'B' means there were significantly more brands mentioned than generics, and (3) blank cells mean there was no statistical difference in the frequencies with which brands and generics were mentioned. The last row of Table 15 summarizes the X^2 results for each target origin, by showing how many samples had significantly more generics mentioned than brands, and vice-versa. In addition, samples with no statistical difference in the number of generic and brand name TOMA mentions are reported under the label ND.

In deciding whether, overall, a hypothesis would be rejected or not (i.e. whether brands were more mentioned than generics, or vice-versa), it was necessary to come up with a rule of thumb. The criteria used required that over 80% of the samples be in support of

the advanced hypothesis for it not to be rejected. Thus, because there are 15 samples in the study, the requirement was to have at least 12 samples in support of the related hypothesis.

It can be seen that the majority of the samples (41) provided significantly more generics than brand names, half as many samples (23) provided more brand names than generics, and roughly one quarter (11) had equivalent amounts of brands and generics.

According to Table 15, only six samples supported H_5 for Japan, while nine samples did not. Specifically, Germany, Hong Kong, Hungary, Indonesia, Norway and the USA were the samples which provided significantly more brands than generics for Japan. Given that the rule of thumb required 80% (or 12 samples) to support a hypothesis so as not to reject it, and because H_5 received support from only 40% of the samples for Japan (i.e. six samples out of 15), it is rejected.

In contrast, nine samples supported H_5 for the USA, while six samples did not. Australia, France, Germany, Hong Kong, Hungary, Indonesia, Mexico, Norway, and the USA (domestic sample) were the samples which provided significantly more brand names than generic products to the USA. Although H_5 received more support for the USA than it did for Japan, it still only received support from 60% of the samples (i.e. nine out of 15). Thus, the hypothesis is also rejected for the USA.

Table 15: χ^2 Tests for Brand and Generic Product TOMA Mentions

Samples:	Japan			USA			Home			Sweden			Canada		
	B	G	χ^2	B	G	χ^2	B	G	χ^2	B	G	χ^2	B	G	χ^2
Australia	393	536	G	505	372	B	461	522		214	295	G	61	379	G
Britain	287	691	G	396	525	G	319	575	G	250	400	G	100	535	G
Canada	2266	2892	G	2385	2843	G	1653	3445	G	1577	1793	G	1653	3445	G
France	490	481		649	347	B	429	622	G	303	284		73	407	G
Germany	572	356	B	653	283	B	699	277	B	481	228	B	66	352	G
Greece	474	604	G	427	598	G	251	835	G	231	427	G	27	527	G
Holland	247	711	G	374	566	G	296	757	G	266	526	G	38	467	G
Hong Kong	1012	205	B	931	176	B	743	279	B	230	213		239	295	
Hungary	507	310	B	469	279	B	534	315	B	351	241	B	35	195	G
Indonesia	734	325	B	722	284	B	469	495		228	184	B	84	175	G
Israel	370	374		378	359		290	454	G	134	162		18	161	G
Mexico	455	460		525	426	B	329	538	G	59	274	G	76	372	G
Norway	494	381	B	546	330	B	408	430		610	220	B	49	310	G
Spain	263	615	G	376	513	G	212	832	G	119	328	G	13	395	G
USA	1009	874	B	1051	923	B	1051	923	B	405	605	G	214	726	G
Summary of the χ^2 Results	G = 6 cases			G = 5 cases			G = 8 cases			G = 8 cases			G = 14 cases		
	B = 6 cases			B = 9 cases			B = 4 cases			B = 4 cases			B = 0 cases		
	ND = 3 cases			ND = 1 case			ND = 3 cases			ND = 3 cases			ND = 1 case		

The row for Canada includes the results for the five Canadian samples in the study. Similarly, the row for the USA includes the results for the two American samples.

Table 15 shows that only four samples supported H_6 . Germany, Hong Kong, Hungary, and the USA were the samples which provided significantly more brands than generics for their respective home countries. The remaining 11 samples had either mentioned significantly more generics or equally mentioned generics and brands. Because for the home country an overwhelming majority of the samples (11 out of 15) contradicted the hypothesis set out in H_6 , the hypothesis is rejected.

While for Sweden almost half of the samples (seven out of 15) contradicted the expectations in H_7 , where more generic products would be recalled; for Canada as many as 14 samples supported the hypothesis that more generics would be associated with Canada than brand names. Hence, although there was no strong corroborating evidence to support hypotheses five through seven for Japan, the USA, the home country and Sweden, for Canada there is clear evidence (i.e. roughly 93% of samples) in support of its associated hypothesis.

In an attempt to explain why some hypotheses were not supported, it is necessary to consider the perceived recognizability of each origin's brands (please refer to Table 4 in Chapter seven). The underlying assumptions in formulating H_5 and H_6 was that respondents in general would consider Japanese, American and domestic brands to be very recognizable; while for H_7 the assumption was that consumers in general would consider Canadian and Swedish brands to be relatively unrecognizable. As in Chapter

seven, it is important to consider the brand recognizability scores (which were given via a 7-point bipolar adjective scale, with 1 representing very unrecognizable brands, 4 being a neutral assessment, and 7 representing very recognizable brands) given to each of the origins. From the results of the X^2 analysis in Table 15, one could initially conclude that:

- (1) Japanese, domestic, and Swedish brands were thought to be relatively unrecognizable;
- (2) American brands were thought to be somewhat recognizable; (3) and Canadian brands were perceived as being mostly unrecognizable.

However, from Table 4 in Chapter seven, it can be seen that the lowest mean score for Japanese brand recognizability was 5.7, which makes it reasonable to conclude that, overall, samples indicated that Japanese brands were highly recognizable. Given this, why then did the overwhelming majority of the samples not mention significantly more brand names than generic products in association with Japan? The fact that H_5 was not supported for Japan, coupled with the fact that foreign consumers seemed to report very high levels of awareness of Japanese brands, raises the suspicion – once again – that what at first glance seems contradictory may in fact be the result of what was coined as the ‘summarizing forces phenomenon in Chapter seven. In sum, it could be that: (1) the majority of well known Japanese companies produce brands in the same product categories, and (2) the fact that many Japanese brands (e.g. Sony, Toshiba, Panasonic, Sanyo, Hitachis) specialize in the production of a few select product categories (e.g. TV’s, hi-fi, walkmans, VCRs, etc.), may have induced respondents to develop and

summarize Japan's image along the lines of such general product categories. Once again, it seems reasonable to infer that respondents took the holistic view of Japanese brands and consequently mentioned significantly more generic products than brands in the TOMA section of the questionnaire. Indeed, if one considers people's schemata to be associative networks in semantic memory, then it may be that, given the strong summarizing forces of Japanese brands, people's schemata for Japanese products have stronger mental links to the summary generic product categories than to the individual brands themselves.

With regards to the American brands, since the lowest mean score for American brand recognizability was 5.1, it is also reasonable to say that the 15-country samples indicated that American brands were moderately or highly recognizable. However, given that all the samples indicated that American brands were perceived to be at least somewhat recognizable, why then did only nine samples mention significantly more brand names than generic products in association with the USA? Also, why was there more support for H_5 for the USA than for Japan, when in fact Japanese brands fared relatively better than their American counterparts in terms of brand recognizability?

Consider the following facts: (1) while the lowest mean score for the recognizability of American brands was 5.1 (Australia), the lowest equivalent for Japanese brands was 5.7 (France and Germany); (2) while the highest mean score for the recognizability of

American brands was 6.5 (Canada), the highest equivalent for Japanese brands was 6.4 (Greece and Indonesia); (3) while eight samples evaluated Japanese brands as more recognizable than American brands, only five evaluated American brands to be more recognizable than their Japanese counterparts. With these three facts in mind, it seems as though Japanese brands were regarded as being marginally more recognizable than American brands. Yet, only a minority of samples mentioned mostly brand names for Japan, while a slight majority mentioned significantly more brands for USA. The fact that samples did have a greater propensity to mention more brands than generic products for the USA may have been because of two reasons: (1) the USA, like Japan, has highly recognizable brands internationally, and (2) the USA, unlike Japan, has a more dispersed image as a producer of goods, (given that the well known American brands were not typically concentrated in the production of one or two product categories, as shown in Table 7 of Chapter seven). Thus, respondents may have been indicating that their product schemata for the USA include a number of brands responsible for the producing diverse enough product categories that they typically do not to allow for the strong summarizing forces as in the case of Japanese brands.

For the home country analysis, because the overwhelming majority of samples (11 out of 15) contradicted the notion in H_6 that significantly more brand names would be associated to the home country, it would have been expected for respondents to indicate that they were generally unaware of domestic brand names – as expressed by very low

scores (1-3) for domestic brand recognizability. Paradoxically, this was not the case, as seen in Table 4. Note that in terms of brand recognizability, while only two samples had a mean in the range value of four (Hong Kong = 3.8 and Indonesia = 4.5), indicating that respondents from these two samples considered domestic brands to fare somewhat neutrally in terms of recognizability; all the other 13 samples, whose mean scores on brand recognizability ranged from 4.8 to 6.2, indicated that domestic consumers thought domestic brands to be at least somewhat recognizable.

Interestingly, Hong Kong – which evaluated domestic brands neutrally – was one of the four samples to mention more brands than generics. A possible explanation for such an apparent contradiction is that although in general their brands may not be particularly recognizable, one or two may be very well known and have been mostly brought to mind in the TOMA exercise. Also interesting was the fact that the two samples to evaluate domestic brands most positively in terms of recognizability were not the ones to bring to mind significantly more brands than generic products. A plausible explanation for this contradiction may be the summary force phenomenon, as previously discussed.

In terms of visibility, Swedish brands did not score very highly. Since the lowest score was 3.1 (Spain) and the highest was 5.4 (Norway), and given that the overall average score of Swedish brand recognizability was 4.1, it seems that overall Swedish brands were neither particularly recognizable nor particularly unrecognizable. Interestingly,

given that Sweden is not a major player in international trade, the results from the X^2 tests in Table 15 show that seven samples indicated – by mentioning either as many brands as generic products or significantly more brands than generic products – they actually do recognize Swedish brands. As might have been expected because of geographic proximity and the fact that most of their imports originate from Sweden, Norway gave the highest rating for Swedish brands for their recognizability (5.4). Also Germany, as Sweden's main trading partner [United Nations 1999, The Economist 1997], was among the four samples to rate Swedish brands highest in recognizability. Nonetheless, given that all brand recognizability scores gravitated around the median of 4, it is truly surprising that no more than eight of the samples mentioned significantly more generic product categories than brands.

Despite not being evaluated as particularly recognizable, Swedish brands, in general, fared much better than Canadian brands (Table 4). Note that while the lowest score for Swedish brands was 3.1, the lowest score given to Canadian brands was 2.4 (by the Indonesian sample). Similarly, the highest score for Swedish brands was 5.4, while for Canadian brands (being evaluated by non-domestic samples) it was 4.1 (by the Hungarian sample). Lastly, while the average rating for Swedish brands' recognizability was 4.1, for Canadian brands (not including the evaluations from the domestic samples) it was 3.1. In summary, Swedish brands were rated as not being either recognizable or unrecognizable;

Canadian brands, on the other hand, tended to be viewed in a slightly more negative light, whereby they were seen as being somewhat unrecognizable.

For Canada, it is reasonable to say that, in terms of visibility, its brands obtained very low scores by all 14 foreign samples. While the American samples gave the third highest scores, they still assessed Canadian brands to be moderately unrecognizable. Quite different results may have been expected, given that the USA is Canada's main trading partner, where 83% of Canadian exports are destined [United Nations 1999]. Since very low scores were the norm for the recognizability of Canadian brands, it was reasonable to expect a high degree of generic product mentions to Canada – as seems to have been the case.

As the previous paragraphs have attempted to show, there does not seem to be a direct relationship between the level of perceived brand recognizability and the amount of overt (written) mentions of brand names in the TOMA exercise. Whether because of summarizing forces or because of the prominence of one or two brands, the number of TOMA brand name mentions was not found to be related to the perceived level of recognizability of a country's brands. In sum, H_5 and H_6 are rejected, while H_7 is only rejected for Sweden and not for Canada.

8.1.3 The Top TOMA Industrial Sectors

While in Chapter seven a qualitative analysis of the data showed a strong similarity across samples of TOMA industries for Japan, the USA, Sweden and Canada; the analysis within this section aims to statistically determine whether or not all samples indeed shared similar TOMA images for each of the four foreign target origins. The home country was excluded in this analysis, because there was no reason to expect any convergence on the TOMA images of 15 very disparate countries. Hence, the hypothesis being tested is:

H₈: The TOMA country images for each of Japan, the USA, Sweden and Canada will be consistent across all sampled countries.

Because the research used multiple response data¹, the testing of H₈ relied on corrected crosstabular X² statistics, where the corrected X² was calculated via the mathematical expression:

$$X^2 / \{[1 - (\text{total valid TOMA} / (\text{total respondents} * \# \text{ industries}))] * \text{total valid TOMA} / \text{total respondents}\}$$
 It should be noted that the X² test is not an ideal method of analysis in this case, given the large number of categories (i.e. 10 industries and 15 samples) involved in the hypothesis. However, in the absence of a more appropriate technique, the results from

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¹ Recall that respondents were asked to name any four products/brands they thought of in response to a country stimulus. This meant that the four TOMA associations from a single subject could generate more than one response in a given industrial category. In this case, the data constitute multiple response data.

the corrected X^2 tests will serve as a criterion to provide a somewhat more rigorous guide for the analysis of H_8 than the simple qualitative examination of the data as in Chapter seven (sections 7.3.1 to 7.3.4). Tables 16 through 23 illustrate the corrected X^2 tests for Japan, the USA, Sweden and Canada. For all origins, The X^2 test had degrees of freedom = 126 and $\alpha = 0.05$. Thus, the null was rejected for X^2 values² greater than 129.56.

The corrected X^2 value shown in Table 16 ($X^2 = 1,010.87$) implies that, statistically, the TOMA country images for Japan were not consistent across samples. Nonetheless, by comparing the percentages of each TOMA industrial sector across samples as was done in Table 5 (Chapter seven), a striking similarity emerges. In fact, in practical terms, the TOMA country images for Japan were not different across samples. Thus, although H_8 was rejected for Japan based on the statistical analysis, the qualitative investigation in Chapter seven suggests that, for all practical purposes, samples held very similar TOMA industry images for Japan.

As already shown in Chapter seven, all samples heavily associated Japan to two industries: entertainment/leisure and transportation vehicles. The other eight industries, in contrast, were brought to mind considerably less often for Japan. Referring to Table 5 in Chapter seven, it is clear that the discrepancies in Japan's TOMA image mainly arose

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² The lower and upper critical values were based on those from X^2 tests with degrees of freedom = 100. [Carlson and Thorne 1997].

Table 16: Corrected X^2 for the TOMA Industrial Sectors – Japan

	Natural Resources	Food, Beverages, Tobacco	Clothing	Household Items	Entertainment, Leisure	Transportation Vehicles	Advanced Technology	Industrial Goods	Services and Miscellaneous	Agriculture and Fishing	Total Valid TOMA Responses	# of Respondents
Australia	5	28	31	27	362	320	76	13	20	47	929	300
Britain	1	29	14	19	466	301	84	10	12	46	982	303
Canada ^a	2	115	125	113	2,323	1,888	271	78	73	198	5,186	1519
France	6	31	24	19	429	336	58	5	14	53	975	301
Germany	1	15	8	7	406	388	68	5	3	27	928	295
Greece	6	14	31	82	338	454	63	34	8	48	1,078	332
Holland	3	53	20	16	355	320	76	20	15	80	958	300
Hong Kong	0	43	56	208	545	226	25	6	77	31	1,217	332
Hungary	0	5	40	5	325	333	93	9	6	2	818	303
Indonesia	0	29	41	39	436	432	27	25	26	4	1,059	313
Israel	1	8	32	8	316	327	34	4	4	12	746	301
Mexico	0	19	40	25	479	212	81	23	18	22	919	314
Norway	0	10	25	2	326	394	66	9	5	35	872	294
Spain	9	15	56	30	305	244	118	24	20	63	884	301
USA ^a	3	41	35	28	791	790	105	21	21	53	1,888	586
Total	37	455	578	628	8,202	6,965	1,245	286	322	721	19,439	6,094
X^2 value: 2,196.91				Correction Factor: 2.17				Corrected X^2: 1,010.87				

^a Canada and the USA had five and two samples, respectively.

from the fact that the sample from Hong Kong mentioned significantly more household items than any other sample, while the samples from Mexico, Spain and Hong Kong mentioned significantly less transportation vehicles than the other samples.

Although not deemed to be statistically the same across samples, it is still undeniable that Japan's TOMA image was extremely similar across samples and focused on two industries. Against the backdrop of the extremely high levels of TOMA responses for

Japan, Table 16 (and Table 5 from Chapter seven) clearly shows that the aforementioned top two TOMA industries represent the stereotypical associational memory nodes for Japan.

Similar to the analysis for Japan, the corrected X^2 value shown in Table 17 implies that the TOMA country images for the USA were also different across the 15-country samples.

Table 17: Corrected X^2 for the TOMA Industrial Sectors – USA

	Natural Resources	Food, Beverages, Tobacco	Clothing	Household Items	Entertainment, Leisure	Transportation Vehicles	Advanced Technology	Industrial Goods	Services and Miscellaneous	Agriculture and Fishing	Total Valid TOMA Responses	# of Respondents
Australia	9	117	108	26	39	175	128	20	229	26	877	300
Britain	9	191	98	16	28	138	97	5	306	39	927	303
Canada ^a	63	471	654	258	233	1,360	850	146	965	255	5,255	1519
France	2	255	113	18	68	155	138	5	240	8	1,002	301
Germany	6	190	111	9	20	203	153	19	212	13	936	295
Greece	39	179	123	94	42	224	122	35	124	45	1,027	332
Holland	11	135	126	12	36	189	159	10	221	41	940	300
Hong Kong	3	118	265	66	31	67	304	11	202	40	1,107	332
Hungary	7	140	97	40	40	174	130	11	105	6	750	303
Indonesia	5	136	152	105	20	187	168	24	204	5	1,006	313
Israel	2	97	219	87	21	117	85	6	101	4	739	301
Mexico	8	145	177	97	55	135	120	36	167	16	956	314
Norway	28	171	113	19	31	206	116	14	162	15	875	294
Spain	29	209	83	9	52	127	95	16	222	52	894	301
USA ^a	25	187	187	66	60	649	412	55	244	91	1,976	586
Total	246	2,741	2,626	922	776	4,106	3,077	413	3,704	656	19,267	6,094
X^2 value: 2,364.06				Correction Factor: 2.16				Corrected X^2: 1,093.46				

^a Canada and the USA had five and two samples, respectively.

Table 7 (Chapter seven) shows how the TOMA percentages across samples varied considerably for the USA. Consider the main variations from Table 7:

- For food/drinks/tobacco, although the Canadian and the American samples only associated this industry to the USA 9% and 10% of the time, the French and Spanish samples associated the industry to the USA 25% and 23% of the time.
- For the clothing industry, the samples from Hong Kong and Israel had as much as 24% and 30% of all their TOMA responses fall in the clothing industry, while the other samples only had roughly 14%.
- For the household items industry, although 10 samples had fewer than 5% of their TOMA associations relate to this industry, the Indonesian, the Israeli, and the Mexican samples had as much as 12% of their TOMA answers fall in the household items industry.
- For the transportation industry, the percentage of TOMA associations ranged from as little as 6% to as high as 33%.
- For the advanced technology industry, the sample from Hong Kong was the main outlier in associating the industry to the USA considerably more (28%) than any other sample (ranging from 10% to 21%).
- For the service industry, the percentage of TOMA associations ranged from as little as 12% to as high as 33%.

Given the wide variation in percentages, it is clear that TOMA schemata for the USA were not equal across countries. Thus, based on both the statistical and qualitative analyses, H_8 is rejected for the USA.

For H_8 for Sweden, Table 18 shows that the corrected X^2 indicates the TOMA country images for Sweden were not equal across all samples. In effect, Table 9 (Chapter seven) further shows how the TOMA percentages across samples varied considerably for Sweden. Consider the following fluctuations in Table 9:

- For natural resources, although samples' TOMA mentions for this industry were very few (generally below 6%), the Dutch and the Greek samples associated it to Sweden by as much as 16% and 22% of the time.
- For food/drinks/tobacco, while the Hungarian sample only had 4% of its TOMA answers in this industry, the French sample had as much as 24%.
- For the clothing industry, while the Hungarian sample mentioned clothing 1% of the time, the Mexican sample mentioned it 22% of the time.
- For the household items industry, the range in valid TOMA percentage mentions was from as low as 7% to as high as 29%.
- For transportation vehicles, while the Mexican sample associated the industry to Sweden on an average of 14% of all its TOMA mentions, the Norwegian sample associated it by as much as 50% of the time.

Table 18: Corrected X^2 for the TOMA Industrial Sectors – Sweden

	Natural Resources	Food, Beverages, Tobacco	Clothing	Household Items	Entertainment, Leisure	Transportation Vehicles	Advanced Technology	Industrial Goods	Services and Miscellaneous	Agriculture and Fishing	Total Valid TOMA Responses	# of Respondents
Australia	12	72	44	94	22	161	14	29	47	11	506	300
Britain	58	51	17	130	53	255	9	26	51	18	668	303
Canada ^a	100	397	196	944	203	989	81	149	256	83	3,398	1519
France	28	138	9	126	14	155	20	32	19	48	589	301
Germany	38	90	28	201	15	241	20	26	29	23	711	295
Greece	144	32	25	49	21	259	41	43	23	24	661	332
Holland	123	63	26	224	26	213	18	46	25	29	793	300
Hong Kong	10	51	47	129	14	100	61	9	15	7	443	332
Hungary	9	22	4	154	8	235	41	93	9	18	593	303
Indonesia	6	35	35	50	11	112	104	31	28	0	412	313
Israel	11	43	16	35	9	138	15	11	11	8	297	301
Mexico	14	66	74	24	13	46	23	37	19	21	337	314
Norway	15	96	33	82	21	412	83	34	41	12	829	294
Spain	35	66	25	70	14	102	18	39	35	59	463	301
USA ^a	22	179	127	172	67	304	26	24	80	28	1,029	586
Total	625	1,401	706	2,484	511	3,722	574	629	688	389	11,729	6,094
X^2 value: 2,859.47				Correction Factor: 1.55				Corrected X^2: 1,839.79				

^aCanada and the USA had five and two samples, respectively.

From the variances in the TOMA percentages, it is clear that the samples held very similar but not equal TOMA-industry schemata for Sweden. As with the USA, H_3 is rejected for Sweden. As discussed in Chapter seven, samples mostly associated Sweden to: household items and transportation vehicles. But because of the rather low levels of TOMA responses for Sweden, the strength of association between the origin and the top TOMA industries was not as strong as the percentages in Table 9 suggest. For this

reason, the top TOMA industries (although being the dominant industries) could not be regarded as stereotypical.

Finally for Canada, the result of the corrected X^2 tests in Table 19 shows that the TOMA country images for Canada were not consistent across the samples. In Table 11 (Chapter seven), we see that the TOMA percentages across samples varied considerably for Canada. The main variances are described below:

- For natural resources, while the sample from Hong Kong associated the industry 6% of the time to Canada, its Greek counterpart associated it on an average of 36% of all its TOMA responses.
- For food/drinks/tobacco, while the Spanish sample had 2% of its TOMA responses fall into this industry, the American sample had as many as 30% of all its valid TOMA responses belong to this category.
- For services, while the Greek sample mentioned different services in only 2% of its TOMA responses, the sample from Hong Kong mentioned this industry by as much as 30% of the time.
- For agriculture/fishing, while 9% of the Indonesian sample's TOMA responses fell in this industry, 50% of the Australian TOMA answers for Canada belonged to agriculture and/or fishing.

As seen, even among the top three TOMA industries (i.e. agriculture/fishing, natural resources, and services), the valid percentages fluctuated wildly across the samples. Hence, as with the USA and Sweden, H_8 is rejected for Canada.

As discussed in Chapter seven, when respondents brought products to mind for Canada, they were usually from five main industries: agriculture/fishing, natural resources, services, food/beverages/tobacco, and clothing. However, one cannot overlook the high levels of TOMA non-responses for Canada, which implies that the overall strength of association between the origin and the top five TOMA industries was not as great as the valid TOMA percentages in Table 11 implied.

As was shown in the four crosstabular analyses above, the X^2 test does not support H_8 , although, given the qualification for its use in this case, it may be concluded that the samples' views do converge for Japan, only. The lack of support for H_8 may have lay in the fact that the views of 15 very different samples, with differing degrees of familiarity and ties with each of the target origins, were being compared. Hence, it was decided to undertake further analysis to test H_8 among samples that have close trade ties to the target origin. For Japan only the samples from APEC (Asia-Pacific Economic Cooperation) were considered; for the USA and Canada only the samples from NAFTA; and for Sweden only the samples from the EU were investigated. The more focused analyses for H_8 follow.

Table 19: Corrected X^2 for the TOMA Industrial Sectors – Canada

	Natural Resources	Food, Beverages, Tobacco	Clothing	Household Items	Entertainment, Leisure	Transportation Vehicles	Advanced Technology	Industrial Goods	Services and Miscellaneous	Agriculture and Fishing	Total Valid TOMA Responses	# of Respondents
Australia	54	23	22	8	19	19	4	17	56	218	440	300
Britain	122	96	33	9	13	11	7	12	73	268	644	303
Canada ^a	1073	513	509	192	192	430	444	173	592	1007	5125	1519
France	76	32	36	7	15	43	8	14	55	194	480	301
Germany	113	19	23	5	8	11	10	12	64	156	420	295
Greece	198	51	74	21	9	26	7	43	12	113	554	332
Holland	167	33	42	3	21	20	7	20	34	159	506	300
Hong Kong	30	53	37	69	3	5	17	8	161	151	534	332
Hungary	45	23	22	14	21	10	9	34	13	39	230	303
Indonesia	56	32	32	12	14	15	10	15	49	22	257	313
Israel	26	23	29	18	8	7	17	4	18	31	181	301
Mexico	48	50	85	46	21	17	18	36	50	79	450	314
Norway	94	25	31	10	21	23	4	17	45	88	358	294
Spain	146	9	69	6	14	6	5	19	23	121	418	301
USA ^a	165	298	48	24	27	20	9	23	150	186	950	586
Total	2,413	1,280	1,092	444	406	662	576	447	1,395	2,832	11,547	6,094
X^2 value: 2,386.76				Correction Factor: 1.54				Corrected X^2: 1,554.08				

^a Canada and the USA had five and two samples, respectively.

Although the analysis was narrowed to those samples with considerable trade ties with Japan, the corrected X^2 value shown in Table 20, once again, implies that the TOMA country images for Japan were not equal across the samples. In addition, Table 5 (Chapter seven) shows that in considering these six samples only, the main fluctuations in TOMA percentages seem considerable now – i.e. for entertainment/leisure, the TOMA percentages ranged from 39% to 52%, while for transportation vehicles they ranged from 19% to 42%. In this scenario, H_8 is rejected for Japan.

Table 20: Corrected X^2 for the TOMA Industrial Sectors – Japan – APEC countries only

	Natural Resources	Food, Beverages, Tobacco	Clothing	Household Items	Entertainment, Leisure	Transportation Vehicles	Advanced Technology	Industrial Goods	Services and Miscellaneous	Agriculture and Fishing	Total Valid TOMA Responses	# of Respondents
Australia	5	28	31	27	362	320	76	13	20	47	929	300
Canada ^a	2	115	125	113	2,323	1,888	271	78	73	198	5,186	1,519
Hong Kong	0	43	56	208	545	226	25	6	77	31	1,217	332
Indonesia	0	29	41	39	436	432	27	25	26	4	1,059	313
Mexico	0	19	40	25	479	212	81	23	18	22	919	314
USA ^a	3	41	35	28	791	790	105	21	21	53	1,888	586
Total	10	275	328	440	4,936	3,868	585	166	235	355	11,198	3,364
X^2 value: 1,147.48				Correction Factor: 2.22				Corrected X^2: 516.72				

^a Canada and the USA had five and two samples, respectively.

Table 21: Corrected X^2 for the TOMA Industrial Sectors – USA – NAFTA countries only

	Natural Resources	Food, Beverages, Tobacco	Clothing	Household Items	Entertainment, Leisure	Transportation Vehicles	Advanced Technology	Industrial Goods	Services and Miscellaneous	Agriculture and Fishing	Total Valid TOMA Responses	# of Respondents
Canada ^a	63	471	654	258	233	1,360	850	146	965	255	5,255	1,519
Mexico	8	145	177	97	55	135	120	36	167	16	956	314
USA ^a	25	187	187	66	60	649	412	55	244	91	1,976	586
Total	96	803	1,018	421	348	2,144	1,382	237	1,376	362	8,187	2,419
X^2 value: 317.64				Correction Factor: 2.24				Corrected X^2: 141.87				

^a Canada and the USA had five and two samples, respectively.

As with Japan, narrowing the analysis to those samples with considerable trade ties with the USA was not enough to eliminate the fluctuations in the TOMA views. As per the corrected X^2 value shown in Table 21, the TOMA country images for the USA were, again, not consistent across the samples.

Table 22: Corrected X^2 for the TOMA Industrial Sectors – Sweden – EU samples only

	Natural Resources	Food, Beverages, Tobacco	Clothing	Household Items	Entertainment, Leisure	Transportation Vehicles	Advanced Technology	Industrial Goods	Services and Miscellaneous	Agriculture and Fishing	Total Valid TOMA Responses	# of Respondents
Britain	58	51	17	130	53	255	9	26	51	18	668	303
France	28	138	9	126	14	155	20	32	19	48	589	301
Germany	38	90	28	201	15	241	20	26	29	23	711	295
Greece	144	32	25	49	21	259	41	43	23	24	611	332
Holland	123	63	26	224	26	213	18	46	25	29	793	300
Norway	15	96	33	82	21	412	83	34	41	12	829	294
Spain	35	66	25	70	14	102	18	39	35	59	463	301
Total	441	536	163	882	164	1,637	209	246	223	213	4,714	2,126
X^2 value: 921.35				Correction Factor: 1.73				Corrected X^2: 533.90				

For Sweden, although only those samples with which it maintains close economic and political ties were considered in the new analysis, the TOMA country images for Sweden were still not consistent across the samples.

Lastly, the analysis for Canada also does not support H_8 , even though only the home country and those samples with close ties with Canada were considered.

Table 23: Corrected X^2 for the TOMA Industrial Sectors – Canada – NAFTA countries only

	Natural Resources	Food, Beverages, Tobacco	Clothing	Household Items	Entertainment, Leisure	Transportation Vehicles	Advanced Technology	Industrial Goods	Services and Miscellaneous	Agriculture and Fishing	Total Valid TOMA Responses	# of Respondents
Canada ^a	1073	513	509	192	192	430	444	173	592	1007	5125	1519
Mexico	48	50	85	46	21	17	18	36	50	79	450	314
USA ^a	165	298	48	24	27	20	9	23	150	186	950	586
Total	1,286	861	642	262	240	467	471	232	792	1,272	6,525	2,419
X^2 value 583.03				Correction Factor: 1.97				Corrected X^2: 295.98				

^a Canada and the USA had five and two samples, respectively.

In conclusion, samples seemed to have statistically different TOMA views for each of the target origins and H_8 is rejected. This is not to say, however, that samples did not convey the same dominant TOMA industry associations for each of the origins. Ultimately, what this implies is that although not equal, samples' TOMA-industry images of each of the four foreign target origins were fundamentally similar across samples.

8.2 TOMA Images and PCI Evaluations

After assessing the TOMA profiles for each of the target origins, it is important to investigate how the TOMA images and the PCI evaluations interact and relate to one another. Section 8.2, which relates to the third objective of this thesis, will specifically address research questions 3.1. through 3.3. (Chapter four).

8.2.1 Consistency between TOMA Industries and Product Evaluations

H₉, which relates to research question 3.1. (Chapter four), will test the correlation between the TOMA industries recalled and the subsequent product evaluations for each origin. As previously stated in Chapter five, the motivation for putting the TOMA questions in the opening of the questionnaire was to capture respondents' first impressions of an origin's products. The underlying assumption is that the specific TOMA products/brands recalled for a country influence respondents' evaluations of products from that origin.

H₉: Product evaluations correlate with the TOMA industries brought to mind.

The product evaluation section of the questionnaire asked respondents to assess products along a set of 20 bipolar adjective scales, with values ranging from 1 to 7. Since there is no reason to expect that the evaluations along all product variables correlate with the type of TOMA industries brought to mind, it was necessary to limit the analysis to those variables which would reasonably be expected to correlate with the TOMA industries recalled. To this end, an exploratory factor analysis on the 20 product attribute variables was undertaken, so that underlying summary constructs were identified. After identifying the main product constructs, the analysis of H₉ proceeds on that construct which most likely correlates with the TOMA answers.

One hundred exploratory factor analyses (20 evaluating samples x 5 target origins being evaluated) were performed using the criterion of a minimum Eigen value of one and the Varimax rotation method. From the factor analyses, four main product factors emerged. Similar to past studies [Papadopoulos, Heslop, Bamossy 1990; Papadopoulos, Heslop, Bamossy 1994], the first product factor, named product integrity, included nine product attributes; the second factor, market presence, included five variables; the third factor, consumer response, also included five variables; while the fourth and last product factor, price, only included one variable.

The internal consistency of each factor was tested via the Cronbach's alpha statistic. In total, 300 Cronbach's alpha tests were computed and analyzed (i.e. 20 evaluating samples x 5 target origins being evaluated x 3 factors; the fourth product factor only had one variable loading in it, so it is not feasible to compute the Cronbach's alpha in this case). All 300 Cronbach's alpha were above 0.60 indicating that all three product factors were highly consistent internally. Table 24 summarizes the 100 factor analyses and presents the average reliability coefficient to support the internal consistency of each product factor. As can be seen from Table 24, the product factors, which had an average Cronbach's alpha ranging from 0.73 to 0.84, were highly consistent. These findings are highly supportive of previous research by Papadopoulos, Heslop and colleagues [1990; 1994].

From the results of the factor analyses, it seemed reasonable to expect the TOMA industries to primarily influence the scores on the product integrity factor. Thus, H_9 tests the correlation between the product integrity evaluations and the nature of the TOMA industries recalled.

Table 24: Factor Loading Patterns and Cronbach's Alpha for the 20 Product Variables

Summary Variables	# of Items in Factor	Avg Cronbach's Alpha
Factor 1: Product Integrity	9	0.8391
Technological Advancement; Innovativeness; After Sales; Quality; Reliability; Workmanship; Overall Quality; Appearance; Value ("Quality-Price")		
Factor 2: Market Presence	5	0.7273
Availability ("Ease of Finding"); Product Knowledge; Recognizable Brands; Variety; Buy		
Factor 3: Consumer Response	5	0.7577
"Have what I Like"; Willingness; Pride; "For People Like Me"; Satisfaction		
Factor 4: Price	1	n.a.
Price		

The consumers' verbatim responses had to be quantified. A scoring scheme was developed for the 10 industrial sectors in the coding sheet (Appendix 2), based on the level of technological advancement that is generally assumed to be associated with each industry in consumers minds. Although it is recognized that such a scoring scheme is highly subjective, it provides a quantified base for testing the hypothesis. The industries were scored, from one to 10, as seen below (scores were given based on the assumed technological advancement of each industry):

- Natural Resources = 2
- Food/Beverages/Tobacco = 3
- Clothing and Related = 4
- Household Items = 5
- Entertainment Goods and Leisure Items = 8
- Transportation Vehicles = 9
- Advanced Technology = 10
- Industrial Goods = 6
- Services and Miscellaneous = 7
- Agriculture and Fishing = 1

Based on this scheme an average TOMA score for each origin by each sample was calculated by:

- (a) adding per respondent all of its TOMA sector scores for an origin and then dividing by the number of TOMA responses the individual provided for the target origin. This represented the mean sector score given by the individual respondent; and then
- (b) computing a sample average of the mean sector scores given by each respondent.

The expectation was that high TOMA scores would be positively correlated with high product integrity evaluations. The result of the correlation test, with $\alpha = 0.01$, is summarized in Table 25. The test was performed on the average TOMA sector score for each origin by each sample and the mean product integrity factor for each origin by each sample.

Table 25: Correlation between Product Integrity Evaluation and TOMA Industry Scores

Origin	Correlation Coefficient	p-value
All origins	0.51	.000
Origin	Overall Product Integrity Score ^a	Overall TOMA Sector Score ^a
Japan	5.64	7.40
USA	5.19	6.26
Home	4.86	4.77
Sweden	5.00	5.89
Canada	4.78	4.08

^a The overall scores on the 'product integrity' and 'TOMA sector' variables represent the mean computed from the scores given to each origin by the 15 sampled countries.

According to Table 25, because the correlation coefficient is equal to 0.51 (p-value = .000) the data supports the hypothesis that product integrity evaluations correlate with TOMA industries. If we consider the TOMA responses for Japan, the USA, Sweden and Canada, it becomes clear that since the first three origins were significantly associated with highly advanced products (e.g. automobiles, home electronics, advanced technology, services), whereas Canada was mostly associated with industries that are not typically perceived as technologically advanced (e.g. agriculture/fishing, natural resources), it is not surprising that the product integrity scores for the former are significantly higher than for the latter (refer to Table 25).

However, although Canada received the lowest ratings in terms of product integrity (averaging at 4.78), it was still a fairly competitive and high score in relation to the average scores given to Sweden (5.00) and the USA (5.19). In reality, lower product integrity scores for Canada would have been more consistent with the image of a prime producer of agricultural goods, fisheries, and natural resources. The fact that Canada

received relatively high scores from respondents on the product integrity factor was potentially because of halo effects: individuals may have transposed country images (of economic advancement, social wealth, political stability) to the product evaluations. H_{29} will later test this proposition.

Interestingly, the product integrity score for the home country was rather low (4.86). Although it might have been expected for respondents to have evaluated domestic products more positively than they did, the low overall product integrity score may have been a result of not-so-favourable evaluations of the less developed samples (Greece, Hong Kong, Hungary, Indonesia, Israel, Mexico, Spain). Indeed, the lowest product integrity scores for the home country were associated with six of the seven samples above.

8.2.2 TOMA Images across Genders

Sub-section 8.2.2 investigates how genders differ in their TOMA associations to an origin. H_{10} , H_{11} and H_{12} relate to research question 3.2. (Chapter four) and are analyzed next.

8.2.2a Convergence of TOMA Views between Males and Females

H_{10} is concerned with the within-sample convergence of TOMA views between genders. The X^2 statistic was used to test H_{10} , by crosstabbing the variable “gender” against “TOMA industries”, for each sample. Because of the existence of multiple TOMA

responses per respondent, a correction factor for the X^2 statistic had to be computed. The correction factor was:

$$X^2 / \{[1 - (\text{total TOMA per sample} / (\text{sample size} * \# \text{ of industries}))] * \text{total TOMA} / \text{sample size}\}.$$

H_{10} proposes that men and women would have equivalent TOMA views, which implies a within-sample and a two-tail test. The X^2 -test had degrees of freedom = 9 and alpha = 0.05. Thus, the null was rejected for X^2 -values greater than 19.02.

H_{10} : Men and women, from a given sample, will not associate different industrial sectors for a given origin.

Table 26 shows that, for Japan, Canada and Hong Kong were the only two samples where genders did not share common TOMA views. Referring to Appendix 4, for the Canadian sample the divergence between genders seems to have arisen from the fact that male respondents had a significantly higher tendency to associate home electronics and transportation vehicles to Japan than their female counterparts. In contrast, for the sample from Hong Kong, it appears that the difference between the TOMA industry views of males and females for Japan arose from the significantly more frequent associations by women to food, clothing, household items, and services. Since data from 13 out of 15 samples supported the relationship proposed in H_{10} for Japan, the hypothesis is not rejected: men and women did not associate different industrial sectors to Japan.

Eight out of 15 samples had differing gender-based TOMA views for the USA – Australia, Canada, France, Germany, Holland, Hong Kong, Norway and Spain. As per Appendix 4, male respondents from these eight samples had a greater tendency than women to associate transportation vehicles and advanced technology to the USA. In addition, the female respondents from Australia, Canada and Hong Kong associated significantly more clothing to the USA than their male counterparts. Lastly, while for the Canadian sample men associated more services than women for the USA, for the sample from Hong Kong, the reverse relationship was true. In sum, because eight out of 15 samples did not provide support for H_{10} , the hypothesis is rejected for the USA.

With respect to the home country, there were four samples where male and female respondents did not share the same TOMA views (Canada, France, Indonesia, and Norway). As per Appendix 4, the main discrepancies for Canada between genders seem to have arisen from the fact that Canadian men associated significantly more natural resources, transportation vehicles, advanced technology, and industrial goods than women. In contrast, Canadian women provided significantly more TOMA associations for clothing items than men. For France, the divergence between TOMA views was mainly because female respondents associated significantly more foodstuffs than men, while the latter associated significantly more transportation vehicles than women. For Indonesia, the main difference in TOMA views was because women associated more household items than men. Finally, for the Norwegian sample the primary source of divergence was the fact that male respondents associated significantly more natural

Table 26: Crosstabulation between Gender and TOMA Industries – Corrected X^2 Values

Origins	Japan	USA	Home	Sweden	Canada
Australia	7.65	30.54	15.24	21.97	12.57
Britain	8.89	14.98	6.92	20.26	3.82
Canada ^b	23.12	53.94	39.81	84.48	39.81
France	4.92	20.33	28.32	53.37	40.11
Germany	6.94	23.31	11.54	10.06	4.48
Greece	4.34	17.37	6.88	16.64	4.34
Holland	8.24	28.60	5.13	19.76	18.07
Hong Kong	46.64	42.57	13.28	65.89	25.35
Hungary	3.16	12.13	14.77	20.64	8.46
Indonesia	16.72	16.78	31.31	26.73	20.85
Israel	6.73	9.93	8.61	5.78	12.35
Mexico	3.27	13.13	9.32	25.85	13.51
Norway	8.57	26.99	21.45	7.24	12.72
Spain	14.67	22.69	8.32	52.76	13.87
USA ^b	7.25	9.67	9.67	37.01	16.37

^a Bold cells represent significant X^2 statistics. In other words, male respondents were found to have different TOMA industry associations than women.

^b Canada and the USA had five and two urban samples, respectively.

resources and advanced technology than female respondents. Given that more than 70% of the samples provided support for H_{10} (i.e. only four samples did not), the hypothesis is accepted for the home country: men and women were found to associate the same industrial sectors to the home country.

For Sweden, male and female respondents were found not to share the same TOMA industry views in 11 of the 15 sampled countries – all the samples except for Germany, Greece, Israel, and Norway. For the most part, the differences in TOMA views were due

to the fact that male respondents provided significantly more associations to transportation vehicles than women. In addition, however, in seven of the eleven cases female respondents provided significantly more foodstuffs and more household items than men. Since more than 70% of the samples failed to provide support for H_{10} (i.e. only 11 samples contradicted H_{10}), the hypothesis is rejected for Sweden.

Lastly, only four samples had differing male-female TOMA industry associations for Canada. They were: Canada (already discussed in the paragraph for the home country), France, Hong Kong, and Indonesia. French men seemed to associate Canada with more natural resources, transportation vehicles, and services than French women. Women from Hong Kong associated significantly more foodstuffs, household items, services, and agriculture/fish than their male counterparts. Finally, Indonesian men associated more natural resources and services to Canada than Indonesian women. Given that the great majority of samples (i.e. 11 samples) provided support for H_{10} , the hypothesis is accepted for Canada: men and women did not associate different industries to Canada.

Overall, Table 26 shows that in approximately one-third of the 75 cases men and women were found to have provided statistically different TOMA associations for a given origin. Interestingly, when views were indeed divergent, the divergence was in the expected direction: men associating mainly hard goods (cars, advanced technology), while women associating mainly soft goods (clothing, household items, food). In all, however, there was considerable evidence to support H_{10} , since in 51 of the 75 cases in

Table 26 both genders were found to have TOMA views that were not statistically different from each other.

8.2.2b Consistency of TOMA Associations and Product Evaluations

This section investigates two hypotheses:

H₁₁: If men and women from a sample associate and recall similar TOMA industries for a given origin, then their product evaluations will converge.

H₁₂: If men and women from a sample associate and recall different TOMA industries for a given origin, then their product evaluations will differ.

The first step in testing H_{11} and H_{12} was to identify which samples had equivalent TOMA responses across genders. Recall that with the information derived from H_{10} , it was possible to pinpoint exactly which samples had convergent and divergent male-female TOMA associations. The next step in testing H_{11} and H_{12} consisted of running ANOVA tests on the product integrity scores of male and female respondents. The tests were within-sample tests and aimed at investigating the statistical significance of the differences in gender-based product evaluations. Table 27 illustrates the p-values from the ANOVA tests. Bold cells represent the cases where the product integrity evaluations of men and women were different, while cells with ‘**’ represent the cases where the TOMA-industry associations of men and women were found to be different.

Table 27: ANOVA Tests on the Gender-Based Evaluations of the Product Integrity Factor^{a, b}

Samples	Japan p-value	USA p-value	Home p-value	Sweden p-value	Canada p-value
Australia	0.052	0.074 "	0.044	0.160 "	0.671
Britain	0.084	0.949	0.407	0.139 "	0.161
Canada	0.466 "	0.074 "	0.111 "	0.227 "	0.111 "
France	0.133	0.920 "	0.148 "	0.749 "	0.326 "
Germany	0.160	0.142 "	0.305	0.946	0.534
Greece	0.289	0.188	0.094	0.007	0.941
Holland	0.053	0.026 "	0.553	0.823 "	0.807
Hong Kong	4.380 "	0.010 "	0.599	0.020 "	0.738 "
Hungary	0.990	0.523	0.815	0.842 "	0.249
Indonesia	0.565	0.589	0.148 "	0.527 "	0.011 "
Israel	0.776	0.531	0.651	0.057	0.568
Mexico	0.156	0.685	0.126	0.174 "	0.041
Norway	0.171	0.015 "	0.526 "	0.617	0.845
Spain	0.053	0.004 "	0.002	0.149 "	0.390
USA	0.662	0.732	0.732	0.053 "	0.729

^a Bold cells represent significant F-statistics, thus, suggesting that for these samples and origins male-female evaluations of the product integrity factor differed.

^b Cells with '"" highlight those cases where male-female TOMA-industry responses were found to be statistically different. These results were obtained from H₁₀.

Looking at Table 27 it becomes clear, from the sparse cells in bold, that there were very few cases where genders did hold statistically different views on the product integrity factor. In brief, out of the 75 ANOVA tests performed, only ten were found to be statistically different. Put differently, in 87% of the cases, male and female respondents shared similar opinions for a given origin about the product integrity construct (which included the variables: workmanship, technological advancement, innovativeness, reliability, appearance, after sales services, quality, and value).

However, H_{11} and H_{12} did not propose to test whether men and women shared similar views about an origin's product integrity. Instead, they proposed to test whether there was any apparent connection between the (convergent/divergent) TOMA-industry views across genders and the (convergent/divergent) product integrity evaluations.

There was overwhelming support across all five origins for H_{11} , which proposed that if the TOMA-industry views were equal across genders so would the product integrity evaluations. Specifically, (a) 13 out of the 13 cases, where genders held similar TOMA views for Japan (all samples except for Canada and Hong Kong), also did not hold statistically different product integrity evaluations; (b) seven out of the seven cases with equal TOMA-industry associations across genders were in support of H_{11} for the USA; (c) nine out of the 11 cases with converging gender-based TOMA views for the home country were in support of H_{11} ; (d) three out of the four cases which had equal gender-based TOMA industry responses for Sweden were in support of H_{11} ; and finally, (e) ten

out of the 11 cases where both genders held similar TOMA views for Canada also did not hold statistically different product integrity evaluations. Hence, with over 90% of support (42 out of 46 cases), H_{11} is not rejected: samples where genders held similar TOMA product schemata for an origin, did not have statistically different male-female product integrity evaluations.

In contrast, there was scarcely any support for H_{12} – which proposed that if the TOMA-industry views were different across genders so would the product integrity evaluations. Specifically, (a) neither of the two cases where genders held different TOMA-industry views for Japan also held statistically different product integrity evaluations; (b) only four out of the eight cases for the USA with inconsistent TOMA-industry associations across genders were in support of H_{12} ; (c) none of the four cases with somewhat different gender-based TOMA views were in support of H_{12} for the home country; (d) one out of the 11 cases for Sweden with inconsistent TOMA-industry responses across genders were in support of H_{12} ; and finally, (e) one out of the four cases where both genders held different TOMA-industry views for Canada also held statistically distinct product integrity evaluations. Overall, with roughly only 20% of support (i.e. six out of 29 cases), H_{12} is rejected.

8.2.3 Familiarity with an Origin and the TOMA Associations

The analysis in sub-section 8.2.3 relates to research questions 3.3. and 3.4. (Chapter four). The 12 hypotheses in this sub-section test the correlation between the number of

TOMA responses and a host of “familiarity” variables, which directly or indirectly embody familiarity with the target origin and its products. These variables were: (a) knowledge about the origin, (b) the availability of the origin’s products in the domestic marketplace, (c) the recognizability of the origin’s brands, (d) the frequency of purchase of products from the target origin, (e) respondent’s travel frequency, (f) the travel frequency to the target origin, (g) the existence of family roots or friends in the target origin, and (h) respondents’ education levels. It was expected that the higher a sample’s score on these ‘familiarity’ variables, the more TOMA associations would be provided for the target origins.

The first eight hypotheses were:

H₁₃: TOMA response frequencies for an origin will be correlated with the perceived ease in finding the origin’s products.

H₁₄: TOMA response frequencies for an origin will be correlated with the frequency of purchasing products from that origin.

H₁₅: TOMA response frequencies for an origin will be correlated with the reported knowledge of the origin.

H₁₆: TOMA response frequencies for an origin will be correlated with respondents’ travel experiences to the origin.

H₁₇: TOMA response frequencies for an origin will be correlated with the perceived recognizability of the origin's brands.

H₁₈: TOMA response frequencies for an origin will be correlated with education levels.

H₁₉: TOMA response frequencies for an origin will be correlated with the international travel experience of respondents.

H₂₀: TOMA response frequencies for an origin will be correlated with the existence of family roots or friends in the origin.

These eight hypotheses were tested via correlation analyses, which were performed at the sample level. For each origin, sample means of each variable were correlated with the sample's average number of TOMA associations per respondent. Table 28 summarizes the results of the correlation tests. The cells in bold represent significant correlations at $\alpha = .05$. The criterion for rejecting the null was if more than 60% of the cases did not provide support for the hypothesis.

Results in Table 28, indicate that the number of TOMA associations for a given origin correlated mainly with two variables: the perceived ease in finding products from the target origin in the marketplace and the frequency with which individuals purchased

products from that origin. It was found that for all four non-domestic origins, the variable measuring the perceived availability of products (i.e. ease in finding) was a significant correlate for the number of TOMA product/brand associations. As for the variable measuring the frequency of purchase of products from a target origin, it was found that it was a significant correlate for the number of TOMA product/brand associations for all origins except Japan. Since there was support for H_{13} and H_{14} in four out of the five origins (80%), these two hypotheses are not rejected.

Table 28: Correlation between the Number of TOMA Responses and 8 Familiarity Variables ^a

Familiarity Variables:	Japan	USA	Home	Sweden	Canada
Ease	.752	.702	.197	.621	.874
Buy	.428	.496	.462	.486	.878
Knowledge	.274	.550	.393	.639	.916
Travel to Origin	.588	.642	n.a.	.577	.400
Brand	.293	.274	.269	.759	.831
Education	.569	.561	.254	.189	.305
Trips Abroad	.372	.439	.254	.646	.304
Family	.341	.362	n.a.	.479	.465

^a Bold cells represent significant correlations.

In addition, the correlations for the variable “knowledge of origin” were found to be statistically significant in three (60%) of the five target origins: the USA, Sweden and Canada. The strongest correlation was for Canada, where it became clear that the more

samples knew about Canada, the more TOMA associations were provided for the origin. In light of this evidence, H_{15} is also accepted.

Similarly, the correlations for the variable “travel to origin” were statistically significant in three (75%) of the four non-domestic target origins: Japan, the USA and Sweden. This meant that the higher the number of respondents who had previously traveled to a target origin in a sample, the higher the TOMA response frequency provided by the sample for the same target origin. The only origin for which this relationship was not found to be significant was Canada, suggesting that maybe a sample’s direct travel experience in Canada was not sufficient to differentiate it (in terms of providing more TOMA product/brand associations) from those samples with less direct experience in Canada. In all, because there was strong support for H_{16} , the hypothesis is not rejected.

In contrast, the brand recognizability variable was found to be a significant correlate for only two out of the five origins (Sweden and Canada). This meant that the greater the perceived recognizability of Swedish and Canadian brands, the higher a sample’s TOMA response frequencies for Sweden and Canada. Although all samples generally indicated that Japanese, American and domestic brands were very recognizable (Table 4, Chapter seven), there was little association between higher sample scores on brand recognizability and higher sample TOMA associations for Japan, the USA and the home country. Since the correlation was not found to be significant in 60% of the cases, H_{17} is rejected.

Similarly, the education variable was found to be a significant correlate for only two out of the five origins (Japan and the USA). This meant that the higher a sample's education level, the higher the TOMA response frequencies for Japan and the USA. Given that Japan and the USA are highly visible economic forces in the world, both origins have received a great deal of attention from researchers and schools/universities. It is not surprising then to find that the education variable significantly correlated with the number of TOMA associations provided by samples. From the results in Table 28, higher education levels were not as important in influencing the TOMA response frequencies for the home country, Sweden and Canada. Once again, because the correlation was not found to be significant in 60% of the cases, H_{18} is rejected.

The international travel experience variable was found to be a significant correlate for only one out of the five origins (Sweden). This meant that the higher the number of a sample's trips abroad, the higher the TOMA response frequencies for Sweden. The variable "trips abroad" did not influence the TOMA response frequencies for the other target origins: Japan, the USA, the home country, and Canada. Since it was not a significant variable in 80% of the cases, H_{19} is also rejected.

Finally, the existence of family roots or friends in the target foreign origins was found not to be of significant influence in determining the frequency of TOMA product/brand responses. Table 28 shows that the only origin for which family roots or friends was a

significant correlate was Sweden. Since it was not found to be a significant correlate in three of the four foreign origins (75% of the cases), H_{20} is rejected.

The conclusion from Table 28 is that the best predictors for the number of TOMA responses were variables directly related to the availability of goods and services from the target origins. Apparently, it may not be enough to think that one is knowledgeable about the origin and its people, to have some international travel experience, or to have family roots or friends living at the target origin. High levels of product-country TOMA recall originate principally from the individual's direct exposure to and experience with the origin's products.

The remaining four hypotheses in this section test how levels of knowledge about an origin, its people, and its products correlate with the number and the nature of TOMA associations for each of the five target origins. The composite variable "knowledge" was formed via the summation of the scores for the variables "knowledge about an origin and its people" and "knowledge about the origin's products". H_{21} follows below:

H_{21} : If a sample knows little about an origin and its products, then there will be few product TOMA associations.

The first step in testing H_{21} was to look into the correlation between the average number of TOMA associations per respondent and the composite knowledge variable. Sample descriptives on both the knowledge variable and the number of TOMA associations were

computed. Then, samples' mean scores for the knowledge variable were correlated with the samples' average TOMA associations per respondent. The results are illustrated in Table 29.

Table 29: Correlation between TOMA Associations and Knowledge of an Origin

Origins	Correlation Coefficient	P-value
Japan	.321	.243
USA	.358	.191
Home	.246	.376
Sweden	.773	.001
Canada	.598	.018
All	.816	.000

^a Bold cells represent significant correlations at $\alpha = 0.05$.

Table 29 shows that although the correlations were not always significant for each individual target origin, overall, when testing the correlation for all five origins combined, the relationship between the number of TOMA associations provided by a sample for an origin and the reported knowledge about the origin, its people, its products was found to be statistically significant. In all, low scores for the composite knowledge variable were associated with low levels of TOMA associations. Similarly, high scores for the knowledge variable were related to high levels of TOMA responses.

However, the next step in testing H_{21} was to look into the actual scores for both variables given by each sample, so as to determine for which samples and for which origins H_{21} held true. Table 30 illustrates the scores for the knowledge variable and the average number of TOMA responses.

The variable “knowledge” ranged from zero to 14 while the “# of TOMA” from zero to four. In this scenario, low levels of knowledge ranged from zero to 4.9, medium levels ranged from 5.0 to 9.9, and high levels ranged from 10 to 14. Similarly, the number of TOMA responses variable was split in three ranges: scores from zero to 1.99 were considered low, scores in the range of two to 2.99 were medium, while the range from three to four were high. Based on these ranges, Table 30 shows that low scores in both variables were mostly awarded for Canada.

It can be seen from Table 30 that there were 13 cases of low scores for the knowledge variable and 21 cases with low TOMA scores. Furthermore, out of the 13 cases with low knowledge scores, 12 (92%) also had low TOMA scores. In contrast, out of the 21 cases with low TOMA scores, only 12 (57%) also had low knowledge scores. In other words, it seems that little knowledge about an origin, its people, and its products would predict few TOMA responses; but the reverse relationship was not necessarily true.

Table 30: Sample Scores for the Number of TOMA Associations and the Knowledge Variables ^a

Origins	Variables	Australia	Britain	Canada	France	Germany	Greece	Holland	Hong Kong	Hungary	Indonesia	Israel	Mexico	Norway	Spain	USA
Japan	Knowledge	8.86	8.06	8.39	7.65	7.81	9.36	7.42	10.52	8.94	9.98	8.66	8.39	8.06	7.48	9.22
	# TOMA	3.12	3.24	3.41	3.25	3.15	3.25	3.20	3.66	2.82	3.23	2.49	2.96	3.11	2.96	3.26
USA	Knowledge	9.70	9.64	11.56	10.03	9.49	10.78	8.84	9.41	8.94	9.90	10.64	10.95	9.40	8.78	12.13
	# TOMA	2.99	3.07	3.47	3.33	3.19	3.10	3.17	3.30	2.63	3.18	2.48	3.11	3.01	2.98	3.40
Home	Knowledge	12.15	11.86	11.87	13.21	12.03	12.86	11.62	11.29	12.61	12.18	11.73	12.11	12.01	12.33	12.13
	# TOMA	3.28	2.95	3.39	3.50	3.31	3.27	3.51	3.08	2.80	3.08	2.47	2.76	2.84	3.47	3.40
Sweden	Knowledge	5.34	5.12	5.50	5.36	6.68	6.15	6.16	4.02	6.64	4.24	5.39	4.49	10.22	4.43	5.50
	# TOMA	1.75	2.21	2.24	1.96	2.43	2.01	2.65	1.10	2.16	0.62	1.01	1.13	2.98	1.55	1.85
Canada	Knowledge	5.40	2.60	11.87	4.91	4.74	4.92	4.20	5.09	4.63	3.73	5.45	5.92	4.57	3.63	7.30
	# TOMA	1.50	2.13	3.39	1.77	1.41	1.82	1.71	0.83	0.75	0.86	0.60	1.34	1.29	1.67	1.80

^a Cells in bold represent those cases with low levels of knowledge about the origin, its people and its products or low levels of TOMA responses.

Although it might be expected that few TOMA responses would be highly related to little knowledge about an origin, its people, and its products, the latter relationship was not always true. A plausible explanation for this could be because some samples may be indicating that they know relatively more about the origin and its people, than its products – in which case higher scores for the knowledge variable would not necessarily translate into more product TOMA associations. Thus, the coexistence of higher knowledge scores with very few TOMA responses.

Next, to consider H_{22} and H_{23} :

H_{22} : If a sample possesses little or moderate levels of knowledge about an origin and its products, then there will be significantly more generic product than brand name TOMA associations.

H_{23} : If a sample possesses a lot of knowledge about an origin and its products, then there will be significantly more brand name than generic product TOMA associations.

The first step in testing H_{22} and H_{23} was to look into the overall correlation between the nature of the TOMA responses and the composite knowledge variable. For this purpose, samples' mean scores for the knowledge variable were correlated with a dummy variable representing the overall nature of the TOMA responses a sample had in association with a

given origin (where dummy=1 when there were significantly more generic TOMA associations, dummy=3 when there were significantly more brand TOMA responses, and dummy=2 when there were equivalent levels of generic and brand TOMA responses).

The resulting Pearson correlation coefficient was 0.294 with a p-value of 0.01 for all the origins combined. Overall, the nature of the TOMA responses significantly correlated with the reported levels of knowledge about origins, their people, and their products. Thus, origins to which low scores were given on the composite knowledge variable were associated with generic product TOMA associations. Similarly, origins which scored higher on the knowledge variable were generally related to brand TOMA responses. By the evidence provided in the table above, H_{22} and H_{23} are accepted.

However, to further investigate these hypotheses, it was necessary to look into the actual “knowledge” score and the overall nature of the TOMA responses given by each sample for each of the origins. Table 31 provides this information.

Recall that the variable “knowledge” ranged from zero to 14 and that knowledge levels ranged from low (0-4.9), to medium (5.0-9.9), and high (10.0-14.0). According to H_{22} , all samples with knowledge scores from zero to 9.9 should also have significantly more generic product TOMA associations. In reverse, according to H_{23} , all samples with

Table 31: Correlation between Brands/Generics and Knowledge

Origins	Variables	Australia	Britain	Canada	France	Germany	Greece	Holland	Hong Kong	Hungary	Indonesia	Israel	Mexico	Norway	Spain	USA
Japan	Knowledge	8.86	8.06	8.39	7.65	7.81	9.36	7.42	10.52	8.94	9.98	8.66	8.39	8.06	7.48	9.22
	TOMA Nature	G	G	G		B	G	G	B	B	B			B	G	B
USA	Knowledge	9.70	9.64	11.56	10.03	9.49	10.78	8.84	9.41	8.94	9.90	10.64	10.95	9.40	8.78	12.13
	TOMA Nature	B	G	G	B	B	G	G	B	B	B		B	B	G	B
Home	Knowledge	12.15	11.86	11.87	13.21	12.03	12.86	11.62	11.29	12.61	12.18	11.73	12.11	12.01	12.33	12.13
	TOMA Nature		G	G	G	B	G	G	B	B		G	G		G	B
Sweden	Knowledge	5.34	5.12	5.50	5.36	6.68	6.15	6.16	4.02	6.64	4.24	5.39	4.49	10.22	4.43	5.50
	TOMA Nature	G	G	G		B	G	G		B	B	0	G	B	G	G
Canada	Knowledge	5.40	2.60	11.87	4.91	4.74	4.92	4.20	5.09	4.63	3.73	5.45	5.92	4.57	3.63	7.30
	TOMA Nature	G	G	G	G	G	G	G		G	G	G	G	G	G	G

knowledge scores from 10 to 14 should also have significantly more brand TOMA associations.

Referring to Table 31, there were 13 cases where samples indicated they had little knowledge about the origin, its people, and its products. Out of these, 11 (85%) also had significantly more generic than brand TOMA mentions. In addition, there were 38 cases where samples indicated they only had moderate knowledge. Of these, 19 (50%) also had significantly more generic TOMA mentions. Lastly, there were 24 cases where samples indicated they had high levels of knowledge. Of these, nine (38%) had significantly more brand TOMA responses than generic product TOMA responses.

With the breakdown provided in the above paragraph, it is clear that H_{22} is widely supported for low levels of knowledge about an origin, its people, and its products. However, for higher levels of knowledge about an origin, its people, and its products, the relationships in H_{22} and H_{23} did not hold.

A possible explanation as to why H_{22} did not receive more support from the data when samples reported they had moderate knowledge about a given origin is because, although a sample may have indicated it was not particularly knowledgeable about an origin, it may still have perceived the origin to be the home of one or two extremely well known brands (as was the case for Sweden). Thus, although the knowledge scores may not have

been particularly high, these samples may still have identified equivalent levels of brands and generic product classes, or significantly more brand names than generic products in the TOMA section of the questionnaire – as was the case of the samples from France, Germany, Hungary, and Israel for Sweden. In addition, for Japan and the USA, even though a sample may have indicated it was not highly knowledgeable about the origin and its products, it still apparently recognized that these origins were home of many extremely well known brands (as previously investigated in section 7.3 of Chapter seven).

In regards to H₂₃, a plausible explanation as to why it did not receive much support is because, although samples may have indicated they were highly knowledgeable about an origin (especially when the origin was their own home country), they may have been subject to the summarizing forces previously discussed. Thus, the abundance of well-known brands highly concentrated in the production of certain product categories may have been responsible for skewing the overall nature of the TOMA responses (from brand names to generic product classes) for a given origin. In addition, if the origin is perceived as producing goods not usually branded (i.e. natural resources, food, fishing, agriculture, etc.), high levels of knowledge about the origin, its people and its products may still translate into significantly more generic product associations than brand names.

Next, we consider H_{24} :

H_{24} : If a sample has little knowledge about an origin's products, then it will likely transpose to the product evaluations their "overall perceptions" about the country and its people.

To measure the phenomenon of knowledge transfer from country and people to products, it was decided that a regression analysis between the independent variable measuring perceptions about the origin and its people (which was a summary variable of the 16 country/people variables) and the dependent variable of the products' overall evaluation (via the "good/poor overall products" variable) would show whether the former could indeed significantly influence the evaluation of the latter. However, before performing the regression analysis, it was necessary to pinpoint which samples fell in the category of having little, moderate and high product knowledge for which target origins. Table 32 below illustrates the average scores on the product knowledge variable.

Knowing that the product knowledge variable ranged between the values of 1 and 7, scores ranging from 1.00 to 2.99 were taken to represent those cases of little product knowledge, while those ranging from 3.00 to 4.99 represented moderate product knowledge, and from 5.00 to 7.00 were those cases of high levels of product knowledge. According to this breakdown, there were 21 cases of low product knowledge (for

Canadian and Swedish products only), 29 of high product knowledge (primarily for domestic, Japanese and American products), and 25 of moderate product knowledge (for Japanese, American and Swedish products).

Table 32: Product Knowledge Scores ^a

Origins	Australia	Britain	Canada	France	Germany	Greece	Holland	Hong Kong	Hungary	Indonesia	Israel	Mexico	Norway	Spain	USA
Japan	4.81	4.87	4.89	5.36	4.53	5.38	4.21	5.98	5.24	5.59	5.20	4.77	4.50	4.24	5.07
USA	4.50	4.46	5.56	5.61	4.66	5.33	4.38	4.67	4.50	5.05	5.46	5.47	4.50	4.38	5.79
Home	5.51	5.52	5.41	6.59	5.92	6.16	5.53	4.88	6.32	5.62	5.84	5.79	5.45	6.04	5.79
Sweden	2.85	2.77	2.96	3.25	3.42	3.13	3.28	2.20	3.72	2.52	3.02	2.46	4.52	2.26	2.83
Canada	2.21	1.78	5.41	2.44	2.08	2.33	1.70	2.37	2.16	1.71	2.65	2.73	1.93	1.65	3.10

^a The product knowledge variable was a 7-point bipolar scale, where 1=little and 7=lot

Table 33 compares the results of the four regressions performed.

Table 33: Regression between Product Quality Evaluation and Summary Country/People Variable

Samples	Correlation Coefficient	Adjusted R ²	P-value	Regression Expression ^a
All 75 samples	.680	.455	.000	$P = .680 CP + \epsilon$
21 samples w/ little P knowledge ^a	.726	.502	.000	$P = .726 CP + \epsilon$
25 samples w/ moderate P knowledge ^a	.410	.132	.042	$P = .410 CP + \epsilon$
29 samples w/ high of P knowledge ^a	.751	.548	.000	$P = .751 CP + \epsilon$

^a 'P' represents the product quality variable, 'CP' represents the summary country/people variable, and ϵ represents the error term in the regression expression.

Although the interest of H₂₄ was in investigating the significance of the second regression (21 samples with little product knowledge), the purpose of performing all four

regressions was so that a comparison could be made between the results of those samples with little knowledge about an origin's products and the other remaining cases.

From the column named P-value in Table 33, it is seen that three regressions were statistically significant at $\alpha = 0.01$, while one was only significant at $\alpha = 0.05$ (for moderate product knowledge). So, it is clear that country/people evaluations tend to influence the evaluations of an origin's products, regardless of whether samples lack knowledge of a target origin's products. In fact, looking at the correlation coefficients and the R^2 values for each regression, it is apparent that those samples with the most perceived knowledge about an origin's products were the ones in which the country/people evaluations had most impact on (or were more highly correlated with) the product evaluations. Indeed, while approximately 55% of the variance in the product evaluations were explained by the country/people evaluations for those samples that reportedly were very knowledgeable about a target origin's products; 50% of the variance in the product evaluations were explained by the country/people evaluations for those that possessed little knowledge about a target origin.

Having determined that all the regressions in Table 33 were statistically significant at $\alpha = 0.05$ and having looked at the regression statistics, it seems that those samples with little and those with much knowledge about an origin's products had the greatest tendency to transpose to the product evaluations their country/people evaluations. It could

be that those with little knowledge about an origin's products rely on their knowledge and perceptions of the country and its people to evaluate its products, while those with much knowledge about an origin's products attempt to integrate their knowledge and perceptions about the origin, its people and its products, so that the evaluations on these three fronts somewhat resemble each other. In contrast, those samples with moderate product knowledge may possibly make a conscious effort to separate their product perceptions from their country/people perceptions.

8.3 Longitudinal Analysis of Canada and Canadian Goods

Lastly, section three of Chapter seven aims at drawing a brief longitudinal profile of the Canadian product image – in accordance with the thesis' fourth objective (Chapter four). It will essentially be a descriptive section, where descriptive statistics provide the basis for data analysis and discussion, and six hypotheses will be tested. As previously mentioned, only eight samples were used for the longitudinal analysis, since the first PCI study only included eight samples – i.e. Britain, Canada-Ottawa, France, Germany, Greece, Holland, Hungary, and USA-Seattle.

H₂₅ and H₂₆, which relate to research question 4.1. (Chapter four), propose that Canadian goods have fundamentally lacked visibility and presence in foreign markets. It was expected that consumers generally would not perceive Canadian products to be easily

available in the marketplace, nor would they consider Canadian brands to be easily recognizable. Thus,

H₂₅: Canadian products are not easily found in the international marketplace.

H₂₆: Canadian brands are not easily recognizable in the international marketplace.

Table 34 shows the mean scores obtained for each variable and allows for a longitudinal analysis on the perceived availability and recognizability of Canadian goods and brands. As can be seen, Canadian products generally scored very low in terms of availability in both the original and new studies. In the original study, the scores of the seven foreign samples ranged from a low of 2.83 (Hungary) to a high of 3.77 (USA-Seattle) – the domestic sample naturally had the highest mean score of all eight samples 5.34 (Canada-Ottawa). Thus, all seven foreign samples seemed to generally report that Canadian goods were rather difficult to find in their respective marketplaces. Likewise, in the new study, the scores of the seven foreign samples ranged from a low of 2.20 (Britain) to a high of 3.73 (Greece) – once again, the domestic sample had the highest mean score of all eight samples 5.30 (Canada-Ottawa). At this later period, all seven foreign samples seemed to indicate that Canadian goods were indeed hard to find in the marketplace.

Considering the variable of Canadian product availability, there only seemed to be one significant difference in the samples' evaluations across time. Specifically, respondents from the British sample seemed to indicate that Canadian goods lost some ground in their domestic marketplace, since in the original study British respondents revealed that they perceived Canadian goods to be only somewhat hard to find (3.00), whereas a decade later, in the new study, they reported that Canadian goods were perceived to be *indeed* hard to find (2.20).

A similar analysis was undertaken for the variable of Canadian brand recognizability. As can also be seen in Table 34, Canadian brands generally scored very low in terms of recognizability in both the original and new studies. In the original study, the scores of the seven foreign samples ranged from a low of 3.22 (Britain) to a high of 4.64 (Hungary) – the domestic sample naturally had the highest mean score of all eight samples 5.39 (Canada-Ottawa). Interestingly, all but one foreign sample – namely Hungary – had mean scores in the range of 3.22 to 3.80 indicating that Canadian brands were relatively unrecognizable abroad. Hungary, in contrast, reported that Canadian brands were neither exceptionally recognizable, nor exceptionally unrecognizable – it seems that they considered Canadian brands to be neutral in recognizability. Likewise, in the new study, the scores of the seven foreign samples ranged from a low of 2.65 (Germany) to a high of 4.06 (Hungary) – once again, however, the domestic sample had the highest mean score of all eight samples 5.26 (Canada-Ottawa). At this later period, all samples (both foreign

and domestic) seemed to indicate that the performance of Canadian brands had worsened in terms of their recognizability – they were now considered as being unrecognizable (Germany, Holland), somewhat unrecognizable (Britain, France, Greece, Hungary, and the USA-Seattle), and marginally recognizable (Canada-Ottawa).

Overall, considering the variable of Canadian brand recognizability, there only seemed to be two important shifts in the samples' evaluations across time. Respondents from the German and Dutch samples seemed to indicate that Canadian brands lost some ground in terms of recognizability, since in the original study German and Dutch respondents revealed that they perceived Canadian brands to be only somewhat unrecognizable (3.33 and 3.45, respectively), whereas a decade later, in the new study, they reported that Canadian brands were indeed unrecognizable (2.65 and 2.88, respectively).

From the above paragraphs, both H_{25} and H_{26} are accepted for both the original and the new data.

In brief, it was found that Canadian goods have been perceived as being unavailable and Canadian brands, unrecognizable. It seems commonsense to propose that both the lack of availability and recognizability of Canadian products be related to a lack of TOMA mentions. Thus, while it is expected that all seven foreign samples demonstrate a clear

Table 34: Availability and Recognizability of Canadian Products and Brands ^a

Samples	Ease of Finding		Brand Recognizability	
	Original	New	Original	New
Britain	3.00	2.20	3.22	3.02
France	2.59	2.80	3.39	3.21
Germany	3.03	2.74	3.33	2.65
Greece	3.73	3.73	3.60	3.31
Holland	3.51	3.66	3.45	2.88
Hungary	2.83	2.93	4.64	4.06
C-Ottawa	5.34	5.30	5.39	5.26
USA-Seattle	3.77	3.70	3.80	3.50

^a The availability and recognizability scores are based on a 7-point bi-polar adjective scale, where 1=low and 7=high.

inability to provide many product TOMA associations to Canada, it is anticipated that the domestic sample from Ottawa be distinctly superior in its ability to provide more product TOMA associations to Canada. In all, Canada is hypothesized to have a weak product TOMA image among the foreign samples, while having a noticeably stronger TOMA image at home. The reason why it is anticipated that the Canadian sample fare better in the product TOMA exercise is because being the domestic sample it distinctly indicated that Canadian products were available and Canadian brands recognizable, as opposed to the views held abroad that Canadian products and brands were unavailable and unrecognizable. Thus, in relation to research question 4.2. (Chapter four), H₂₇ states:

H₂₇: Canada is expected to have a weak image as a producer of goods among foreign respondents.

According to Table 35, in the original study, France, Greece, and Hungary all failed to provide TOMA product associations to Canada. In these three samples, over 63% of the TOMA associations were left blank. That means that on average, each respondent was only able to associate roughly 1.4 products to Canada, a disappointing statistic, to say the least. Similarly, the Dutch sample left roughly 49% of the total TOMA associations blank. That meant each respondent from Holland was effectively only able to associate about 2.0 products to Canada, a statistic not much more encouraging than the previous one. In contrast, though, the samples from Britain, Germany, and the USA-Seattle were able to provide 57%, 60% and 56%, respectively, of the total TOMA responses. This translated into an average of 2.6 TOMA associations per respondent. Again, not a high statistic, given (1) that the maximum number of TOMA associations per respondent was four and (2) that Canadian businesses and the Canadian government would like to believe Canada has been well-known for its excellence as a producer of good quality products and services.

In contrast, the domestic sample did set itself apart from the other samples, by being able to provide 86% of all the TOMA associations. Effectively, Canadians were able to associate an average of 3.4 products to Canada, a number of associations consistent with their opinion that Canadian goods were widely available and Canadian brands well recognizable in the marketplace. Overall, however, since the respondents from all seven foreign samples were only able to associate from 1.3 to 2.7 products to Canada, on

average, H_{27} cannot be rejected and the resultant conclusion is that Canada indeed lacked an image as a producer of goods in the late 1980s.

Table 35: Percentage of TOMA Non-Responses for Canada

Samples:	% of Missing TOMA			Average TOMA Associations per Respondent		
	Original	New	Change	Original	New	Change
Britain	33	47	+14	2.7	2.1	-0.6
France	64	60	-4	1.4	1.8	+0.4
Germany	30	64	+34	2.4	1.4	-1.0
Greece	68	58	-10	1.3	1.8	+0.5
Holland	49	58	+9	2.0	1.7	-0.3
Hungary	63	81	+18	1.5	0.8	-0.7
C-Ottawa	14	16	+2	3.4	3.4	0.0
USA-Seattle	34	51	+17	2.6	2.0	-0.6

According to Table 35, in 1997, Hungary provided even fewer TOMA product associations to Canada than a decade earlier, leaving fully 81% of the TOMA associations blank. On average, each respondent was only able to associate 0.8 products to Canada, an extremely low statistic. In addition, the French, German, Greek, and Dutch samples were only able to provide an average of 40% of the total TOMA responses. Each respondent was only able to associate an average of 1.6 products to Canada, a statistic a little more encouraging than the previous one, yet still disappointing. In contrast, the samples from Britain, and USA-Seattle were able to provide 53%, and 49%, respectively, of the total TOMA responses. This translated into an average of 2.0 TOMA associations per respondent which, though higher than some other samples, is still low in itself.

Overall, since the respondents from all seven foreign samples were only able to associate from 0.8 to 2.1 products to Canada, on average, H_{27} cannot be rejected and the subsequent conclusion is that Canada indeed has lacked an image as a producer of goods among the international community for the past 15 years.

Once again, the domestic sample did set itself apart from the other samples, by being able to provide 84% of all the potential TOMA associations. Effectively, Canadians were able to associate an average of 3.4 products to Canada, a number of associations consistent with their opinion that Canadian goods are widely available and Canadian brands well recognizable in the marketplace.

If we take the longitudinal perspective and compare the descriptive statistics from both time periods, it can be seen that for four samples (France, Greece, Holland, and Canada-Ottawa), the average number of TOMA associations per respondent was somewhat stable over time. In contrast, the samples from Britain, Germany, Hungary, and the USA-Seattle showed a considerable tendency to associate fewer TOMA products to Canada in the new study than in the original one.

Interestingly, the fact that the seven foreign samples had considerable difficulty in associating products to Canada, coupled with the fact that such respondents were still able to assess Canadian products along 20 product dimensions, leads us to the suspect

that halo effects must have predominated in Canadian-product evaluations. This means that because of the lack of de facto knowledge about Canadian goods, they must have relied on their assumptions, knowledge and/or stereotypes (all within their schema) on Canada to draw parallels to Canadian products. How else could we account for the fact that an overwhelming lack of TOMA responses co-existed with complete product evaluations? At this point two hypotheses, which relate to research question 4.3. (Chapter four), are put forward:

H₂₈: The levels of TOMA recall for Canada will be positively related to the scores on the product knowledge variable.

H₂₉: Halo effects are likely to predominate in Canadian product evaluations.

As already discussed in the testing of the previous three hypotheses, all seven foreign samples expressed the same opinions: that Canadian products were not easily available and their brands not easily recognizable. As a result, the seven foreign samples were unable to provide many TOMA products for Canada. The underlying proposition in H₂₈ is that knowledge about Canadian products determined the number of TOMA product associations provided for Canada. To test this hypothesis, linear regression analyses were performed on the original and the new data. Table 36 summarizes these regressions.

Table 36: Regression between TOMA Responses and Knowledge of Canadian Products

Origins	Correlation Coefficient	Adjusted R ²	P-value	Regression Expression ^a
Original Study	.570	.212	.140	n.s. ^b
New Study	.790	.562	.020	$T = .790 P + \epsilon$

^a 'T' represents the average number of TOMA associations per respondent and 'P' represents the sample average for the variable measuring knowledge of Canadian products.

^b The regression was not found to be significant.

From the regression results, it was found that knowledge of Canadian products was only significantly related to the frequency of the TOMA responses for the new data. The same relationship was not found to be statistically significant for the original data. Hence although H₂₈ was true for the new data, it was rejected for the original data.

As for H₂₉, halo effects were typically expected to occur if product assessments were derived from an origin's assessments. The evidence for the existence of halo effects for Canadian products was threefold, as discussed in the following paragraphs.

The initial step in investigating H₂₉ was to test whether an origin's product assessments and an origin's evaluations were highly correlated or not. The analyses looked at how samples' mean values for the variable "good/poor product quality" varied with samples' mean values for a composite variable "country" – which took into consideration evaluations on the technological advancement of an origin, the wealth of its people (i.e. the economic advancement), the stability of its political system, the desire for closer economic ties with the origin, and the response towards more investment from the origin.

The rationale for selecting the five variables for the composite “country” is discussed next. It was expected that if an origin were favourably assessed along the technology and the economic wealth variables, then its product evaluations would most likely be biased in favour of good quality and high product integrity. Similarly, stable politics, a positive response towards closer economic ties with the origin, as well as a positive response towards the receipt of foreign investment from the origin were expected to be characteristic assessments for advanced economies, which in turn are more likely to produce good quality products.

For the purpose of testing if product assessments and country evaluations were highly related or not, a correlation analysis was undertaken. The results are summarized in Table 37.

Table 37: Correlation Analysis between Product Quality and Country Evaluation

Origins	Correlation Coefficient	P-value
All – original study	.657	.000
Eight – new study	.688	.000

Since both the original and the new correlations were found to be statistically significant, it is clear that product assessments were indeed related to country evaluations. This meant that high scores on the product quality scale accompanied high scores on the country

variable, and vice-versa. This finding in itself is not evidence that halo effects occurred for Canada, but consider the findings of:

- (a) Relatively high scores given by the foreign samples on the quality evaluations of Canadian products, despite the little reported knowledge about Canadian products (Table 38, below);
- (b) Very high levels of TOMA non-responses (Table 35).

Table 38: Knowledge of Canadian Products versus Quality of Canadian Product ^a

Time Period	Variables	Britain	Canada ^a	France	Germany	Greece	Holland	Hungary	USA ^a	Average w/ Canada	Average w/o Canada
Canada – Original Study	P Knowledge	2.38	5.34	2.20	1.98	2.63	2.11	2.64	3.00	2.79	2.42
	P Quality	4.71	4.95	4.68	4.77	5.49	4.77	5.11	4.65	4.89	4.88
Canada – New Study	P Knowledge	1.78	5.57	2.44	2.08	2.33	1.70	2.16	3.07	2.64	2.22
	P Quality	5.17	5.71	5.21	5.08	5.28	5.38	5.56	4.81	5.28	5.21

^a The variables were assessed on a 7-point bipolar scale, where 1 = low and 7 = high.

^b Only the samples from Ottawa and Seattle were considered for Canada and the USA.

If we compare the last two columns in Table 38, it can be seen that there was remarkably little difference between the average product quality evaluations with the Canadian sample and without it. In contrast, the difference between the figures on the average score for product knowledge differed slightly. While the sample mean scores for product quality ranged from 4.65 to 5.49 (in the original study) and from 4.81 to 5.71 (in the new study), the ranges for product knowledge were broader from 1.98 to 5.34 (in the original study) and from 1.70 to 5.57 (in the new study). Not surprisingly, the domestic (i.e.

Canadian) sample was the obvious outlier in the product knowledge evaluations. In all, this suggests that although the seven foreign samples reported having very little knowledge about Canadian products, they still evaluated the quality of Canadian goods as being of somewhat good quality – as though giving Canadian products the “benefit of the doubt”. This table provides compelling evidence of the (1) goodwill shown towards Canadian goods and (2) a potential halo effect for Canadian goods.

In addition, however, Table 39 summarizes the figures on the level of TOMA responses for Canada in comparison to the corresponding figures for Japan, Sweden, the USA, and the home country. It is clear that although the level of TOMA associations for Canada was extremely low in 1987 and particularly in 1997, respondents were still able to provide not only rather complete product evaluations but also relatively positive evaluations (as previously discussed).

Table 39: Average Percentage of TOMA Responses for Target Origins

Origins	Original	New	% Change
Canada	51	35	-16
Japan	82	78	-4
Sweden	60	47	-13
USA	74	77	+3
Home	80	79	-1

With the discussions on how product evaluations seemed to relate to country evaluations, and how despite the limited knowledge of Canadian products and low TOMA recall for

Canadian goods, samples still assigned relatively high scores for the product quality; it seems reasonable to accept the hypothesis that halo effects were present in the evaluations of Canadian products. Hence H_{29} is accepted.

Finally, we move on to consider the last hypothesis in the thesis. It addresses research questions 4.4. and 4.5. in Chapter four:

H_{30} : It is expected that Canada's TOMA image as a producer of goods will be stable over time within the sampled countries.

Canadian products were expected to suffer from somewhat 'sticky' images, thus consumers were expected to associate the same TOMA industries in very similar proportions to Canada over time. In this sense, H_{30} analyzes the rigidity and stability of samples' product schema for Canada. It will be tested using the X^2 (crosstab) statistic, with samples' TOMA responses being tabulated against the two different time periods (i.e. original and new study). Table 40 illustrates the results from the crosstabulation test, while Table 41 transcribes the TOMA percentages for each industry and shows how each sample's views fluctuated.

According to Table 40, it appears that all but the French and German samples had relatively stable TOMA views for Canada. In other words, the TOMA industries associated

Table 40: A Longitudinal View of the TOMA industries associated with Canada – Crosstabulation Analyses (Within Samples)

Statistics	Britain	Canada	France	Germany	Greece	Holland	Hungary	USA
X ² value ^a	11.41	14.24	19.19	17.06	14.47	6.12	9.69	9.85
P-value	.249	.114	.024	.048	.106	.728	.376	.363

^a Bold cells represent significant X² statistics at alpha = 0.05, meaning that the TOMA views across time changed.

with Canada did not significantly differ from the original to the new study in these six samples. In contrast, however, the samples from France and Germany showed somewhat different TOMA images for Canada across time. Table 41, below, better illustrates how such TOMA images differed in the interval of a decade.

From a general look at Table 41, it can be observed that the most recalled TOMA industries in association with Canada in the original study were: agriculture/fishing, natural resources, clothing and related. Similarly, in the new study the industries mostly associated to Canada were: agriculture/fishing, natural resources, food/beverages/tobacco, services, and clothing. Although it appears that the new data shows a slightly more diffused TOMA image for Canada, the fact remains that Canada had a rather 'sticky' image from the original study to the new study as a prime producer of agriculture goods, fish, and natural resources.

Although, overall it seems that the samples mostly associated the same industries to Canada over time – suggesting that people's schemata for Canadian goods were indeed a little rigid – there were slight differences within samples, implying that the strength of association between Canada and some industries weakened, while with other industries it strengthened. In sum, it seems that product-country schemata for Canada were somewhat flexible over time.

Taking the case of the French sample as an example, it seems that the product schema for Canada moved away from natural resources and towards transportation vehicles, agriculture/fishing and services. Similarly, while German respondents' associational links for Canada apparently weakened for natural resources and clothing items, their product schema links considerably strengthened for services and agriculture/fishing.

The general conclusion from such analysis is that Canada's image as a producer of goods was not entirely stable over time. In effect, there was compelling evidence that product schemata for Canada were not completely rigid and that some fluctuation did occur in the percentages with which a TOMA industry was associated to Canada. However, because the essence of the Canadian TOMA product image did remain rather constant over the period of a decade (i.e. as a prime producer of natural resources, agricultural goods, and fish), H_{30} is accepted. Given more time and the government's commitment and pursuit of a revamped and more technologically oriented image for Canada, it is possible that in the next decade the Canadian TOMA image may be significantly changed.

Table 41: A Longitudinal View of the TOMA industries associated with Canada – Descriptive Statistics (%)^a

Samples	Natural Resources		Food, Beverages and Tobacco		Clothing and Related		Household Items		Entertainment and Leisure		Transportation Vehicles		Advanced Technology		Industrial Goods		Services and Miscellaneous		Agriculture and Fishing	
	1987	1997	1987	1997	1987	1997	1987	1997	1987	1997	1987	1997	1987	1997	1987	1997	1987	1997	1987	1997
Britain	26	19	9	15	11	5	2	1	2	2	1	2	1	1	5	2	3	11	40	42
Canada	25	21	8	10	13	10	6	4	4	4	6	9	4	8	8	3	1	11	25	20
France	32	16	5	7	12	7	3	1	4	3	1	9	1	2	3	3	4	12	35	40
Germany	38	27	3	5	13	6	1	1	7	2	2	2	0	2	3	3	4	15	29	37
Greece	18	36	11	9	25	13	7	4	2	2	9	5	2	1	4	8	1	2	21	20
Holland	32	33	5	7	14	8	0	1	4	4	1	4	1	1	3	4	4	7	36	31
Hungary	19	19	10	10	19	10	3	6	10	9	3	4	1	4	10	15	2	6	23	17
USA	19	19	35	30	12	5	3	2	3	3	2	2	0	1	4	3	5	15	17	21

^a The column labels '1987' and '1997' represent the frequencies for the original and the new study, respectively.

9. Limitations, Benefits and Possibilities for Future Research

As an exploratory research of the topics of top-of-mind awareness and product-country images, the purpose of this thesis was to explore the TOMA-PCI phenomenon and propose hypotheses that might serve to contribute to theory development in the PCI field. Although limitations did exist, the research brings significant benefits to businesses, government policy makers, and researchers. The analysis in this chapter consists of four sections: research limitations, summary of the findings, research benefits, and possibilities for future research.

9.1 Research Limitations

As Alan [1979] stated, one of the most serious problems in using the recall method in surveys is when the informant genuinely does not realize he/she is giving an inaccurate answer to the research question. Although an apparent limitation, inaccurate product-country associations were not regarded as incorrect in the context of the TOMA/PCI research. The reason for not considering them as erroneous associations was because they: (1) represented respondents' perceived reality, (2) were part of respondents' mental product-country schema, and (3) were likely to influence respondents' general evaluations of the origin's products. Since the interest was in assessing how product schemata related to product-country evaluations, the goal was to tap into consumers' perceived reality (whether accurate or not).

In addition, given that the thesis was based on previously collected data, the research was developed within the constraints of the latter. So, while information on other issues – like that of the relative importance of the brand cue versus the ‘made in’ cue, or that of TOMA responses allowing for emotional/affective descriptors (e.g. bad movies) – may have been additionally interesting to approach together with the topic of TOMA-PCI, the questionnaire was not designed to address these. However, the research instrument is not only broad enough to have allowed for significant latitude in the analysis, but most importantly, it is built on long-term research and has proved to be a very effective research instrument in international environments.

Lastly, a third limitation encountered in this study was in its attempt to quantitatively examine the qualitative TOMA data. In particular, there were situations where no existing statistical method of analysis was deemed suitable for testing specific hypotheses. In these situations, adequate approaches were devised with the help from the members of the thesis committee especially, Dr. Papadopoulos, Dr. Heslop, and Dr. Roland. For instance, the X^2 (crosstabular) test was originally rendered unsuitable for determining whether samples held consistent TOMA images for each target origin, because of the large sample sizes and large number of categories involved in the analysis (10 industries, 20 samples). In this circumstance, a correction factor for the crosstabular X^2 statistic was developed, as was shown in Chapter eight. Similarly, while there was no existing technique capable of examining whether the qualitative TOMA responses were related to

the product integrity scores given to each target origin, a coding scheme was devised to enable the investigation of this hypothesis.

9.2 Summary of the Findings

9.2.1 Japan

Although Japan was found to have the highest TOMA response frequency of all the five target origins, statistical tests found that there was no difference in the levels of TOMA responses for Japan, the USA, and the home country. This finding uncovers the competitive strengths of Japanese products in terms of mind-share: it not only competes head on with American products, but also competes very effectively with domestic products. Further still, Japan ranked second in terms of brand name associations – though statistical tests found that it did not have significantly more TOMA brands associated to it than generic products.

What was most characteristic for Japan was the fact that (a) samples consistently brought to mind the same generic products and brand names (responsible for producing the former), and (b) statistical tests confirmed that the 15 sampled countries shared the same product schemata for Japan – i.e. as a primary producer of entertainment/leisure goods and transportation vehicles. In all, the data analysis provided very strong evidence of Japan's focused image.

9.2.2 The USA

Overall, the USA ranked second in terms of highest TOMA response frequency, though as mentioned above, statistical tests found there was no difference in the levels of TOMA responses for Japan, the USA, and the home country. This finding effectively revealed the strong competitiveness of American products/brands for international consumer mind-share. In addition, the USA emerged as the target origin with the most TOMA brand name associations – although as with Japan, statistical tests did not find that the USA had significantly more brand associations than generic products.

The TOMA image of American products was considerably more dispersed and less consistent across the 15 sampled countries than that for Japan. However, though dispersed, the USA still had a very strong image among international consumers. The low level of TOMA non-responses indicated that consumers were/are generally well aware of what the USA can offer: services, transportation vehicles, advanced technology, food/beverages/tobacco, and clothing.

9.2.3 The Home Country

Interestingly, the home countries generally ranked third in terms of TOMA response frequency. But, as already discussed, statistically it was found not to differ from the TOMA response frequencies for Japan and the USA. Given that home markets are assumed to be flooded with domestic goods and services, it was surprising to find that

respondents were not able to associate significantly more products and brands to the home country than to Japan and the USA. Also intriguing was that, overall, the home country ranked fourth (vis-à-vis the other origins) in terms of brand name TOMA associations.

9.2.4 Sweden

Sweden was found to be an origin for which respondents had much difficulty in associating products and brands. It ranked fourth out of the five target origins in terms of TOMA response frequency and ranked third in terms of brand name associations. What was most surprising was the fact that there were quite a lot of TOMA brand associations for such a small player in international markets. This is a general indication of the strength of Sweden's TOMA image. Furthermore, the main Swedish TOMA industries were transportation vehicles, household items, and food/beverages/tobacco.

9.2.5 Canada

Canada ranked last in terms of both TOMA response frequency and brand name TOMA associations. In addition, the levels of TOMA response frequency were found to be generally very low. It was also confirmed that Canadian products were perceived as not being easy to find and Canadian brands as highly unrecognizable. As a result, Canada emerged as having a rather weak image as a producer of goods. Interestingly, previous research [Papadopoulos et. al. 1994] suggests that international consumers are positively

inclined towards Canadian goods and are willing to buy them, even if not much is known about them.

The longitudinal analysis in Chapter eight found that the TOMA image for Canada was not entirely stable over time. There was compelling evidence that product schemata for Canada were not completely rigid and that some change did take place in the course of a decade – even if the essence of the Canadian TOMA product image did remain rather constant (i.e. as a prime producer of natural resources, agricultural goods, and fish).

9.3 Research Benefits

Research benefits for researchers, marketers and government policy makers are addressed next.

9.3.1 Researchers

The thesis drew on concepts primarily from the fields of cognitive psychology and marketing. It investigated the nature of people's most accessible (i.e. top-of-mind) product-country associations for five target origins. Since the literature on TOMA-PCI is very sparse, this research will assist in the expansion of the PCI literature and will enable a broader and more theoretically fundamented research on the role of country schemata in influencing people's attitudes towards products from certain origins. Possible directions for future research are addressed in section 9.4.

9.3.2 Business

The major benefit of this study for business is in its examination of the product schemata for Japan, the USA, Sweden and Canada. Valuable information for businesses originating in these countries is included in the study, since country image strengths and weaknesses became apparent.

For Japan and the USA, it was found that consumers were not only well aware of their products/brands, but also respondents evaluated Japanese and American products/brands very positively. Such product-country image strength lends marketers the opportunity to devise "made in " campaigns, which potentially confer additional worth and appeal to products and brands. For example, to increase a brand's competitive advantage, marketers might select a brand name which sounds Japanese or may choose to link their brands to American or Japanese symbols. The ultimate goal is to positively influence consumers' perceptions in their decision-making process.

For Sweden and Canada, it was found that international consumers were not very well aware of their products and brands. In the lack of a strong product/brand image (especially in the case of Canada), emphasis on the "made in" cue is not likely to lend a brand a strong competitive advantage abroad. In this situation, marketers have the opportunity of borrowing a strong country image from another origin for their brands (e.g. like Daewoo, a Korean brand, did in associating itself in recent advertising with

German engineering and Italian design). The challenge for an origin's government and industry associations is to effectively market their country and industries abroad as credible producers of high quality goods.

9.3.3 Government

Governments are primarily interested in pursuing foreign investment, tourism, export promotion, and domestic industry protection. In the pursuit of any of these goals, governments face the challenge of marketing the "made in" cue as effectively as possible. This research provides valuable information for Japanese, American, Swedish and Canadian governments with interests in export promotion. In addition, the thesis adds value to the governments of each of the 15 sampled countries with respect to the protection of their domestic industry.

One of the premises of the field of PCI is that the more the world is aware of what an origin can offer, the better it is for those from that origin who want to be credible participants in the market [The Ottawa Citizen July 28, 2001]. If a country has a strong positive product image, the likelihood that its brands will succeed both at home and abroad is increased. In contrast, if a country has a negative image, the probability that its products and brands will fare well in the domestic and international marketplace is significantly reduced. Lastly, if a country is not known for its products, (in the lack of a product image), the "made in" cue may not have any bearing in consumers' buying

decision process and may hamper the success of domestic industry. In this light, government officials, have the responsibility of managing their country's image at home and, especially, abroad as best as they can.

Fortunately for origins with a negative product image, research in the field of cognitive psychology indicates that schemata are somewhat flexible to change [Nadler 1988]. The key lies in weakening the strength of association between the origin and the negative trait, and at the same time in strengthening the association with the positive trait [Stangor and Lange 1994]. Unfortunately, however, changing the strength of association between the origin and a (product) trait is not easy and is not a sure outcome from being exposed to schema-inconsistent information. It, possibly, not only requires enduring exposure to schema-inconsistent information, but the latter must also be positively reinforced with the (product) experiences people have.

Similarly, for origins with a lack of a product image (like Canada), the same research on the formation and flexibility of schemata suggests that to develop and manage an origin's image, an origin's government and industry associations need to embark on a long-standing campaign which aims at strengthening the association between the origin and positive product traits [Nadler 1988, Stangor and Lange 1994]. As mentioned above, such a campaign would not only need to be intensive, it would also need to be long lasting.

Lastly, such marketing campaign would also need to be positively reinforced with the (product) experiences people have.

9.4 Implications for Future Research

There is little question of whether international consumers are aware of what Japan and the USA can offer in terms of goods and services. The key question is if such strong product-country TOMA images confer Japanese and American products/brands an innate competitive advantage abroad? How do the 'made in' cue and the 'brand name' cue impact a given purchase decision? Also, would consumers be more willing to experiment with unknown products and brands from Japan or the USA simply because they are Japanese or American? While this thesis attempted to correlate product evaluations to the nature of the TOMA responses, it did not examine the former questions. Additional research into these issues would prove fruitful.

Insofar as the protection of domestic industry is concerned, the research highlights that domestic products suffer intense competition from foreign products, especially those from the USA and Japan. It would be interesting to determine: (a) how much domestic industries suffer with the strong competition from imports, (b) whether consumer ethnocentrism exists to significantly affect imports, and (c) how effective "buy-domestic" campaigns are in supporting domestic industry against competition from imports?

Lastly, it would be interesting to monitor the TOMA images of origins over time. The central goal of a longitudinal analysis of TOMA images is to assess the precise level of flexibility of the product-country schema. For instance, it remains to be seen whether given more time, and with the Canadian government's commitment to the pursuit of a better image for Canada, the Canadian TOMA image will significantly change. What impact will government and industry led campaigns to change Canada's product image abroad affect people's perceptions of Canadian products, over time? Future research should provide answers to the following questions: (a) are TOMA product-country schemata flexible? (b) if so, how and why do TOMA product-country schemata change over time? And (c) how would such changes affect the predispositions towards an origin's products, in general?

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Appendix I

Questionnaire

INTERNATIONAL TRADE: THE QUALITY OF PRODUCTS FROM FOREIGN NATIONS

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Dear Survey Respondent,

As a consumer in today's complex marketplace, where products are available from all over the world, you are faced with many and often difficult buying decisions. Understanding how consumers evaluate products is important so that producers can better serve their markets.

This survey is carried out by researchers of the IKON Research Group of the School of Business of Carleton University, as part of a large international study that is done every few years by researchers in over ten countries around the world including the U.S., France, Australia, Israel, Holland, and others. Its purpose is to better understand the views of consumers about various countries and their products. In this survey we are particularly interested in your views about the United States, Sweden, Great Britain, Canada, and Japan.

You are one of a few selected respondents who are being asked to give their opinion based on a random sample of the area. To obtain a correct statistical representation, it is important that each questionnaire be completed and returned. We also kindly ask that you please answer all the questions.

Your answers will remain completely confidential. Your name or any other identifying information does not appear on the questionnaire. We will use only the combined data from all respondents in our statistical analysis. If you would like to comment on any questions or the overall theme of the survey, please feel free to do so in the margins or in the space provided at the end of the questionnaire. We will read your comments carefully and take them into account.

If you would like some feedback on the study once our analysis is complete, we will be pleased to provide you with a summary of the findings. Please send us a separate note at the address below with your name and address (do not identify yourself on the questionnaire so that your responses remain confidential).

Thanks a lot for your help!

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**INTERNATIONAL TRADE:
THE QUALITY OF PRODUCTS FROM FOREIGN NATIONS**

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Before we start with the main part of the survey, we would like to ask you to name the first four products that come to your mind when you see the name of each of the five countries. You can write down brand names, product categories, or company names, whichever comes to your mind first. If you cannot remember four, write as many as you can remember.

	<u>Great Britain</u>	<u>Japan</u>	<u>Sweden</u>	<u>United States</u>	<u>Canada</u>
1.	_____	_____	_____	_____	_____
2.	_____	_____	_____	_____	_____
3.	_____	_____	_____	_____	_____
4.	_____	_____	_____	_____	_____

1

Products from Various Countries

The first section of the survey, starting on the next page, examines how you feel about the products of the five countries. It does not matter whether or not you have personal experience with a country's products, or how well you may or may not know them. What matters is your opinions, no matter how they were formed.

By "products" we mean both physical products (everything from soap to computers) and services (such as banks and restaurants).

On each of the following pages you will find a different country's products to be judged, along a set of scales which have descriptive words on their left and right sides. To answer each scale, simply put an "X" in the middle of the space that is closest to your opinion (not on the dividing line between spaces).

For example, if your opinion is very closely related to the word on the left, mark the scale as follows:

Reliable : X : : : : : Unreliable

Or, if the country is only slightly related to the word on the right:

Reliable : : : : : X : : : : Unreliable

Please be sure to answer every scale for every country and do not omit any.

You should work at a fairly high speed through the scales. There is no need to look back and forth through the pages, or to worry and puzzle over individual items. There is no "right" answer. We value your opinion and it is your first impression, your immediate "feeling" about the scales, that counts. You should look at each scale as separate from the rest and judge each country independently from one scale to the other. Remember, it does not matter whether or not you have ever bought a country's products.

1.c.

The products of Sweden

Good workmanship : _____ : Poor workmanship

Unreliable : __:__:__:__:__:__: Reliable

Innovative : _:_:_:_:_:_ : Imitative

Good quality :__:__:__:__:__:__:__:__:__:__: Poor quality

Good after sales service : ____:____:____:____:____:____:____:____:____:____: Poor after sales service

Swedish products are hard to find : _:_:_:_:_:_:_:_:_:_: Swedish products are easy to find

Attractive appearance : ____:____:____:____:____:____: Unattractive appearance

I know a lot about Swedish products : _ _ _ _ _ : I know very little about Swedish products

Good value for the money :__:_:_:_:_:_:_:_: Poor value for the money

Products from Sweden do not have _____ Products from Sweden have _____
 what I like to buy : _____ what I like to buy

Not technically advanced : _:_:_:_:_:_: Technically advanced

Recognizable brand names : _:_:_:_:_:_:_:_: Unrecognizable brand names

Wide variety : __:__:__:__:__:__:__: : Limited variety

I normally buy a lot of Swedish products : _:_:_:_:_:_:_:_:_:_ : I normally buy very few Swedish products

Expensive : _ : _ : _ : _ : _ : _ : Inexpensive

I am willing to buy Swedish products : ____ : I am not willing to buy Swedish products

I would be proud to own :_:~::~_:~::~_:~::~_:~::~_:~::: I would not be proud to own
Swedish products Swedish products

Products from Sweden are not _____: Products from Sweden are
for people like me for people like me

Good overall products : _____ : Poor overall products

I am not satisfied with Swedish products : ____ : I am satisfied with Swedish products

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1.d.	The products of the United States

Good workmanship : _ _ _ _ _ : Poor workmanship

Unreliable : _ _ _ _ _ : Reliable

Innovative : _ _ _ _ _ : Imitative

Good quality : _ _ _ _ _ : Poor quality

Good after sales service : _ _ _ _ _ : Poor after sales service

American products are hard to find : _ _ _ _ _ : American products are easy to find

Attractive appearance : _ _ _ _ _ : Unattractive appearance

I know a lot about American products : _ _ _ _ _ : I know very little about American products

Good value for the money : _ _ _ _ _ : Poor value for the money

Products from the United States do not have what I like to buy : _ _ _ _ _ : Products from the United States have what I like to buy

Not technically advanced : _ _ _ _ _ : Technically advanced

Recognizable brand names : _ _ _ _ _ : Unrecognizable brand names

Wide variety : _ _ _ _ _ : Limited variety

I normally buy a lot of American products : _ _ _ _ _ : I normally buy very few American products

Expensive : _ _ _ _ _ : Inexpensive

I am willing to buy American products : _ _ _ _ _ : I am not willing to buy American products

I would be proud to own American products : _ _ _ _ _ : I would not be proud to own American products

Products from the United States are not for people like me : _ _ _ _ _ : Products from the United States are for people like me

Good overall products : _ _ _ _ _ : Poor overall products

I am not satisfied with American products : _ _ _ _ _ : I am satisfied with American products

2

The Countries and their People

This section examines how you feel about the countries themselves and their people. On this and each of the next four pages you will find a different country to judge along a set of scales similar to those for the products. Once again, simply put an "X" in the middle of the space that is closest to your opinion.

Please remember that it does not matter whether or not you have had personal experience with these countries or their people. It is your **first impression, your immediate "feeling" about the scales that counts, no matter how it was formed.** Please answer every scale for every country, and judge each country independently from one scale to the other.

2.a.

Great Britain and the British

I know very little about Great Britain and the British : : : : : I know a lot about Great Britain and the British

Politically stable country : : : : : Politically unstable country

Admirable role in world politics : : : : : Not admirable role in world politics

Not trustworthy people : : : : : Trustworthy people

Rich : : : : : Poor

Technologically advanced country : : : : : Not technologically advanced country

The British have a refined taste for the beautiful things in life : : : : : The British do not have a refined taste for the beautiful things in life

We should have closer ties with Great Britain : : : : : We should not have closer ties with Great Britain

Highly educated people : : : : : Not highly educated people

People are not very hard working : : : : : People are very hard working

Aligned with Canada : : : : : Not aligned with Canada

The British are not a very likeable people overall : : : : : The British are a very likeable people overall

An ideal country : : : : : Not an ideal country

I would welcome more investment here from Great Britain : : : : : I would not welcome more investment here from Great Britain

I would welcome more imports here from Great Britain : : : : : I would not welcome more imports here from Great Britain

I would not like to visit Great Britain : : : : : I would like to visit Great Britain

2.b.	Japan and the Japanese

I know very little about _____ I know a lot about _____
 Japan and the Japanese : : : : : Japan and the Japanese

Politically stable country : : : : : Politically unstable country

Admirable role in world politics : : : : : Not admirable role in world politics

Not trustworthy people : : : : : Trustworthy people

Rich : : : : : Poor

Technologically advanced country : : : : : Not technologically advanced country

The Japanese have a refined taste _____ The Japanese do not have a refined taste
 for the beautiful things in life : : : : : for the beautiful things in life

We should have closer ties _____ We should not have closer ties
 with Japan : : : : : with Japan

Highly educated people : : : : : Not highly educated people

People are not very hard working : : : : : People are very hard working

Aligned with Canada : : : : : Not aligned with Canada

The Japanese are not _____ The Japanese are
 a very likeable people overall : : : : : a very likeable people overall

An ideal country : : : : : Not an ideal country

I would welcome more _____ I would not welcome more
 investment here from Japan : : : : : investment here from Japan

I would welcome more imports here _____ I would not welcome more imports here
 from Japan : : : : : from Japan

I would not like to visit Japan : : : : : I would like to visit Japan

2.c.

Sweden and the Swedes

I know very little about Sweden and the Swedes : : : : : I know a lot about Sweden and the Swedes

Politically stable country : : : : : Politically unstable country

Admirable role in world politics : : : : : Not admirable role in world politics

Not trustworthy people : : : : : Trustworthy people

Rich : : : : : Poor

Technologically advanced country : : : : : Not technologically advanced country

The Swedes have a refined taste for the beautiful things in life : : : : : The Swedes do not have a refined taste for the beautiful things in life

We should have closer ties with Sweden : : : : : We should not have closer ties with Sweden

Highly educated people : : : : : Not highly educated people

People are not very hard working : : : : : People are very hard working

Aligned with Canada : : : : : Not aligned with Canada

The Swedes are not a very likeable people overall : : : : : The Swedes are a very likeable people overall

An ideal country : : : : : Not an ideal country

I would welcome more investment here from Sweden : : : : : I would not welcome more investment here from Sweden

I would welcome more imports here from Sweden : : : : : I would not welcome more imports here from Sweden

I would not like to visit Sweden : : : : : I would like to visit Sweden

2.d.	The United States and Americans

I know very little about the United States and Americans : : : : : I know a lot about the United States and Americans

Politically stable country : : : : : Politically unstable country

Admirable role in world politics : : : : : Not admirable role in world politics

Not trustworthy people : : : : : Trustworthy people

Rich : : : : : Poor

Technologically advanced country : : : : : Not technologically advanced country

Americans have a refined taste for the beautiful things in life : : : : : Americans do not have a refined taste for the beautiful things in life

We should have closer ties with the United States : : : : : We should not have closer ties with the United States

Highly educated people : : : : : Not highly educated people

People are not very hard working : : : : : People are very hard working

Aligned with Canada : : : : : Not aligned with Canada

Americans are not a very likeable people overall : : : : : Americans are a very likeable people overall

An ideal country : : : : : Not an ideal country

I would welcome more investment here from the United States : : : : : I would not welcome more investment here from the United States

I would welcome more imports here from the United States : : : : : I would not welcome more imports here from the United States

I would not like to visit the United States : : : : : I would like to visit the United States

2.e.	Canada and Canadians

I know very little about Canada and Canadians : : : : : I know a lot about Canada and Canadians

Politically stable country : : : : : Politically unstable country

Admirable role in world politics : : : : : Not admirable role in world politics

Not trustworthy people : : : : : Trustworthy people

Rich : : : : : Poor

Technologically advanced country : : : : : Not technologically advanced country

Canadians have a refined taste for the beautiful things in life : : : : : Canadians do not have a refined taste for the beautiful things in life

Highly educated people : : : : : Not highly educated people

People are not very hard working : : : : : People are very hard working

Canadians are not a very likeable people overall : : : : : Canadians are a very likeable people overall

An ideal country : : : : : Not an ideal country

HUNGARY

Good overall products : _ _ _ _ _ : Poor overall products
 I am willing to buy Hungarian products : _ _ _ _ _ : I am not willing to buy Hungarian products
 We should have closer ties with Hungary : _ _ _ _ _ : We should not have closer ties with Hungary
 An ideal country : _ _ _ _ _ : Not an ideal country

INDIA

Good overall products : _ _ _ _ _ : Poor overall products
 I am willing to buy Indian products : _ _ _ _ _ : I am not willing to buy Indian products
 We should have closer ties with India : _ _ _ _ _ : We should not have closer ties with India
 An ideal country : _ _ _ _ _ : Not an ideal country

INDONESIA

Good overall products : _ _ _ _ _ : Poor overall products
 I am willing to buy Indonesian products : _ _ _ _ _ : I am not willing to buy Indonesian products
 We should have closer ties with Indonesia : _ _ _ _ _ : We should not have closer ties with Indonesia
 An ideal country : _ _ _ _ _ : Not an ideal country

ISRAEL

Good overall products : _ _ _ _ _ : Poor overall products
 I am willing to buy Israeli products : _ _ _ _ _ : I am not willing to buy Israeli products
 We should have closer ties with Israel : _ _ _ _ _ : We should not have closer ties with Israel
 An ideal country : _ _ _ _ _ : Not an ideal country

MEXICO

Good overall products : _ _ _ _ _ : Poor overall products
 I am willing to buy Mexican products : _ _ _ _ _ : I am not willing to buy Mexican products
 We should have closer ties with Mexico : _ _ _ _ _ : We should not have closer ties with Mexico
 An ideal country : _ _ _ _ _ : Not an ideal country

NORWAY

Good overall products : _ _ _ _ _ : Poor overall products
 I am willing to buy Norwegian products : _ _ _ _ _ : I am not willing to buy Norwegian products
 We should have closer ties with Norway : _ _ _ _ _ : We should not have closer ties with Norway
 An ideal country : _ _ _ _ _ : Not an ideal country

SPAIN

Good overall products : _ _ _ _ _ : Poor overall products
 I am willing to buy Spanish products : _ _ _ _ _ : I am not willing to buy Spanish products
 We should have closer ties with Spain : _ _ _ _ _ : We should not have closer ties with Spain
 An ideal country : _ _ _ _ _ : Not an ideal country

4

Background Information

This last section asks for some background information which will help us classify the answers we receive. Please be assured that your responses will remain confidential and will be used only to analyze the data statistically. Thanks for your cooperation.

To answer this section, you only need to put a check-mark ☒ or an "X" in the appropriate boxes.

1. Are you a male ☐ or a female ☐ ?

2. In which bracket is your age? (check one)

Less than 20	☐	35-49 years	☐
20-34 years	☐	50-64 years	☐
		65 or more	☐

3. What level of education have you completed? (check one)

Some high school	☐	Some college/university	☐
High school graduate	☐	College/university graduate	☐
		Other (please specify)	☐

4. How many persons are there in your household? (write in the number) _____

5. In which range is the total income of your household? (check one)

Up to \$29,999	☐	\$50,000-\$69,999	☐
\$30,000-\$49,999	☐	\$70,000-\$89,999	☐
		\$90,000 and over	☐

6. In 1996, how many trips did you take outside the country? (check one)

None	☐	Three, Four, or Five	☐
One or Two	☐	Six or More	☐

7. Have you ever been to any of these countries? (check as many as apply)

Great Britain	☐	Japan	☐
U.S.	☐	Sweden	☐

8. Do you have any family roots in any of these countries, such as having emigrated from there, or having relatives or friends who live there? (check as many as apply)

Great Britain	☐	Japan	☐
U.S.	☐	Sweden	☐

5**Your Opinion Counts!**

Would you like to make any additional comments? Your opinion counts, and anything you might want to add about this survey will be very valuable. You may comment on the countries included in the survey, their products, or any other country or its products that interests you. Please use this space and feel free to attach additional sheets if necessary.

Your contribution to this international research effort is very greatly appreciated.

THANK YOU!

Appendix 2

Coding Scheme

SECTOR AND PRODUCT CODES

1 Food/Beverages/Tobacco 1 Dairy products 2 Cereals 3 Cigarettes, tobacco 4 Confectionery products 5 Soft drinks 6 Beer 7 Wine 8 Other alcoholic drinks 9 Pharmaceuticals 0 Other	5 Transportation 1 Passenger cars and vans 2 Trucks 3 Other land vehicles 4 Ships, ship-building 5 Aircraft 6 Railroad 7 Urban transit systems, metro 8 9 0 Other	9 Agriculture, Fishing 1 Wheat, barley, other grains 2 Fruits and vegetables 3 Maple syrup, honey 4 Other AGRICULTURE 5 Livestock (beef, pork, poultry) 6 Sardines 7 Tuna 8 Salmon 9 Other FISH 0 Other
2 Clothing and Related 1 Clothing 2 Fashion 3 4 Shoes and other footwear 5 Furs 6 Leather 7 Winter clothes (jackets etc.) 8 Accessories (belts etc.) 9 Jewelry, watches 0 Other	6 Advanced Technology 1 Computers 2 3 Software 4 Photocopiers 5 Calculators etc. 6 Telephones - home and cellular 7 Telecommunications 8 Aerospace 9 Biotech, nuclear power 0 Other	0 Natural Resources 1 Wood 2 Pulp 3 Primary minerals and ores 4 Precious metals 5 Oil 6 Natural gas, coal 7 Uranium 8 Electricity 9 Water 0 Other
3 Household and Related 1 Appliances 2 3 Furniture 4 5 Carpets and fixtures 6 Glassware and china 7 Luggage 8 Toiletries 9 Cosmetics 0 Other	7 Other Industrial Goods 1 Textiles 2 Paper, carton 3 Office furniture 4 Chemicals, plastics 5 Scientific instruments 6 Tools 7 Housing 8 Plant, farm, etc. machinery 9 Metal fabricating (e.g. steel) 0 Other	
4 Entertainment and Leisure 1 Ski equipment 2 Hockey equipment 3 Other athletic/sports equip't 4 Camping equipment 5 Toys, games, bicycles 6 Other recreational equip't 7 Home electronics 8 Cultural products 9 Cameras 0 Other	8 Services and Miscellaneous 1 Celebrities (sportspersons, actors) 2 Restaurants - fast food and other 3 Airlines and tourism 4 Retail Stores (large) 5 Financial and insurance services 6 Movies and music 7 Sports 8 Engineering and construction 9 Military and weapons 0 Other	

Appendix 3

Product Knowledge

Product Knowledge – Mean Scores

Samples	Australia	Britain	Canada	France	Germany	Greece	Holland	Hong Kong	Hungary	Indonesia	Israel	Mexico	Norway	Spain	USA	Average
Japan	4.81	4.87	4.89	5.36	4.53	5.38	4.21	5.98	5.24	5.59	5.20	4.77	4.50	4.24	5.07	4.98
USA	4.50	4.46	5.56	5.61	4.66	5.33	4.38	4.67	4.50	5.05	5.46	5.47	4.50	4.38	-	4.90
Home	5.51	5.52	5.41	6.59	5.92	6.16	5.53	4.88	6.32	5.62	5.84	5.79	5.45	6.04	5.79	5.76
Sweden	2.85	2.77	2.96	3.25	3.42	3.13	3.28	2.20	3.72	2.52	3.02	2.46	4.52	2.26	2.83	3.01
Canada	2.21	1.78	-	2.44	2.08	2.33	1.70	2.37	2.16	1.71	2.65	2.73	1.93	1.65	3.10	2.20

Appendix 4

Male-female TOMA Industry Associations

Japan

Samples	Natural Resources		Food, Beverages, Tobacco		Clothing and Related		Household Items		Entertainment and Leisure		Transportation Vehicles		Advanced Technology		Industrial Goods		Services and Miscellaneous		Agriculture and Fishing		Total Valid TOMA	Sample Size
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
Australia	3	2	12	14	10	21	12	16	179	178	183	133	35	38	9	4	17	8	21	24	919	300
Britain	1	0	11	18	6	8	7	12	251	210	164	133	33	51	4	6	9	3	18	28	973	303
Canada	2	0	49	65	54	71	42	71	1,255	1,050	1,049	827	148	121	49	28	38	35	75	122	5151	1519
France	2	4	13	18	11	13	8	11	238	191	193	143	30	28	3	2	6	8	22	31	975	301
Germany	0	1	4	11	5	3	1	6	228	176	221	165	36	30	3	2	1	2	11	16	922	295
Greece	3	3	8	6	19	12	37	45	167	171	236	218	29	34	15	19	4	4	16	32	1078	332
Holland	1	2	27	26	8	12	7	9	215	140	177	143	33	43	13	7	8	7	34	46	958	300
Hong Kong	0	0	12	31	10	46	51	154	287	257	126	100	19	6	1	5	19	58	8	23	1213	332
Hungary	0	0	2	3	19	21	2	3	150	175	170	163	41	52	7	2	2	4	1	1	818	303
Indonesia	0	0	12	17	12	28	8	31	226	210	250	180	16	11	16	9	9	17	1	3	1056	313
Israel	1	0	4	3	14	18	1	7	128	183	140	182	14	20	4	0	3	1	5	7	735	301
Mexico	0	0	8	11	19	21	11	13	242	237	112	100	39	42	10	13	6	12	7	15	918	314
Norway	0	0	2	8	10	15	0	2	179	146	241	152	32	34	5	4	2	3	16	17	868	294
Spain	9	0	3	12	19	37	18	12	149	156	144	100	63	55	11	13	13	7	32	31	884	301
USA	1	2	23	18	12	23	11	16	428	354	407	381	51	54	14	6	15	5	27	26	1874	586

USA

Samples	Natural Resources		Food, Beverages, Tobacco		Clothing and Related		Household Items		Entertainment and Leisure		Transportation Vehicles		Advanced Technology		Industrial Goods		Services and Miscellaneous		Agriculture and Fishing		Total Valid TOMA	Sample Size
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
Australia	5	4	46	69	37	68	8	18	14	22	110	62	90	36	17	3	124	110	14	12	869	300
Britain	6	3	90	100	39	59	4	12	18	10	87	50	64	32	3	2	147	155	21	18	920	303
Canada	34	29	230	239	251	399	115	139	127	103	814	542	522	320	79	66	503	453	118	135	5218	1519
France	2	0	116	139	49	64	4	14	41	27	106	49	88	50	2	3	119	121	2	6	1002	301
Germany	4	2	99	90	48	62	6	3	12	8	128	74	116	36	11	7	95	115	5	8	929	295
Greece	19	20	86	93	45	78	30	64	18	24	131	93	74	48	17	18	66	58	17	28	1027	332
Holland	7	4	67	68	50	76	1	11	14	22	137	52	99	60	8	2	109	112	26	15	940	300
Hong Kong	1	2	39	79	81	184	23	43	14	16	48	19	189	112	7	4	82	120	14	26	1103	332
Hungary	4	3	63	77	46	51	9	31	16	24	97	77	64	66	8	3	47	58	5	1	750	303
Indonesia	2	3	75	61	61	90	43	62	11	9	125	61	97	71	15	9	102	100	1	4	1002	313
Israel	0	2	39	54	78	135	26	60	7	14	61	56	44	41	3	3	39	59	2	2	725	301
Mexico	7	1	72	73	73	104	39	58	27	28	78	57	74	46	19	17	70	97	9	7	956	314
Norway	16	12	94	76	48	64	10	9	10	21	149	57	79	37	7	7	69	92	7	8	872	294
Spain	23	6	107	102	34	49	4	5	24	28	92	35	64	31	7	9	102	120	24	28	894	301
USA	12	13	92	92	79	106	28	38	31	29	357	290	230	179	35	19	135	107	38	50	1960	586

Home Country

Samples	Natural Resources		Food, Beverages, Tobacco		Clothing and Related		Household Items		Entertainment and Leisure		Transportation Vehicles		Advanced Technology		Industrial Goods		Services and Miscellaneous		Agriculture and Fishing		Total Valid TOMA	Sample Size
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
Australia	50	36	131	174	20	47	25	18	14	10	66	38	15	11	51	40	35	22	84	84	971	300
Britain	30	21	90	98	30	34	14	31	20	14	105	92	25	21	17	20	104	83	23	31	903	303
Canada	612	456	257	252	208	299	83	107	100	88	259	165	283	157	105	66	297	292	501	500	5087	1519
France	2	0	178	221	97	111	34	55	12	12	140	74	27	7	14	1	37	19	3	10	1054	301
Germany	1	5	78	84	6	13	6	17	25	20	246	176	84	54	53	37	29	24	3	7	968	295
Greece	14	9	189	233	27	30	5	15	0	2	7	5	5	1	26	38	38	31	199	214	1088	332
Holland	22	13	183	175	10	7	21	24	79	81	36	26	13	14	39	16	31	27	127	109	1053	300
Hong Kong	5	5	39	57	101	196	30	24	39	46	14	9	43	33	7	8	171	184	1	6	1018	332
Hungary	0	0	145	180	7	19	41	82	44	40	62	32	5	3	22	22	24	25	43	53	849	303
Indonesia	43	22	128	101	35	35	50	138	12	5	56	37	10	2	89	86	41	26	23	21	960	313
Israel	12	4	111	155	23	47	22	45	6	4	11	13	44	69	11	20	23	24	31	55	730	301
Mexico	47	37	150	157	32	49	51	65	11	12	17	11	10	14	38	20	23	35	35	53	867	314
Norway	110	60	83	100	18	30	42	51	16	18	35	14	72	27	13	14	11	7	56	56	833	294
Spain	10	11	207	202	14	29	8	13	7	6	39	16	5	3	6	8	37	30	189	211	1051	301
USA	12	13	92	92	79	106	28	38	31	29	357	290	230	179	35	19	135	107	38	50	1960	586

Sweden

Samples	Natural Resources		Food, Beverages, Tobacco		Clothing and Related		Household Items		Entertainment and Leisure		Transportation Vehicles		Advanced Technology		Industrial Goods		Services and Miscellaneous		Agriculture and Fishing		Total Valid TOMA	Sample Size
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
Australia	6	6	26	43	18	26	39	52	11	11	108	52	10	4	16	13	38	25	8	3	515	300
Britain	32	24	25	26	5	12	52	78	24	29	167	85	6	3	16	10	24	26	8	10	662	303
Canada	53	47	152	240	78	116	457	479	109	94	648	334	59	22	101	48	153	101	40	43	3374	1519
France	16	12	48	90	1	8	56	70	9	5	117	38	18	2	12	20	16	3	21	27	589	301
Germany	24	14	41	48	17	11	101	98	6	9	154	85	13	7	18	8	16	13	11	12	706	295
Greece	68	76	16	16	11	14	16	33	11	10	163	96	26	15	18	25	15	8	12	12	661	332
Holland	69	54	23	40	9	17	110	114	14	12	140	73	13	5	34	12	14	11	11	18	793	300
Hong Kong	3	7	9	42	10	35	49	79	6	8	67	33	45	16	8	1	9	6	2	5	440	332
Hungary	4	5	8	14	0	4	51	103	5	3	140	95	20	21	42	51	5	4	8	10	593	303
Indonesia	3	3	11	24	14	20	27	23	8	3	79	32	58	45	24	7	20	8	0	0	409	313
Israel	3	8	16	26	6	10	15	20	4	5	65	72	8	7	7	4	5	6	3	5	295	301
Mexico	7	7	23	43	37	36	11	13	7	6	33	13	17	6	22	15	14	5	9	12	336	314
Norway	10	5	45	50	17	16	39	43	14	7	246	165	54	29	23	11	20	21	6	5	826	294
Spain	25	10	23	43	12	13	24	46	7	7	83	19	15	3	27	12	15	20	28	31	463	301
USA	17	5	85	93	50	76	63	108	33	32	185	116	12	14	17	6	53	26	15	13	1019	586

Canada

Samples	Natural Resources		Food, Beverages, Tobacco		Clothing and Related		Household Items		Entertainment and Leisure		Transportation Vehicles		Advanced Technology		Industrial Goods		Services and Miscellaneous		Agriculture and Fishing		Total Valid TOMA	Sample Size
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
Australia	29	24	13	8	10	12	3	5	12	6	11	8	4	0	12	5	42	21	102	110	437	300
Britain	68	53	48	45	19	14	3	5	6	7	5	6	4	3	7	5	38	35	120	145	636	303
Canada	612	456	257	252	208	299	83	107	100	88	259	165	283	157	105	66	297	292	501	500	5087	1519
France	48	28	12	20	17	19	4	3	11	4	40	3	7	1	3	11	39	16	92	102	480	301
Germany	67	44	10	9	15	8	2	2	6	2	6	4	7	3	10	2	41	23	90	66	417	295
Greece	104	94	20	31	29	45	9	12	4	5	13	13	3	4	20	23	6	6	56	57	554	332
Holland	97	70	20	13	19	23	2	1	11	10	19	1	7	0	16	4	20	14	84	75	506	300
Hong Kong	15	15	17	36	16	21	12	56	2	1	5	0	10	7	5	3	69	92	47	104	533	332
Hungary	20	25	11	12	9	13	6	8	8	13	6	4	3	6	17	17	9	4	21	18	230	303
Indonesia	40	16	14	18	13	19	5	7	9	5	7	7	8	2	10	5	30	19	14	8	256	313
Israel	14	12	13	10	10	19	8	10	4	4	6	1	6	11	4	0	9	9	16	15	181	301
Mexico	30	18	20	30	33	52	21	25	11	10	9	8	7	11	24	12	29	21	35	44	450	314
Norway	59	34	16	9	14	17	2	8	15	6	10	13	2	2	11	6	27	18	50	38	357	294
Spain	88	58	3	6	27	42	5	1	7	7	3	3	2	3	13	6	10	13	72	49	418	301
USA	97	65	162	134	19	29	9	15	13	14	17	3	7	2	15	7	82	67	112	72	941	586

Appendix 5

TOMA Responses versus Non-Responses ANOVA Tests

Oneway ANOVA

	F	Sig.
AUSTRALI	130.121	.000
BRITAIN	44.740	.000
CANADA2	328.240	.000
FRANCE	173.124	.000
GERMANY	119.880	.000
GREECE	142.440	.000
HOLLAND	107.124	.000
HONGKONG	253.456	.000
HUNGARY	117.358	.000
INDONESI	354.413	.000
ISRAEL	170.284	.000
MEXICO	127.707	.000
NORWAY	99.131	.000
SPAIN	176.840	.000
USA2	314.555	.000

Post Hoc Tests

Multiple Comparisons

Bonferroni

Dependent Variable	(I) target origin	(J) target origin	Sig.
AUSTRALI	canada	japan	.000
		sweden	.363
		usa	.000
		home	.000
	japan	canada	.000
		sweden	.000
		usa	.989
		home	.866
	sweden	canada	.363
		japan	.000
		usa	.000
		home	.000
	usa	canada	.000
		japan	.989
		sweden	.000
		home	.008
	home	canada	.000
		japan	.866
		sweden	.000
		usa	.008
BRITAIN	canada	japan	.000
		sweden	1.000
		usa	.000
		home	.000
	japan	canada	.000
		sweden	.000
		usa	.942
		home	.137
	sweden	canada	1.000
		japan	.000
		usa	.000
		home	.000
	usa	canada	.000
		japan	.942
		sweden	.000
		home	1.000
	home	canada	.000
		japan	.137
		sweden	.000
		usa	1.000
CANADA2	canada	japan	1.000
		sweden	.000
		usa	.349
		home	1.000

	japan	canada	1.000
		sweden	.000
		usa	1.000
		home	1.000
	sweden	canada	.000
		japan	.000
		usa	.000
		home	.000
	usa	canada	.349
		japan	1.000
		sweden	.000
		home	.349
	home	canada	1.000
		japan	1.000
		sweden	.000
		usa	.349
FRANCE	canada	japan	.000
		sweden	.002
		usa	.000
		home	.000
	japan	canada	.000
		sweden	.000
		usa	1.000
		home	.038
	sweden	canada	.002
		japan	.000
		usa	.000
		home	.000
	usa	canada	.000
		japan	1.000
		sweden	.000
		home	.480
	home	canada	.000
		japan	.038
		sweden	.000
		usa	.480
GERMANY	canada	japan	.000
		sweden	.000
		usa	.000
		home	.000
	japan	canada	.000
		sweden	.000
		usa	1.000
		home	1.000
	sweden	canada	.000
		japan	.000
		usa	.000
		home	.000
	usa	canada	.000
		japan	1.000
		sweden	.000
		home	1.000
	home	canada	.000

		japan	1.000
		sweden	.000
		usa	1.000
GREECE	canada	japan	.000
		sweden	.006
		usa	.000
		home	.000
	japan	canada	.000
		sweden	.000
		usa	.785
		home	1.000
	sweden	canada	.006
		japan	.000
		usa	.000
		home	.000
	usa	canada	.000
		japan	.785
		sweden	.000
		home	.429
	home	canada	.000
		japan	1.000
		sweden	.000
		usa	.429
HOLLAND	canada	japan	.000
		sweden	.000
		usa	.000
		home	.000
	japan	canada	.000
		sweden	.000
		usa	1.000
		home	.012
	sweden	canada	.000
		japan	.000
		usa	.000
		home	.000
	usa	canada	.000
		japan	1.000
		sweden	.000
		home	.001
	home	canada	.000
		japan	.012
		sweden	.000
		usa	.001
HONGKONG	canada	japan	.000
		sweden	.036
		usa	.000
		home	.000
	japan	canada	.000
		sweden	.000
		usa	.004
		home	.000
	sweden	canada	.036
		japan	.000

		usa	.000
		home	.000
	usa	canada	.000
		japan	.004
		sweden	.000
		home	.066
	home	canada	.000
		japan	.000
		sweden	.000
		usa	.066
HUNGARY	canada	japan	.000
		sweden	.000
		usa	.000
		home	.000
	japan	canada	.000
		sweden	.000
		usa	.371
		home	1.000
	sweden	canada	.000
		japan	.000
		usa	.000
		home	.000
	usa	canada	.000
		japan	.371
		sweden	.000
		home	.023
	home	canada	.000
		japan	1.000
		sweden	.000
		usa	.023
INDONESI	canada	japan	.000
		sweden	.000
		usa	.000
		home	.000
	japan	canada	.000
		sweden	.000
		usa	.603
		home	.008
	sweden	canada	.000
		japan	.000
		usa	.000
		home	.000
	usa	canada	.000
		japan	.603
		sweden	.000
		home	1.000
	home	canada	.000
		japan	.008
		sweden	.000
		usa	1.000
ISRAEL	canada	japan	.000
		sweden	.001
		usa	.000

		home	.000
	japan	canada	.000
		sweden	.000
		usa	1.000
		home	1.000
	sweden	canada	.001
		japan	.000
		usa	.000
		home	.000
	usa	canada	.000
		japan	1.000
		sweden	.000
		home	1.000
	home	canada	.000
		japan	1.000
		sweden	.000
		usa	1.000
MEXICO	canada	japan	.000
		sweden	.015
		usa	.000
		home	.000
	japan	canada	.000
		sweden	.000
		usa	1.000
		home	1.000
	sweden	canada	.015
		japan	.000
		usa	.000
		home	.000
	usa	canada	.000
		japan	1.000
		sweden	.000
		home	.206
	home	canada	.000
		japan	1.000
		sweden	.000
		usa	.206
NORWAY	canada	japan	.000
		sweden	.000
		usa	.000
		home	.000
	japan	canada	.000
		sweden	1.000
		usa	1.000
		home	1.000
	sweden	canada	.000
		japan	1.000
		usa	1.000
		home	1.000
	usa	canada	.000
		japan	1.000
		sweden	1.000
		home	1.000

	home	canada	.000
		japan	1.000
		sweden	1.000
		usa	1.000
SPAIN	canada	japan	.000
		sweden	1.000
		usa	.000
		home	.000
	japan	canada	.000
		sweden	.000
		usa	1.000
		home	.000
	sweden	canada	1.000
		japan	.000
		usa	.000
		home	.000
	usa	canada	.000
		japan	1.000
		sweden	.000
		home	.000
	home	canada	.000
		japan	.000
		sweden	.000
		usa	.000
USA2	canada	japan	.000
		sweden	.993
		usa	.000
		home	.000
	japan	canada	.000
		sweden	.000
		usa	.322
		home	.322
	sweden	canada	.993
		japan	.000
		usa	.000
		home	.000
	usa	canada	.000
		japan	.322
		sweden	.000
		home	1.000
	home	canada	.000
		japan	.322
		sweden	.000
		usa	1.000

* The mean difference is significant at the .05 level.