

**An Application of Hofstede's Values Survey Module with Aboriginal and Non-
Aboriginal Governments in Canada**

by

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Abstract: The Values Survey Module questionnaire was administered to the willing employees of 10 Aboriginal governments and four non-Aboriginal governments in Canada. Each government is affiliated with one of the Algonquin, Athabaskan or Anglo-Canadian ethno-linguistic traditions. Indices on five dimensions of culture were calculated for each participating government using the VSM formulas. Owing to the small number of participating governments, an alternate method that is based on the VSM was also developed to explore the data.

The study hypothesized that differences would be found in the indices of governments that do not share the same ethno-linguistic tradition. Statistical tests were conducted to determine whether the VSM and the alternate method could identify differences in the indices of culturally different groups. Tests were conducted typically between two groups, i.e., Aboriginal and non-Aboriginal governments, and among three groups, i.e., Algonquin, Athabaskan and non-Aboriginal governments.

The tests confirmed that the VSM and the alternate method are able to identify differences among culturally different groups and showed that the alternate method is better able than the VSM to find differences among small numbers of groups. The results support some of the predictions in the Canadian management literature about the relative positions of the VSM indices of Aboriginal and non-Aboriginal groups. The research shows that Aboriginal groups in Canada are culturally diverse and that comparisons that are made at the level of Aboriginal and non-Aboriginal groups mask differences that become evident when analyses are conducted at the level of three or four groups.

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An Application of Hofstede's Values Survey Module with Aboriginal and Non-Aboriginal Governments in Canada

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An Application of Hofstede's Values Survey Module with Aboriginal and Non-Aboriginal Governments in Canada

1. Introduction and Purpose

Geert Hofstede's values survey module (VSM) and its framework describing five dimensions of culture have become well established in organization studies over the last 30 years. The VSM approach, however, is controversial and has been criticized for methodological and theoretical reasons (Sivakumar and Nakata, 2001, McSweeney, 2002, Baskerville, 2003, and Cray, 2006). Nevertheless, researchers continue to apply the VSM approach enthusiastically (Punnett and Withane, 1990, Kirkman *et al* , 2006, Cray, 2006). It has become the best known and most widely applied approach for comparative studies in cross-cultural management (Dorfman and Howell, 1988, Fernandez *et al* , 1997).

Hofstede's five dimensions of culture, which are examined in detail in chapter two, are called "power distance", "uncertainty avoidance", "individualism-collectivism", "masculinity-femininity" and "long term orientation". This research applies Hofstede's approach in the context of certain Aboriginal and non-Aboriginal governments in Canada. There are three broad objectives. The first one is simply to identify a profile for the participating governments by calculating, for each of them, VSM indices for the five dimensions of culture. The indices for the Aboriginal governments are expected to reflect some aspects of the Aboriginal cultures that underlie those governments and, by extension, some aspects of Aboriginal culture more generally. The indices for the non-

Aboriginal governments are also expected to reflect some aspects of the culture of the local communities that underlie those governments and, by extension, some aspects of Anglo-Canadian culture

The second objective is to test whether the VSM framework can identify differences among the governments of societies that are known to be culturally different. In the context of this study, this effectively tests whether the framework works at the level of sub-national cultures, such as those of the Aboriginal societies that have been subsumed within Canadian society. Even though Hofstede (1991: 16) made the point that VSM indices can be calculated validly for regional, ethnic and religious cultures, the approach has been applied more often at the levels of national culture, organizational culture or occupational culture than at the level of sub-national societal cultures. The VSM approach has also not often been applied in Aboriginal societies or with indigenous societies that have been subsumed within a modern nation state. The values of Aboriginal societies, as they are revealed by the VSM, have not received much academic attention¹

The anthropological literature from the twentieth century includes a great deal of material about the ethno-linguistic classifications of world cultures, including North American Aboriginal cultures. If one accepts as a starting point the classifications of cultures and the relationships among cultures that have been developed by anthropologists, then the indices for the governments that participated in this study form a basis for testing whether

¹ The VSM indices that Professor Ray Simonsen calculated for an unidentified group of Aboriginal Australians form a notable exception and will be discussed in a later section of this study. The indices that Simonsen calculated were presented in *Culture's Consequences* (Hofstede 2001: 501)

the VSM framework can identify differences among sub-national groups that are culturally dissimilar. Findings that the framework produces significantly different indices for the governments of Aboriginal societies that are defined in the anthropological literature as being culturally different, or that it does not produce significantly different indices for the governments of Aboriginal societies that are known to be culturally similar, were interpreted as evidence that the VSM framework works at the level of sub-national Aboriginal cultures in Canada.

The third objective is to analyze differences and similarities between the cultures of Aboriginal societies and the national culture of Canadian society using the indices for Hofstede's five dimensions of culture. This part of the study incorporates tests of some predictions in the Canadian management literature about how the VSM indices for Aboriginal organizations and societies are expected to compare with the indices for non-Aboriginal organizations or societies.

Canada's Aboriginal population includes Status Indians, non-Status Indians, Inuit and Métis. The report of the Royal Commission on Aboriginal Peoples projected the size of Canada's total Aboriginal population to be just over 811,400 for 1996 (Canada 1996: 15). Federal records for 2009 show that the Status or registered Indian element of the Aboriginal population by itself numbered approximately 809,000 persons. Most of those persons were then affiliated with one of about 615 First Nations situated throughout the country. Approximately 452,000 Status Indians (roughly 55%) live on Indian reserves or lands set aside for Indians (Canada, 2009).

The 615 First Nations in Canada are associated with approximately 50 Aboriginal languages representing 10 major language families (Norris, 2007). As might be expected, substantial differences in social organization patterns, religion, and annual routines have been identified among various types of Aboriginal societies. Aboriginal societies in Canada are culturally diverse and not necessarily similar to one another or uniformly different from Canadian national society.

From the perspective of this study, differences in the cultures and values of Aboriginal societies in Canada are expected to persist and to remain observable in spite of pressures that might operate toward the convergence of Aboriginal cultures and values with the culture and values of the larger Canadian society. This study adopts the view that, while Aboriginal societies are part of Canadian society, they continue to be culturally distinct subsets of Canadian society. This study is based on the idea that the VSM indices for the participating Aboriginal governments will reveal some of the cultural characteristics of those governments and some of the cultural characteristics of the local societies underlying those governments.

The interactions between Aboriginal societies and Canadian society or between Aboriginal organizations and non-Aboriginal organizations may be regarded in some respects as occurring within a cross-cultural context. The concept of culture is defined in many ways. One of the better known definitions, which have been adopted for this study, is attributed to Clyde Kluckhohn. For Kluckhohn, culture “ consists in patterned ways of thinking, feeling and reacting, acquired and transmitted mainly by symbols,

constituting the distinctive achievements of human groups, including their embodiments in artifacts, the essential core of culture consists of traditional (i.e., historically derived and selected) ideas and especially their attached values”² In Hofstede’s (2001) conceptualization, culture is the “collective programming of the mind that distinguishes the members of one group or category of people from another” For Kluckhohn and Hofstede, the values system adopted by each individual is a core element of culture Like most other elements of the social culture that surrounds us from infancy, values tend to be not well understood at a conscious level and not easily described or communicated They are basic truths and interpretations that individuals hold centrally and apply automatically and, because they are broadly accepted within the society of which the individual forms a part, they do not require explanation or rationalization Values are not directly observable but may be inferred or interpreted through language and discourse and from behaviours that are observable

If the characteristic values of Canadians are not easily accessible or understandable, then the values of the Aboriginal subcultures within Canada are even less well understood by Canadians generally Canadians likely have a more accurate understanding of the characteristics of many external societies than they do of the Aboriginal societies that form part of Canadian national society The similarities and differences between the culture of Canadian society and the cultures of the Aboriginal societies within Canada are poorly and imperfectly understood The similarities and differences among the cultures

² Kluckhohn, C (1951) “The Study of Culture”, in D Lerner and H D Lasswell (Eds), *The Policy Sciences* (pp 86-101) Stanford, CA Stanford University Press as quoted in Hofstede (2001 9)

of the various Aboriginal societies in Canada are likely even less well understood by Canadians

As a step toward the development of a better understanding, Hofstede's VSM questionnaire was presented to and answered by the employees of 10 First Nation governments and four non-Aboriginal governments in Canada. Indices for Hofstede's five dimensions of culture were calculated for the participating governments. Obviously, indices along five dimensions of culture cannot provide a complete characterization of any culture but they do provide a shorthand technique for measuring and making basic comparisons of certain aspects of culture in different societies.

This research is important for practical and theoretical reasons. The Canadian management literature speculates about the VSM indices for Aboriginal organizations and societies in Canada but the VSM has not previously been applied directly in that context. The research shows that Hofstede's framework can usefully be applied in the context of Aboriginal cultures in Canada. Applying the VSM in this research context has extended that framework to include those sub-national cultures. The field of cross-cultural management will benefit from a new set of indices for Aboriginal societies within the Canadian nation. The research demonstrates that the Hofstede framework works in the context of indigenous societies that have been subsumed by modern nation states. Certainly hundreds and possibly thousands of indigenous societies have been subsumed globally by modern nation states.

Potentially, the research can also have practical benefits for the participating Aboriginal communities. The indices that were calculated for the Aboriginal governments convey some of the cultural characteristics of those groups. The participating Aboriginal governments will be able to appreciate the position of their VSM profile within the larger contexts of culturally similar Aboriginal groups, all participating groups, the rest of Canadian society and other societies outside Canada.

The survey that was used for this study includes many questions beyond the ones that are used for calculating the VSM indices. The participating government organizations should be able to interpret their dimensional indices and the other results from the VSM survey for a variety of local management purposes and in their interactions with other Aboriginal and non-Aboriginal groups. The results from the VSM surveys provide data and insights for organizational design, the development of rewards and performance incentives for employees, leadership development, the management of Aboriginal organizations and for the Aboriginal government's negotiations with other groups.

The results from the research make it easier for the participating Aboriginal governments and societies to understand how they are different from and similar to other Aboriginal governments and societies or the rest of Canada. The results can also help to dispel simplistic notions that Canadian society is homogeneous or that all Aboriginal societies are culturally similar and uniformly different from the rest of Canadian society. The VSM indices hold the promise of being useful for improving understandings and interactions among societies.

Following World War II, when the American economy was dominant among global economies, American management theory was frequently exported internationally based on the implicit assumptions that a general theory of management could be attained and that a universal set of management principles could be applied internationally. In the closing decades of the century, however, management theorists and researchers came to realize that American theories and management practices are themselves culture-bound and have to be applied with caution in different cultural contexts (Pavett and Morris, 1995)

There is now a general recognition that optimal performance requires multinational business operations to be sensitive to the cultural differences between home and host countries. Management practices have to be adapted to local cultures (Newman and Nollen 1996). Initiatives and approaches that are developed in and appropriate for one culture might not be as well suited for or might even conflict with other cultures. It has been established in the field of comparative management that, in striving for particular performance outcomes, managerial styles ought to be mutually understood and that performance expectations may well not be achievable if management philosophies and practices of one society are simply exported or transferred to another society (Hofstede 1999)

To illustrate the perspective of this study, transfer payments from the Government of Canada to the Aboriginal governments are based in part on an expectation of compliance with national or provincial programming standards. In adopting a view that Aboriginal

communities are part of Canadian society, it makes sense that national and provincial values would be evident in program standards for education, health care, social services, construction and maintenance of infrastructure, environmental assessment, government accountability and the administration of justice. However, in adopting an alternate view that Aboriginal societies within Canada are not culturally similar to one another or to Canadian society, it perhaps makes less sense to assume that practices and standards based on Canadian or provincial cultural values can be directly transferable to or translatable within Aboriginal cultures or subcultures. Frictions that are attributable to deeply rooted cultural differences are more likely to become evident in transactions and interactions.

Improved understandings about cultural similarities and differences that may emerge from this study could be helpful for reducing such friction and improving the productivity of other interactions among Aboriginal organizations and societies and between Aboriginal societies and the rest of Canadian society. Where Aboriginal groups work or interact with other Aboriginal groups or with Canada it will be useful for all parties to adapt their expectations and possibly their management practices to accommodate the culture of other interacting parties. That type of sensitive approach or response calls for a systematic, comparative understanding of the interacting cultures. Interactions that are managed in a fashion that is consistent with the national and sub-national cultures can be expected to be more successful and productive than interactions that are managed without regard to cultural differences.

Both the range and number of opportunities for interactions between Aboriginal communities and the rest of Canadian society are increasing. During the last two decades there has been rapid growth in reserve-based commercial and retail activity, particularly for urban First Nations. There are indications that the private sector is showing a renewed interest in operating from reserve locations and entering into business ventures with Aboriginal groups.

The field of cross-cultural management might reasonably be expected to make a positive contribution in this context. In an environment of interacting societies, cross-cultural studies offer the hope of being better able to understand similarities and differences in organizational behaviour and the management practices of the interacting groups. So long as there are points of contact and interactions among different groups, such as in international business, joint ventures or exchanges of managerial expertise among different societies, cross-cultural research is useful for improving the productivity of joint undertakings, enhancing understanding and reducing ethnocentrism.

Personally, I have become aware of some cultural differences among Aboriginal societies in Canada based on my work with hundreds of Aboriginal governments over a career of more than 30 years. I have come to believe that understanding Aboriginal societies in terms of their particular cultures is more useful than understanding them more generally as Aboriginal groups. I also believe that governments, universities, businesses and even Aboriginal institutions in Canada become more effective in their work when they differentiate among, and try to understand, Aboriginal societies in terms of their cultures.

2. Overview of Hofstede's Approach

Hofstede's work is based on an appreciation that the effects of culture are pervasive and can be seen in the behaviours of individuals and the management of organizations. Hofstede had access to approximately 116,000 survey questionnaires that had been completed by more than 80,000 employees of the IBM Corporation in two periods during the late 1960s and early 1970s. The employees worked in IBM's offices in more than 40 countries and they were similar in respect of many traits. They tended to be middle-aged, well educated, professional men working in similar jobs for the same corporation. The survey results, however, showed marked differences in the employees' values across the participating countries. By means of factor analysis, Hofstede identified certain "dimensions of culture" that accounted for much of the variance that he found in the survey responses of IBM employees in different countries. The four dimensions of national culture that Hofstede identified initially are referred to as "power distance", "uncertainty avoidance", "individualism-collectivism" and "masculinity-femininity". Later, in collaboration with Bond, Hofstede identified a fifth dimension of culture, referred to originally as "Confucian dynamism" (Hofstede and Bond, 1988) and more recently as "long term orientation" (Hofstede 2001).

2.1 Power Distance: Underlying the concept of power distance is the issue of human inequality. Individuals differ in terms of their power, wealth and prestige among other things. Groups, organizations and societies also differ in the extent to which they value the idea of equality of status among individuals or members. The power distance dimension of Hofstede's framework concerns the extent to which the less

powerful members of groups, organizations, institutions or societies accept the fact that power is distributed unevenly. Hofstede's approach assumes that within each organization or society there is a level of power distance where the inherent tensions between those individuals with more power and those with less power establish equilibrium.

The power distance (PD) index is a numerical expression of that equilibrium point and, in Hofstede's work it is typically expressed at the level of national cultures. Persons in higher power distance cultures tolerate larger differences in the distribution of power than persons from lower power distance cultures. Hofstede claims that the countries of what he calls the "Roman Empire", comprising all of the Latin countries in Europe and the Americas, show relatively high PD index values, whereas all of what he calls the "Germanic" countries, including the English speaking ones, show lower PD index values (2001: 119).

According to Hofstede (2001: 97) inequality in a low PD society appears to be regarded as a necessary evil that should be minimized whereas, in a high PD society, inequality appears to be regarded as an important basis of social order. Hierarchies are evident in low PD countries just they are as in high PD countries. In low PD countries, however, hierarchies tend to be viewed as arrangements of convenience. In high PD countries, hierarchies tend to be viewed as natural outcomes and superiors in organizations are more likely to be regarded as also being superior persons. In Hofstede's view, there is a latent conflict or tension between the powerful and the powerless in societies that are

characterized by high PD, whereas, harmony between the powerful and the powerless is the ideal model in societies that are characterized by low PD (2001 97)

In an organizational context, Hofstede (2001 83) conceives of power distance as a measure of the interpersonal power or influence between a boss and a subordinate as perceived by the less powerful member of the dyad. The power distance between the boss and the subordinate in a hierarchy is expressed as the difference between the extent to which the boss can determine the behaviour of the subordinate and the extent to which the subordinate can determine the behaviour of the boss. According to Hofstede, power distance defined in that manner, which is tolerated by organizational or societal members and reinforced in their social environment, is determined to a large extent by national culture.

Hofstede discusses four role pairs that impact most individuals and provide opportunities for replicating and reinforcing the power distance dimension in most societies. These are the parent-child role pair of the family, the teacher-student role pair of formal education, the boss-subordinate role pair of the workplace and the authority-citizen role pair that concerns relations between the individual and the state.

Hofstede (2001 105) makes the point that privileges (or private laws) for superiors would be considered more normal in high PD cultures. In low PD cultures, it would more commonly be undesirable for hierarchical superiors to enjoy special privileges. In

cultures demonstrating low PD, for example, all employees might expect to use the same parking lots, restrooms, and cafeterias

Hofstede's analysis (1991: 29, 2001: 89) determined that the power distance index could also be computed meaningfully in terms of occupational status or hierarchy. He found lower status occupations to be associated with higher PD values and higher status occupations to be associated with lower PD values. He also determined that the tendency for managers to produce lower PD values than non-managers was observable across occupational categories. The observed differences in PD scores across occupations were more evident for countries with low PD scores (Hofstede 2001: 79).

Hofstede (2001: 105) determined that wage ratios between chief executives and workers were significantly positively correlated with the PD index of the national culture. As country PD increases, the gap between the wages of workers and the salaries of chief executives increases. Hofstede indicated that PD is negatively correlated with geographic latitude, positively correlated with population size, and negatively correlated with wealth (2001: 116-117). Hofstede found no strong evidence of power distance indices converging over time (Hofstede 1991: 47).

2.2 Uncertainty Avoidance Uncertainty about the future is a fact of existence and Hofstede's uncertainty avoidance (UA) index reflects how comfortable a given society is with various kinds of ambiguity. In Hofstede's view (2001: 145), technology, law and religion are the means by which cultures try to cope with uncertainty. Within

organizations, technology, rules and rituals are applied for similar reasons. In Hofstede's (2001: 161) one-line definition, an uncertainty avoidance index is a representation of the extent to which the members of a society or culture feel threatened by uncertainty or unknown situations. A sentiment expressing strong uncertainty avoidance would be that differences are dangerous while a related sentiment expressing weak uncertainty avoidance would be that differences arouse curiosity. Uncertainty can also be expressed in terms of higher anxiety levels. Members of societies with a strong tendency toward uncertainty avoidance typically exhibit higher levels of anxiety and aggressiveness.

The need for rules corresponds to a given culture's tendency to avoid uncertainty. Hofstede differentiates uncertainty avoidance from risk avoidance. When uncertainty is expressed in probabilistic terms as risk, it ceases being a form of generalized anxiety although it may then become a source of discrete fear. Cultures that rank lower on the uncertainty avoidance dimension are more comfortable with ambiguity and the unknown than cultures that score higher. In cultures with higher UA indices, one would expect to find more regimentation and formality because regulatory frameworks have the effect of decreasing uncertainty. From the IBM data, Hofstede found a positive relationship between country UA and overall employment satisfaction and a strong positive relationship between country UA and the average age of respondents.

Family life in more uncertainty avoidant countries is more stressful than in less uncertainty avoidant countries. Children in higher UA societies are exposed to stronger systems of rules, are more likely to be taught that the world is a hostile and potentially

threatening place, are less likely to be encouraged to experience new and different situations and are more inclined to feel guilty and sinful. Children in lower UA societies are exposed to weaker rule systems, are more likely to be taught that the world is benevolent and are more likely to be encouraged to experience new situations. A given society's index on the uncertainty avoidance dimension is positively correlated with employment stability in the workplace. Uncertainty avoidant societies are often characterized by expectations and requirements for citizens to carry and to produce on demand personal identity cards. According to Hofstede (2001: 176), the predominant religion of countries with higher uncertainty avoidance norms tend to stress to absolute certainties and to manifest hostility toward other religions.

In terms of the UA index, Hofstede found no evidence of convergence (Hofstede 1991: 111) in the data that were collected from IBM employees in two periods, from 1967 through 1969 and from 1971 to 1973. In Hofstede's view, the uncertainty avoidance dimension would not be useful for measuring longitudinal culture change (2001: 181).

2.3 Individualism-Collectivism: Human societies differ in the degree to which they demonstrate sociability and gregariousness. A given society's index on the individualism-collectivism dimension of culture is a measure of the relationship between individuals and the collectivities in that society. The concept of self and the extent to which the self is perceived as being a part of, or independent from, the larger group are fundamental elements that underlie the individualism-collectivism dimension.

According to Hofstede's definition, a society in which the ties between individuals are loose and in which members are expected to concern themselves primarily with the well-being of their immediate rather than extended family is characterized as individualistic. Persons in more individualistic societies construe themselves as being independent, autonomous and self-contained (Markus and Kitayama 1991: 226)

Hofstede defines collectivistic societies as those in which members are more fully integrated from birth into a cohesive group that continues to protect members throughout their lifetime in exchange for their unquestioned loyalty (Hofstede 2001: 225). According to the interdependent construal of "self" in collectivist societies, the self becomes most meaningful and complete when it is situated within a web of appropriate social relationships (Markus and Kitayama 1991: 227). Persons in more collectivistic cultures have a more interdependent or sociocentric identity because the definition of self is construed as being within group membership (Bochner 1994: 274)

Some researchers have argued that, at the level of individuals rather than societies, the individualism-collectivism dimension can be better appreciated as two separate, unipolar, dimensions rather than as one bipolar dimension that situates extreme individualism at one end and extreme collectivism at the other end. Hofstede (2001: 216) recognizes that variables can behave differently at the levels of individuals and societies and he accepts that within individualistic and collectivistic societies, particular individuals may display both self-centred and social-context-centred attitudes and behaviours. Overall however, he contends that, at the level of societies, individualism and collectivism should properly

be considered to be the opposing poles of a single dimension rather than two distinct dimensions

A societal orientation toward individualism or collectivism is reflected in how people live together. It also affects and is reinforced by the structure and functioning of institutions outside the family. Under Hofstede's approach, the degree of individualism or collectivism that is exhibited by a given society would be revealed by the relationships between individuals and the organizations to which they belong. Persons who are members of more collectivistic societies are expected to exhibit a greater attachment to their organizations than persons who are members of more individualistic societies. Hofstede readily admits, however, that the degree of individualism that characterizes organizations within a society also depends on factors separate from the larger societal orientation toward individualism or collectivism (Hofstede 2001: 213).

According to Hofstede, most people in the world are born into collectivistic societies and into families that live together. Growing up in those environments, children learn to perceive themselves as members of a larger group. Membership in a group is determined at birth and is not a matter of voluntary association. In Hofstede's view, the group becomes the basis for the member's self-identity and the group offers its members security and safe refuge from the challenges presented by life. Throughout life, the individual remains attached to and owes loyalty to the group and shares a special bond with other members of that group (Hofstede 2001: 225).

Hofstede (2001: 228) indicates that collectivistic societies not only more fully integrate group members through horizontal connections to the group and other group members, but that they also exhibit stronger vertical integration of members in that individuals in collectivistic societies tend to form closer attachments to parents, grandparents and other elders than do the members of individualistic societies

In Hofstede's view, a minority of the world's population is born into individualistic societies, where the interests of individuals prevail over the interests of the group (Hofstede 2001: 225). Children in individualistic societies tend to be born into nuclear, rather than extended, families. Increasingly, children in individualistic societies mature to adulthood in, and may even be born into, single-parent families. The members of individualistic societies exhibit looser attachments to the larger group, both horizontally and vertically. Younger members frequently move out of the family home in adolescence or early adulthood to live independently, thereby further reducing contact with their nuclear family of birth. In old age, members are relocated to institutions where their needs are attended to by specialized caregivers rather than by family members.

Members of individualistic societies tend to enjoy a greater degree of personal privacy than members of collectivistic societies. Children in a collectivist society, for example, are rarely left alone or in the care of non-group members. Hofstede (2001: 228) asserts that, in most collectivist cultures, children take on the views and opinions that are espoused by the group and direct confrontations with other persons are considered to be rude. In more individualistic societies, on the other hand, children are encouraged to

develop their own opinions and speaking one's mind may be regarded positively and may not necessarily be considered rude

The normative relationships between the individual and the group, to which members are first exposed as children in the family home, are further developed and reinforced at school, in the workplace and in other settings outside the home. Hofstede (1991: 62, 2001: 234) indicates that, in collectivist societies, students from different ethnic or clan backgrounds might form subgroups in a school class. In those settings, students from the same ethnic or family background as the teacher or other school officials often expect and may be accorded preferential treatment on that basis. In individualistic societies, such treatment would likely be regarded as unfair but in collectivistic societies it would more likely be considered unreasonable to withhold such preferential treatment from group members.

Hofstede generalizes that employees in individualistic societies would be expected to act rationally according to their own best interests and that work in organizations should ideally be arranged such that an employee's self-interest coincides with the employer's interests. In a collectivistic society, on the other hand, where each individual is also a member of a group, the employees of an organization often act according to the interests of their groups, which may not always coincide with their individual interests or those of their employer (Hofstede 1991: 63, 2001: 235).

For Hofstede (1991: 65, 2001: 241), management in individualistic societies and organizations implies management of individuals. Subordinate employees, for example, may be moved as individuals within an organization and incentives or bonuses, if any, may appropriately be linked to the performance of individuals. In collectivistic societies and organizations, however, management implies management of groups and incentives and bonuses, for example, might more appropriately be offered to work groups instead of to high performing individuals.

In individualistic societies the norm is to treat everybody in the same manner. Extending preferential treatment to some customers but not others would be considered unreasonable or an unethical business practice. In collectivistic societies, however, classifying persons as being either group members or non-group members is automatic and offering preferential treatment to group members would be regarded as a natural and not unreasonable business practice (Hofstede 1991: 65, 2001: 245). In individualist societies, the task is supposed to prevail over any personal relationships, whereas in collectivist societies, personal relationships prevail over tasks (Hofstede 1991: 67).

Hofstede (2001: 245) contends that both geographically and historically, individualism is associated with market capitalism and political democracy. His analysis showed the degree of individualism that a society exhibits is strongly positively correlated with the country's national wealth measured in terms of gross domestic product per capita. While the direction of causality cannot be established from the statistical correlation, Hofstede considers it more plausible that national wealth causes individualism than that

individualism causes wealth. Hofstede's explanation of the causation is that poverty tends to make members depend on their groups for support but, as a country's overall gross domestic product per capita increases, members become better able to do as they please and collective aspects of life are overtaken by individualism. Following that logic, Hofstede explains that the differences he found in the individualism-collectivism indices of various countries can be attributed primarily to differences in levels of economic development (Hofstede 1991: 54, 2001: 253).

Two of Hofstede's other comments in his explanation of the individualism-collectivism dimension of culture are interesting in the context of this research. Hofstede noted that different ethnic, linguistic or religious groups are often situated within larger national societies or can be found within the borders of a given country and that the national cultures of the various nations of the world exhibit different degrees of homogeneity (2001: 248). He also noted that within countries that have a dominant individualist middle-class structure, regional and rural subcultures occasionally retain strongly more collectivistic characteristics (1991: 65, 2001: 240). Hofstede therefore seems to allow the possibility that, within an individualistic society like Canada, Aboriginal societies could exhibit greater collectivism than the national society. In Hofstede's view, evidence of convergence among country indices would most likely be observable along the individualism-collectivism dimension because of the strong relationship between national wealth and individualism (Hofstede 1991: 77).

2.4 Masculinity-Femininity: The fundamentally binary nature of human sexuality, in which the overwhelming majority of persons are either males or females, is another basic fact of life that is addressed in different ways by different societies. The underlying issue for the masculinity-femininity dimension is that the biological differences between the sexes have implications for the social roles that individuals learn and adopt for themselves or assume for others.

The predominant, global socialization patterns are for men to be more assertive and to attach more importance to “ego” goals and for women to be more nurturing and to attach more importance to “social” goals. In the sense that Hofstede uses the terms, “masculinity” refers to the predominant gender role pattern of male toughness and assertiveness and “femininity” refers to the predominant gender role pattern of female nurturance and tenderness. Hofstede (2001: 294) readily admits, however, that all men in all societies do not always behave in a more masculine manner than all women in all societies and, similarly, that all women do not always behave in a more feminine manner than all men in all societies.

As with the individualism-collectivism dimension, some researchers have argued that, at the level of individuals rather than societies, the masculinity-femininity dimension can be better appreciated as two separate, unipolar, dimensions rather than as one bipolar dimension that situates extreme femininity at one end and extreme masculinity at the other end. Hofstede (2001: 292) contends, however, that societies are statistically predominantly either masculine or feminine in their orientation, just as they are

predominantly either individualistic or collectivistic, even though individuals may display behaviours reflecting both individualistic and collectivistic orientations

Accordingly, Hofstede's definitions of "femininity" and "masculinity" are based on his appreciation of masculinity-femininity as being a single, bipolar, dimension. In feminine societies, social gender roles tend to overlap. Both men and women are supposed to be modest, tender and concerned with the quality of life. Social gender roles tend to be more clearly differentiated in masculine societies. In masculine societies, men are understood as being tougher, more forceful and aggressive and more focused on material success. By contrast, women in masculine societies are supposed to be more tender, more modest and more concerned with quality of life.

Attitudes and beliefs about sex role distributions in a particular society are shaped by socialization in families, schools, peer groups, and through the media. Gender-related values and behaviours are taught in numerous and subtle ways from a very early age. Both genders exhibit "tougher" or more "masculine" values in masculine societies and both genders exhibit more "tender" or "feminine" values in feminine societies. In masculine societies, both boys and girls learn to be competitive and ambitious. In feminine countries both boys and girls learn to be non-ambitious and modest.

Hofstede makes the point that only a small part of gender role differentiation is biologically determined and that gender role patterning is largely a matter of cultural choice and socialization. The meaning of work, as an element of an individual's life, is

affected by a society's index for the masculinity-femininity dimension. The allocation of job types between the sexes is a matter of cultural convention. Hofstede indicates that the characteristics of an idealized "management hero" would differ for masculine and feminine societies. The management hero for a masculine society would be forceful, decisive and aggressive. The management hero for a feminine society would be more supportive, less visible, less decisive and more inclined to seek consensus. Hofstede (2001: 313) asserts that both masculine and feminine societies, however, would likely attribute above-average intelligence, resourcefulness and drive to their respective management heroes.

In a masculine culture, an ideal job would provide opportunities for recognition, advancement and challenge whereas, in a feminine culture, the essence of an ideal job might be found in cooperation at the workplace and in a positive working atmosphere in the workplace (Hofstede, 2001: 317). In the IBM data that Hofstede analyzed, he found clear indications of gender differences among the respondents with men attaching greater importance to earnings and advancement and women attaching greater importance to having good relations with direct supervisors and working with people who cooperate well together (Hofstede, 1991: 81).

Hofstede summarized that a preference for things over people characterizes a society as being masculine. Conversely, a preference for people over things would indicate a feminine society. Hofstede (2001: 320) believes that governments in masculine societies are more likely to sacrifice the environment for economic development and that

governments in feminine societies would be more likely to sacrifice economic growth for the sake of the environment

Hofstede (2001: 331) found significant correlations between country latitude and index scores for the masculinity-femininity dimension. Lower latitudes corresponded with higher masculinity index scores. He also found significant correlations between the size of a country's population and its index for the masculinity-femininity dimension. Larger populations corresponded with higher masculinity index scores. Hofstede (1991: 105, 2001: 333) found no evidence of convergence over time of index scores for the masculinity-femininity dimension.

2.5 Confucian Dynamism and Long Term Orientation: During the 1980s, Bond with the input of Chinese social scientists in Hong Kong, who together came to be known as the Chinese Culture Connection, conducted and published a study that was based on a list of 40 fundamental values for Chinese people, rather than on Western social science (Chinese Culture Connection, 1987). Between 1983 and 1985, about 100 students in each of 22 countries answered a "Chinese Values Survey" (CVS) questionnaire, which was derived from the 40 values. The subsequent analysis of students' responses identified four cultural factors, which were labelled "Confucian work dynamism", "integration", "human-heartedness", and "moral discipline". Confucian dynamism is a measure of the acceptance of the legitimacy of hierarchy and the valuing of perseverance and thrift. Integration is an index of the degree of tolerance, harmony and friendship that a society endorses at the expense of competitiveness. Human-

heartedness is a measure of patience, courtesy and kindness, and moral discipline is a measure of rigid distance from the affairs of the world

The Chinese Cultural Connection claimed that the four CVS measures were unrelated to one another and, further, that the Confucian dynamism factor was unrelated to any of Hofstede's (1980) dimensions. They found that the three other CVS factors were significantly correlated with one or more of the Western measures. The relationships that they identified between the CVS cultural factors and Hofstede's (1980) four dimensions of culture are illustrated in Table 1

| Cultural Factors/Dimensions | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|----------|----------|----------|----------|----------|----------|----------|----------|
| 1 CVS Integration | | 05 | 06 | 16 | - 58 | 06 | 65 | 11 |
| 2 CVS Confucian Dynamism | | | 02 | - 11 | 23 | 22 | - 32 | 08 |
| 3 CVS Human-heartedness | | | | 07 | 13 | - 04 | - 05 | 67 |
| 4 CVS Moral Discipline | | | | | 55 | 36 | - 54 | 22 |
| 5 VSM Power Distance | | | | | | - 02 | - 77 | 09 |
| 6 VSM Uncertainty Avoidance | | | | | | | - 22 | 22 |
| 7 VSM Individualism-Collectivism | | | | | | | | 08 |
| 8 VSM Masculinity-Femininity | | | | | | | | |

A quick inspection of the table, however, makes one wonder whether there might not be a relationship between Confucian dynamism and individualism-collectivism. Table 1 shows that the individualism-collectivism dimension seems to be correlated with many other factors or dimensions. A subsequent section of the dissertation, which concerns some of the issues that have been raised about the various dimensions of Hofstede's

framework, examines the dissenting views of Yeh and Lawrence (1995) about the presumed independence of Confucian work dynamism from the individualism-collectivism factor

In the view of the Chinese Culture Connection, Table 1 illustrates that the CVS method did not identify a factor similar to Hofstede's uncertainty avoidance dimension and that Hofstede's (1980) dimensions of culture did not include a dimension similar to the CVS's Confucian work dynamism factor. The Confucian work dynamism factor was found to be strongly related to the rates of national economic growth over the period from 1965 to 1985 across the countries covered by the CVS survey. The economic powers of the 1980s, including Taiwan, Hong Kong, Japan, South Korea and Singapore, were all situated at the high end of the Confucian dynamism factor. The Chinese Culture Connection suggested that Confucian work dynamism reflects a social philosophy that was hypothesized to have been responsible for the rapid economic development that was then underway in those Eastern societies.

Franke, Hofstede and Bond (1991) later argued that Hofstede's individualism-collectivism dimension was also significantly correlated with rates of national economic growth. In the 1990s, however, Hofstede incorporated Confucian dynamism into his VSM framework as a fifth dimension of national culture. Other researchers generally have not responded to this fifth dimension with the same enthusiasm that they have shown for Hofstede's four original dimensions. Yeh and Lawrence (1995), who questioned the presumed independence of Confucian dynamism from individualism-

collectivism, were also critical of the suggested link between national culture and economic growth³

2.6 VSM Indices for Certain National Cultures: Annex 1-1 sets out four cultural indices for each of 40 countries as presented in the first edition of *Culture's Consequences* (Hofstede, 1980) Annex 1-2 sets out four or five indices for each of 50 countries and three regions from the second edition of *Culture's Consequences* (Hofstede, 2001) Annex 2 shows the statistical correlations among the indices for four dimensions of culture from Hofstede (1980) A clear negative relationship can be seen between the power distance and the individualism-collectivism dimensions A weaker, but nevertheless significant, relationship can also be seen between the uncertainty avoidance and the individualism-collectivism dimensions Annex 2 also confirms an observation by Cray and Mallory (1998: 50) that the individualism-collectivism and masculinity-femininity dimensions from *Culture's Consequences* (Hofstede, 1980) appear to be entirely orthogonal

³ After the questionnaire for this study had been drafted, tested and set, two other dimensions of culture were added to the VSM They are the "indulgence versus restraint" and "monumentalism versus self-effacement" dimensions Indices along the "indulgence versus restraint" dimension situate cultures along a continuum Indulgent cultures that are permissive about the gratification of desires and feelings concerning leisure, enjoyment of friendship, spending, consumption and sex are located at one pole Restrained cultures that are more controlling of gratification and whose members feel less able to enjoy their lives are located at the other pole Indices on the "monumentalism versus self-effacement" dimension also situate cultures on a continuum In monumentalist cultures, individuals are rewarded for being proud and unchangeable In self-effacing cultures, individuals are rewarded for being humble and flexible Neither of these recently-developed dimensions is being utilized as broadly as the five dimensions that were developed before 2000 and this study uses only the five original VSM dimensions of culture

3. Alternative Values-Based Approaches and Theories

Alternatives to Hofstede's approach that are available for identifying and analysing key features of national cultures from a values-based perspective were considered for use in this research. The approaches of Rokeach, Trompenaars and Schwartz, which are among the better-known alternatives to Hofstede's framework, are summarized briefly below.

3.1 Rokeach: Milton Rokeach was a distinguished 20th century social psychologist and his book, *The Nature of Human Values* (Rokeach 1973), was one of the first studies to compare values in a management setting. While it focused on American values and was not written from the perspective of cross-cultural management, it presented summaries of data that had been collected from male American, Australian, Israeli and Canadian college students and, based on those data, it included comparative observations about the respondents from those nations.

The Nature of Human Values (Rokeach 1973), which is based on the Rokeach Value Survey, explores the eighteen terminal values and eighteen instrumental values that Rokeach identified. Rokeach's terminal values are associated with end states of existence and his instrumental values are associated with the achievement of those end states. Rokeach's terminal and instrumental values are identified in Table 2.

Rokeach's conception of human values was based on the assumptions that every person would possess only a small number of values, that all people everywhere would possess the same values to varying degrees, that various combinations of the expressions of

values could be organized into identifiable value systems, that culture, society and its institutions, and individual personality are the antecedents of values and that the consequences of human values would be evident in all of the phenomena that are of interest to social scientists

Table 2: Rokeach's Terminal and Instrumental Values (adapted from Rokeach (1973))

| Terminal Values | Instrumental Values |
|---------------------------|----------------------------|
| A comfortable life | Ambitious |
| An exciting life | Broadminded |
| A sense of accomplishment | Capable |
| A world at peace | Cheerful |
| A world of beauty | Clean |
| Equality | Courageous |
| Family security | Forgiving |
| Freedom | Helpful |
| Happiness | Honest |
| Inner harmony | Imaginative |
| Mature love | Independent |
| National security | Intellectual |
| Pleasure | Logical |
| Salvation | Loving |
| Self-respect | Obedient |
| Social recognition | Polite |
| True friendship | Responsible |
| Wisdom | Self-controlled |

Seemingly in anticipation of future multinational comparative studies such as *Culture's Consequences* (Hofstede 1980), Rokeach (1973-89) observed that a systematic cross-cultural approach for comparing values of different societies still had to be developed and likely would not be available for some years because of the cost and effort that such a study would entail. Rokeach's work as it applies to Canadian subjects is discussed in more detail in a subsequent part of the study.

3.2 Trompenaars: By the early 1990s, Alfons Trompenaars, later in collaboration with Charles Hampden-Turner, had developed a 79-item survey questionnaire for measuring differences among national societies in terms of seven dimensions of culture that concern relations among individuals, relations with time and relations with the natural environment. By the late 1990s, the Trompenaars' database included more than 30,000 surveys that had been gathered from respondents in more than 50 nations.

Trompenaars holds that no single management approach can appropriately be applied across all cultures. Nevertheless, he is of the view that there are universally applicable issues or dilemmas that every society must address and solve. Cultures may be distinguished from one another in terms of the specific solutions they adopt for those issues.

In Trompenaars' view, the routine and regular application of those solutions leads ultimately to the solutions receding from the consciousness of members. Accordingly, while members continually apply the solutions adopted by their cultures, they are often not able to articulate them because the solutions stem from very fundamental assumptions or premises about the routines of life.

Trompenaars' seven dimensions of culture are dichotomous value orientations. They are outlined in Table 3 and explained further in Annex 3. Different societies reconcile the opposing forces along each dimension not by establishing precise equilibrium points.

along the seven dimensions but, rather, by vacillating between the outer poles within a range that may be used to characterize and distinguish each culture from other cultures

| Table 3: Trompenaars' Dimensions of Culture (adapted from Trompenaars (1998)) | |
|--|---|
| Dimension | Substantive Issues |
| Relationships With People | |
| • Universalism versus Particularism | rules versus relationships |
| • Communitarianism versus Individualism | the group versus the individual |
| • Neutral versus Emotional | the range of feelings expressed |
| • Diffuse versus Specific | the range of involvement |
| • Achievement versus Ascription | how status is accorded |
| Relationship With Time | |
| • Sequential versus Synchronic | past, present and future as a linear series or interrelated and overlapping |
| Relationship With the Environment | |
| • Internal versus External Control | in control of or subject to control by |

3.3 Schwartz: Shalom Schwartz's team developed the Schwartz Values Survey (SVS) instrument in several languages, including English and Hong Kong Chinese, and administered the survey in 20 countries. The SVS questions relate to biological needs, social interactional needs and survival and welfare needs. Test subjects evaluate survey questions and, using a nine-point Likert scale, choose the closest response ranging along a scale from "opposed to my values (-1)", through "important (3)", to "of supreme importance (7)" (Ralston *et al.*, 1995). Schwartz's analysis led ultimately to his postulation of 10 broad motivational values that are outlined in Table 4 and explained further in Annex 4.

| Table 4: Schwartz's Values and Motivational Goals (adapted from Schwartz (1992)) | |
|---|--|
| Value | Associated Motivational Goal |
| Power | attainment of social status and prestige, control or dominance over people and resources |
| Achievement | personal success through demonstrated competence – which may be evaluated in different specific ways |
| Hedonism | pleasure or sensuous gratification for oneself, value derived from organismic needs and pleasure associated with satisfying them |
| Stimulation | excitement, novelty, and challenge in life, value derived from need for variety and stimulation to maintain an optimal level of activation |
| Self-Direction | independent thought and action (e.g., choosing, creating, exploring), value comes from needs for control and mastery along with autonomy and independence |
| Universalism | understanding, appreciation, tolerance, and protection for the welfare of people and nature |
| Benevolence | preservation and enhancement of the welfare of people with whom one is in personal contact, defined more narrowly than Universalism |
| Tradition | respect for, commitment to and acceptance of the customs and ideas that culture or religion impose on the individual. A traditional mode of behaviour becomes a symbol of group solidarity and an expression of the group's unique worth and, hopefully, its survival |
| Conformity | restraint of actions, inclinations, and impulses likely to upset or harm others and to violate social expectations or norms, derived from requirement that individuals inhibit inclinations that might be socially disruptive for personal interaction and effective group functioning |
| Security | safety, harmony, and stability of society, relationships and self |

Schwartz believed that the 10 motivationally distinct types of values are recognizable within all cultures and not confined to the 20 cultures that he examined in his study. He made the claim that the data strongly support the assumption that members of almost all cultures implicitly distinguish 10 basic types of values that express different motivational goals (1992). The degree of importance attached to each motivational goal, however, would be expected to vary from one culture to another (Ralston *et al.*, 1995).

Schwartz's team discovered two basic or underlying dimensions that organize value systems into an integrated motivational structure (Schwartz, 1992). Specifically, the clustering of cultures based on the 10 motivational values produced a dichotomy between "individualist" and "collectivist" orientations. Respondents from western cultures tended to exhibit more individualistic values of power, achievement, hedonism, stimulation and self-direction than the respondents from eastern cultures. Respondents from eastern cultures tended to exhibit more collectivistic values of benevolence, tradition and conformity than the respondents from western cultures. In Schwartz's framework, the values of "universalism" and "security" serve as buffer values or transition areas between the more individualistic and the more collectivist areas of his values landscape.

4. Criticisms of Hofstede's Framework and Approach

The research for this thesis is based on the VSM's framework of dimensions of culture but recognizes that the VSM approach has been criticized for a number of theoretical and methodological reasons. The more frequently encountered criticisms are set out below.

4.1 Inadequate Theoretical Basis: Hofstede's research has frequently been criticized for lacking an adequate theoretical basis. D'Iribarne (1997) observed that when the original IBM survey questionnaire was designed there likely would not have been any extensive theoretical knowledge about or understanding of the dimensions that Hofstede identified through his analysis. Robinson (1983) noted that Hofstede's (1980) practice of relating other societal characteristics, such as gross national product, rates of economic growth, or population size, to indices on four dimensions of culture also lacked prior theorizing as to why or how those characteristics would be related. Other researchers, including Punnett and Withane (1990), have observed that the underlying value of Hofstede's approach and research has been questioned more generally because it lacks an adequate theoretical basis.

Cray (2006) suggested that many researchers in the field of international business and comparative management have come to accept Hofstede's dimensions unquestioningly and frequently seem to apply them atheoretically in their own work. In Cray's view, treating Hofstede's dimensions as being sufficient explanations of similarities or differences across cultures can be detrimental to international management because it unduly simplifies the complex interactions among the various elements of culture.

4.2 Sample Size: Although Hofstede had access to more than 116,000 completed surveys, the sample sizes for some of the IBM's affiliates were very small. The results reported for one of the surveys in Pakistan, for example, apparently were based on 37 questionnaires. Several researchers have commented that Hofstede's sample sizes were insufficient for making valid generalizations about the national cultures of the respondents (Goodstein, 1981, McSweeney, 2002). The sample sizes in the original surveys might have been sufficient to make valid generalizations about the personal characteristics of the employees of IBM's offices in the various countries but not about national cultures.

4.3 Sample Design: Critics have also questioned Hofstede's sample design, whereby IBM employees in a host country were assumed to reasonably represent the host country's national culture. Many researchers have questioned the extent to which the employees of a single firm could be expected to accurately represent the population of a host country (Goodstein, 1981, Hunt, 1981, Robinson, 1983, Shakleton and Ali, 1990, Sivakumar and Nakata, 2001, McSweeney 2002).

Robinson (1983) noted that Hofstede had access to data from eleven of IBM's manufacturing branches and from 40 of its marketing and service branches but based his analysis solely on the marketing and sales branches, which likely would have contained a higher proportion of managers and administrators than the manufacturing branches and thereby would have under-represented the values of the working classes in those societies.

It has also been suggested that Hofstede's data might contain biases because all of the respondents were IBM employees (Goodstein, 1981, Hunt, 1981), because IBM might select for bicultural employees (Robinson, 1983), because there could be other similarities among individuals who choose to work for IBM (Fernandez *et al* , 1997) or because IBM might tend to hire similar persons, and because the organizational culture of IBM itself would exert a homogenizing influence on employee values (Shakleton and Ali, 1990)

4.4 The Concept of National Cultures: Hofstede has been criticized for not realizing that national cultures may be heterogeneous (Jaeger, 1983, Shakleton and Ali, 1990, Sivakumar and Nakata, 2001) In analysing the IBM survey data, Hofstede had assumed that each of the countries in which IBM had a subsidiary would have been characterized by a single national culture Baskerville (2003) observed that the Human Relations Area Files identify 35 different cultures within 14 nations of the Middle East, 98 different cultures within 48 countries in Africa, 81 cultures within 32 Western European countries and 147 Native cultures and nine other folk cultures within the countries that comprise North America She noted that George Murdock, a distinguished 20th century anthropologist, considered China to be a single society and considered the Australian sub-continent to include 573 distinct Aboriginal societies Baskerville (2003) suggested that there should be no need for any debate in the literature about the idea that cultures are distinct from nations

Furthermore, some of the countries in Hofstede's samples, such as the USA, Canada and Belgium, are multicultural. As such, those countries would seem to call for something more than the ascription of a single national culture (Shakleton and Ali, 1990, Cray, 2006). Increased international mobility would also be expected to decrease the extent to which national boundaries may validly be considered to be cultural boundaries (McSweeney, 2002, Baskerville, 2003, Cray, 2006). Hofstede's approach also does not easily accommodate the effects of fusing cultures together when nations or regions merge or the effects of splitting cultures when countries separate (McSweeney, 2002).

4.5 Reduction of Culture to a Small Set of Indicators: Hofstede's approach has been criticized for reducing national cultures to index values on four or five hypothetical dimensions of culture (Sivakumar and Nakata, 2001, Cray 2006). Cray (2006) also questioned whether replacing complex relationships with a few indices would actually inhibit the development of cross-cultural theory by suppressing the emergence of other theories that outline specific links between culture and behaviour. By resorting to Hofstede's framework, a significant difference between countries in terms of power distance, for example, could easily become the basis for explaining contrasting behaviours or relations between managers and subordinates even though other social and institutional mechanisms might well be contributing to those behaviours or relationships (Cray, 2006).

4.6 Cultural Evolution: Cultures change over time. Even if a culture could be understood in terms of a set of index values, the indices would change over time.

(Sivakumar and Nakata, 2001) and contemporary comparisons made against Hofstede's aging data set would likely lose their predictive power (Cray, 2006). The data for Hofstede's (1980) study had been collected in two exercises approximately five years apart and, even over that period, some movement was found, for example, in the individualism-collectivism indices (Cray, 2006).

4.7 Construction of Hofstede's Dimensions: Under Hofstede's approach, an index for each dimension of culture is calculated by transforming the mean values for the responses to a small number of survey questions. Hofstede's (1980) original individualism-collectivism and masculinity-femininity indices had both incorporated transformed values for the responses to one survey question about the importance of working with people who cooperate well together. Several researchers commented that the common element would automatically create colinearity between the two dimensions (Goodstein, 1981, Dorfman and Howell, 1988, Fernandez *et al* , 1997, McSweeney, 2002) and that it would have been preferable to use distinct questions for each index.

Other problems were also noted in connection with the conceptualization of each index. The IBM survey had not been designed specifically to reveal information about Hofstede's dimensions of culture. Researchers noted that the constructs underlying Hofstede's dimensions lacked rigor and that the questions that form the basis for Hofstede's indices seemed arbitrary (Roberts and Boyacıgiller, 1984, Fernandez *et al* , 1997, Cray, 2006) and that indices were composed from a "hodgepodge" of items, few of which seemed to relate directly to Hofstede's intended constructs (Robinson, 1983,

Dorfman and Howell, 1988) The uncertainty avoidance dimension, for example, was based on questions about the respondent's level of perceived stress on the job, the length of time the respondent plans to remain with the employer organization and the respondent's beliefs concerning the breaking of rules (Dorfman and Howell, 1988) If Hofstede had used additional or alternative questions, his characterizations of national cultures would have been different (d'Iribarne, 1997, McSweeney, 2002) and the relative rankings of countries in terms of their index values likely would have changed as a result (d'Iribarne, 1997)

Hofstede's cultural dimensions were developed by factor analyzing the responses for 32 survey questions using only 40 cases corresponding to the 40 countries examined in the first edition of *Culture's Consequences* (Hofstede 1980) Dorfman and Howell (1988) observed that an analysis with so few cases relative to the number of variables would be vulnerable to chance occurrences and an increased likelihood of sampling error and would also present problems for replications

D'Iribarne (1997) questioned the comparability of responses that are in different languages and suggested that the meanings of questions would vary across languages D'Iribarne (1997) noted that the survey question about rule breaking is not capable of addressing subtle differences concerning the meanings of applying or breaking rules Hofstede seemed to imagine that "breaking a rule" has the same meaning in every country (d'Iribarne, 1997, McSweeney, 2002) Ralston *et al* (1995) presented clear evidence that the responses to survey questionnaires are shaped by the language of the

survey and cautioned that researchers who do not use native-language instruments may lose evidence of differences across cultures

Hofstede's approach assumes that the various cultural dimensions are equally important for all societies (Baskerville, 2003, Cray, 2006) Cray (2006) suggested that in theory the opposite view would more likely be correct and that, for any particular culture, a given dimension might be more determinative of outcomes than another while the reverse could be true for another culture Furthermore, any given dimension could be more or less important for outcomes in one culture than another regardless of the relative rankings of the index scores for those cultures

4.8 Issues with Individual Dimensions: Several researchers and theoreticians have raised issues with one or more of Hofstede's dimensions of national culture D'Iribarne (1997), for example, asserted that Hofstede (1980) combined the constructs of power and hierarchy and noted that when Hofstede writes in French, he translates the phrase "power distance" as "distance hiérarchique" D'Iribarne (1997) makes the points that, at least in France, hierarchy and power are not the same and that the survey questions underlying Hofstede's power distance dimension might be significant for hierarchical distance but reveal less about power

D'Iribarne (1997) also identified issues with Hofstede's uncertainty avoidance dimension The precise meaning of a country ranking given by an uncertainty avoidance index is not clear for d'Iribarne because the index only partially covers the phenomenon

for which it is supposed to account. Every aspect of a dimension that is not interrogated by the survey questionnaire but that is nevertheless connected with the particular dimension could potentially change the relative rankings of country indices if it had been taken into account in the questionnaire (d'Iribarne, 1997)

Yeh and Lawrence (1995) were particularly critical of the Confucian dynamism or long term orientation dimension. They presented convincing evidence to suggest that the Confucian dynamism dimension is not independent from the individualism-collectivism dimension. They identified certain problems with the data reported for Pakistan in Franke *et al* (1991). The correlation coefficient between Confucian dynamism and individualism-collectivism was high and significant (-0.70) when the data for Pakistan are removed. In their view, the Confucian dynamism factor and Hofstede's individualism-collectivism dimension are highly inter-related, probably reflect the same underlying values and should not be used together in their current forms.

McSweeney (2002) raised a related concern about Hofstede's decision to "graft" Confucian dynamism, or long term orientation, into his framework. Since Hofstede accepted the Chinese Culture Connection's (1987) suggestion that Confucian dynamism was a legitimate dimension of national cultures globally, he ought also to have accepted the Chinese Culture Connection's suggestion by the same logic that the uncertainty avoidance dimension be removed from the framework because it is not a well formed dimension of national cultures globally (McSweeney, 2002)

Redpath and Nielsen (1997) concluded that Confucian dynamism is not a particularly useful dimension for understanding the cultural values of Aboriginal organizations or societies in North America. In that context, they found the distinctions between long term and short-term orientations to be unclear. They found that the Confucian dynamism dimension grouped together a disparate set of characteristics that seem to have little to do with time orientation. Redpath and Nielsen (1997) explained that respect for tradition and reciprocation of greetings, favours and gifts, which are two of the characteristics of a short-term orientation that are frequently encountered in Aboriginal cultures, reflect a concern for group solidarity and relationships. In the view of Redpath and Nielsen (1997), however, those behaviours in that cultural context are not indicative of a preoccupation with the past or present or a rigid adherence to social rituals as suggested by Hofstede's framework and interpretation.

4.9 Levels of Culture and Interactions Among Levels: McSweeney (2002) criticized Hofstede for treating national cultures as being more determinative of outcomes than other levels of culture, such as occupational, organizational, regional, sub-regional or supra-regional cultures. Hofstede also had assumed that the effects of administration or social action were less influential for outcomes than the effects of national culture. Cray (2006) observed that Hofstede's approach largely overlooks the potential for interactions between organizational culture and national culture.

4.10 Linkage Between Indices and Behaviour: Robinson (1983) suggested that Hofstede had overestimated the extent to which individual values are determined by

national culture. Other researchers made the point that because Hofstede's dimensions are relevant at the societal rather than individual level, they would not be particularly useful for direct management purposes at a micro level (Ralston *et al* , 1995, Dorfman and Howell, 1988). Cray and Mallory (1998) and Cray (2006) noted that values-based approaches generally ignore the gap between values and behaviour.

5. Reasons for Using Hofstede's Approach

The previous section identified many of the criticisms that have been raised in connection with the VSM approach. Nevertheless, the research for this thesis is based on the VSM approach. Hofstede's VSM and his five dimensions of culture constitute the best known and the most widely applied approach in comparative management literature (Dorfman and Howell, 1988, Fernandez *et al* , 1997). Hofstede's framework has had a far greater impact on research in the field of comparative management than the other frameworks, including other values-based frameworks such as those of Rokeach, Trompenaars or Schwartz.

In spite of the criticisms, researchers continue to apply Hofstede's framework because of its clarity, simplicity, and appeal for managers (Punnett and Withane, 1990, Kirkman *et al* , 2006, Cray, 2006). Sivakumar and Nakata (2001) noted that business researchers in particular are increasingly applying Hofstede's work and approach. D'Iribarne's (1997) observation that Hofstede's research, which had been published almost twenty years earlier in *Culture's Consequences*, did not seem to have been surpassed in any way by other work of the same kind, still remains true more than ten years later.

In the years following the publication of *Culture's Consequences*, Hofstede responded to most of the criticisms of the VSM framework and its five dimensions of national culture. Robinson (1983), for example, had made the point that Hofstede based his analysis only on the responses of employees in the marketing and sales branches, which probably contained a higher proportion of managers and administrators than the manufacturing

branches and thereby would have under-represented the values of the working class. In response, Hofstede indicated that he had kept the mix of occupations constant for all countries because there was little point to comparing “Spanish engineers to Swedish secretaries” (Hofstede 1991: 29). Hofstede’s mix of occupations was taken from the sales and service offices because the mix of activities in those offices was common to all of the country samples. In contrast, IBM’s product development laboratories were located in only 10 of the larger subsidiaries and its manufacturing plants were confined to 13 of the subsidiaries.

In response to criticisms such as the one that Dorfman and Howell (1988) had raised about Hofstede’s analysis being based on a small number of cases relative to the number of variables, Hofstede clarified that in an ecological factor analysis, where the score for each case, i.e., each national culture, is derived from a much larger number of independent observations, the stability of the factor structure is determined by the number of individuals whose answers contributed to the mean scores. Accordingly, an ecological factor analysis could produce stable results even with fewer cases than variables (Hofstede 1991: 25).

The fact that Hofstede’s work originated from empirical observations rather than organization or management theory is not offensive to the principles of the scientific method. Hofstede’s observations have since been grounded with explanatory theory that was developed either by Hofstede or others. Redding (1994), for example, noted that Hofstede had written extensively both about the antecedents of value systems and their

organizational and managerial outcomes and that Hofstede's approach constitutes a broad theoretical model that now focuses much of the research in the field of comparative management

The literature includes at least four detailed citation studies about Hofstede's work that illustrate the continuing influence of the VSM approach. Sondergaard (1994) conducted a meta-analysis of applications and replications of Hofstede's work based on a collection of citations in published and unpublished works. His analysis indicated that Hofstede's work is the most widely-cited work in the field and that it is being applied through nominal quotations, as remarks about and criticisms of his work, as empirical applications of the Hofstede framework and even as a paradigm that seems to be accepted uncritically as being true. Sondergaard (1990) found that each of Hofstede's four original cultural dimensions had been confirmed through subsequent replications by other researchers⁴

Baskerville (2003) conducted an analysis of the citations of *Culture's Consequences* (Hofstede 1980) that were identified by the Social Sciences Citation Index in publications during the eighteen-year period from 1981 to 1998. Her analysis showed that *Culture's Consequences* is cited most frequently within the management-related disciplines and psychology but that it is not cited extensively within the disciplines of sociology or anthropology. She found that the number of disciplines that use Hofstede's dimensions is

⁴ For example, Shakleton and Ali (1990) found that the results they reported for Sudanese, British and Pakistani managers provide support for the VSM's power distance and uncertainty avoidance dimensions and Ueno and Sekaran (1992) found strong evidence that the individualism-collectivism dimension is a good predictor of budget planning practices and processes in Japanese and American cultures

increasing beyond the core social science disciplines and that the use of *Culture's Consequences* is increasing within some of those disciplines. Baskerville observed that, on average, *Culture's Consequences* was cited 94 times per year during that eighteen-year period. She illustrated how Hofstede's approach dominates the field of cross-cultural management and contextualized the frequency of the Hofstede citations by noting that what she referred to as a 'super-classic' publication in economics from 1980 had been cited fewer than 40 times per year on average over a twenty-year period beginning in 1980.

Cray (2006) examined articles published in four top management journals over the period from 2000 through 2004 and conducted a citation analysis to estimate the influence of Hofstede's view of culture within the field of international business. Cray scanned article titles and abstracts for the word "culture" and its derivative forms and scanned bibliographies for articles written either solely by Hofstede or by Hofstede in collaboration with others. He also examined the articles to determine whether they used any of Hofstede's dimensions of culture. Cray determined that of 139 articles that contained the word "culture" or one of its derivative forms in the article title or abstract, 109 articles, or 78%, contained at least one citation of Hofstede's work.

Cray (2006) also compared the frequency of references to Hofstede's work against the frequency of references to the works of five other important authors in the field, including Schwartz, Trompenaars and Triandis. He determined that articles in each of the journals cited Hofstede more frequently than the five other authors combined. Cray

concluded that making references to sources other than Hofstede did not appear to be an option in articles dealing with culture that were published in the top management journals from 2000 to 2004 (Cray 2006)

Kirkman *et al* (2006) reviewed 180 articles in 40 business and psychology journals that were published during the period from 1980 through June 2002. They classified the articles according to their treatment of cultural values, i.e. whether the article focused on main effects between cultural values and outcomes or treated cultural values as moderating variables, and according to whether the inquiry was conducted at the level of individuals, groups and organizations, or countries.

In considering whether the Hofstede framework should be applied in future cross-cultural research, Kirkman *et al* concluded that the large scale studies that had been published since *Culture's Consequences* first appeared in 1980 generally had sustained and amplified, rather than contradicted, Hofstede's conclusions and that additional research based on the Hofstede values framework certainly is warranted (Kirkman *et al*, 2006).

As part of their assessment of the linkages between economic freedom and economic growth, Johnson and Lenartowicz (1998) conducted a test of Hofstede's 1980 framework against Schwartz's 1992 and 1994 frameworks to determine which of the two conceptualizations and measures of culture would be more useful for identifying and

explaining the linkages. Their analysis combined data from a multinational *Index of Economic Freedom*⁵ with the two alternative measures of national culture.

They concluded that both approaches contribute to an understanding of the links between culture and economic freedom. At least for their purposes, Schwartz's conceptualization of culture was not better than Hofstede's. They concluded that there is a need for more studies that replicate Hofstede's work for a variety of reasons including to assess whether and how cultural values change over time and to provide a set of more current readings for Hofstede's dimensions of culture.

Hofstede's study was by far the largest cross-cultural management study that had ever been conducted when it was published in 1980. Subsequent research in the field generally has not come close to the grand scale of Hofstede's work in terms of numbers of survey questionnaires. The GLOBE project of the 1990s was a massive research undertaking in which 150 researchers collected data from 18,000 middle managers. In terms of the number of cultures analyzed, the scales of the GLOBE project, which involved 62 countries, or Trompenaars' surveys of more than 50 countries are comparable to the scale of Hofstede's 1980 study. Hofstede's study, however, was based on more than 115,000 completed survey questionnaires from approximately 88,000 respondents and will not soon be displaced as the largest study in the field of cross-cultural management.

⁵ Johnson, B. T. and T. P. Sheehy (1995) *Index of Economic Freedom*. Washington, D. C.: Heritage Foundation.

Hofstede's work provides a broad baseline for subsequent comparative studies in terms of the numbers of national cultures for which indices are available (Punnett and Withane, 1990, Shane, 1995, Sivakumar and Nakata, 2001) The cultures that Hofstede assessed in *Culture's Consequences* overlap at least partially with the cultures that have been examined in many other subsequent cross-cultural studies Accordingly, Hofstede's framework and culture base is directly linkable to many of the cultures and variables that have been assessed in other cross-cultural studies (Hofstede and Bond, 1984) While the GLOBE project included data from managers in 62 countries, five of the nine cultural attributes it studied are based on Hofstede's dimensions of culture Hofstede's work therefore provides what is arguably the most useful frame of reference for anchoring subsequent studies

While Hofstede's sample sizes might have been too small for making valid characterizations of certain national cultures, his identification of the dimensions of national culture is based on very large numbers of surveys and, overall, his work does not suffer from small sample sizes or the small numbers of countries that limit the utility of much cross-cultural research (Shane, 1995) Hofstede's framework and approach have high validity and correlate significantly with other economic, social and geographic indicators (Kogut and Singh, 1988) and the concepts underlying Hofstede's dimensions of national culture are recognizable as robust and well-grounded concepts in disciplines outside management science, including sociology, anthropology and psychology

Unlike major publications by Schwartz (1992) or Trompenaars (1998), for example, both editions of *Cultures Consequences* (Hofstede 1980, 2001) provide and encourage other researchers to use Hofstede's survey questionnaire. In addition, separately from their use as inputs to the formulas for calculating indices for Hofstede's dimensions of culture, the responses to the questions in Hofstede's questionnaires can also be interpreted usefully for the participating organizations for a variety of management purposes, including organizational design, negotiations with outside groups, and for the development of strategies for employee retention, training, employee development, performance rewards and recognition.

6. Values Associated with Canadians and Canadian Culture

One component of this research involves a comparison of the VSM indices of Aboriginal governments and non-Aboriginal governments in Canada. By extension, and based on an assumption that the participating governments reflect the societies that underlie them, the study compares the values of Aboriginal societies and Canadian society. Canadian values, aspects of Canadian national culture and aspects of the anglophone and francophone subcultures within Canada, have been examined in several studies. The studies by Rokeach (1973), McCarrey *et al* (1978), Hofstede (1980, 2001), Ronen and Shenkar (1985), Punnett and Withane (1990) and O'Grady and Lane (1996) provide useful background information about the values of Canadians. A review of the findings from those studies is provided as context for better understanding the similarities and differences between the cultures of Aboriginal societies and the culture of Canadian society. Chapter 7 presents a similar review of findings from some studies about Aboriginal cultures.

6.1 Rokeach: Rokeach (1973) summarized data that he had collected from male college students and, on that basis, made comparative observations about the values of Americans, Australians, Israelis and Canadians. The summarized results obtained for Rokeach's terminal and instrumental values from the four samples of students are presented in annexes 5-1 and 5-2 along with relative value rankings within each sample.

Rokeach noted that Lipset (1963)⁶ had earlier characterized Canada as scoring lower than the United States in terms of egalitarianism and achievement. Based on the data summarized in annexes 5-1 and 5-2, however, Rokeach concluded that Canadian students are more egalitarian than Americans and ascribe more importance to the values of freedom and independence and less importance to the value of self-control than their American counterparts. He found no support in his data for Lipset's contention that Canadians are less egalitarian or individualistic than Americans. Rokeach, however, did find clear support in his data for Lipset's finding that Canadians are less achievement-oriented than Americans.

To his credit, Rokeach acknowledged that his interpretation about Americans being less egalitarian than Canadians, Israelis and Australians was inconsistent both with the conclusions of other researchers, such as Lipset (1963) in connection with Canadians, and with the general intuitions of Americans and others. Rokeach had based his conclusion about American egalitarianism on the facts that the Americans scored higher on the terminal value "salvation" and lower on the terminal values "an exciting life", "pleasure" and "mature love" than the students from other countries (Rokeach 1973: 91). As shown in Annex 5-1, however, the relative rankings of the four groups of college men for those terminal values tend to be similar and do not provide compelling evidence that Americans would be much less egalitarian than the representatives of the other nations.

⁶Lipset, S. M. (1963) *The First New Nation, The United States In Historical And Comparative Perspective*, New York: Basic Books

In discussing methodological considerations in cross-national comparative research, England and Harpaz (1983) suggested that, in order for it to be worthwhile to pursue both the reasons for differences between national cultures and the issues surrounding the reasons, the differences should be large in both absolute and relative terms. From the perspective of this research, Rokeach likely attributed too much significance to the relative value rankings when he concluded that Americans are less egalitarian than Canadians (and Israelis and Australians).

While Rokeach cautioned readers that cross-cultural findings must be regarded as being tentative, he concluded that his value survey readily produced data that were generally consistent with what is known about the countries that he sampled and suggested that value surveys would be useful for cross-cultural studies and, interestingly, for studies of subcultures within cultures.

6.2 McCarrey *et al.*: McCarrey *et al.* (1978) studied the effects that sex, organizational level and identity as an anglophone or francophone have on the scores that participating summer student employees of the Canadian federal government achieved for Rokeach's terminal and instrumental values. They treated age as a covariate because the mean age of the anglophone sample was higher than the mean age of the francophone sample. McCarrey *et al.* found a pattern of high overall similarity between the values of the Canadian anglophone and francophone ethno-linguistic groups and noted, in particular, that the terminal values of the two groups were very similar. They concluded that, while distinct value differences are observable in the responses from anglophone

and francophone participants, their study shows no evidence of Canada being “two solitudes”

McCarrey *et al* (1978) reported that both the Canadian anglophone and francophone groups ranked the terminal values of happiness and a sense of accomplishment as being among the most important to them. Furthermore, both groups ranked salvation and national security as being least important to them. McCarrey *et al*'s (1978) Figure 1, which shows the terminal values profiles derived in their study, is shown in Annex 6-1. Close inspection of Annex 6-1 indicates that it is missing the francophone value for wisdom and suggests that the anglophone values for wisdom and inner harmony must not have been displayed correctly. Nevertheless, if one assumes that the francophone value for wisdom is not an outlier at either the high or low end of the data array, then Figure 1 is sufficient for confirming the relative rankings reported by McCarrey *et al* (1978) and for comparing the scores for summer student employees of the Canadian federal government with the scores that Rokeach (1973) obtained from his sample of Canadian male college students.

Table 5 shows close agreement for the highly ranked terminal value of happiness and for the low-ranked terminal values of national security and salvation. It also shows that McCarrey *et al*'s ranking of freedom for the francophone sample is much lower than the rankings for the anglophone sample or for Rokeach's sample. It also illustrates that Rokeach's ranking for a sense of accomplishment for his sample of Canadian college

men is considerably lower than McCarrey *et al*'s ranking for either francophone or anglophone students working for the Canadian government

| Rokeach's Terminal Value | Rokeach's (1973) Ranked Results | McCarrey <i>et al.</i>'s (1978) Ranked Results (approximate) | |
|---------------------------------|--|---|---------------------|
| | | Anglophones | Francophones |
| Freedom | 1 | 2 | 14 |
| Happiness | 2 | 1 | 1 |
| National Security | 17 | 18 | 17 |
| Salvation | 18 | 17 | 18 |
| Sense of Accomplishment | 9 | 3 | 2 |

For simplicity and ease of understanding, Table 5 shows only the highest-ranked and lowest-ranked terminal values for Canadians as reported by Rokeach (1973) and McCarrey *et al* (1978). The McCarrey *et al* rankings are marked as being approximate because the article did not include a data table and the data had to be inferred from Figure 1 of the article, which is reproduced in Annex 6-1.

McCarrey *et al*'s results for instrumental values are shown in Annex 6-2. In terms of the instrumental values, McCarrey *et al*'s anglophone and francophone samples both ranked being honest and being responsible as most important and being obedient and being clean as being least important to them. Those results are entirely consistent with the results that Rokeach (1973) reported for Canadians as shown in Annex 5-2.

Despite the overall similarity between the values of anglophones and francophones, McCarrey *et al* (1978) suggest that anglophones ascribe more significance than francophones to personal rather than social orientation. The profiles in annexes 6-1 and

6-2 indicate that the anglophones attach more importance to the terminal values of freedom, self-respect and a world at peace and to the instrumental values of being independent, logical and self-controlled. The profiles also suggest that the francophones ascribe more importance to social rather than personal orientation in that, relative to the anglophones, they preferred the terminal values of social recognition and equality and the instrumental values of being loving, forgiving, polite and broadminded.

6.3 Hofstede: Hofstede's approach has been examined at length in other parts of the thesis. The long term orientation dimension of culture had not been identified when Hofstede's *Culture's Consequences* was first published in 1980 but had been incorporated into the Hofstede framework by 2001 when the second edition of *Culture's Consequences* was published. Hofstede's analyses indicate that, based on survey data collected from IBM employees in Canada, Canadian national culture tends to exhibit medium values for the power distance, uncertainty avoidance, and masculinity-femininity dimensions, a high value for the individualism-collectivism dimension and a low value for the long term orientation dimension. Hofstede's index values and relative rankings for Canada are presented in Table 6.

| Dimension | Index | Description |
|-----------------------------------|--------------|------------------------|
| Power Distance | 39 | Medium |
| Uncertainty Avoidance | 48 | Medium |
| Individualism-Collectivism | 80 | High (Individualistic) |
| Masculinity-Femininity | 52 | Medium |
| Long Term Orientation | 23* | Low* |

* Long Term Orientation index from Hofstede (2001)

The extent to which Hofstede's results can be generalized to apply to the larger society beyond the IBM employees in Canada remains an open question. However, Sondergaard (1994) and others determined that several researchers had validated the relative rankings of countries in terms of their indices on Hofstede's dimensions of national culture. On that basis, since the employees of IBM's Canadian subsidiary scored higher in individualism than the IBM employees in South Korea and lower in individualism than the IBM employees in the United States, for example, one might expect that Canadians generally would score higher in individualism than South Koreans generally and lower in individualism than Americans generally.

6.4 **Ronen and Shenkar** Ronen and Shenkar (1985) reviewed eight empirical studies that used attitudinal data for clustering various countries into relatively homogeneous groups. Nine country clusters, which emerged from their review of those studies, are the Anglo, Germanic, Nordic, Latin European, Latin American, Near East, Far East, Arabic and Independent country clusters. Annex 7, which has been modified from Ronen and Shenkar (1985) to simplify the display, shows the countries that some of the studies attributed to the Anglo category.

Where Canada had been included among the countries examined in any of the empirical studies, it was included consistently in what Ronen and Shenkar (1985) called the Anglo category. In Ronen and Shenkar's interpretation of Hofstede's (1980) findings, the countries in the Anglo cluster generally have low to medium index scores on the power distance dimension, low to medium index scores on the uncertainty avoidance dimension,

and high index scores for the individualism-collectivism and the masculinity-femininity dimensions Hofstede's index scores, which are reproduced in annexes 1-1 and 1-2, confirm the general accuracy of that observation

6.5 Punnett and Withane: When Hofstede developed the original formulas for calculating indices along the first four dimensions of culture, the formulas transformed and then combined the mean values for the responses to certain survey questions in such a way that the indices for the 40 sampled cultures would fall generally within a range from zero to 100 units Following the publication of *Culture's Consequences* (Hofstede 1980), some of the more recent applications of the VSM technique have, not surprisingly, produced indices that fall outside Hofstede's 100 point range for his original data set

Punnett and Withane (1990), for example, calculated extremely low uncertainty avoidance indices for Canadian and American managers of fast food restaurants located in Windsor, Ontario, and Detroit, Michigan The uncertainty avoidance index they calculated for the Canadian managers was -0.13 and for the American managers it was -5.8 They also calculated an extremely high power distance index of 115 for the managers of American fast food restaurants

Noting that Hofstede's work had been both highly praised and severely criticized by other researchers, Punnett and Withane (1990) set out to determine whether Hofstede's VSM should be abandoned or embraced more whole-heartedly They examined the four

dimensions of culture from Hofstede's original framework in three separate sampling situations. In each situation, Punnett and Withane sampled respondents in two different groups. They compared VSM indices between groups and considered their results in the context of the results that Hofstede (1980) reported for the employees of the IBM affiliate in Canada. Their three sample situations examine English-speaking and French-speaking middle managers working in Ottawa for a single department of the Government of Canada, Canadian and American managers of fast food restaurants located in Windsor and Detroit respectively, and first and second generation Italian North Americans employed in the construction industry in unidentified locations in Canada and America.

Punnett and Withane (1990) developed twelve culture-related hypotheses about how the indices for the two groups within each of their sampling situations would rank relative to one another. Recognizing that their groups are comprised of individuals who would not have been included in Hofstede's earlier studies of the IBM Corporation, Punnett and Withane also developed twelve related hypotheses about how the indices for the two groups within each sampling situation would differ from the scores that Hofstede developed from the responses of the employees in IBM's subsidiary offices. For the third sampling situation, which is a comparison of first and second generation Italian North Americans, it appears that Punnett and Withane calculated hypothetical dimension indices for North Americans as an arithmetic and unweighted mean of the indices that Hofstede had calculated for Canadians and Americans.

Punnett and Withane administered Hofstede's VSM questionnaire to the subjects in each group and calculated indices for the power distance, uncertainty avoidance, individualism-collectivism and masculinity-femininity dimensions of culture for each group. They compared their results against their 24 hypotheses. The indices calculated by Punnett and Withane are set out in Table 7 along with the values that Hofstede had derived for IBM employees in Canada, America, Italy and France.

Table 7: VSM Indices for Selected Groups (adapted from Hofstede (1980) and Punnett and Withane (1990))

| Canadian Government Managers | Hofstede (1980) | | Punnett and Withane (1990) | |
|-------------------------------------|----------------------------------|---------------|-----------------------------------|-----------------------------|
| | Canada | France | Anglo-Canadians | Franco-Canadians |
| Dimension | | | | |
| Individualism-Collectivism | 80 | 71 | 62 | 48 |
| Uncertainty Avoidance | 48 | 86 | 27 | 27 |
| Power Distance | 39 | 68 | 29 | 39 |
| Masculinity-Femininity | 52 | 43 | 37 | 33 |
| Restaurant Managers | | | | |
| | Hofstede (1980) | | Punnett and Withane (1990) | |
| | Canada | USA | Canada | USA |
| Dimension | | | | |
| Individualism-Collectivism | 80 | 90 | 41 | 54 |
| Uncertainty Avoidance | 48 | 46 | -0.13 | -5.8 |
| Power Distance | 39 | 40 | 92 | 115 |
| Masculinity-Femininity | 52 | 62 | 80 | 81 |
| Construction Workers | | | | |
| | Hofstede (1980) | | Punnett and Withane (1990) | |
| | North America⁷ | Italy | 2nd Gen. N. American | 1st Gen. N. American |
| Dimension | | | | |
| Individualism-Collectivism | 85+ | 76 | 52 | 32 |
| Uncertainty Avoidance | 47 | 75 | 41 | 58 |
| Power Distance | 39+ | 50 | 43 | 73 |
| Masculinity-Femininity | 57 | 70 | 46 | 61 |

⁷ Hofstede (1980) did not calculate indices for North America. The index values shown in this column appear to have been derived by Punnett and Withane (1990) as the arithmetic means of the indices that Hofstede (1980) had calculated for Canada and the United States.

Punnett and Withane noted that, while the relative positions of the scores were the same as, and could be predicted from, Hofstede's results, there were pronounced differences between their results and Hofstede's original scores. In the results for the sample of Canadian and American restaurant managers, Table 7 shows differences between Punnett and Withane's (1990) and Hofstede's (1980) indices for the uncertainty avoidance and power distance dimensions. Punnett and Withane's results for Canadians and Americans on the uncertainty avoidance dimension are much lower than Hofstede's and their results on the power distance dimension are much higher than Hofstede's.

Differences from Hofstede's results on the uncertainty avoidance dimension are also evident in Punnett and Withane's results for anglophone and francophone managers in the Canadian federal government. However, Punnett and Withane's results for anglophone and francophone managers, which are based on Hofstede's values survey module, do show a similarity in values that is suggestive of the similarity in values that McCarrey *et al* (1978) identified, using the Rokeach Value Survey, for anglophone and francophone student employees of the Canadian federal government.

Punnett and Withane's hypotheses and test results are set out in Annex 8. Twenty one of the hypotheses were supported and three were not. The three unsupported hypotheses concern the sampling situation that involved middle managers in the Government of Canada. Further analysis of those results provided evidence to suggest that strong government organizational influences might have masked the predicted cultural differences.

It is possible that, when Punnett and Withane undertook their surveys, they were unaware of the study that had been conducted by McCarrey *et al* in 1978. The McCarrey *et al* study is related to one of Punnett and Withane's research situations but was not included in their references. If Punnett and Withane had been aware of the McCarrey study, it seems less likely that they would have formulated hypotheses that anticipate significant differences between the values of anglophone and francophone middle managers in the Canadian federal government.

Overall, Punnett and Withane (1990) concluded that their research supports Hofstede's dimensions and the validity of the VSM. However, given their finding that three of the hypotheses were not supported, they also recognized that more work is required to understand the influences of organizational culture. They suggested that further study of Hofstede's cultural values and the VSM is warranted.

6.6 O'Grady and Lane: O'Grady and Lane (1996) presented reasons why domestically successful Canadian retailers often performed poorly in the United States and they identified some of the cultural and business differences between the two countries that might account for that result. They conducted a literature search about the cultural differences between Canada and the United States. Their findings are summarized in Annex 9 and are useful as background for better appreciating the cultural characteristics of Canadian national culture.

O'Grady and Lane (1996) interviewed the chief executive officers of Canadian firms that had begun operating in the American retail market. Among their summarized findings from those interviews, they reported that the chief executive officers think that, relative to Canadians, Americans have more of a winning attitude, are more competitive, have a greater sense of mastery, are more action-oriented, believe more strongly in hard work, are more aggressive, are more prepared to take risks and are more individualistic.

O'Grady and Lane (1996) also identified different aspects of what they called the psychic distance paradox. Canadian executives erroneously assumed that America is similar to Canada and believed that their strategies would operate successfully in America and that organizations in both countries could be managed in the same way. That misperception of the existing cultural differences interfered with their learning about the American market and hindered their understanding by masking important cultural differences.

In a subsequent phase of their research, O'Grady and Lane (1996) designed a questionnaire to further examine the cultural differences between Canadian and American retailers. The questionnaire included 125 items measuring the 16 cultural values, shown in Annex 9, which O'Grady and Lane had identified in their literature search. The questionnaires were mailed to the chief executive officers of 369 top retail companies in Canada and 338 top retail companies in the United States. Two hundred and seventy-one usable questionnaires were returned (180 from Canadian retailers and 91 from American retailers, representing response rates of 55% and 37% respectively). Partial results of that survey, focusing on Hofstede's four dimensions of national culture, are shown in Table 8.

| Hofstede's Dimension | Country | N | Mean | Standard Deviation | Probability |
|-----------------------------------|----------------|----------|-------------|---------------------------|--------------------|
| Uncertainty Avoidance | Canada | 180 | 2.85 | 0.45 | p = .001 |
| | U.S. | 91 | 2.54 | 0.58 | |
| Power Distance | Canada | 180 | 2.66 | 0.48 | p = .005 |
| | U.S. | 91 | 2.53 | 0.40 | |
| Individualism-Collectivism | Canada | 180 | 3.16 | 0.42 | p = .001 |
| | U.S. | 91 | 3.76 | 0.55 | |
| Masculinity-Femininity | Canada | 180 | 3.22 | 0.46 | p = .001 |
| | U.S. | 91 | 3.43 | 0.52 | |

The results from O'Grady and Lane's (1996) survey, including the results shown in Table 8 that relate to Hofstede's dimensions of national culture, confirmed that there were significant value differences between Canadians and Americans. In terms of Hofstede's four initial dimensions of national culture, the Canadian chief executive officers scored higher for power distance, higher for uncertainty avoidance, lower for the individualism-collectivism dimension (more collectivistic), and lower for the masculinity-femininity dimension (more feminine).

The relative ordinal placements of Canada and the United States in terms of the results that O'Grady and Lane (1996) obtained for three of Hofstede's cultural dimensions are consistent with the ordinal rankings that Hofstede obtained for Canada and the United States in his 1980 study. A comparison of annexes 1-1, 1-2 and Table 8 shows that the relative positions of the Canadian and American indices for the uncertainty avoidance, individualism-collectivism and masculinity-femininity dimensions are consistent between Hofstede (1980, 2001) and O'Grady and Lane (1996). Annexes 1-1 and 1-2 also show

that Hofstede's (1980, 2001) power distance indices for Canada and the United States are very similar at 39 for Canada and 40 for the United States

Hofstede's result suggests that Canadians are slightly less accepting of power distances than Americans. O'Grady and Lane's results for the power distance dimension are not expressed in quite the same terms as Hofstede's results but, nevertheless, provide a basis for comparing the values of Canadians and Americans. O'Grady and Lane determined a power distance value for their Canadian sample to be 27 and a corresponding value for the American sample to be 25. O'Grady and Lane's (1996) results indicate that Canadians are somewhat more accepting of power distances than Americans and are not consistent with Hofstede's (1980, 2001) or Rokeach's (1973) results. The ordinal placements of Canada and the United States are the same in the Hofstede and Rokeach studies but reversed in O'Grady and Lane. O'Grady and Lane noted that, while their results are not consistent with Hofstede's (1980) results, they are consistent with the findings of a number of other researchers who compared Canadian and American culture and determined that Americans are more egalitarian than Canadians. Lipset's 1963 study, which was referred to in Rokeach (1973), would appear to be an example

6.7 Summary: Ronen and Shenkar (1984) determined that researchers have consistently positioned Canadian responses about attitudes and values within a cluster of "Anglo" country responses. They characterized the Anglo countries as exhibiting low to medium index scores on the power distance and uncertainty avoidance dimensions, and

high index scores on the individualism-collectivism and masculinity-femininity dimensions

Hofstede (1980) determined that Canadian culture is not accepting of large power distances, is somewhat tolerant of ambiguity and uncertainty, is somewhat masculine and is highly individualistic. In the 2001 edition of *Culture's Consequences*, Hofstede ascribed to Canadian culture a low index for the long term orientation dimension.

McCarrey *et al* (1978) determined that there was broad agreement between their rankings of the Rokeach terminal and instrumental values of anglophone and francophone summer student employees in the Canadian government. McCarrey *et al*'s (1978) findings for the most important and least important terminal and instrumental values of the summer students generally agree with the results that Rokeach (1973) obtained from his survey of Canadian college men. In terms of the Hofstede framework, Rokeach's and McCarrey *et al*'s results suggest low power distance, a tendency toward masculinity and high individualism. See annexes 6-1 and 6-2.

Punnett and Withane (1990) determined that the relative placements of indices for Canadian anglophones and francophones on Hofstede's four initial dimensions of national culture are generally consistent with Hofstede's (1980) relative placements of Canada and France on the same dimensions. A notable exception, however, was found in the indices for the uncertainty avoidance dimension, where anglophones and francophones achieved the same relatively low score, which was much lower than

Hofstede's (1980) scores for either Canada or France Punnett and Withane's (1990) results for anglophone and francophone managers in the federal government are consistent with the results that McCarrey *et al* (1978) obtained several years before using the Rokeach value survey in that they reflect more similarity than would be expected on the basis of Hofstede's (1980) results for Canada and France

The relative positions of Canada and America on the uncertainty avoidance, individualism-collectivism and masculinity-femininity dimensions that O'Grady and Lane (1996) calculated based on Hofstede's VSM are generally consistent with the relative positions that Hofstede (1980, 2001) calculated

Based on the foregoing, Canadian society is characterized by a low to medium index for power distance, medium indices for uncertainty avoidance and masculinity, a high index for individualism and a low index for long term orientation

7. Values Associated with Aboriginal Cultures in Canada

Very few academic studies have considered the values of the Aboriginal subcultures in Canada from a management perspective using Hofstede's dimensions of culture. Chapman *et al* (1991) and Redpath and Neilsen (1997) are notable exceptions. A review of the findings from those studies provides a natural starting point for the examination of the cultural values of selected Aboriginal governments in Canada and similarities and differences among Aboriginal groups and between Aboriginal groups and the rest of Canadian society.

7.1 Chapman *et al.*: Chapman *et al* (1991) indicated that the management of Aboriginal organizations is based on a collectivist orientation and therefore would be expected to differ from the management of non-Aboriginal organizations in Canada that perform similar functions. They undertook structured interviews with the managers and staff of two Aboriginal organizations in Ontario but did not actually apply the VSM with any Aboriginal societies or organizations.

Chapman *et al* (1991) referred to publications that address the values of Aboriginal peoples and that illustrate differences between the values of Aboriginal people and the values of what they refer to as the Western cultural tradition.⁸ Given that they accepted that Aboriginal cultures are different from the national culture of Canadian society, they

⁸ Among the works referred to are (1) Kluckhohn, F and F Strodtbeck (1961) *Variations in Value Orientations* New York Row, Peterson and Co, (2) Bryde, J (1971) *Modern Indian Psychology* Vermillion Institute of Indian Studies, and (3) Hallowell, I (1955) *Culture and Experience* New York, N Y Anchor Press/Doubleday and Co Inc

expected to find differences in the management styles of Aboriginal and non-Aboriginal organizations. They noted in particular that Aboriginal cultures are more collectivistic than Canadian culture and that decision-making in Aboriginal organizations tends to be consensual.

According to Chapman *et al* (1991), Aboriginal organizations would score lower on the power distance dimension than non-Aboriginal Canadian organizations that perform similar functions. They cite a 1991 study by Atikan Ltd⁹, which reported that 82% of Aboriginal development corporations that were examined in that study made decisions by consensus. Chapman *et al* indicate that Aboriginal organizations would be more tolerant of uncertainty than non-Aboriginal organizations and would score higher in femininity than non-Aboriginal organizations in Canada. They noted that Aboriginal leaders were seen traditionally as being servants of the people and their roles were to coordinate activities, resolve differences and facilitate harmonious relationships (1991). Chapman *et al* did not discuss the Confucian dynamism factor or Hofstede's long term orientation dimension of culture. Table 9 summarizes some of their findings.

7.2 Redpath and Neilsen: Redpath and Neilsen (1997) based their study on their experience and interviews with the staff of a Native justice organization in Alberta. They considered Native cultural values and speculated about the differences between Native North American cultures and Canadian or American national cultures that might reasonably be expected to be revealed through Hofstede's dimensions of culture.

⁹ Atikan Ltd (1991) *Aboriginal Economic Enterprises: Success and Failure*. Ottawa

| Consideration | Aboriginal Organizations | Non-Aboriginal Organizations |
|----------------------|---|---|
| Orientation | Group orientation Group interests are more important than individual interests | Individual orientation Interests of individual are paramount over group interests |
| Decision-making | Consensual decision-making The organization respects employees and expects them to contribute to making decisions in an equitable, collective process | Decision-making by majority Decisions are generally made by voting in which the majority wins the right to choose the course of action ¹⁰ |
| Employment duties | Group duties Roles are not specialized and the organization relies on peer support, teamwork, task delegation | Specialized duties Each person is expected to have a clearly-defined role with a set of well-defined duties |
| Employee development | Holistic development The organization is concerned with all aspects of the employee's life, both inside and outside the organization | Organization-related development The organization is more concerned with those aspects of an employee's life that bear directly on his or her ability to perform assigned tasks |
| Elder involvement | Elder involvement Elders are included formally and informally in the organization as advisors and teachers | No elder involvement Employees retire at the age of 65 and their expertise is lost to the organization |

Using Hofstede's five dimensions of national culture as points of reference, Redpath and Nielsen (1997) examined relationships between cultural values and the management practices of a Native justice organization in the Province of Alberta. In describing management practices in terms of Hofstede's five dimensions of national culture, Redpath and Nielsen (1997) made several assertions about Native values and culture that are pertinent for this study.

¹⁰ The term "managerial decision-making" would probably be more appropriate in this context than "decision-making by majority"

They put forward the view that most indigenous societies would have a collectivist culture in which group interests supersede individual interests and a personal sense of identity would be defined by the individual's relationship to the group. In their view, the individualism-collectivism dimension would be very important not only for differentiating between Native and non-Native cultures but also for understanding the core cultural differences between indigenous and non-indigenous cultures throughout the world.

Redpath and Neilsen (1997) consider Native cultures to be much more collectivistic in orientation than the national cultures of Canada and the United States. They consider collectivism to be directly related to traditional Native ideals that focus on the survival of the small group. From that perspective, the good of the group would be understood as being identical to the good of the individual member. Redpath and Neilsen expect a clear differentiation and a certain amount of tension to be evident between the individualism that is characteristic of Canadian culture and the collectivism that they consider to be characteristic of the Native cultures in Canada.

According to Redpath and Neilsen (1997), power distances in Native cultures would be small and reflective of more egalitarian relationships within Native societies. While noting that slavery had been common within some Aboriginal societies, Redpath and Neilsen generalized that Native societies had been non-hierarchical and, further, that divisions of labour within traditional Aboriginal societies had been based on expertise and responsibility and that consensual decision-making prevailed. In their view, leaders

did not seek power but were chosen informally or recognized by the community and status based on position and authority was traditionally, and still is, unacceptable in most Native cultures. Leaders are expected to consult and to seek input for decisions and must continually earn the trust and respect of their followers.

Redpath and Neilsen (1997) note that there is evidence that higher power distance practices are beginning to appear in contemporary Native organizations. They indicate that formal hiring procedures, hierarchical authority structures and staff monitoring and evaluation procedures were, at the time of their study, well established within the Native Counselling Services of Alberta and that the distance between managers and front-line staff of that organization had increased as a result.

Redpath and Neilsen (1997) suggest that Native Canadian cultures would score toward the lower end of the uncertainty avoidance scale and note that cultures that are characterized by lower uncertainty avoidance are often more tolerant than cultures that are characterized by higher uncertainty avoidance. They make the point that low uncertainty avoidance cultures would be curious about and accepting of different persons, societies or cultures. They suggest that members of Native Canadian cultures would view themselves as being competent and empowered to voice protest against authorities. They generalize further that members of cultures with low uncertainty avoidance would tend to be more relaxed and less structured in their approach to work and life.

Based on their observations, Redpath and Neilsen (1997) suggest that Native cultures would likely score lower on Hofstede's uncertainty avoidance dimension than the Canadian or American national cultures. They speculate that Native organizations and cultures, in general, tend to be relatively unstructured in terms of written rules and regulations. While there are "rules imposed by tradition" such as respect, sharing, and wholeness, they consider that self-discipline and control would be preferred over adherence to goal statements or authority. According to Redpath and Neilsen (1997), the stereotype of "Indian time" reflects one of the distinguishing features of a culture with low uncertainty avoidance. Adherence to schedules, which is a standard behaviour in most modern organizational settings and strictly emphasized in high uncertainty avoidance cultures, is not considered to be particularly important in many Native societies.

Redpath and Neilsen (1997) suggest that Native cultures would tend to score farther toward the feminine end of Hofstede's masculinity-femininity dimension than the non-Native cultures that have subsumed them. They note that both men and women typically function as community elders but that women rarely occupy the position of chief or head of the major political organizations and that men tend to dominate the leadership positions in Native communities. They also express the view, however, that women are more likely to be accepted in leadership positions in Native communities and institutions than in non-Native societies or institutions.

Along the masculinity-femininity dimension, Redpath and Neilsen (1997) think that Native cultures would be situated more toward the feminine end of the spectrum because those cultures emphasize quality of life, personal relations, solidarity, and helping others. According to Redpath and Neilsen, Native cultures are both feminine and collectivist and have a less individualistic approach to motivation. They indicate that members of Native cultures prefer to not be singled out for praise, since humility and modesty would be more highly valued.

Redpath and Neilsen (1997) identified similarities between certain Native values and Chinese Confucian values but found Hofstede's long term orientation dimension to not be very relevant for their analysis. They identified some of the Confucian values that are associated with Hofstede and Bond's (1988) concept of long term orientation, such as persistence, adaptation of traditions to a modern context, respect for social obligations, and face-saving, as being characteristic of Native cultures. They found other Confucian values, however, including thrift, saving for oneself and one's immediate family and respect for status based on unequal relationships, to be uncharacteristic of Native cultures, which, in their view, are better characterized by sharing, generosity, and equality.

They also identified several of the values attributed to a short-term orientation, such as personal steadiness and stability, respect for tradition and reciprocation of greetings, favours and gifts, as being characteristic of Native cultures. According to Redpath and Neilsen (1997), Hofstede's framework of cultural values could be used to describe Native

cultures as being both present-oriented, i.e., a short-term orientation, and future-oriented, i.e., a long term orientation. Overall, Redpath and Neilsen considered the long term orientation dimension to be not particularly helpful for understanding or characterizing Native American cultures.

7.3 Summary: The articles by Chapman *et al* (1991) and Redpath and Neilsen (1997) both suggest that, relative to Canadian society, Native societies would be more egalitarian and less tolerant of power distance, more tolerant of ambiguity and less avoidant of uncertainty, more collectivistic and less individualistic, and more concerned with the environment and quality of life than with conquest, accumulation and quantity of life, i.e., more feminine and less masculine. Redpath and Neilsen (1997) predicted that differences would be evident between the cultural indices derived for Native cultures within Canada and the indices that Hofstede derived for Canada based on his survey of IBM employees.

Chapman *et al* (1991) predicted that differences in management styles would be evident in comparisons of Aboriginal and non-Aboriginal organizations. While Chapman *et al* (1991) recognized that there are differences among Aboriginal societies, they suggested that a common worldview is shared among the Aboriginal peoples of Canada. Redpath and Neilsen (1997) predicted that important differences would be found in the indices for various Native societies in Canada if Hofstede's approach were to be applied in that context. The predictions and speculations of Chapman *et al* and of Redpath and Neilsen led directly to the development of some of the hypotheses that are tested in this research.

8. Research Questions and Hypotheses

This chapter presents three broad research questions that were developed for this study. It also presents two hypotheses that were developed for research question two and five hypotheses that were developed for research question three.

8.1 Research Question One: The first research question is descriptive and asks what the VSM indices are for each of the participating governments. No hypotheses are associated with the question. The purpose is simply to establish a VSM profile for each of the participating governments. Most of the governments represent Aboriginal communities within Canada but some of them represent non-Aboriginal, Anglo-Canadian communities. Hofstede (1980, 2001) previously calculated VSM indices for IBM employees in Canada and then attributed those indices to Canadian national society. In addition, Punnett and Withane (1990) previously calculated indices for representatives of certain ethnic and occupational groups in Canadian society. At the time when this research was undertaken, VSM indices had not yet been calculated for Aboriginal groups within Canadian society so the indices of the participating Aboriginal governments are of particular interest. This research assumes that some aspects of the ethno-linguistic characteristics of the societies underlying the governments will be observable in the responses from the employees of those governments.

8.2 Research Question Two: The second research question asks whether the VSM approach can identify differences among governments of communities that are known to be culturally different. Hofstede (1991: 16) makes the point that the VSM

indices can be used for describing regional, ethnic and religious cultures as well as national cultures. This research question directly concerns the applicability of Hofstede's VSM technique at the level of sub-national cultures within Canadian national culture. If Hofstede's framework works at the level of sub-national societies, then it would be expected to produce different indices for governments that are associated with culturally different societies.

8.2.1 Hypotheses for Research Question Two

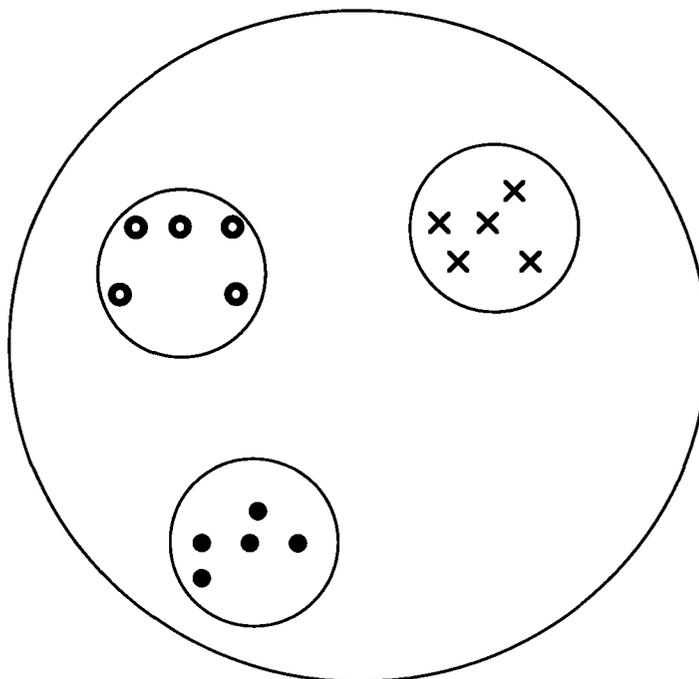
This section makes several references to "groups." In the analyses that are based on the classic VSM, the groups are the governments of culturally similar communities. In the analyses that involve the alternate method, which is explained in more detail in section 9.5 of the methods chapter, the groups are employees of the governments of communities that share a common ethno-linguistic heritage. Hypotheses H1 and H2 below proceed from the assumptions that culturally-based differences will be evident for groups that do not share a common ethno-linguistic heritage and that culturally-based similarities will be evident for groups that share a common ethno-linguistic heritage. Those expectations are embodied in the following hypotheses:

- H1 Groups that do not share a common ethno-linguistic tradition will score differently on the VSM dimensions related to
 - H1-a) power distance,
 - H1-b) uncertainty avoidance,
 - H1-c) individualism-collectivism,
 - H1-d) masculinity-femininity, and
 - H1-e) long term orientation
- H2 Groups that share a common ethno-linguistic tradition will score similarly on the VSM dimensions related to
 - H2-a) power distance,
 - H2-b) uncertainty avoidance,

- H2-c) individualism-collectivism,
- H2-d) masculinity-femininity, and
- H2-e) long term orientation

In testing the hypotheses, the VSM technique is applied at the level of the participating governments. By extension, the indices for the Aboriginal governments may be interpreted as reflecting the culture of the Aboriginal societies that underlie the governments and that have been subsumed within Canadian society. Also by extension, the indices for the non-Aboriginal governments may be interpreted similarly as reflecting the culture of the non-Aboriginal societies that underlie those governments. The conceptual environment for the second research question is illustrated in Diagram 1, which shows two different Aboriginal ethno-linguistic traditions and a non-Aboriginal or Anglo-Canadian tradition, each of which includes some communities whose governments have chosen to participate in the study.

Statistical differences are easier to determine than statistical similarities. This study recognizes the difficulties that are inherent in using statistical analyses to establish the existence of similarities within groups. While hypothesis H2 is concerned with similarities, the statistical techniques focus on statistically significant differences among groups. In this study, hypothesis H2 will be answered simultaneously with hypothesis H1, which concerns significant differences between groups. Evidence of significant differences between groups will be interpreted also as being evidence of some degree of similarity within groups.



- × - represents an Aboriginal government from ethno-linguistic tradition A
- - represents an Aboriginal government from ethno-linguistic tradition B
- - represents a non-Aboriginal, English-speaking government in Canada

Diagram 1: Conceptual Space for Research Question Two

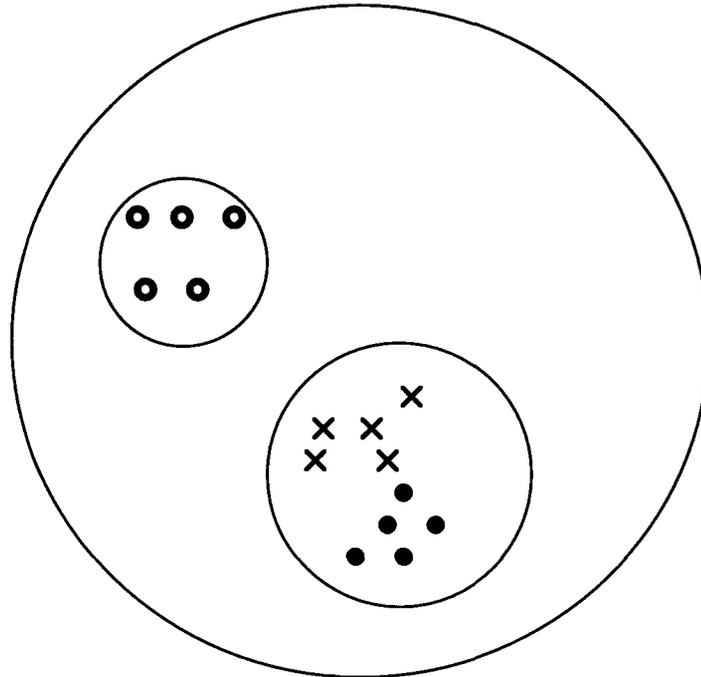
This study does not require all of the sub-elements of hypotheses H1 and H2 to be supported or not supported for the hypotheses themselves to be supported or not supported. Rather, the study expects that the results will be mixed and that, through the various analyses, some sub-elements of hypotheses H1 and H2 will be supported while others will not be supported. In many of the studies that apply the VSM framework, differences between groups are identified along some, but not all dimensions. See for example, Shakleton and Ali (1990) or Ueno and Sekaran (1992).

Diagram 1 suggests that data from non-Aboriginal, English-speaking governments and from Aboriginal governments within each of two distinct Aboriginal traditions will be available for testing the second research question. However, the number of participating governments could not be predicted before the data had actually been collected. As a result, the research design provides some flexibility for the second question to be answered using an alternate method that was designed to be employed if the number of participating governments was lower than anticipated. That alternate method is described more fully in section 9.5 of the methods chapter.

8.3 Research Question Three: The third research question concerns how the culture associated with Canadian society is similar to or different from the cultures that are associated with Aboriginal societies within Canada. Research question three also tests whether the predictions in the Canadian management literature are correct.

Hofstede's research attributed dimensional indices to Canadian national culture based on surveys of IBM employees in Canada. The research of Punnett and Withane (1990) attributed dimensional indices to certain occupational groups within Canadian society. This research provides a new set of indices for Canadians by sampling the employees of a number of non-Aboriginal, English-speaking governments in Canada. For the purposes of research question three, the five VSM indices that are calculated for the Aboriginal or non-Aboriginal governments are used to represent, respectively, the indices for the Aboriginal organizations and societies or non-Aboriginal organizations and Anglo-

Canadian society more broadly The research environment for the third question is illustrated in Diagram 2



× - represents the government of a First Nation from ethno-linguistic tradition A
 ● - represents the government of a First Nation from ethno-linguistic tradition B
 ○ - represents the government of a non-Aboriginal, English-speaking community in Canada

Diagram 2: Conceptual Space for Research Question Three

Diagram 2 shows a group of participating non-Aboriginal and English-speaking governments and another group of participating Aboriginal governments. The community societies that are represented by the participating Aboriginal governments are from two distinct ethno-linguistic traditions. Because the numbers of Aboriginal and non-Aboriginal governments that participate in the study could not be known until the

data collection phase ended, the research design also provides flexibility for the third research question to be answered using the alternate method that is described in section 9.5 of the methods chapter

In this study, the indices calculated from the responses of the employees of the non-Aboriginal governments will be used as contemporary supplements for the VSM indices that Hofstede (1980, 2001) attributed to Canadian national culture. The indices from the non-Aboriginal governments effectively are interpreted as characterizing the larger Canadian society within which the sub-national, Aboriginal governments and societies are embedded. For the purposes of this research, the employees of the non-Aboriginal governments are considered to provide a more appropriate and comparable representation of Canadian culture than the employees of IBM's offices in Canada, which Hofstede (1980) sampled when he calculated the indices that he attributed to Canadian national culture.

The indices for both the Aboriginal and the non-Aboriginal governments were calculated from samples that were gathered in the same study, using the classical formulas provided by Hofstede (2001) for VSM 1994. In this research, the surveys of the participating governments included questionnaire responses of employees from all levels of the governments, ranging from council members and senior executives through professional staff like teachers, health clinic staff, social workers and firemen to maintenance crews and general labourers. The government organizations from which the samples were taken perform similar functions within the Aboriginal and non-Aboriginal communities.

where they are located. The VSM indices that were calculated for the non-Aboriginal governments are at least as appropriate for representing Canadian national culture as the VSM indices that Hofstede (1980, 2001) attributed to Canadian national culture based on his survey of the employees of IBM's offices in Canada.

8.3.1 Hypotheses for Research Question Three

Five hypotheses, based largely on Chapman *et al.* (1991) and Redpath and Neilsen (1997), were developed in connection with the third research question. Most of the hypotheses are either explicitly stated or implicitly suggested by Redpath and Neilsen's (1997) predictions about the relative rankings they expected for the dimensional indices of Native cultures and the surrounding Canadian or North American cultures.

The predictions of Chapman *et al.* (1991) and Redpath and Neilsen (1997) generally take the form that the dimensional indices for Native organizations and societies in Canada or North America will be lower than the dimensional indices for the larger Canadian or North American societies. For the purposes of this research, their predictions about indices for Native American cultures and the North American culture are interpreted as being directly applicable to Aboriginal cultures in Canada and the Canadian national culture, respectively.

Based on the reasoning of Chapman *et al.* (1991) and Redpath and Nielsen (1997), the power distance, uncertainty avoidance, individualism and masculinity indices calculated in this study for governments of certain Aboriginal communities in Canada should be

lower than the corresponding indices calculated for the non-Aboriginal governments

The hypotheses for research question three, which are based on those articles, are set out below

- H3 The power distance indices for Aboriginal governments will be lower than the power distance indices for non-Aboriginal governments,
- H4 The uncertainty avoidance indices for Aboriginal governments will be lower than the uncertainty avoidance indices for non-Aboriginal governments,
- H5 The individualism-collectivism indices for Aboriginal governments will be lower than the individualism-collectivism indices for non-Aboriginal governments, and
- H6 The masculinity-femininity indices for Aboriginal governments will be lower than the masculinity-femininity indices for non-Aboriginal governments

In addition, this research hypothesizes that Aboriginal societies will show a greater preoccupation with or concern for the past and the present as compared with the future and, consequently, that the long term orientation indices calculated for the Aboriginal governments will be lower than the long term orientation indices calculated for the non-

Aboriginal governments That idea is captured in the following hypothesis

- H7 The long term orientation indices for Aboriginal governments will be lower than the long term orientation indices for non-Aboriginal governments

9. Method

This chapter explains how the data were gathered from the participating governments and the methods that were used for analyzing their VSM indices. The chapter also presents details of an alternate method that was developed for use with research questions two and three. As explained in the findings chapter, the alternate method was used because only a small number of governments participated in the study. Finally, this chapter presents the methods that were used to conduct some supplementary analyses of research question two that are based on the alternate method.

9.1 Data Collection: The anthropological literature indicates that the First Nations in Canada are associated with approximately 50 Aboriginal languages representing 10 major language families and isolates (Norris 2007). The major Aboriginal language families and isolates are the Algonquian, Athabaskan, Siouan, Salish, Tsimshian, Wakashan and Iroquoian families and the Haida, Kutenai and Tlingit isolates. For the purposes of this research those language families and isolates are considered to represent 10 distinct ethno-linguistic traditions for the First Nation communities in Canada.

Most municipal governments in Canada include a “chief administrator” or equivalent position. Similarly, most Aboriginal governments in Canada include a related position that may be referred to as a “band manager”, “tribal manager”, “executive director”, “chief executive officer” or “director of operations”, among other titles. Those

government managers were the targets for the initial contacts with the governments. A total of 86 governments (78 Aboriginal and eight non-Aboriginal) were contacted during the data collection phase to determine if they wished to participate in the research. The nature of the initial contacts changed during the data collection period. In the earlier phase of data collection, initial contacts with government managers were made by means of a mailed letter and a follow up phone call. During the later phase, in an effort to increase efficiency and reduce the amount of time required for governments to decide whether they wish to participate, initial contacts were made by telephone only.

As part of the initial contacts, the purpose of the research project was identified and managers were informed that, if their government chose to participate in the research and would allow its employees to complete the VSM questionnaire if they wished, then a confidential management report would be prepared for the government to explain the results of its survey. A modified version of Hofstede's VSM survey was used for gathering the data. It contains all of the questions from the VSM 94 and additional questions from the original VSM questionnaire that formed the basis for the first edition of *Culture's Consequences* (Hofstede, 1980). The additional questions were incorporated into the survey to provide a broader basis for preparing the management reports for the participating governments. The questionnaire is attached as Annex 10.

If the government managers declined the invitation to participate at the stage of the initial contact, no further contact was made. In some cases, personal contacts could not be established with a target government. Where the initial contact took the form of a voice

message asking the government manager to return the call, many of the government managers did not respond. In other cases, where the government managers took the initial contact call, they did not make a decision to participate or not participate.

Usually, however, the government managers asked to see a written proposal about the research. In those cases, a written proposal was sent to the government manager by mail, fax or email. In some cases, the government managers declined the invitation to participate after they had reviewed the written material, in which case no further contact was made. Some of the government managers, however, decided to participate at this stage.

Most managers presented the written proposals to their government council for a decision. In those cases, a follow up call was made to the manager after the council had considered the proposal to learn whether the government had decided to participate. If the government declined the invitation, no further contact was made with the government. If a government decided to participate, however, a date and time were set for administering the survey to their willing employees.

The VSM surveys were administered on site at the offices of the participating governments. The government provided a room and scheduled times for groups of employees to complete the questionnaire. The employees were advised that they were not obligated to complete the questionnaire just because their employer had agreed to administer the survey during the regular work day. Usually, three days were required to

collect data from each of the governments, i.e. two days for travel and one day for administering the survey. In cases where the governments are situated in northern or remote communities, up to six days were required for travelling to and from the community and administering the survey.

To encourage participation, a commitment was made to not reveal the identity of any government. As a result, the governments are not named in this study or described in enough detail to be identifiable. Each of the governments was classified according to its traditional language family and was assigned a study number within that ethno-linguistic group.

9.2 Method for Research Question One

The VSM generates a profile of indices for the societies or organizations that complete the survey. The first research question simply involves calculating and commenting on the VSM indices for the participating governments. To answer research question one, VSM indices for the power distance, uncertainty avoidance, individualism, masculinity and long term orientation dimensions were calculated for each participating government from the questions and formulas that Hofstede (2001) used for the VSM 1994.

The indices for the Aboriginal and non-Aboriginal governments are described in terms of certain statistical characteristics, including their minimum, maximum, mean and median values and standard deviations from the mean. The governments are also described in terms of their particular indices for the VSM's five dimensions of culture. Initial

observations about the similarities and differences among the index values for the participating governments are noted but not tested in answering the first research question

9.3 The VSM Method for Research Question Two: The second research question asks whether the VSM approach can identify differences among the governments of communities that are known to be culturally different and whether it can identify similarities among the governments of communities that are known to be culturally similar. Research question two also considers whether Hofstede's VSM framework works at the level of sub-national societies within Canada. It treats the participating governments as representing the corresponding Aboriginal and non-Aboriginal communities or societies that underlie the governments. The research approach assumes that VSM indices calculated for the participating governments are informative about the cultural characteristics of the governments and also reflect some of the cultural characteristics of the societies that underlie the governments. If the VSM framework works in the context of the sub-national societies, then it could be expected to produce different indices for the groups that are culturally different and similar indices for the groups that are culturally similar.

The ideal outcomes that were imagined when the thesis proposal was developed were that a large number of Aboriginal governments representing a small number of ethno-linguistic traditions would participate in the research and that the number of governments from each tradition would be sufficient for identifying significant differences among the

VSM indices of the governments that belong to different traditions and for identifying similarities among the indices of the governments that belong to the same ethno-linguistic tradition

Those expectations are expressed in hypotheses H1 and H2, which were analyzed simultaneously based on the results of the statistical tests. A test result that indicates there is less variation within the groups than between the groups (at the $p = .05$ level of significance, for example,) would lead to a finding that at least some of the VSM indices are significantly different for some of the groups of governments. Such a result would simultaneously serve to establish the existence of some level of similarities in the VSM indices of the governments within each of the groups.

The Aboriginal communities whose governments participated in the study were classified into groups according to their ethno-linguistic backgrounds and the mean of the responses for the key questions were transformed, using Hofstede's formulas, to calculate VSM indices for the five dimensions of culture for each Aboriginal government.

A marker was assigned to each participating government to represent its ethno-linguistic group affiliation and a data set was prepared using the governments as cases, and the ethno-linguistic groups and the VSM's dimensions of culture as the variables. The cell values for each case in the data set include a categorical value for that government's ethno-linguistic group and a calculated VSM index for each of the five dimensions of culture.

To test hypotheses H1 and H2, the data set was entered into SPSS 18 and a multivariate analyses of variance (MANOVA) was conducted to assess whether differences exist in the dependent variables, i.e., the VSM indices for power distance, uncertainty avoidance, individualism, masculinity and long term orientation, when those variables are assessed against an independent grouping variable representing the language families of the communities. Type III sums of squares were used for the MANOVA because the VSM data set does not include empty cells. Wilks' Lambda was chosen as the multivariate statistic for the MANOVA on three groups and the level of significance for the MANOVA was set at $p = .05$.

Where the MANOVA determined that significant differences exist among some of the groups, the variables that contribute to the significant result were identified directly from the MANOVA results and Bonferroni tests were conducted to identify which groups differ on those variables. The findings from research question two, based on tests conducted at the level of the 13 participating governments, are presented in sections 10.3.2 and 10.3.3 of the findings chapter.

9.4 The VSM Method for Research Question Three: The statistical tests for the third research question generally take the same form as the tests used in research question two but research question three is confined to two groups only, i.e., an Aboriginal group and a non-Aboriginal group. To test hypotheses H3 through H7, the data set was entered into SPSS 18 and a MANOVA was conducted to assess whether differences exist in the five dependent variables when they are assessed against an

independent variable that represents two linguistic groups. One of the linguistic groups represents an Amer-Indian superlanguage family and the other represents the English language. Type III sums of squares were used for the MANOVA because the VSM data set does not include empty cells and Hotelling's Trace was chosen as the multivariate statistic because the MANOVA for research question three involves only two groups. The level of significance for the MANOVA was set at $p = .05$.

If the MANOVA determined that significant differences exist among some groups, the variables that differentiate among the groups were identified directly from the MANOVA results. The results were also interpreted to determine whether the differences are as predicted by Chapman *et al.* (1991) and Redpath and Nielsen (1997). No post hoc tests are required for research question three because the analyses involve only two groups. A finding that there is a significant difference between the two groups was further explored by comparing the group means. The results from research question three, based on the classic VSM approach applied at the level of the 13 participating governments, are presented in sections 10.3.4 and 10.3.5 of the findings chapter.

9.5 The Alternate Method for Research Questions Two and Three: When the proposal for this research was being prepared, it was not known how many governments would participate. As it happened, 18 governments agreed to participate and 14 governments actually participated but VSM indices could only be calculated for 13 of them. The 13 governments represent three language families. The small number of participating governments required that some adaptations be made to the method.

In this research, the survey responses from more than 400 employees were used to calculate VSM indices for the 13 governments. As will be shown in the findings chapter, however, when the 13 governments are organized into three ethno-linguistic groups, the MANOVAs for the VSM are based on only four or five indices within each dimension for each group, i.e., indices for five Algonquin governments, four Athabaskan governments and four non-Aboriginal governments. Similarly, when the 13 governments are organized into two ethno-linguistic groups, the MANOVAs are based on four or nine indices within each dimension, i.e., indices for nine Aboriginal governments and four non-Aboriginal governments. The small number of cases (i.e., $n = 4, 5, \text{ or } 9$) requires very large effect sizes for significant differences to be discernable among the groups. Where the effect sizes and numbers of cases are small, MANOVAs are more likely to result in a finding of no significant differences among or between groups. Where effect size is small but the number of cases is larger, statistical analyses are better able to detect differences among or between groups (Cohen, 1988).

An alternate method for the analyses of research questions two and three was developed for use in the event that only a small number of governments participate. The alternate method operates at the level of the respondents, or cases in the data matrix, rather than at the level of participating governments. The classical method for calculating the VSM indices for a group, such as a society or an organization like a government, involves determining mean values of the responses that the group members provide to certain survey questions, transforming those means by multiplying them by certain constants,

combining the transformed means by addition or subtraction and finally adding or subtracting another constant to the result from those operations to produce the indices

In the alternate method, the responses provided by each respondent to the survey questions that are used for calculating the VSM indices in the classical method are transformed and combined in the same fashion that the mean values of responses are transformed and combined in the classical method. In the data set for the alternate method, the cases are organized by language family or language, rather than by governments within language groups. Under the alternate method, the MANOVAs search for differences among or between language groups based, not on the VSM indices for a small number of governments but, rather, on the transformed and combined responses of all of the respondents within the language groups.

The alternate method requires that a slight change be made to research questions two and three. Instead of asking whether significant differences can be found among the VSM indices of small numbers of governments that are organized by language groups, the revised research questions ask whether significant differences can be found among the consistently transformed and combined responses of large numbers of government employees organized by language groups. The results and conclusions that are based on the classically derived VSM indices concern specific governments organized by language family. The results and conclusions that are based on the alternate method concern the government employees grouped according to language family but not according to governments within language families.

In adopting the alternate method, the number of cases changes from a maximum of 13, which represents all the participating governments in the classical VSM method, to a maximum of 429, which represents all of the responding government employees. The larger number of cases under the alternate method allows the analyses to detect significant differences among or between groups in circumstances where the effect sizes may not be large enough for detecting differences when the analyses are based on VSM indices for only 13 governments.

Under the alternate method, a particular VSM index for a group could be calculated as the mean of the transformed and combined responses from all of the surveyed members of the group. The mean of the transformed and combined responses of all respondents within a language group for the questions that are used in calculating the VSM index for a particular dimension of culture is the same as the classically derived VSM index would be for that dimension for that group. Accordingly, if all five indices were produced for a language group using the alternate method, they would be the same as the classically derived VSM indices for that group based on the VSM 1994 formulas that Hofstede (2001) provides.

In this study, however, the alternate method is not used for actually attributing VSM indices to any of the language groups. Instead, the alternate method simply looks for and reports significant differences among or between groups based on the transformed and combined responses from group members for the questions that are used in calculating each of the classically derived VSM indices. The alternate method, like the VSM,

recognizes that the VSM indices portray certain cultural characteristics of groups and the alternate method does not ascribe VSM indices to individual respondents

One of the Aboriginal governments that were surveyed had more than 100 employees and was the largest government in the study when it was surveyed. That particular survey, however, produced only nine completed questionnaires and the results from the survey could not be expected to accurately represent that particular government. If indices for that government had been calculated on the basis of only nine completed surveys, the results would likely have been unstable and liable to change if data from even a few more surveys were available. Accordingly, indices for that government were not calculated using the VSM method or included in the initial data set for research question one.

The alternate method, however, allows the data base to include the nine surveys that had not been used for calculating VSM indices for one of the Aboriginal governments. The nine questionnaires could be included in the analyses conducted with the alternate method because the alternate method operates at the level of respondents, rather than governments, organized by language group.

The findings from the alternate method for a language group cannot be interpreted as being precisely representative of any of the governments within that language group. However, any government within a given language group would be represented by multiple employees or respondents from that language group and, as a result, it is expected that the relative positions of the means for groups of respondents from any two

language groups will tend to reproduce the relative positions of the means for the two language groups. Nevertheless, even if the findings based on the alternate method about a language group could be interpreted as resembling the findings for a particular government whose employees are part of that language group, this study interprets the findings from the alternate method cautiously. The interpretations of the post hoc tests in the alternate method usually take a form similar to “the responses of the employees of the X-type governments would tend to result in higher indices on the Y dimension than the responses of the employees of the Z-type governments”

The symbols PD', UA', IDV', MAS', and LTO' represent the transformed and combined responses to the questions that would be used under the alternate method for calculating the power distance, uncertainty avoidance, individualism, masculinity and long term orientation indices, respectively, of the classic VSM. The prime mark on each of the abbreviated dimension names is intended to distinguish the results that are calculated using the alternate method from the classically derived VSM indices.

The statistical tests under the alternate method follow a slightly different pattern from the tests based on the VSM. To test hypotheses H1 and H2, the data set was entered into SPSS 18 and a MANOVA was conducted to assess whether differences exist on PD', UA', IDV', MAS' and LTO' when those dependent variables are assessed against an independent grouping variable representing the language family of the communities. Type IV sums of squares were used for the MANOVA because the data set for the alternate method includes empty cells. Wilks' Lambda was chosen as the multivariate

statistic for the MANOVA on three groups (for research question two) and Hotelling's Trace was chosen for the MANOVA with two groups (for research question three) The level of significance for the MANOVAs was set at $p = .05$

If the MANOVA determined that there are significant differences among some of the groups, then an analysis of variance (ANOVA) and Bonferroni tests were conducted to identify the dependent variables where the differences are located In the alternate method, the ANOVAs were conducted at the .01 level of significance so the probability of a type one error would not exceed .05 when the ANOVAs were conducted with the five dependent variables

The use of ANOVAs in addition to MANOVAs is an important feature of the alternate method Unlike the VSM data set, the data set for the alternate method contains missing data where respondents left questions unanswered The sample sizes for the ANOVAs are larger than the sample sizes for the MANOVAs because, in the MANOVAs, an entire case is removed from the analysis when any variable contains an empty cell Under the ANOVAs, a case with an empty cell is removed only from the analysis of a variable that considers that empty cell but the case continues to be available for analyses of other variables that do not consider the empty cell Following case-wise deletions for respondents who did not provide answers for all of the questions that are used for calculating the VSM indices, the maximum number of respondents for MANOVAs conducted with the alternate method is 366 The number of respondents for ANOVAs conducted with individual variables is slightly larger and ranges from 393 to 419

following the case-wise deletions. The findings from research questions two and three, based on the alternate method are presented in sections 10.4, 10.4.1, 10.5 and 10.5.1 of the findings chapter.

9.6 Supplemental Analyses for Research Question Two: The principal interest of this research concerns the differences and similarities among three types of governments, i.e., one group of non-Aboriginal governments and two groups of Aboriginal governments. As will be explained further in the findings chapter, the Aboriginal governments represent the Algonquin and Athabaskan ethno-linguistic traditions. To further explore research question two using the alternate method, some supplementary analyses were conducted with other data sets that had been modified slightly from the standard data set for the alternate method.

9.6.1 Data Set that Distinguishes Ojibway from Cree The governments that are associated with the Algonquin language family actually represent two different Algonquin languages and cultural types. Three of the participating Algonquin governments are from Ojibway communities in the northwestern Ontario. Two other Algonquin governments are from Cree communities in the prairie provinces. Nine other survey questionnaires that were collected from another Algonquin government, and which were not sufficient in number for calculating VSM indices for that government, were collected from a third Cree government in the prairie provinces. The nine Cree surveys were included in the data set because they are valid cases for Cree government.

employees even though they are not sufficient in number to accurately represent a particular Cree government

Ojibway and Cree are two separate languages within the Algonquin language family. Following the data gathering phase, it became clear that large numbers of responses were available for the Ojibway and Cree communities. Given the numbers of cases that were available under the alternate method, a decision was made to subsequently reorganize the Algonquin language family cases into two groups, representing the Ojibway and Cree languages.

A MANOVA was conducted to determine whether significant differences exist on the dependent variables of PD', UA', IDV', MAS' and LTO' when they are analyzed against a grouping variable that classifies the respondents according to four language groups, i.e., Ojibway, Cree, Athabaskan or English. Type IV sums of squares was used for the MANOVA because the data set includes empty cells. Wilks' Lambda was chosen as the multivariate statistic for the MANOVA on four groups. The level of significance for the MANOVAs was set at $p = .05$.

If the MANOVA result was significant, then an ANOVA was conducted to further understand the results and, where the ANOVA determined that there are significant differences among groups of government employees, Bonferroni tests were conducted to determine which groups differ along each of the dependent variables.

9.6.2 Data Set that Substitutes Means for Missing Values

Many of the completed questionnaires included “no response” answers for some of the survey questions. Where a “no response” answer was included for any of the questions that are used for calculating the VSM indices, the SPSS program automatically deletes the case from the analysis. To supplement the analyses under the alternate method for research question two, a revised data set was prepared in which the “no response” cells for a question were replaced with the mean value of the other responses for that question.

A MANOVA and Bonferroni tests were conducted with the revised data set. Type III sums of squares were used for the MANOVA because the data set does not include empty cells and Wilks' Lambda was chosen as the multivariate statistic. The level of significance for the MANOVAs was set at $p = .05$. ANOVAs were not required in this analysis because after the mean values had been entered into the empty cells, there no longer were any empty cells in the matrix. The results from the supplementary analyses are presented in sections 10.6.1 and 10.6.2 of the findings chapter.

9.7 Other Features of the Method: Government employees are considered to be an appropriate subject group for a cross-cultural study of this nature for several reasons. Aboriginal governments generally prefer hiring resident Aboriginal members of the community, wherever possible, as government employees. Aboriginal communities tend to be characterized by higher unemployment rates than Canadian society and Aboriginal governments are exposed to considerable pressure from their constituents to hire resident band members. This study also assumes that employment with the Aboriginal

government would generally be highly valued by the resident members of an Aboriginal community. As a group, government employees are expected to be aware of key issues facing the community, to be concerned about the achievement or satisfaction of community aspirations and to reflect community values as well as or better than other possible alternative representative groups.

Government programming, particularly among First Nations that continue to operate primarily under the federal *Indian Act*, is expected to be relatively uniform across Canada. The transfer of program funding from federal departments, for example, is generally contingent on programs and services being delivered by the First Nation government at established federal or provincial levels. This research assumes that Aboriginal government employees perform approximately similar program- and service-related tasks regardless of their community affiliation. Similarities among the functions that are performed by government employees are expected to further reduce the variance in indices that could be associated with fundamentally different types of occupations.

The study recognizes that the responsibilities of municipal and Aboriginal governments are not entirely similar. The range of program and service responsibilities for Aboriginal governments tends to be broader than the range of functional responsibilities for municipal governments. Nevertheless, for this study, municipal governments were chosen as being a more appropriate comparator for the Aboriginal governments than provincial governments or the federal government. This study assumes that there is a linkage between a government organization and the particular community society that

underlies it. In this study, the cultural characteristics of a government are assumed to also reflect the cultural characteristics of the local society. Aboriginal and municipal governments both tend to be linked to specific local communities while provincial governments and the federal government are distributed more diffusely and, arguably, can be linked to many communities.

Early in the development of the research proposal, a decision was made to administer the surveys exclusively in English and not translate the questionnaires into the traditional languages that are associated with the participating Aboriginal societies. An English language survey is simpler to conduct because it does not require translation or back translation. English has become the working language for most Aboriginal governments in Canada and, although efforts are underway to preserve and encourage the use of Aboriginal languages in Canada, Aboriginal government employees are generally more conversant and literate in English than in their traditional languages. The 2001 census of Canada indicated that only a quarter of the persons who identified themselves as Aboriginal are able to conduct a conversation in an Aboriginal language (Norris, 2007). Translating the survey questionnaire into Aboriginal languages would also likely introduce other biases into the analysis and, presumably, for little benefit since the majority of the Aboriginal governments use English as their primary operating language.

The primary data for this research were collected by means of the survey questionnaire that is attached as Annex 10. It is composed primarily of questions taken from the questionnaire that produced the data that Hofstede analyzed for *Culture's Consequences*.

(Hofstede 1980) and from other versions of the VSM questionnaires that Hofstede subsequently developed. Certain questions were modified to make them more appropriate for a government context, rather than a business context. References to a “corporation” or “company” in the original versions of the questionnaires, for example, were changed to “organization” or “employer”. As an illustration, question B21 from the original questionnaire, which reads “Most employees in industry prefer to avoid responsibility, have little ambition and want security above all”, was changed in question B21 of the attached questionnaire to read “Most employees in government prefer to avoid responsibility, have little ambition and want security above all”. Other items in the attached questionnaire, such as questions B3, B7, D11, and most of the E series of questions, were developed specifically for this research project and are not found in the VSM questionnaires.

The Carleton University Research Ethics Committee authorized a test of a prototype of the attached questionnaire to confirm that it would provide valid results in the context of Aboriginal governments. A test that was conducted in 2006 with one Aboriginal government in Ontario did not identify any serious problems in the questionnaire or suggest that the questionnaire would not be appropriate for this research. Question E7, however, which concerns the ethno-linguistic affiliation of the survey respondents was added to the questionnaire after the trial. Following the approval of the research proposal in 2007, a separate authorization was obtained from the research ethics committee to use the questionnaire for collecting the data for this study.

The research design contemplated an exchange of commitments between the researcher and each government that agreed to participate. The governments were asked to agree both to make time available for employees to complete the survey questionnaire and to allow some of the data collected through the survey to be used for the purposes of the thesis research. In the thesis, the data are being used only in a manner that does not reveal the specific identity of the participating governments. In exchange for agreeing to participate in the research on those terms, a management report was prepared for the government to interpret the results from its survey and to situate the indices for that government within the larger context of the results that were obtained from the other participating, but unidentified governments.

Alternative approaches for collecting data, including mailing surveys to community members or to the employees' households and conducting structured surveys of the adult students in reserve schools and municipal high schools, were also considered. The other possible alternatives, however, were determined to be problematic for methodological and practical reasons. The difficulties posed by the alternative approaches include the problems in identifying participants and addresses for a mail survey and the expected low participation rates for mail surveys. In addition, a survey of students or households was considered to be less like Hofstede's original surveys than a survey of government employees. The limited work experience of students also makes them a relatively unsuitable proxy for employees. On the basis of his experience, Hofstede (2001: 264) cautioned about the difficulties of making valid comparisons between the results obtained from students and the results obtained from the original survey population.

10. Findings

This chapter initially presents some details about the participating governments and general findings that concern all of the survey results. Section 10.3 reports the indices that were calculated for the governments using the classical VSM method and presents the results from the hypothesis tests that are based on the classically derived VSM indices. Section 10.4 reports the test results that are based on the alternate method and section 10.5 reports additional findings for research questions two and three. Section 10.6 presents the results from two supplementary analyses that were conducted for research question two using the alternate method and two modified data sets. Section 10.7 summarizes the major findings from the study.

10.1 Participation: Table 10 sets out the frequencies of the decision outcomes of the governments. Four of the Aboriginal governments that considered the proposal had agreed to participate in the research but, owing to scheduling difficulties, a date and time for administering those surveys could not be identified.

| Outcome | Number of Governments |
|--|-----------------------|
| No answer or decision | 36 |
| Considered the proposal but decided to not participate | 32 |
| Considered and agreed to the proposal but survey not completed | 4 |
| Considered and agreed to the proposal and survey completed | 14 |
| Total | 86 |

All of the participating Aboriginal governments are associated with either the Algonquin or Athabaskan language families, which are among the largest Aboriginal language families in Canada ¹¹ The non-Aboriginal governments are municipal governments that are situated in predominantly English-speaking communities in Canada Table 11 shows the language family of each participating government along with the number of survey respondents for each government and language family

| Table 11: Participating Governments Organized by Language Family | | | |
|---|--------------------|--|---|
| Language Family | Government | n₁ (by government) | n₂ (by language family) |
| Algonquin | Algonquin – 1 | 25 | 145 |
| | Algonquin – 2 | 29 | |
| | Algonquin – 3 | 23 | |
| | Algonquin – 4 | 25 | |
| | Algonquin – 5 | 43 | |
| Athabaskan | Athabaskan – 1 | 29 | 136 |
| | Athabaskan – 2 | 48 | |
| | Athabaskan – 3 | 34 | |
| | Athabaskan – 4 | 25 | |
| English | Non-Aboriginal – 1 | 37 | 139 |
| | Non-Aboriginal – 2 | 20 | |
| | Non-Aboriginal – 3 | 50 | |
| | Non-Aboriginal – 4 | 32 | |
| Total Respondents | | 420 | 420 |

¹¹ The 1996 census reports that, for persons with an Aboriginal mother tongue (or first language learned and still understood), the largest Aboriginal language families in Canada are the Algonquian, Inuktitut and Athabaskan families, which, at that time had, 147,000, 28,000 and 20,000 speakers, respectively

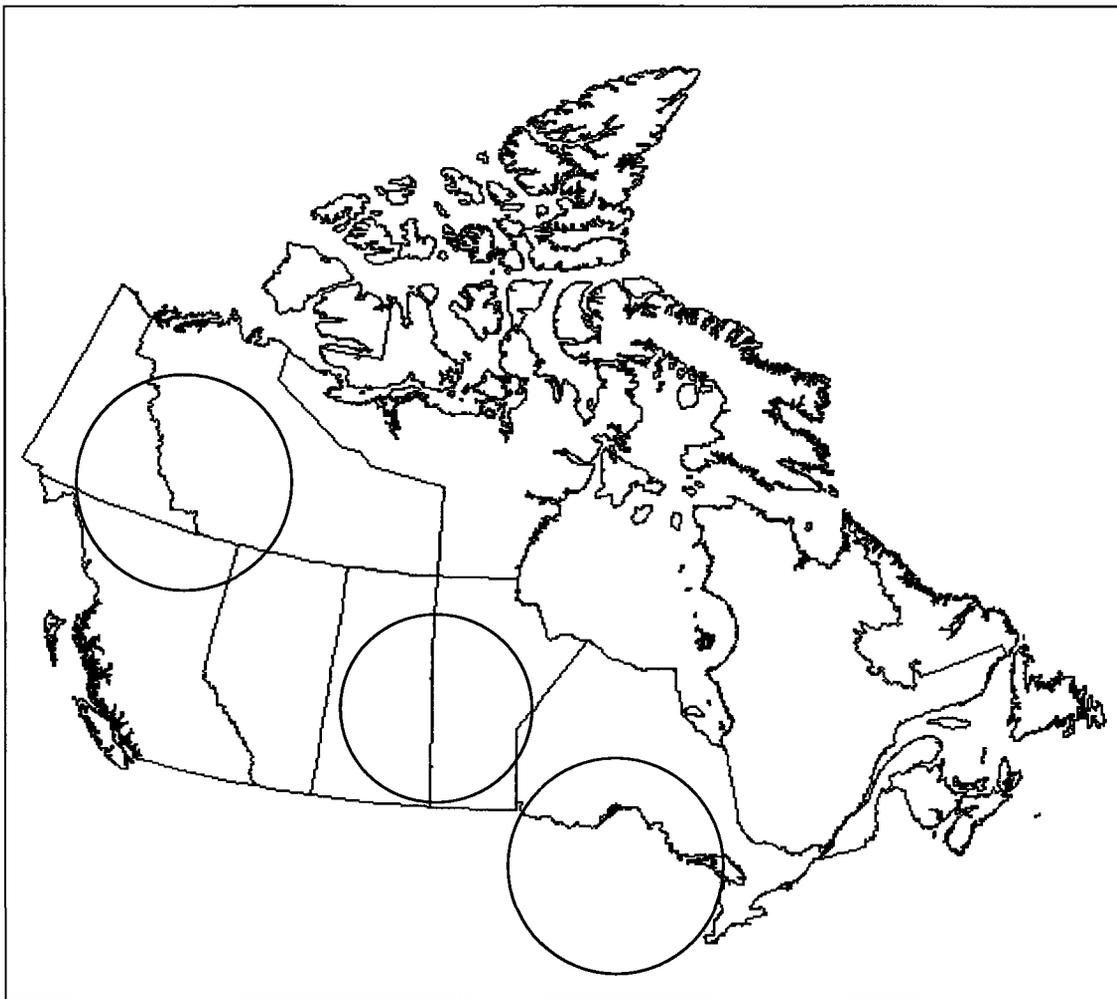


Diagram 3: General Locations of Participating Governments (showing the south-eastern, central and north-western regions where the data were collected)

Diagram 3 shows the three regions in Canada where the participating governments are situated. The south-eastern region contains three Aboriginal governments that are associated with the Algonquin language family and one English-speaking, non-Aboriginal government. The central region includes two governments that are associated with the Algonquin language family, one government associated with the Athabaskan language family and two English-speaking, non-Aboriginal governments. The north-

western region contains three governments that are associated with the Athabaskan language family and one English-speaking, non-Aboriginal government

The communities where the participating governments are situated are small, with most having fewer than 1,000 residents. The communities where the non-Aboriginal governments are located are somewhat larger than the Aboriginal communities although their populations are not large in comparison with urban centres in Canada. Two of the non-Aboriginal governments are located in communities that exceed 10,000 residents. All of the governments are small and generally consist of fewer than 50 employees.

As shown in Table 11, the number of respondents for each participating government is small. The governments, however, are small organizations and the number of respondents for each of them is sufficiently large to be representative of the government organizations. One of the non-Aboriginal governments, which may serve as an example, had 28 full time employees at the time of its survey and 20 of the employees (approximately 71%) completed the survey.

10.2 General Findings: Table 12 shows the number of respondents for each type of government, the number of answers that the respondents could provide for the 18 questions that are used to calculate the VSM indices and the number of responses that are missing for the 18 key questions. The table suggests that the employees of the Algonquin governments tended to leave more questions unanswered and that the employees of the non-Aboriginal governments tended to leave fewer questions unanswered.

| Type of Government | Number of Respondents | Possible Responses | Missing Responses | Percent Missing |
|------------------------------|-----------------------|--------------------|-------------------|-----------------|
| Algonquin | 154 | 2772 | 137 | 4.9% |
| Athabaskan | 136 | 2448 | 74 | 3.0% |
| Non-Aboriginal | 139 | 2502 | 13 | 0.5% |
| Total (or weighted %) | 429 | 7722 | 224 | 2.9% |

Table 13 shows the distribution of the missing responses for the 18 questions that are used for calculating the indices. The questions in the A series were left unanswered less frequently and the questions in the D series were left unanswered more frequently than average.

| Question | Missing Responses | Percent Missing |
|------------------------------|-------------------|-----------------|
| A4 | 5 | 1.2% |
| A7 | 5 | 1.2% |
| A11 | 5 | 1.2% |
| A13 | 7 | 1.6% |
| A14 | 11 | 2.6% |
| A15 | 4 | 0.9% |
| A16 | 5 | 1.2% |
| A18 | 5 | 1.2% |
| A32 | 8 | 1.9% |
| B14 | 11 | 2.6% |
| B20 | 12 | 2.8% |
| D2 | 35 | 8.2% |
| D4 | 23 | 5.4% |
| D5 | 24 | 5.6% |
| D6 | 14 | 3.3% |
| D7 | 18 | 4.2% |
| D8 | 18 | 4.2% |
| D9 | 14 | 3.3% |
| Total (or weighted %) | 224 | 2.9% |

The A series concerns the respondents' work-related goals and the extent to which their current jobs satisfy those goals. The D series concerns respondents' evaluations of the

importance in their private life of various personal characteristics and some of their beliefs about people and organizations. The highest number of missing responses was associated with question D2, which concerns the importance of thrift to the respondents in their private life. The questionnaire that was used in this study included many questions beyond those that are used for calculating the VSM indices. It is possible that respondent fatigue influenced the distribution of the missing responses in this study.

10.3 Findings Based on the Classical VSM Method: In this chapter, the term “index” denotes a score or value that is calculated using the VSM formulas and characterizes a group, such as an organization or society, in terms of one of Hofstede’s five dimensions of culture.

10.3.1 Findings for Research Question One Table 14 presents the indices that were calculated for 13 governments in Canada using the classic VSM 94 method described in *Culture’s Consequences* (Hofstede, 2001). The table’s contents are organized in terms of governments within language families and include basic parameters for the indices. Based on the indices, some initial observations about the governments are noted but not actually tested. The results from the statistical tests for significant differences are reported in sections 10.3.2 through 10.3.5.

The data range for the set of indices on all five dimensions extends from -39.2 for one of the masculinity-femininity indices to 114.6 for one of the uncertainty avoidance indices. The ranges of the indices within the dimensions are much narrower, extending from 17.5

units for the long term orientation indices to 58.8 units for the masculinity-femininity indices. The data ranges for the power distance, uncertainty avoidance, and individualism-collectivism dimensions are similar in size (35.9, 40.3 and 34.7 units respectively). The sizes of the ranges for the power distance, uncertainty avoidance and individualism-collectivism dimensions are approximately halfway between the sizes of the largest and smallest ranges, i.e., for the masculinity-femininity and long term orientation dimensions, respectively.

| Language Family or Language | Government | n | Power Distance | Uncertainty Avoidance | Individualism-Collectivism | Masculinity-Femininity | Long Term Orientation |
|------------------------------------|-------------------|----------|-----------------------|------------------------------|-----------------------------------|-------------------------------|------------------------------|
| Algonquin | Algonq-1 | 25 | 12.8 | 91.0 | 73.1 | -0.4 | 26.5 |
| | Algonq-2 | 29 | 6.6 | 90.2 | 74.3 | -18.2 | 25.2 |
| | Algonq-3 | 23 | 25.4 | 109.4 | 88.7 | -16.5 | 29.6 |
| | Algonq-4 | 25 | 19.6 | 114.6 | 82.1 | -1.6 | 33.6 |
| | Algonq-5 | 43 | 11.6 | 85.0 | 69.2 | 19.6 | 24.1 |
| Athabaskan | Athabasc-1 | 29 | 20.6 | 78.4 | 91.0 | -26.1 | 32.6 |
| | Athabasc-2 | 48 | 6.4 | 85.9 | 97.2 | -34.5 | 26.3 |
| | Athabasc-3 | 34 | 18.7 | 93.1 | 77.8 | -39.2 | 39.4 |
| | Athabasc-4 | 25 | 4.4 | 74.3 | 94.2 | -5.1 | 26.2 |
| English | Non-Abrgl-1 | 37 | 38.4 | 108.1 | 81.2 | 10.5 | 40.0 |
| | Non-Abrgl-2 | 20 | 14.5 | 97.3 | 97.8 | -26.5 | 32.0 |
| | Non-Abrgl-3 | 50 | 35.2 | 80.5 | 86.9 | -1.4 | 41.6 |
| | Non-Abrgl-4 | 32 | 40.3 | 90.0 | 103.9 | -14.3 | 35.3 |
| Maximum | | | 40.3 | 114.6 | 103.9 | 19.6 | 41.6 |
| Minimum | | | 4.4 | 74.3 | 69.2 | -39.2 | 24.1 |
| Range | | | 35.9 | 40.3 | 34.7 | 58.8 | 17.5 |
| Median | | | 19.6 | 92.1 | 86.0 | -11.8 | 31.7 |
| Mean | | | 18.7 | 90.2 | 86.9 | -14.3 | 32.0 |
| Std Dev | | | 12.2 | 12.3 | 10.7 | 17.4 | 6.0 |

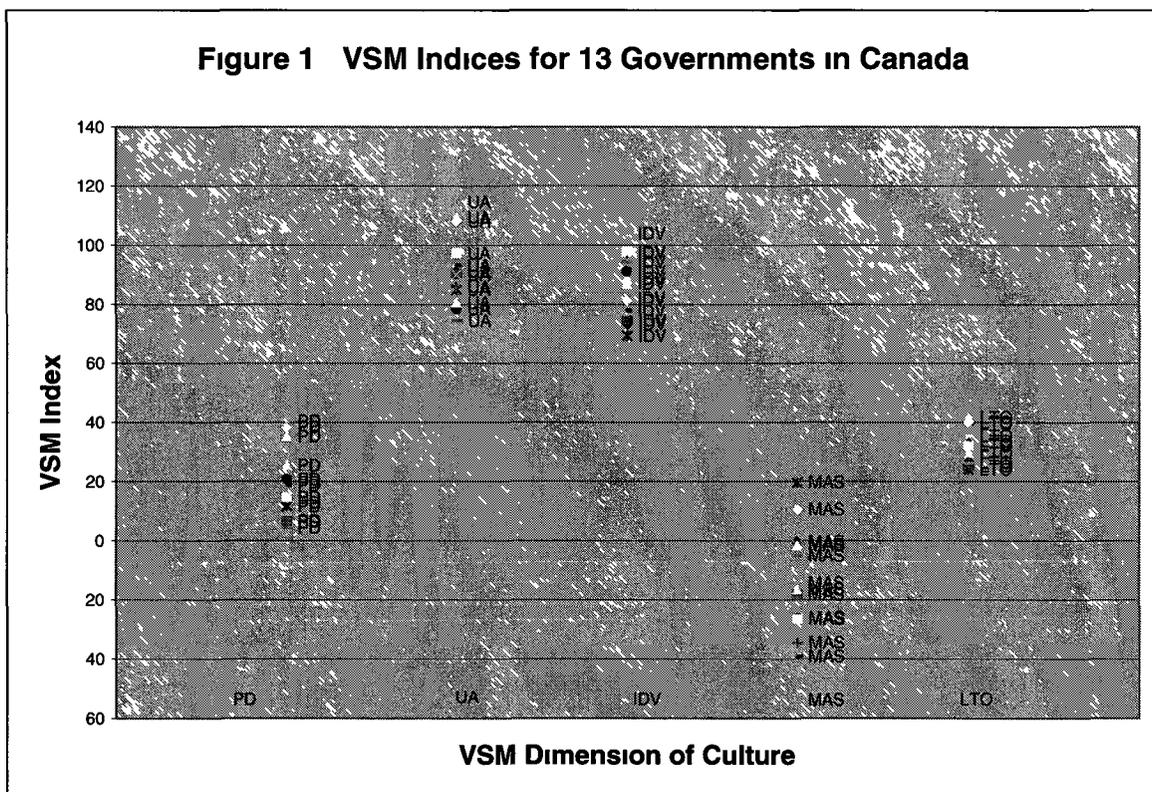
All three groups exhibit very high indices along the uncertainty avoidance and individualism dimensions and very low indices for the masculinity dimension. A careful visual inspection of the indices in Table 14, however, suggests that differences among the various groups of governments might be discernable along each of the dimensions. The non-Aboriginal governments appear to display greater tolerance for power distance than the Algonquin and Athabaskan governments. All three groups of governments avoid uncertainty but the Athabaskan governments might have greater tolerance for uncertainty than the Algonquin and non-Aboriginal governments. The Algonquin governments seem to exhibit a higher degree of collectivism than the Athabaskan and non-Aboriginal governments.

All of the governments would be characterized as being very feminine according to Hofstede's criteria but the Athabaskan governments seem to exhibit an even greater degree of femininity than the Algonquin and non-Aboriginal governments. The Algonquin governments seem to display lower long term orientation and the non-Aboriginal governments appear to display a higher long term orientation than the other governments.

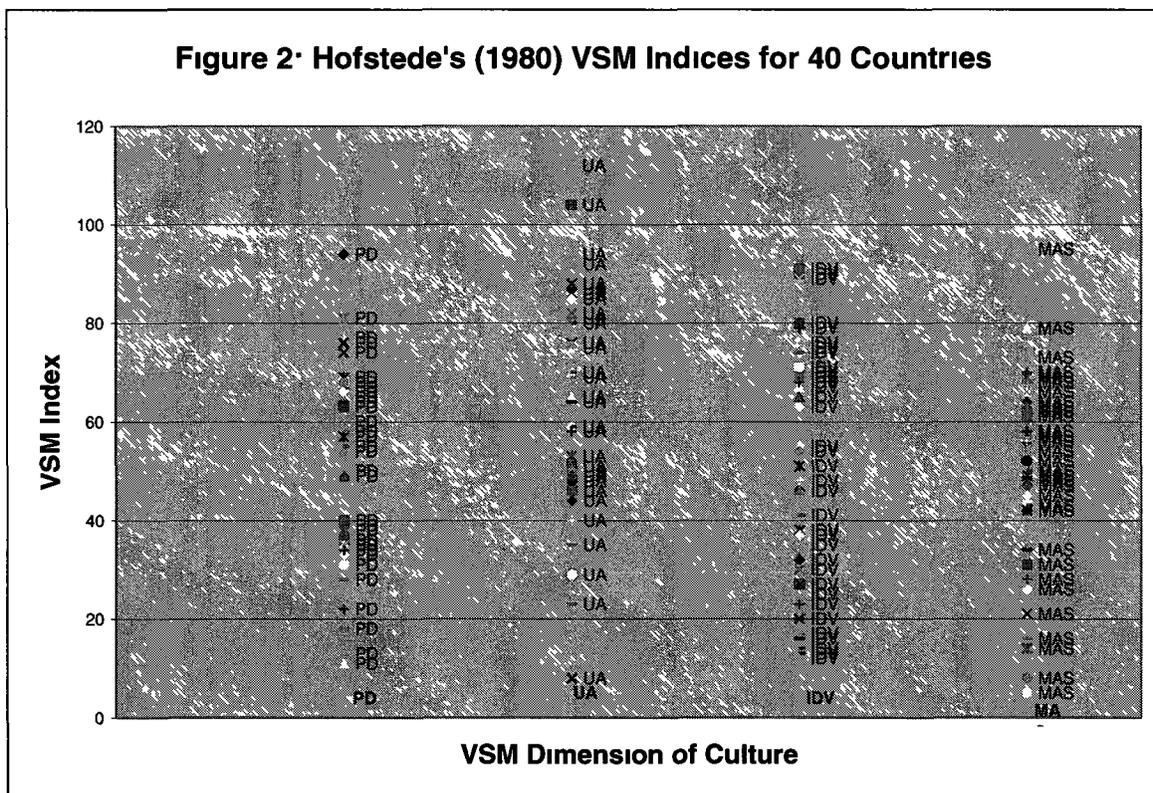
As a group, the Algonquin governments seem to be characterized by low tolerance for power distance, extremely high uncertainty avoidance, high individualism, a very low degree of masculinity and low long term orientation. The Athabaskan governments appear to exhibit low tolerance for power distance, high uncertainty avoidance, high individualism, an extremely low degree of masculinity and low to medium long term

orientation The non-Aboriginal governments seem to be characterized by medium tolerance for power distance, extremely high uncertainty avoidance, high individualism, a very low degree of masculinity and medium long term orientation The contrasts presented above are explored in more detail in subsequent sections of this chapter

The data set for research question one is small in that it includes only five data points for each of the 13 governments Nevertheless, there appears to be some overall consistency in the indices along each of the dimensions of culture Figure 1 shows the indices for the 13 governments and the degree to which they tend to cluster together along each dimension, including the relatively greater spread along the masculinity-femininity dimension and the relatively smaller spread along the long term orientation dimension



In order to keep Figure 1 simple, the governments that correspond to the specific indices are not named. For comparative purposes, Hofstede's (1980) early indices for 40 countries are presented in Figure 2, which shows how the 40 indices are spread across a range of approximately 100 units along Hofstede's four original dimensions of culture. Figure 2 illustrates that the formulas that Hofstede developed for calculating the VSM indices for the 40 countries were devised to produce a range of approximately 100 units for each dimension.



In the earlier discussion of the research by Punnett and Withane (1990), it was noted that some of the more recent applications of the VSM technique have produced indices that exceed Hofstede's original 100 point range. Punnett and Withane (1990), for example, identified indices for some Canadians that differ substantially from Hofstede's indices for

Canadians and exceed the original 100 point range for certain dimensions. The second edition of *Culture's Consequences* (Hofstede 2001: 501) also includes indices that Simonsen calculated for an unidentified group of Aboriginal Australians. As shown in Table 15, the indices that Simonsen calculated for the uncertainty avoidance and long term orientation dimensions fall outside the standard 100 point range.

| Group | Power Distance | Uncertainty Avoidance | Individualism | Masculinity | Long Term Orientation |
|------------------------------|-----------------------|------------------------------|----------------------|--------------------|------------------------------|
| Australian Aborigines | 80 | 128 | 89 | 22 | -10 |

Almost one-quarter of the indices calculated for the 13 governments in Canada (15 indices from a set of 65 indices, i.e. five indices for each of 13 governments) fall outside the original zero to 100 point scale for the VSM. The majority of the indices that fall outside the standard range are found along the masculinity dimension and reflect the highly feminine scores of the participating governments. The other indices that lie beyond the standard range are on the uncertainty avoidance and individualism dimensions and reflect the very high uncertainty avoidance and very high individualism exhibited by some of the participating governments.

Given that the VSM formulas were developed to produce ranges that extend from approximately zero to 100 for the indices of the 40 national cultures represented in Hofstede's original data set and, given that researchers such as Punnett and Withane (1990) and Simonsen have since calculated indices that exceed the 100 point ranges, the finding that 23% of the indices calculated in this study fall outside the standard 100 point

range is not considered to be a concern. Table 14 on page 115 shows that the 15 outlying indices are distributed approximately uniformly across the three groups of governments, i.e., six among the Algonquin governments, four among the Athabaskan governments and five among the non-Aboriginal governments.

10.3.2 Findings for Research Question Two Based on the VSM

A MANOVA,

based on type III sums of squares and with the level of significance set at $p = .05$, was conducted with the VSM indices to determine whether significant differences exist on the dependent variables of power distance (PD), uncertainty avoidance (UA), individualism (IDV), masculinity (MAS) and long term orientation (LTO) when they are analyzed against a grouping variable that classifies the governments according to three language groups.

Using Wilks' Lambda as the multivariate statistic, the results from the MANOVA were significant ($F_{(2, 10)} = 3.479, p = .022$) and indicate that simultaneous differences exist for the dependent variables when analyzed against the independent grouping variable. However, in that analysis, Box's test of equality of covariance matrices could not be computed. There were fewer than two non-singular covariance matrices because the number of dependent variables exceeded the number of cases in the Athabaskan and non-Aboriginal groups. The two least significant variables, i.e., UA and MAS, were removed from the data set and, when the MANOVA was repeated with three remaining dependent variables, the results continued to be significant and Box's test result was not significant, indicating that the assumption of equality of covariance matrices is supported. The

conditions and results for the MANOVA based on the VSM data set are shown in Table 16

| Table 16: MANOVA for Three Groups of Governments (VSM with $p = .05$) | | |
|---|-------------------|----------|
| Group | Government | n |
| 1 | Algonquin | 5 |
| 2 | Athabaskan | 4 |
| 3 | English | 4 |
| MANOVA result: $F_{(2, 10)} = 4.258, p = .009$ | | |
| Box's test result: $F = 1.077, p = .378$ | | |

The MANOVA showed that the groups do not differ in terms of their indices for the IDV dimension ($F_{(2, 10)} = 3.806, p = .059$). The result approached significance but ultimately the various groups do not differ significantly on the individualism dimension at the .05 level of significance. In that test situation, the result from Levene's test was not significant and confirmed that the assumption of equal variances across groups was supported for the IDV variable. The MANOVA, however, showed that some of the groups differ significantly along the PD dimension ($F_{(2, 10)} = 5.428, p = .025$) and the LTO dimension ($F_{(2, 10)} = 4.243, p = .046$). In those analyses, Levene's test of homogeneity of variances across groups was also not significant (for PD, $p = .574$ and for LTO, $p = .436$).

Multiple pair-wise comparisons were conducted using the Bonferroni test, to determine which groups differ along the PD and LTO variables. The tests indicated that the PD indices of the Athabaskan governments are significantly different from those of the non-Aboriginal governments. The mean of the PD indices of the Athabaskan governments is 12.5 and the corresponding mean for the non-Aboriginal governments is 32.1. The

difference between the means of the PD indices for the Aboriginal and non-Aboriginal groups is one of the larger differences identified in the study. Table 17 summarizes the key results from the Bonferroni test involving the PD dimension.

| | Algonquin | Athabaskan | Non-Aboriginal |
|-----------------------|---------------------------|-------------------------------|---------------------------|
| Algonquin | – | no significant difference | no significant difference |
| Athabaskan | no significant difference | – | Athabascans lower |
| Non-Aboriginal | no significant difference | Non-Aboriginals higher | – |

The Bonferroni test also indicated that the LTO indices for the Algonquin governments are significantly different from those of the non-Aboriginal governments. The mean of the LTO indices for the Algonquin governments is 27.8 and the mean for the non-Aboriginal governments is 37.2. The difference in the LTO means for the Algonquin and non-Aboriginal groups is one of the smallest differences identified in the study. Table 18 shows the Bonferroni test results for long term orientation.

| | Algonquin | Athabaskan | Non-Aboriginal |
|-----------------------|-------------------------------|---------------------------|---------------------------|
| Algonquin | – | no significant difference | Algonquins lower |
| Athabaskan | no significant difference | – | no significant difference |
| Non-Aboriginal | Non-Aboriginals higher | no significant difference | – |

10.3.3 Results for Hypotheses H1 and H2 Based on the VSM Hypotheses H1 and H2 were formulated to test whether the VSM indices are different for the governments of

communities that are culturally different and similar for governments that are culturally similar Hypotheses H1 and H2 are repeated below

- H1 Groups that do not share a common ethno-linguistic tradition will score differently on Hofstede's dimensions related to
 - H1-a) power distance,
 - H1-b) uncertainty avoidance,
 - H1-c) individualism-collectivism,
 - H1-d) masculinity-femininity, and
 - H1-e) long term orientation

- H2 Groups that share a common ethno-linguistic tradition will score similarly on Hofstede's cultural dimensions related to
 - H2-a) power distance,
 - H2-b) uncertainty avoidance,
 - H2-c) individualism-collectivism,
 - H2-d) masculinity-femininity, and
 - H2-e) long term orientation

When the VSM indices of the 13 participating governments are organized into three ethno-linguistic groups, the MANOVA determined that significant differences are evident among some of the groups The analysis, however, was not able to test hypotheses H1-b, H1-d, H2-b or H2-d because the UA and MAS variables had to be removed from the data set The post hoc tests identified significant differences between the Athabaskan and the non-Aboriginal governments in terms of their power distance indices and between the Algonquin and the non-Aboriginal governments in terms of their long term orientation indices Those results offer some support for hypotheses H1-a, H1-e, H2-a and H2-e

Although the Algonquins and the Athabascans are culturally distinct, the tests in this study did not identify significant differences between those groups in terms of any of

their indices. The results for the Athabaskan and Algonquin governments, based on the VSM indices, do not support any of the tested sub-elements of hypotheses H1 or H2.

10.3.4 Findings for Research Question Three Based on the VSM

The third research question explores differences between two groups, i.e., between the Aboriginal and non-Aboriginal groups, and asks whether the results support the speculations in the Canadian management literature about how the VSM indices of Aboriginal organizations compare with the corresponding indices of similar non-Aboriginal organizations.

A MANOVA, based on type III sums of squares and with the level of significance set at $p = .05$, was conducted with the VSM indices to determine whether significant differences exist on the PD, IDV and LTO variables when they are analyzed against a grouping variable that classifies the governments according to two language groups. The UA and MAS variables had been removed from this analysis so the Box statistic could be computed. Hotelling's trace was chosen as the appropriate multivariate statistic because the MANOVA involves only two groups. The conditions and results for the MANOVA with the VSM data set are summarized in Table 19.

| Table 19: MANOVA for Two Groups of Governments (VSM with $p = .05$) | | |
|---|-----------------------|----------|
| Group | Language Group | n |
| 1 | Amer-Indian | 9 |
| 2 | English | 4 |
| MANOVA result: $F_{(1,11)} = 4.363, p = .037$ | | |
| Box's test result: $F = .581, p = .746$ | | |

The results from the MANOVA were significant and indicate that simultaneous differences exist for some groups on the dependent variables. The result from Box's test

of equality of covariance matrices was not significant, indicating that the assumption of equality of covariance matrices is supported. None of the Levene tests of equality of variances among groups within variables were significant.

The MANOVA showed that the groups do not differ significantly in their indices for the IDV dimension ($F_{(1, 11)} = 2.386, p = .152$) but that the groups differ significantly on the PD dimension ($F_{(1, 11)} = 11.521, p = .006$). Levene's test of homogeneity of variances across groups was not significant for the analysis on PD ($p = .347$). The groups means suggest that the non-Aboriginal governments tend to have higher PD indices than the Aboriginal governments. The mean PD index for the non-Aboriginal groups is 32.1 and the mean for the Aboriginal groups is 14.0. The results are presented in Table 20.

| | Aboriginal Governments | Non-Aboriginal Governments |
|-----------------------------------|-------------------------------|-----------------------------------|
| Aboriginal Governments | – | Aboriginals lower |
| Non-Aboriginal Governments | Non-Aboriginals higher | – |

The MANOVA also showed that the groups differ significantly in their LTO indices ($F_{(1, 11)} = 7.410, p = .020$). In that analysis, Levene's test of homogeneity of variances across groups is also not significant ($p = .763$). The group means for LTO are 37.2 for the non-Aboriginals and 29.3 for the Aboriginals and the difference between the LTO indices of the Aboriginal and non-Aboriginal governments is one of the smallest differences identified in the study. The means suggest that the non-Aboriginal governments tend to

have higher LTO indices than the Aboriginal governments. The results are shown in Table 21.

| | Aboriginal Governments | Non-Aboriginal Governments |
|-----------------------------------|-------------------------------|-----------------------------------|
| Aboriginal Governments | – | Aboriginals lower |
| Non-Aboriginal Governments | Non-Aboriginals higher | – |

10.3.5 Results for Hypotheses H3 Through H7 Based on the VSM The findings that significant differences exist between the groups in terms of their power distance and long term orientation dimensions offer some support for hypotheses H1-a, H1-e, H2-a and H2-e. To this point, the findings are somewhat mixed. Although the VSM did not identify significant differences between the Algonquins and the Athabascans in the three-groups analyses, the technique does seem to work in the context of Aboriginal and non-Aboriginal governments. The VSM technique can identify some significant differences in the indices of culturally different groups. However, it is not well suited for use in situations where the number of participating groups is small.

Sections 10.4 and 10.5 of this chapter revisit research questions two and three and hypotheses H1 through H7, using analyses conducted with an alternate method. Those sections present findings that the alternate method and the VSM are able to identify significant differences and similarities among Aboriginal groups and between Aboriginal and non-Aboriginal groups in Canada.

Even at this point, the findings are starting to indicate that the relationships among the groups in terms of their VSM indices are complex. An important result that begins to emerge at this stage is that the various groups differ in different ways. As shown in Table 22, the Algonquin and the non-Aboriginal governments differ in terms of their indices for long term orientation while the Athabaskan and the non-Aboriginal governments differ along the power distance dimension.

| Table 22: Summary of Significant Differences Arising From the VSM (MANOVAs or post hoc tests with $p = .05$) | | | | | |
|--|---------------------------|------------------------------|---------------------------|--------------------|------------------------------|
| Type of Comparison and Groups Being Compared | Power Distance | Uncertainty Avoidance | Individualism | Masculinity | Long Term Orientation |
| Research Question Two: 3 groups of governments (post hoc tests)* | | | | | |
| Algonquin – Athabaskan | no significant difference | not tested* | no significant difference | not tested* | no significant difference |
| Algonquin – non-Aboriginal | no significant difference | not tested* | no significant difference | not tested* | Algonquins lower |
| Athabaskan – non-Aboriginal | Athabascans lower | not tested* | no significant difference | not tested* | no significant difference |
| Research Question Three: 2 groups of governments (MANOVA)* | | | | | |
| Aboriginal – non-Aboriginal | Aboriginals lower | not tested* | no significant difference | not tested* | Aboriginals lower |

* Owing to the small numbers of cases, Box's test could not be computed for a MANOVA involving five dependent variables. Therefore, the MANOVA was limited to the three most significant variables, i.e., PD, IDV and LTO.

The finding for research question three of a significant difference between Aboriginal and non-Aboriginal groups in terms of their PD indices would seem to be attributable to the difference between the Athabascans and non-Aboriginals and not to a difference between the Algonquins and the non-Aboriginals. Similarly, the finding for research question

three of a significant difference between the Aboriginal and non-Aboriginal groups in terms of long term orientation appears to be attributable to the difference between the Algonquins and the non-Aboriginals rather than to a difference between the Athabascans and the non-Aboriginals. In the exploration of research question two using the VSM, no significant differences were identified between the Algonquins and the Athabascans in terms of their indices for PD, IDV or LTO.

10.4 Findings for Research Question Two Based on the Alternate Method: In this study, the ability of the VSM to detect differences between or among culturally different groups is constrained by the sample sizes that are available for the analyses. Consequently, the analyses for research questions two and three were repeated using the alternate method that is described in section 9.5. The data set for the alternate method contains about 30 times as many cases as the data set for the VSM.

For simplicity, this section and the subsequent sections occasionally refer to Algonquin, Athabaskan or non-Aboriginal groups as differing or not differing in terms of dependent variables like power distance or masculinity-femininity. A more correct expression of the findings in these sections, however, would be that the employees of the governments of the Algonquin, Athabaskan or non-Aboriginal communities differ or do not differ in terms of the answers they provided for the questions that are considered in calculating VSM indices for the various dimensions like power distance or masculinity-femininity.

In the sections that report the findings from the alternate method, unless noted otherwise, the results for Box's test of equality of covariance matrices were not significant for the MANOVAs. Unless noted otherwise, the results for Levene's test for equal variances across groups within variables were not significant for the ANOVAs and the Bonferroni post hoc test was used for the multiple pair-wise comparisons.

A MANOVA was conducted to determine whether significant differences exist on the dependent variables of PD', UA', IDV', MAS' and LTO' when they are analyzed against the grouping variable that classifies the respondents according to three language groups. Type IV sum of squares was chosen in this instance because the data matrix includes empty cells. The conditions and the results for the MANOVA are presented in Table 23. The MANOVA results were significant and indicate that differences exist between some groups for some variables.

| Table 23: MANOVA for Three Groups of Government Employees (Alternate Method with $p = .05$) | | |
|---|-------------------|----------|
| Group | Government | n |
| 1 | Algonquin | 122 |
| 2 | Athabaskan | 111 |
| 3 | English | 133 |
| MANOVA result: $F_{(2, 363)} = 4.992, p < .001$ | | |
| Box's test result: $F = 1.329, p = .107$ | | |

ANOVAs were conducted to identify the variables along which some groups differ significantly. For the ANOVAs, alpha was set at .01 so the probability of a type one error would remain at .05 through successive tests on the five dependent variables. The ANOVAs on the UA' and MAS' variables by the grouping variable were not significant. For UA', $F_{(2, 400)} = 1.081, p = .340$ and for MAS', $F_{(2, 400)} = 4.091, p = .017$. The result

for MAS' would have been significant, however, in a univariate test with the level of significance set at .05. The ANOVAs that were conducted on PD', IDV' and LTO' were significant and indicate that some groups differ significantly in terms of those variables. For PD', $F_{(2, 396)} = 9.573, p < .001$, for IDV', $F_{(2, 416)} = 8.023, p < .001$, and, for LTO', $F_{(2, 390)} = 8.646, p < .001$.

Where the ANOVA results were significant, a Bonferroni test was conducted to determine which groups differ along each of the dependent variables. The test for the PD' variable indicated that the responses of the non-Aboriginal governments would tend to result in higher power distance indices than the responses of the Algonquin or Athabaskan governments. The mean value for the employees of the non-Aboriginal governments is 33.9. The mean values for the employees of the Algonquin and Athabaskan governments are 14.9 and 12.6, respectively. The differences between the means on PD' for the Algonquins and the non-Aboriginals and for the Athabascans and the non-Aboriginals are among the largest significant differences that were identified in the study. Table 24 summarizes the results from the Bonferroni tests involving PD'.

| | Algonquin | Athabaskan | Non-Aboriginal |
|-----------------------|-------------------------------|-------------------------------|--------------------------|
| Algonquin | – | no significant difference | Algonquins lower |
| Athabaskan | no significant difference | – | Athabascans lower |
| Non-Aboriginal | Non-Aboriginals higher | Non-Aboriginals higher | – |

The Bonferroni test that was conducted for the IDV' variable indicated that the responses of the Algonquin governments would tend to result in lower individualism indices than the responses of the Athabaskan or the non-Aboriginal governments. The mean value for employees of the Algonquin governments is 73.6. The mean values for the employees of the Athabaskan and non-Aboriginal governments are 90.5 and 90.9, respectively. This result is important because it differentiates the Algonquins from the Athabascans. In this test, the responses of the employees of the Athabaskan and non-Aboriginal governments are not significantly different but the responses of the Algonquins and Athabascans are significantly different. Table 25 presents the Bonferroni test results for the IDV' variable.

| | Algonquin | Athabaskan | Non-Aboriginal |
|-----------------------|-------------------------------|---------------------------|---------------------------|
| Algonquin | - | Algonquins lower | Algonquins lower |
| Athabaskan | Athabascans higher | - | no significant difference |
| Non-Aboriginal | Non-Aboriginals higher | no significant difference | - |

The results of the Bonferroni test on the MAS' variable were examined further because the ANOVA result for MAS' would have been significant in a univariate test with the level of significance set at $p = .05$. Under those conditions, the Bonferroni result for MAS' would have showed that the responses of the Algonquin governments tend to result in higher masculinity indices than the responses of the Athabaskan governments. The mean values for those two groups would be -1.8 and -31.3, respectively. The finding of another significant difference in the responses from the employees of the Algonquin and Athabaskan governments would have been important not only because it further

differentiates between those two Aboriginal groups but also because it further differentiates the results of the alternate method from those of the VSM. In this study, the VSM was not able to distinguish the Algonquins from the Athabascans. The non-Aboriginal group would not have differed significantly from the Algonquin or Athabaskan groups in tests conducted with VSM indices for the MAS variable at $p = .05$.

The Bonferroni test for the LTO' variable indicates that the responses of the non-Aboriginal governments would tend to result in higher long term orientation indices than the responses of the Algonquin governments. The mean values are 27.6 for the Algonquins and 38.4 for the non-Aboriginals. The difference between the means for those groups is among the smaller differences identified in the study. Table 26 summarizes the key results from the Bonferroni tests with the LTO' variable.

| | Algonquin | Athabaskan | Non-Aboriginal |
|-----------------------|-------------------------------|---------------------------|---------------------------|
| Algonquin | – | no significant difference | Algonquins lower |
| Athabaskan | no significant difference | – | no significant difference |
| Non-Aboriginal | Non-Aboriginals higher | no significant difference | – |

10.4.1 Results for Hypotheses H1 and H2 Based on the Alternate Method

When the responses of the employees of the participating governments are organized to represent Algonquin, Athabaskan and non-Aboriginal ethno-linguistic groups, the ANOVA and Bonferroni tests determined that there are significant differences between groups in terms of their responses for the questions that are used for calculating indices along the power distance, individualism and long term orientation indices. Those

findings support hypotheses H1-a, H1-c, H1-e, H2-a, H2-c and H2-e and, simultaneously, do not support hypotheses H1-b, H2-b, H1-d or H2-d

The test results from the alternate method also show that groups are similar and different in different ways. Usually, the groups differ along two or three dimensions but, in this study, they do not ever differ along all five dimensions. That finding is in line with the results from other tests of the VSM where differences were identified between groups in terms of some but not all indices. In this study, none of the groups differ significantly on the uncertainty avoidance variable. In addition, with the level of significance set at .01 for the ANOVAs and Bonferroni tests, none of the groups differ significantly in their responses for the questions that are considered in calculating the masculinity indices. However, if the level of significance had been set at .05, then the Algonquins and the Athabascans would have differed significantly along the MAS' variable.

10.5 Findings for Research Question Three Based on the Alternate Method: A MANOVA was conducted to determine whether significant differences exist on the dependent variables of PD', UA', IDV', MAS' and LTO' when they are analyzed against a grouping variable that classifies the respondents according to two language groups, i.e., English and an Amer-Indian superlanguage family. Type IV sum of squares was chosen because some of the cells in the data matrix for the alternate method are empty. For this MANOVA, Hotelling's trace was chosen as the appropriate multivariate statistic because only two groups are involved. The conditions and the results for that MANOVA based on the data set for the alternate method are presented in Table 27. The results from the

MANOVA were significant and indicate that differences exist for the dependent variables

| Table 27: MANOVA for Two Groups of Government Employees (Alternate Method) (p = .05) | | |
|---|-----------------------|----------|
| Group | Language Group | n |
| 1 | Amer-Indian | 233 |
| 2 | English | 133 |
| MANOVA result: $F_{(1, 364)} = 7.024, p < .001$ | | |
| Box's test result: $F = 1.350, p = .162$ | | |

ANOVAs were subsequently conducted on all of the dependent variables with the level of significance set at .01. The ANOVAs on the UA', IDV', and MAS' variables were not significant. For UA', $F_{(1, 401)} = 3.37, p = .562$, for IDV', $F_{(1, 417)} = 4.416, p = .036$, and for MAS', $F_{(1, 401)} = 1.212, p = .272$. The analysis on IDV', however, would have been significant for a univariate test conducted with the level of significance set at .05. As the results stand, however, they indicate that the two groups do not differ significantly at the .01 level of significance in terms of their responses for the questions that are used in calculating the uncertainty avoidance, individualism and masculinity indices.

The ANOVA that was conducted on PD' with alpha set at .01 was significant ($F_{(1, 397)} = 19.370, p < .001$), indicating that the two groups differ significantly in their responses for the questions that are used in calculating the power distance indices. Pair-wise comparisons are not required for research question three because only two groups are involved. The mean for the Aboriginal governments is 13.8 and the mean for the non-Aboriginal governments is 33.9. The difference between the means of the Aboriginal and non-Aboriginal groups on PD' is one of the largest differences identified in the study.

The results suggest that the responses of the employees of the non-Aboriginal governments would tend to result in higher power distance indices than the responses of the employees of the Aboriginal governments. Table 28 shows the results from the ANOVA involving power distance.

| | Aboriginal Governments | Non-Aboriginal Governments |
|-----------------------------------|-------------------------------|-----------------------------------|
| Aboriginal Governments | – | Aboriginals lower |
| Non-Aboriginal Governments | Non-Aboriginals higher | – |

The results for the IDV' variable were examined further because they would have been significant in a univariate test with the level of significance set at $p = .05$. Under those conditions, an ANOVA for IDV' would have determined that the responses of the Aboriginal governments tend to result in lower individualism indices than the responses of the non-Aboriginal governments. The mean for the Aboriginal governments is 81.7 and the mean for the non-Aboriginal governments is 90.9. Even though both groups exhibit high or very high individualism, the responses of the Aboriginal governments would tend to result in lower individualism indices than the responses of the non-Aboriginal governments.

With the significance level set at $p = .01$, the ANOVA on LTO' by the grouping variable was significant ($F_{(1, 391)} = 15.167, p < .001$) indicating that the two groups differ significantly in their responses for the questions that are used in calculating the long term orientation indices. The mean for the Aboriginal governments is 29.4 and the mean for

the non-Aboriginal governments is 38.4. The difference in the means for those groups on LTO' is one of the smallest significant differences identified in the study. The results suggest that the responses of the non-Aboriginal governments would tend to result in higher long term orientation indices than the responses of the Aboriginal governments. Table 29 shows the results from the ANOVA involving long term orientation.

| Table 29: Significant Differences Related to Long Term Orientation for Two Groups of Government Employees (Alternate Method with $p = .01$) | | |
|---|-------------------------------|-----------------------------------|
| | Aboriginal Governments | Non-Aboriginal Governments |
| Aboriginal Governments | - | Aboriginals lower |
| Non-Aboriginal Governments | Non-Aboriginals higher | - |

10.5.1 Results for Hypotheses H3 Through H7 Based on the Alternate Method When the responses of the employees of the participating governments are organized into two groups representing Aboriginals and non-Aboriginals, the ANOVAs determined that there are significant differences between the groups in terms of their responses for the questions that are used in calculating indices on the power distance and long term orientation dimensions and that the indices of the non-Aboriginal groups would tend to be higher. Those significant differences between the two groups support hypotheses H3 and H7 and also support the predictions in the Canadian management literature that the power distance indices (H3) for Aboriginal organizations or societies would be lower than the corresponding indices for Canadian organizations or Canadian society in general. The Canadian literature does not speculate about the relative positions of long term orientation indices.

If the analysis under the alternate method had been conducted at the .05 level of significance, it would also have determined that the Aboriginal and non-Aboriginal groups differ along the IDV' variable. That finding would have supported hypothesis H5 and the predictions in the literature that the individualism indices for Aboriginal groups are lower than the corresponding indices for mainstream Canadian groups.

As the results stand, however, they indicate that no significant differences were detected between the two groups of government employees based on their responses for the questions that are used for calculating indices for the uncertainty avoidance, individualism or masculinity dimensions. The findings, therefore, do not support hypotheses H4, H5 and H6 or the predictions that the uncertainty avoidance indices (H4), individualism indices (H5) and masculinity indices (H6) for Aboriginal groups would be lower than the corresponding indices for mainstream Canadian groups. Table 30 summarizes the key differences that were identified in the three-group and two-group tests using the alternate method.

The results do not support the predictions in the literature about the uncertainty avoidance and masculinity dimensions because the differences among three groups and between two groups on the UA' and MAS' variables are not significant. Furthermore, the results for the IDV' variable vary across research questions two and three. The analyses, however, do provide some evidence to support the predictions in the Canadian management literature in terms of the ordinal positions for Aboriginal and non-Aboriginal groups along the UA', IDV' and MAS' variables. The results do not suggest that the predictions

in the literature are wrong. This study did not identify differences between groups that are different from those predicted in the literature. Rather, the direction of the differences that were observed along UA', IDV' and MAS' is as predicted in the literature for the uncertainty avoidance, individualism and masculinity indices. In this study, however, the magnitudes of the differences are not sufficient for the group means to be significantly different.

| Table 30: Summary of Significant Differences Arising From the Alternate Method (p = .01) | | | | | |
|---|---------------------------|---------------------------|----------------------------|-----------------------------|---------------------------|
| Type of Comparison and Groups Being Compared | PD' | UA' | IDV' | MAS' | LTO' |
| 3 groups of governments | | | | | |
| Algonquin – Athabaskan | no significant difference | no significant difference | Algonquins lower | no significant difference** | no significant difference |
| Algonquin – non-Aboriginal | Algonquins lower | no significant difference | Algonquins lower | no significant difference | Algonquins lower |
| Athabaskan – non-Aboriginal | Athabascans lower | no significant difference | no significant difference | no significant difference | no significant difference |
| 2 groups of governments | | | | | |
| Aboriginal – non-Aboriginal | Aboriginals lower | no significant difference | no significant difference* | no significant difference | Aboriginals lower |

*Aboriginal groups significantly lower than non-Aboriginal groups when alpha set at .05

**Algonquin groups significantly higher than Athabaskan groups when alpha set at .05

Some useful conclusions can be drawn from the analyses that are based on the alternate method. There is an abundance of evidence that the alternate method is able to identify differences among groups organized by language family. Importantly, the alternate method is able to identify differences in the responses of the Algonquin and Athabaskan governments for IDV' while the VSM method was consistently not able to identify

differences between the Algonquins and the Athabascans. Moreover, if the analysis had been conducted at the .05 level of significance, the alternate method would also have identified significant differences between the Algonquins and the Athabascans along the MAS' variable.

In a study such as this one that involves small numbers of governments, the alternate method differentiates among groups more effectively than the VSM. The alternate method is based on the VSM method and leads to the same general types of results as the VSM. The alternate method, however, takes advantage of the large numbers of cases that the VSM summarizes into a group mean and it can identify differences between groups that are not revealed by VSM indices. The test results based on the alternate method may be interpreted as providing some evidence that, if indices had been available for larger numbers of governments, the VSM technique would have been able to identify more differences between the groups.

10.6 Findings from Supplemental Analyses of Research Question Two Based on the Alternate Method:

This section reports the findings from two supplemental analyses that were conducted to further explore research question two under the alternate method. Some of the findings are similar to those presented in section 10.4. The supplemental analyses, however, are based on different data sets than the analyses that are discussed in section 10.4 and they provide additional insights and evidence that the alternate method and the VSM on which it is based are able to identify differences among groups that are culturally different.

10.6.1 Data Set that Distinguishes Ojibway from Cree The conditions and the results for the MANOVA, based on the alternate method with a data set that distinguishes the Ojibway from the Cree, are shown in Table 31. Using Wilks' Lambda as the multivariate statistic, the results from the MANOVA were significant and indicate that significant differences exist simultaneously for the dependent variables when they are analyzed against the grouping variable.

| Table 31: MANOVA for Four Groups of Government Employees (Alternate Method with Ojibways Distinguished from Crees and $p = .05$) | | |
|--|-----------------|----------|
| Group | Language | n |
| 1 | Ojibway | 67 |
| 2 | Cree | 55 |
| 3 | Athabaskan | 111 |
| 4 | English | 133 |
| MANOVA result: $F_{(3, 362)} = 3.656, p < .001$ | | |
| Box's test result: $F = 1.164, p = .209$ | | |

With alpha set at .01, the ANOVAs on the UA' and MAS' variables were not significant. For UA', $F_{(3, 399)} = .768, p = .513$ and for MAS', $F_{(3, 399)} = 3.222, p = .023$. The ANOVA result for MAS' would have been significant in a univariate test with the level of significance set at .05. As the results stand, however, they indicate that the employees of the four types of governments do not differ significantly in terms of uncertainty avoidance and masculinity variables when alpha is set at .01.

The ANOVAs for the PD', IDV' and LTO' variables were significant and indicate that some groups differ in terms of the responses they provided for the questions that are used for calculating the power distance, individualism and long term orientation indices. For

PD', $F_{(3, 395)} = 6.486$, $p < .001$, for IDV', $F_{(3, 415)} = 5.854$, $p = .001$, and for LTO', $F_{(3, 389)} = 5.755$, $p = .001$

Where the ANOVA results were significant, Bonferroni tests were conducted to determine which groups differ along each dependent variable. The test for the PD' variable indicated that the responses of the Athabaskan governments are significantly different from those of the non-Aboriginal governments. The group means suggest that the responses of the non-Aboriginal governments would tend to result in higher power distance indices than the responses of the Athabaskan governments. The mean value for the employees of the non-Aboriginal governments is 33.9. The mean value for the employees of Athabaskan governments is 12.6. The difference between the means for the Athabascans and non-Aboriginals on PD' is among the largest differences identified in the study. For the questions that are considered in calculating the power distance index, the responses of the Ojibway, Cree, and Athabaskan governments are not significantly different. Table 32 shows the results from the Bonferroni test involving the responses of the four groups of government employees for the questions that are used for calculating power distance indices.

| | Ojibways | Crees | Athabascans | Non-Aboriginals |
|------------------------|---------------------------|---------------------------|-------------------------------|---------------------------|
| Ojibways | – | no significant difference | no significant difference | no significant difference |
| Crees | no significant difference | – | no significant difference | no significant difference |
| Athabascans | no significant difference | no significant difference | – | Athabascans lower |
| Non-Aboriginals | no significant difference | no significant difference | non-Aboriginals higher | – |

For the ANOVA on IDV', the result from Levene's test concerning the homogeneity of variances across groups was at the borderline of significance ($p = .010$), indicating that the assumption of equal variances is not strongly supportable for IDV'. The analysis proceeded because the assumption of equal variances had not clearly been violated either. The Bonferroni test for the IDV' variable indicated that the responses of the Cree governments are significantly different from the responses of the employees of the Athabaskan and the non-Aboriginal governments. The group means suggest that the responses of the Cree governments would tend to result in lower power distance indices than the responses of the Athabaskan and non-Aboriginal governments. The mean value for the employees of the Cree governments is 69.2. The mean value for the employees of Athabaskan and non-Aboriginal governments are 90.5 and 90.9, respectively. For the questions that are considered in calculating the individualism index, the responses of the Ojibway, Athabaskan and non-Aboriginal governments are not significantly different. The results for the IDV' variable are shown in Table 33.

| | Ojibways | Crees | Athabascans | Non-Aboriginals |
|------------------------|---------------------------|-------------------------------|---------------------------|---------------------------|
| Ojibways | – | no significant difference | no significant difference | no significant difference |
| Crees | no significant difference | – | Crees lower | Crees lower |
| Athabascans | no significant difference | Athabascans higher | – | no significant difference |
| Non-Aboriginals | no significant difference | Non-Aboriginals higher | no significant difference | – |

* Levene's test result is at border of significance ($.010$) for IDV'.

The results for the MAS' variable were examined further because they would have been significant in a univariate test with the level of significance set at .05. Under those conditions, an ANOVA for MAS' would have determined that the responses of the Cree government employees tend to result in higher masculinity indices than the responses of the Athabaskan government employees. The mean for the Crees is 8.2 and the mean for the Athabascans is 7.9. Even though the difference between the Cree and the Athabascans only becomes evident at the .05 level of significance, it is important because it signifies another differentiation between Aboriginal groups and because it is the largest difference associated with the study. For the questions that are considered in calculating the masculinity index, the responses of the Ojibway and non-Aboriginal governments are not significantly different from the responses of any other governments.

The Bonferroni test for the LTO' variable indicated that the responses of the non-Aboriginal governments are significantly different from the responses of the Ojibway and Cree governments. The group means suggest that the responses of the non-Aboriginal governments would tend to result in higher long term orientation indices than the responses of the Ojibway and Cree governments. The mean values for the Ojibway and Cree governments are 27.4 and 27.9 respectively and the mean value for the non-Aboriginal governments is 28.4. The differences in means between the non-Aboriginals and the Ojibways and between the non-Aboriginals and the Crees on the LTO' variable are among the smaller differences identified in the research. The responses of the Cree, Ojibway and Athabaskan governments do not differ significantly on the LTO' variable.

Table 34 presents the results from the Bonferroni tests involving the responses for the questions that are used for calculating indices along the long term orientation dimension

| Table 34: Significant Differences Related to Long Term Orientation for Four Groups of Government Employees (Alternate Method with $p = .01$) | | | | |
|--|-------------------------------|-------------------------------|---------------------------|---------------------------|
| | Ojibways | Crees | Athabascans | Non-Aboriginals |
| Ojibways | – | no significant difference | no significant difference | Ojibways lower |
| Crees | no significant difference | – | no significant difference | Crees lower |
| Athabascans | no significant difference | no significant difference | – | no significant difference |
| Non-Aboriginals | Non-Aboriginals higher | Non-Aboriginals higher | no significant difference | – |

The ANOVAs and post hoc tests that were conducted for the four groups of governments identified no significant differences in the responses of the Ojibway and Cree governments. Moreover, the results never approached significance for comparisons involving those groups. This is not a surprising result because the Ojibway and Cree languages are part of the Algonquin language family and the employees of Ojibway and Cree governments share elements of a common Algonquin ethno-linguistic tradition.

It is possible that the finding of no significant differences in the responses of the Ojibway and Cree governments results from an insufficient sample size. For this analysis, the number of cases for each group of government employees varied by dependent variable in accordance with the number of respondents and the numbers of missing responses for the questions that are considered in calculating the indices. As shown in Table 35, the number of cases for the Ojibway and Cree governments for each dependent variable is

consistently lower than the number of cases for the Athabaskan and non-Aboriginal governments. Therefore, a possibility remains that, with a larger sample size, the alternate method could detect differences in the responses of the Ojibway and Cree government employees.

Table 35: Sample Sizes for Groups of Government Employees by Dependent Variable (Alternate Method)

| Group of Government Employees | PD' n | UA' n | IDV' n | MAS' n | LTO' n |
|--------------------------------------|------------------|------------------|-------------------|-------------------|-------------------|
| Ojibway | 70 | 72 | 75 | 73 | 73 |
| Cree | 67 | 65 | 71 | 65 | 66 |
| Athabaskan | 125 | 127 | 134 | 127 | 120 |
| English | 137 | 139 | 139 | 138 | 134 |

It seems more likely, however, that the finding of no significant differences in the responses from the Ojibway and Cree government employees indicates that those two cultural groups are very similar in terms of the cultural characteristics that are measured by the VSM and alternate methods. Based on the results from this study, it seems plausible and even likely that the alternate method and the VSM will not detect differences between the employees of the Ojibway and Cree governments unless the sample sizes are increased substantially, possibly even beyond the sample sizes for the Athabaskan and non-Aboriginal governments. The effect sizes might be too small for the alternate method to be able to detect differences between those culturally similar but distinct Algonquin groups.

The responses of the employees of the Cree and Ojibway governments are also not significantly different from the responses of the Athabaskan governments. However, the responses of the Cree, Ojibway and Athabascans continue to be distinguishable, in some manner, from the responses of the non-Aboriginal governments. Moreover, at the .05 level of significance, the Cree and Athabascans are significantly different on the MAS' variable. Accordingly, the data set that differentiates the Ojibway from the Cree provides some additional evidence that the alternate method is able to identify differences among some groups that are culturally distinct.

Tables 32 through 34 confirm that, in the four-group analyses, no significant differences were identified between the responses of the Ojibway and Cree governments and between the responses of the Ojibway and the Athabaskan governments. The Ojibway and Cree languages are not part of the Athabaskan language family and the Ojibway and Cree do not share a common ethno-linguistic tradition with the Athabascans. Hypothesis 1 expects that differences would be identifiable between the Athabascans and both the Ojibway and the Cree. When the level of significance was relaxed to .05, the Cree and the Athabascans were found to be significantly different on MAS' but no difference was found between the Ojibway and the Athabascans. At this stage, the finding in the four-group analyses of no significant differences in the responses of the employees of the Athabaskan and Ojibway governments cannot be explained as readily as the finding of no significant differences between the Ojibway and the Cree.

On reflection, it can be appreciated that two unrelated and different cultural groups might exhibit similar VSM profiles as a result of random chance. It might also be possible that the finding of no significant differences in the responses of the Athabaskan and Ojibway governments indicates a practical limit on the utility or effectiveness of the alternate method and the VSM for identifying cultural differences among groups. More focused examination and better understandings will be necessary for explaining the finding that the responses of the employees of the Athabaskan and Ojibway governments are not significantly different.

10.6.2 Data Set that Substitutes Means for Missing Values:

To supplement the analyses under the alternate method for research question two, a revised data set was prepared by replacing the “no response” answers for each of the key questions that are considered in calculating an index with the mean value of the other answers for that question, thereby increasing sample sizes without altering group means. The analyses determined that the substitution of the mean value for the “no response” answers did not change the test results in any important way.

For the MANOVA with the data set that substituted means for missing answers, type III sums of squares were used because the data matrix no longer included empty cells. Using Wilks' Lambda as the multivariate statistic, the results from the MANOVA were significant and indicate that simultaneous differences exist for the dependent variables when analyzed against the grouping variable. The conditions and results for the

MANOVA, based on the alternate method with a data set that substitutes means for missing values, are presented in Table 36

| Table 36: MANOVA for Three Groups of Government Employees (Alternate Method with Means Substituted for Missing Values and $p = .05$) | | |
|--|-------------------|----------|
| Group | Government | n |
| 1 | Algonquin | 154 |
| 2 | Athabaskan | 136 |
| 3 | Non-Aboriginal | 139 |
| MANOVA result: $F_{(2, 426)} = 6.283, p < .001$ | | |
| Box's test result: $F = 1.227, p = .183$ | | |

The result for the UA' variable was not significant ($F_{(2, 426)} = 1.087, p = .338$), indicating that the employees of the various groups of governments do not differ in terms of the responses they provided for the questions that are used to calculate the uncertainty avoidance index

The results for the PD', IDV' MAS' and LTO' variables were significant, indicating that the employees of some of the government groups differ in terms of the responses they provided for the questions that are used for calculating the power distance, individualism, masculinity and long term orientation indices. The result the MAS' variable, however, is much less significant than the other results. For PDI', $F_{(2, 426)} = 11.472, p < .001$, for IDV', $F_{(2, 426)} = 7.309, p = .001$, for MAS', $F_{(2, 426)} = 3.408, p = .034$ and for LTO', $F_{(2, 426)} = 9.589, p < .001$

The Bonferroni test for the PD' variable indicates that the responses of the non-Aboriginal governments are significantly different from those of the Algonquin and the Athabaskan governments. The group means suggest that the non-Aboriginal

governments would tend to have higher power distance indices than the Algonquin or Athabaskan governments. The mean value for the non-Aboriginal governments is 34.1 and the mean values for the Algonquin and Athabaskan governments, respectively, are 13.4 and 12.6. Table 37 shows the results from the Bonferroni tests involving the responses of the various groups for the questions that are used for calculating power distance indices when mean values are substituted for missing answers.

| Table 37: Significant Differences Related to Power Distance for Three Groups of Government Employees (Alternate Method, Means Substituted for Missing Values and $p = .05$) | | | |
|---|-------------------------------|-------------------------------|--------------------------|
| | Algonquins | Athabascans | Non-Aboriginals |
| Algonquins | – | no significant difference | Algonquins lower |
| Athabascans | no significant difference | – | Athabascans lower |
| Non-Aboriginals | Non-Aboriginals higher | Non-Aboriginals higher | – |

The Bonferroni test for the IDV' variable indicates that the responses of the Algonquin governments are significantly different from the responses of the Athabaskan and the non-Aboriginal governments. The group means suggest that the responses of the Algonquin government would tend to result in lower individualism indices than the responses of the Athabaskan or non-Aboriginal governments. The mean value for the Algonquins is 74.7 and the mean values for the Athabascans and non-Aboriginals are 90.4 and 90.9, respectively.

The finding of a significant difference between the Algonquins and the Athabascans on IDV' is important because it shows that the alternate method differentiates among the

Aboriginal groups as well as between Aboriginal and non-Aboriginal groups Table 38 presents the results from the Bonferroni test

| Table 38: Significant Differences Related to Individualism for Three Groups of Government Employees (Alternate Method, Means Substituted for Missing Values and $p = .05$) | | | |
|--|-------------------------------|---------------------------|---------------------------|
| | Algonquins | Athabascans | Non-Aboriginals |
| Algonquins | – | Algonquins lower | Algonquins lower |
| Athabascans | Athabascans higher | – | no significant difference |
| Non-Aboriginals | Non-Aboriginals higher | no significant difference | – |

Even though the MANOVA at .05 showed a significant result for the MAS' variable, the Bonferroni test indicated that none of the groups differ significantly in terms of the responses they provided for the questions that are used to calculate the masculinity indices

The Bonferroni test for LTO' indicates that the responses of the non-Aboriginal governments are significantly different from the responses of the Algonquin and Athabaskan governments The group means suggest that the responses of the non-Aboriginal governments would tend to result in higher long term orientation indices than the responses of the Algonquin or Athabaskan governments The mean value for the non-Aboriginals is 38.1 and the means for the Algonquins and Athabascans are 27.6 and 31.0, respectively The difference between the Athabascans and non-Aboriginals for LTO' is one of the smallest differences identified in the study Table 39 shows the results from the Bonferroni test involving responses for the questions that are used for calculating long term orientation indices when mean values are substituted for missing answers

| Table 39: Significant Differences Related to Long Term Orientation for Three Groups of Government Employees (Alternate Method, Means Substituted for Missing Values and $p = .05$) | | | |
|--|-------------------------------|-------------------------------|--------------------------|
| | Algonquins | Athabascans | Non-Aboriginals |
| Algonquins | – | no significant difference | Algonquins lower |
| Athabascans | no significant difference | – | Athabascans lower |
| Non-Aboriginals | Non-Aboriginals higher | Non-Aboriginals higher | – |

A certain degree of overall similarity is observable when the Bonferroni test results that were obtained for three groups of governments under the alternate method (see section 10.4) are compared with the test results for the three groups of governments that are based on the modified data set that substitutes means for missing responses. Although the particular MANOVA, ANOVA and Bonferroni test results differ and the group means differ across the tests, the overall results are similar for the PD' variable (compare Table 24 on page 130 with Table 37 on page 149), the UA' variable (where all of the analyses determined that there are no significant differences among any groups) and the IDV' variable (compare Table 25 on page 131 with Table 38 on page 150).

The results on the MAS' variable were not significant at $p = .01$ for the basic alternate method or for the alternate method with a data set that substituted means for empty cells. The results for the LTO' variable differed slightly between the two analyses. The alternate method identified a significant difference between the Algonquins and the non-Aboriginals but did not identify a difference between the Athabascans and the non-Aboriginals using the basic data set. However, when the alternate method was applied with the data set that replaced empty cells with the mean values of the other responses, it

identified significant differences for long term orientation both between the Algonquins and the non-Aboriginals and between the Athabascans and the non-Aboriginals (compare Table 26 on page 132 with Table 39 on page 151) Table 40 summarizes the significant differences that were identified between groups using the alternate method and the modified data sets

| Table 40: Summary of Significant Differences Arising from the Alternate Method and Modified Data Sets (p = .01 or .05) | | | | | |
|---|---------------------------|---------------------------|----------------------------|-----------------------------|---------------------------|
| Comparison and Groups | PD' | UA' | IDV' | MAS' | LTO' |
| 4 groups of governments (p = .01) | | | | | |
| Ojibway – Cree | no significant difference | no significant difference | no significant difference* | no significant difference | no significant difference |
| Ojibway – Athabaskan | no significant difference | no significant difference | no significant difference* | no significant difference | no significant difference |
| Ojibway – non-Aboriginal | no significant difference | no significant difference | no significant difference* | no significant difference | Ojibway Lower |
| Cree – Athabaskan | no significant difference | no significant difference | Cree Lower* | no significant difference** | no significant difference |
| Cree – non-Aboriginal | no significant difference | no significant difference | Cree Lower* | no significant difference | Cree Lower |
| Athabaskan – non-Aboriginal | Athabascans Lower | no significant difference | no significant difference* | no significant difference | no significant difference |
| 3 groups of governments – means substituted for NAs (p = .05) | | | | | |
| Algonquin – Athabaskan | no significant difference | no significant difference | Algonquins lower | no significant difference | no significant difference |
| Algonquin – non-Aboriginal | Algonquins lower | no significant difference | Algonquins lower | no significant difference | Algonquins lower |
| Athabaskan – non-Aboriginal | Athabascans lower | no significant difference | no significant difference | no significant difference | Athabascans lower |

* Levene's test result is at border of significance (010) for IDV'

** Cree higher than Athabascans at p = .05

Overall, these findings imply that the results for the PD', UA' and LTO' variables are fairly robust and stable from one test situation to another. The results for the IDV' and MAS' variables are somewhat less consistent. The results for those variables are significant at the .01 level less frequently than the results for PD' or LTO' and the significance of the results for the IDV' and MAS' variables is more likely to change across the various test situations involving two, three or four groups.

10.7 Summary of Major Findings: Owing to the small number of cases under the VSM, Box's test could not be completed for the MANOVAs involving all five dependent variables in either the three-group or two-group analyses. The MANOVAs were confined to the three most significant variables, i.e., PD, IDV and LTO. The alternate method confirmed all of the significant differences that were identified with the VSM and further differentiated among the groups by finding significant differences on variables where the VSM did not find any.

The MANOVA for the two-group comparisons showed that the VSM differentiates between Aboriginal and non-Aboriginal groups on the PD and LTO dimensions. The Bonferroni tests for the three-group comparisons clarified that the VSM differentiates between the Athabascans and the non-Aboriginals on the power distance dimension and between the Algonquins and the non-Aboriginals on the long term orientation dimension. In those analyses, however, the VSM did not identify any significant differences between the Algonquins and the Athabascans.

Under the alternate method, ANOVAs for the two-group comparisons differentiated between the Aboriginal and non-Aboriginal groups along the PD' and LTO' variables as the VSM had done. In addition, however, the alternate method would have also differentiated the Aboriginals from the non-Aboriginals on IDV' if a univariate test had been conducted with the level of significance set at .05.

The results show that the relationships among the various groups generally become clearer and easier to appreciate as the groups are segmented more finely, i.e., as the test situations change from two-group through three-group to four-group analyses. For example, along IDV', the difference between the Aboriginal and non-Aboriginal groups in the two-group analysis can be understood in the three-group analysis as being a difference between the Algonquins and the non-Aboriginals and not between the Athabascans and the non-Aboriginals. In addition, the three-group analysis clarifies that the Algonquins are significantly different from the Athabascans as well as from the non-Aboriginals on IDV'. The identification of a difference between those Aboriginal groups is an important contribution of the alternate method. The three-group comparison under the VSM did not identify a difference between the Algonquins and the Athabascans. The much larger sample sizes that are available with the alternate method seem to account for that method's capacity to differentiate between or among groups more effectively than the VSM.

The difference on the IDV' variable that is evident between the Algonquins and the non-Aboriginals in the three-group analysis can be understood in the four-group analysis as

being a difference between the Cree and the non-Aboriginals and not a difference between the Ojibway and the non-Aboriginals. Moreover, the difference that is evident between the Algonquins and the Athabascans in the three-group analysis can be understood in the four-group analysis as being a difference between the Cree and the Athabascans and not a difference between the Ojibway and the Athabascans.

Similarly, on the LTO' variable, the difference between the Aboriginals and non-Aboriginals in the two-group analysis can be understood in the three-group analysis as being a difference between the non-Aboriginals and the Algonquins but not between the non-Aboriginals and the Athabascans. The difference between the non-Aboriginals and the Algonquins that was identified in the three-group analysis can be appreciated in the four-group analysis as being a difference between the non-Aboriginals and both the Ojibway and the Cree.

In these analyses, significant differences between groups were most commonly identified along the power distance and long term orientation variables. Differences along those two variables were identified under the VSM and the alternate method in the two-, three- and four-group test situations. Differences were also frequently identified along the individualism variable but the test results for that variable were not as convincing or as consistent as the results for the power distance or long term orientation variables. For the individualism variable under the alternate method, the test for equal variances across three groups was on the border of significance and the test result from the two-group analysis would have been significant at the .05 level of significance but was not

significant at the .01 level. Differences along the masculinity variable were identified infrequently and appeared only in the three-group and four-group analyses under the alternate method at the .05 level of significance.

As can be seen in tables 22, 30 and 40, the differences related to power distance and long term orientation are important for differentiating between Aboriginal and non-Aboriginal groups. The differences related to individualism serve to differentiate between Aboriginal and non-Aboriginal groups and also between various Aboriginal groups. Where differences were identified along the masculinity variable, they differentiated only between the Aboriginal groups. None of the analyses in any of the test situations under the VSM or the alternate method identified any significant differences between groups along the uncertainty avoidance variable.

Not surprisingly, the smallest significant differences among groups tended to be situated along the LTO' variable. Table 14 on page 115 and Figure 1 on page 117 show that the smallest range in the VSM indices is found along the LTO dimension. The largest significant differences in group means are associated with the masculinity variable. Table 14 and Figure 1 show that the largest range for the VSM indices is on the MAS' dimension. The largest significant differences involve the Algonquins and Athabascans in the three-group test situation and the Cree and Athabascans in the four-group test situation.

It is an interesting result from the perspective of this study that largest differences in group means were found between various Aboriginal groups rather than between the non-Aboriginal and Aboriginal groups. The Ojibways and Athabascans were determined to not be significantly different for MAS' but the Crees and the Athabascans were found to be quite different on that variable. Some of the smallest significant differences in group means were identified between non-Aboriginal and Aboriginal groups. The differences between the Algonquins and the non-Aboriginals that were identified under the VSM and the alternate method in both the two-group and three-group test situations are examples.

The findings that the differences between groups generally become more understandable as the analyses involve more groups, that differences between some of the Aboriginal groups are larger than corresponding differences between non-Aboriginal and Aboriginal groups and that the differences in the two-group test situations involving Aboriginal and non-Aboriginal groups include some of the smallest differences in the study all suggest that important nuances and differences can be overlooked or lost when analyses are conducted at a gross level that compares non-Aboriginal and Aboriginal groups rather than at more specific levels that segment the Aboriginal groups according to their ethnolinguistic affiliations.

11. Interpretation and Significance of the Findings

The primary purpose of this research has been to test whether the VSM technique, either in its classic or alternate form, can identify significant differences among groups that are culturally different. The research focused on comparisons among three groups and between two groups. Under the VSM, the two-group comparisons involve the VSM indices of Aboriginal and non-Aboriginal governments and, under the alternate method, the comparisons involve the transformed responses of the employees of Aboriginal and non-Aboriginal governments to the questions that are used for calculating the VSM indices. The three-group comparisons under the VSM involve the indices of the Algonquin, Athabaskan and non-Aboriginal governments and, under the alternate method, they involve the transformed responses of the employees of those governments to the questions that are used for calculating the VSM indices.

Section 11.1 interprets some of the research findings from the comparisons that are based primarily on the alternate method and discusses the implications of the differences between groups. Section 11.2 discusses the capabilities and limitations of the VSM and alternate method. Section 11.3 comments on the great variations in the indices that have been calculated for different samples of Canadians and about the usefulness of making generalizations about Canadian national culture based on the findings for specific samples of Canadians.

11.1 Similarities and Differences Among Governments: The research indicates that, when sufficient data are available, the VSM method is able to identify differences among governments of communities that are culturally different. The research also shows that, the alternate method is able to detect differences among the members of culturally distinct groups.

One of the principal lessons from this study is that the relationships among groups in terms of their VSM indices are complex. Various groups are similar and significantly different in different ways. The power distance and long term orientation dimensions are important for differentiating between Aboriginal and non-Aboriginal groups while the masculinity dimension is helpful for differentiating among the Aboriginal groups. The individualism dimension differentiates among Aboriginal groups and between Aboriginal and non-Aboriginal groups.

Another important finding is that the significant differences that were identified in terms of VSM considerations are not entirely as predicted in the management literature. It is likely that the differences among sub-national groups in Canada and elsewhere will have to be established empirically. At least for the present, it is not possible to predict the differences accurately from a theoretical perspective. In the same fashion that the similarities and differences among groups are not yet accurately predictable, the practical implications of the observed differences will likely not be entirely predictable from a theoretical perspective. Rather, the practical implications of the observed significant differences between the groups will also have to be determined or confirmed empirically.

A finding that all of the VSM indices for two societies or organizations are substantially different can reasonably be interpreted to indicate important differences in cultural values. The cultural values, in turn, are expected to be associated with different patterns of societal or organizational behaviour and with different preferences and management practices within organizations. Conversely, a finding that two groups exhibit similar VSM indices along all five dimensions can be understood to mean that there are similarities in cultural values, which are expected to be associated with similarities in management styles and organizational behaviour.

The management disciplines are still relatively inexperienced at predicting the practical effects of significant differences in VSM indices across groups. The limitations of our understandings are evident from many perspectives. Differences between groups may be identified both in the magnitude of their indices along a given dimension and in the numbers of dimensions where indices differ significantly. Where a difference is identified between groups along a single dimension, the practical consequences of the difference are expected to increase as the magnitude of the difference increases. It is not yet well understood how the practical consequences of smaller differences on larger numbers of dimensions compare with the effects of larger differences on smaller numbers of dimensions.

Furthermore, it is not yet well understood how large a difference in indices must be before it signifies meaningful differences in social or organizational behaviour. It is not known whether equal differences in indices imply equal magnitudes of practical effects.

for all five dimensions or whether equal differences in indices along any single dimension or cluster of dimensions imply the same types and magnitudes of practical effects for all groups. We do not yet know whether equal differences in indices along a given dimension imply equal differences in effects for all regions of the dimension, i.e., when the indices are situated toward the higher end, in the middle or at the lower end of a dimension. The interactive effects of combinations of differences in indices have to be explored more carefully and better understood.

The management implications of the significant differences that were identified in this research are probably not entirely predictable and will have to be confirmed through further study. Based on the findings from this research, however, it is possible to offer some reasonably well informed comments and predictions about the effects of the significant differences. Hopefully, some of the predictions will be tested in future studies. Particularly at this early stage of understanding, the advice of England and Harpaz (1983) seems to be worthwhile where they suggest that differences in cross-cultural research should be large in absolute and relative terms to make it worthwhile to pursue the reasons for, or the effects of, the differences.

11.1.1 Power Distance Table 24 on page 130 shows that the employees of the Algonquin and the Athabaskan governments do not differ significantly in terms of their responses for the questions that are used in calculating VSM indices on the power distance dimension. The table shows, however, that the employees of the Algonquin and non-Aboriginal governments and the employees of the Athabaskan and non-Aboriginal

governments differ significantly in terms of their responses for the questions that are used for calculating power distance indices

As predicted in the literature, the power distance indices for the non-Aboriginal governments would tend to be higher than the corresponding indices for the Algonquin and Athabaskan governments. Table 20 on page 125 shows that the PD indices of the non-Aboriginal governments would tend to be higher than those of the Aboriginal governments.

Based on this research, the Algonquin and Athabaskan governments will tend to exhibit low power distance indices and the non-Aboriginal governments will tend to exhibit low to medium power distance indices. Accordingly, the Algonquin and Athabaskan governments can be expected to demonstrate lower degrees of stratification within their organizational structures and lower concentrations of power at their higher organizational levels.

In cross-cultural relationships, the Algonquin and Athabaskan governments would likely be able to interact relatively easily in terms of their tolerance for power distance. Relations between the non-Aboriginal governments and either type of Aboriginal government, however, are expected to be more strained or difficult owing to the differences in their tolerance for power distance.

In terms of organizational design, and consistent with their low tolerance for power distance, Aboriginal governments and organizations in Canada would be expected to adopt relatively flat organizational structures. Fewer layers of management reflect lower power distance and a higher degree of egalitarianism among organizational members. Relatively flat organizational structures are also consistent with the expectation that Aboriginal governments tend to be small organizations. The federal government, which interacts frequently with most Aboriginal governments, is certainly hierarchical and stratified. That type of mismatch can be expected to lead naturally to frustrations for both types of governments. Aboriginal governments, for example, may experience frustration when recommendations or decisions made at the lower organizational levels within non-Aboriginal governments are overturned or not acted upon by management at higher organizational levels. For their part, non-Aboriginal governments may experience frustration when Aboriginal governments adopt a lengthy consensus approach to decision making.

Within government organizations that exhibit low power distance, employees would be expected to prefer, and managers would be more inclined to adopt, a consultative rather than a directive style of management. The survey responses from this research show that the employees of all three groups of governments tend to prefer consultative rather than directive styles of management.

11.1.2 Uncertainty Avoidance

The uncertainty avoidance indices for the Aboriginal and non-Aboriginal governments are all very high and the groups do not

differ significantly in terms of uncertainty avoidance. Those findings do not support the predictions of the management literature, which suggest that Aboriginal governments would be less avoidant of uncertainty than non-Aboriginal governments.

Aboriginal communities in Canada tend to be small and, intuitively, one would expect that their government organizations would also be able to operate without being excessively structured or bound by rules and regulations. The finding that all of the governments that were surveyed for this research are characterized by high uncertainty avoidance indicates that they might tend to adopt rules, regulations, procedures and clearly stated goals as means for reducing ambiguity and uncertainty. If high uncertainty avoidance is a characteristic of the participating governments or of governments more generally, then the extremely slow progress that is currently being made in the negotiation of Aboriginal land claims and modern treaties in Canada becomes much easier to understand.

The higher than expected uncertainty avoidance characteristics that are exhibited by the Aboriginal governments might be related to the adoption by those governments of organizational structures and operating procedures that mirror those of the external governments that fund them. Aboriginal governments generally rely heavily on transfer funding from other governments, typically from the federal government, rather than from provincial or municipal governments. The finding of high uncertainty avoidance might also be related to the power imbalances that are expected to exist between the Aboriginal governments and external non-Aboriginal governments. Over time, Aboriginal

governments could be expected to adopt the organizational structures and some of the operating procedures of the governments that both fund them and require regular accounting for transferred program funds

Most of the Aboriginal governments that participated in this research continue to operate primarily under the federal *Indian Act* and have somewhat limited authority to make their own laws or exercise control over local affairs and the events of community life. In an environment where decision-making power and control tend to be located externally with other governments, Aboriginal governments might benefit from those external governments having in place clearly specified rules, regulations and operating procedures. The existence of formalized procedures within the external governments arguably could make it easier for an Aboriginal government to anticipate influential external decisions and to better understand the consequences of its own actions and decisions. Long exposure both to decisions being made by external governments and to the operations of external governments being governed by rules and procedures could conceivably result in similar cultural traits being transferred to or replicated within the Aboriginal governments for their domestic activities.

Some of the Aboriginal governments that participated in this study are self-governing and have broader law-making powers than the governments that continue to operate primarily under the federal *Indian Act*. The self-governing Aboriginal groups are able to exercise greater control over local and even regional affairs. Interestingly, the mean of the uncertainty avoidance indices for the self-governing Aboriginal groups is lower than the

mean of the corresponding indices for the Aboriginal governments that continue to operate under the *Indian Act*. The numbers of self-governing groups and the means of the uncertainty avoidance indices for the self-governing and *Indian Act* groups are not presented in this study in order to safeguard the identity of those governments.

The non-Aboriginal governments that participated in this research are all municipal governments. The governments of Canada's largest cities are quite powerful and influential organizations but, as a general rule, municipal governments are junior governments within the Canadian political landscape. They tend to have limited authority and the authority that they have is of a local nature. In many spheres of activity, municipal governments are guided as much by provincial and even federal legislation and regulations as they are by local by-laws and ordinances. The high uncertainty avoidance indices of the non-Aboriginal and Aboriginal governments become more understandable when those governments are seen as being direction takers rather than direction setters.

The finding that no significant differences were identified between any groups in terms of the uncertainty avoidance indices or group member responses for the questions that are used in calculating the uncertainty avoidance indices is an unambiguous indication that degree of uncertainty avoidance is not important in these analyses for differentiating among the various groups of governments.

11.1.3 Individualism-Collectivism

As illustrated in Table 25 on page 131, the research found significant differences between the employees of the Algonquin and Athabaskan governments and between the employees of the Algonquin and non-Aboriginal governments in terms of their responses for the questions that are used in calculating individualism indices. All three groups exhibit high individualism but the indices for the Algonquin governments would tend to be lower than the corresponding indices for the Athabaskan and the non-Aboriginal governments. The Athabaskan and non-Aboriginal governments, however, are not significantly different on the IDV' variable.

That finding would be expected to be attenuated when the comparisons are made between only Aboriginal and non-Aboriginal governments because the results for the Algonquins are lower than the results for the non-Aboriginals but the results for the Athabascans are not significantly different from the results for the non-Aboriginal governments. In fact, the result for IDV' in the two-group comparison was not significant at .01. When the level of significance was relaxed to .05, however, the result for the Aboriginal governments was significantly different from, and lower than, the result for the non-Aboriginal governments. The results show that all three groups exhibit high or very high individualism. The finding of high individualism for the Aboriginal governments is perhaps even more surprising than the finding of high uncertainty avoidance. Its causes have not yet been examined or determined.

It is noteworthy that a survey with one of the Aboriginal governments had to be rescheduled on short notice because a death had occurred in the community. The offices of that government were going to be closed for the funeral on the day that had been planned for administering the survey. It is customary in that community for most persons, including the government employees, to attend all of the funerals held in the community. That customary practice suggests a strongly collectivistic orientation in the society underlying the government and is entirely consistent with the predictions in the literature about the higher collectivism of Aboriginal societies and organizations. The evidence from this study that all of the governments, including the Aboriginal governments, exhibit very high individualism is clear but not consistent with what is known about Aboriginal societies and will have to be examined more carefully to be understood.

High individualism might reflect a weak attachment of the respondents to the employer governments rather than a real tendency toward individualism and away from collectivism. It is possible that the high degree of individualism exhibited by all of the groups is a feature that characterizes the organizational culture of governments rather than the societal cultures that underlie those organizations. In their study of VSM indices, Punnett and Withane (1990) had noted that the cultural characteristics of a federal government department might have masked the cultural differences that they had expected to find between the Anglo- and Franco-Canadian managers in that organization.

In this study, the employees of all of the governments tend to have relatively few years of service (fewer than three years on average for the Athabaskan governments and more than three but fewer than seven years on average for the Algonquin and non-Aboriginal governments) and they generally express an intention to remain with their governments for only about five more years. It might also be possible that, for reasons that currently are not understood, employment opportunities with governments attract persons who are more individualistic. Whatever the reason, the important differentiation that Chapman et al (1991) and Redpath and Neilsen (1997) had expected to find between the individualism of Canadian culture and the presumed collectivism of Native cultures in Canada is not evident in this study from the responses of the employees of Aboriginal and non-Aboriginal governments in Canada.

In cross-cultural relations among the three groups, the Algonquin governments could be expected to demonstrate a somewhat lower degree of individualism than the other two groups of governments and would likely regard the Athabaskan and non-Aboriginal governments as being less collectivistic than themselves. In their intergovernmental relations with each other, the Athabaskan and non-Aboriginal governments could be expected to feel comfortable with one another in terms of their inclinations toward individualism.

Markus and Kitayama (1991) would likely expect the employees of the Athabaskan and non-Aboriginal governments to consider themselves to be independent, autonomous and self-contained to a greater extent than the employees of the Algonquin governments.

consider themselves. Based on the reasoning of Bochner (1994) the employees of the Algonquin governments should have a more interdependent construal of the self or a more sociocentric identity than the employees of the Athabaskan and non-Aboriginal governments, even though all three groups exhibit individualistic tendencies overall.

According to Hofstede's (1991: 65, 2001: 241) view, management within all three types of governments would be expected to involve the management of individuals more than the management of groups. Subordinate employees could be moved as individuals within any of those government organizations and incentives or bonuses could be awarded on the basis of individual, rather than group, performance.

11.1.4 Masculinity-Femininity

Table 14 on page 115 shows that only one of the nine Aboriginal governments and only two of all 13 participating governments have indices that lie within the 100 point range that Hofstede established for what he called the "masculinity-femininity" dimension of his original data sets. The masculinity indices that were calculated in this research are all extremely low, or feminine. It is likely that the indices for the Aboriginal governments are more feminine than the Canadian management literature expected. Redpath and Neilsen (1997), for example, predicted that Native cultures would tend to score farther toward the feminine end of the Hofstede's masculinity dimension than the non-Native cultures that have subsumed them. There is, however, little evidence to suggest that they thought the masculinity indices of the Aboriginal governments would routinely fall outside Hofstede's original 100 point range.

or that the indices of some of the non-Aboriginal governments would also take on negative values

An analysis at the .05 level of significance in the three-group test situation would have showed that the employees of the Algonquin governments differ significantly from the employees of the Athabaskan governments on the masculinity variable. The masculinity indices for the Algonquin governments tend to be higher, or more masculine, than the corresponding indices for the Athabaskan governments. That analysis also would have shown that the employees of the Algonquin and the non-Aboriginal governments and the Athabaskan and non-Aboriginal governments do not differ significantly in terms of their responses for those questions.

All three groups of governments exhibit a very high degree of femininity. In cross-cultural relations among the groups, however, the Athabaskan groups would be expected to demonstrate even a greater degree of femininity than the Algonquin groups and would likely regard the Algonquin governments as being somewhat more assertive, acquisitive, and forceful. The Athabaskan governments could be expected to be even more concerned than the Algonquin governments about colleagues in the workplace maintaining positive interpersonal relationships. They could also be expected to place more importance on persons than on tasks. The Algonquin and non-Aboriginal governments, however, could be expected to feel relatively comfortable with one another in terms of their inclinations toward masculinity or femininity.

Those findings would be expected to be attenuated when the comparisons are made between only Aboriginal and non-Aboriginal governments because the results for the Algonquins are not significantly different from the results for the non-Aboriginals, but are significantly higher than the results for the Athabascans. Not surprisingly, in the two group analysis under the alternate method, the ANOVA on the MAS' variable identified no significant differences between the Aboriginal and non-Aboriginal groups.

11.1.5 Long Term Orientation

As shown in Table 26 on page 132, the employees of the Algonquin and the Athabaskan governments do not differ significantly in terms of their responses for the questions that are used in calculating long term orientation indices. However, the employees of the Algonquin and non-Aboriginal governments differ significantly in terms of the responses that they provided.

The long term orientation indices for the non-Aboriginal governments would tend to be higher than the corresponding indices for the Algonquin governments. This result was expected to be attenuated when comparisons are made between only two types of government, i.e., between the Aboriginal and non-Aboriginal governments, because the long term orientation indices of the non-Aboriginal governments tend to be higher than the corresponding indices of the Algonquin governments but not the Athabaskan governments. As shown in Table 29 for the two-group analysis however, the non-Aboriginals score higher on LTO' than the Aboriginals.

Based on this research, all three groups exhibit low to medium long term orientation. In cross-cultural relations among the three groups, however, the non-Aboriginal governments would be expected to demonstrate a greater degree of long term orientation than the Algonquin governments and could possibly regard the Algonquin governments as having a greater preoccupation with the past and present or a shorter temporal orientation.

Societies, or organizations such as the non-Aboriginal governments, which exhibit relatively higher degrees of long term orientation, tend to place more importance on values associated with the future, such as persistence, status-ordered relationships and thrift. Societies, and organizations such as the Algonquin governments, which exhibit relatively lower degrees of long term orientation, tend to place relatively more importance on values associated with the past and present, such as steadiness and stability, protection of face, respect for tradition, and reciprocation of greetings, favours and gifts.

The long term orientation dimension has not been embraced by researchers to the same extent as the other dimensions of the VSM approach. It is not as easy to understand intuitively as the other dimensions of culture and researchers seem to be somewhat unsure about it. An argument could be raised that the “seven generations” perspective, for example, that is associated with Iroquoian culture and with the cultures of some other Aboriginal societies, is an indicator of a profound concern for the future and that such a

concern may properly be interpreted as being an indicator of a long term temporal orientation

From the perspective of this study, however, the seven generations perspective is not quite the same as the long term orientation dimension that has been developed in the VSM framework. Underlying the concept of long term temporal orientation is the idea that at least part of the motivation for behaviours in the present is to achieve a better future, i.e., a more prosperous and a perhaps more comfortable and convenient future. Behind the seven generations perspective there appears to be a concern for not diminishing the quality of life and the prospects or opportunities of future generations in comparison to the quality of life, prospects and opportunities that are presently enjoyed by current generations or that were enjoyed in the past by previous generations.

As revealed in this study, Aboriginal governments appear to be more interested than non-Aboriginal governments in sustaining past traditions in the present and in carrying them forward into the future. From the perspective of this study, inclinations toward sustaining past traditions in the present and toward carrying traditions forward into the future represent a greater preoccupation with the past and the present than with the future. They would, therefore, be indicators of a short term, rather than a long term, temporal orientation under the VSM framework. The finding from this research that Aboriginal governments have a relatively shorter term temporal orientation is consistent with the claims that are often made about Aboriginal societies and organizations showing respect for their traditions and elders.

11.1.6 Other Comments

This research shows that Aboriginal governments and societies in Canada are not uniformly similar to one another or uniformly different from the cultures of Anglo-Canadian communities or the Canadian national culture. Federal government policies, however, are designed intentionally to be uniform in their treatment of various groups of Canadians. Canada's Aboriginal people have a special place in the Constitution of Canada but it is unlikely that the policies of the federal government would ever be modified to provide substantially different kinds of treatment for different groups of Aboriginal people in Canada.

Nevertheless, a broader understanding of how Canada's Aboriginal communities are similar to and different from one another would be helpful for applying and administering government policies and programs that concern Canada's Aboriginal people. In addition, a better appreciation of how Aboriginal communities in Canada are similar to and different from Canadian society overall would be expected to facilitate improvements in interactions between Aboriginal communities and external governments, corporations and organizations in Canada.

Based on the findings and insights from this research, it is possible to speculate further about which cultural features of Aboriginal and non-Aboriginal organizations might be more harmonized and which features seem to contrast and might create potential for misunderstandings or conflicted relations. For example, the fact that Aboriginal and non-Aboriginal governments both exhibit extremely feministic values suggests that they would both tend to emphasize cooperative behaviour and mutual support within the

organization over material gain or task completion. However, those values and their associated attitudes, which appear to be characteristic of both Aboriginal and non-Aboriginal governments, likely will be somewhat frustrating for businesses that exhibit a less feminine orientation, place higher value on growth and profit generation, adopt a task orientation rather than a person orientation or that value completing projects on schedule and within budget.

The low and low to medium tolerances for power distance exhibited by Aboriginal and non-Aboriginal governments, respectively, imply that more internal consultations and negotiations might be required for the Aboriginal governments to make important decisions. Consensus-building processes lead naturally to longer deliberations and frequent reconsiderations before decisions can be achieved for important issues. Those types of behaviour will likely be somewhat frustrating for the non-Aboriginal governments and perhaps even more frustrating for businesses that exhibit higher tolerance for power distance and are under pressure to complete tasks on schedule. Those behaviours could also impede the establishment of joint ventures between Aboriginal governments and non-Aboriginal businesses or collaborative undertakings by Aboriginal and non-Aboriginal governments. As Aboriginal and non-Aboriginal organizations continue to establish closer contacts, behaviours on both sides will likely be modified further to facilitate successful transactions and interactions.

The finding that, for some of the VSM dimensions of culture, the differences among Aboriginal governments can be greater than the differences between Aboriginal and non-

Aboriginal governments suggests that some Aboriginal governments could experience more friction or difficulties in dealing with certain other Aboriginal governments than in dealing with non-Aboriginal governments. The development and advocacy, by groups of culturally different Aboriginal governments, of uniformly accepted positions is probably more difficult to achieve than non-Aboriginal governments and the general public realize.

Unlike local governments that interact with few or possibly with no Aboriginal governments, the federal government and the provincial or territorial governments routinely interact with large numbers of Aboriginal governments. As shown by their VSM profiles, the Aboriginal groups are culturally different and, on that basis, they can be expected to react differently when the federal government or provincial governments put forward various policy initiatives, programming choices or development plans. The cultural diversity of Aboriginal groups in most provinces and territories suggests that mixed reactions would be a natural result where senior governments and Aboriginal groups interact.

11.2 The VSM and Alternate Methods: This research also contributes to a better understanding of the VSM and the alternate method. The VSM and the alternate method both tend to detect the same kinds of differences among the various governments. The alternate method, however, with its larger sample sizes, is able to identify differences beyond those that are detectable using the VSM method. The larger number of cases in the alternate method allows the MANOVAs, ANOVAs and post hoc tests to establish the

existence of significant differences where effect sizes are too small for those techniques to identify differences based on VSM indices for only 13 governments

The significant results that were obtained at the level of 13 governments using the VSM in the three-group and two-group analyses are replicated in the results from the alternate method. In the two group analyses, both methods identified differences between the Aboriginal and non-Aboriginal groups along the power distance and long term orientation variables. Under the alternate method, however, the two-group analysis also produced evidence of a difference on the individualism variable at the .05 level of significance.

In the three-group analyses, both the VSM and the alternate method identified differences between the Athabaskan and non-Aboriginal governments associated with the power distance variable. The test under the alternate method, however, also identified significant differences between the Algonquins and the non-Aboriginals that were not evident in the results from the VSM. The test on the individualism variable under the alternate method identified differences between the Algonquins and the Athabascans and between the Algonquins and the non-Aboriginals, which the VSM had not been able to identify. Along the long term orientation variable, both methods identified differences between the Algonquins and non-Aboriginals. The alternate method, however, also determined that, at the .05 level of significance, the Athabascans and Algonquins differ on the masculinity variable. That finding was not evident in the results from the VSM.

When the transformed responses of the employees of the Algonquin governments were resolved more finely into transformed responses of employees of Ojibway and Cree governments, the alternate method found differences in some but not all pairings of governments. No differences were identified between the Ojibway and the Cree or between the Ojibway and the Athabascans. This finding probably reflects the close cultural similarities between the Cree and the Ojibway. The finding of no significant differences between the Ojibway and the Athabascans cannot be explained as easily. It might suggest that there is a practical limit to the ability of the alternate method or the VSM to identify differences between culturally dissimilar groups.

Much credit is owed to Chapman *et al* (1990) and Redpath and Nielsen (1997) for providing a testable theoretical framework for this research. The research supports some of the predictions in the Canadian management literature about how the VSM indices of Aboriginal organizations compare with the indices for similar non-Aboriginal organizations. The research does not support other predictions in the literature. The findings also suggest that speculating from a theoretical perspective about how various organizations or societies might resemble or differ from one another in terms of their VSM indices can be a risky undertaking.

The Canadian management literature is unquestionably based on a thorough understanding of various aspects of Aboriginal and non-Aboriginal cultures. However, the predictions in the literature are at least partially intuitive and they do not always agree with results from this research. The VSM indices and the relationships among groups in

terms of their indices have to be determined empirically. Even when VSM indices are calculated, the findings, such as those in this study that Aboriginal governments are highly individualistic or highly uncertainty avoidant, can be surprising and difficult to reconcile with other elements of our understanding. To be properly understood, the findings from this research will call for even more research and testing. This research shows that, at this early stage of our understanding, the VSM characteristics of the Aboriginal and non-Aboriginal government organizations are too complex to be predicted accurately from a theoretical perspective. The Algonquins and the Athabascans, for example, are similar and different in different ways than the Algonquins and the non-Aboriginals or the Athabascans and the non-Aboriginals.

The relationships among the groups, based on their VSM characteristics, are also too complex to be usefully summarized in simple statements about differences between Aboriginal and non-Aboriginal groups. The prediction that non-Aboriginal groups score higher than Aboriginal groups on individualism was supported, at the .05 level of significance, by the results from the alternate method. Such a predictive statement at the two-group level of generalization, however, is relatively unsophisticated and does not permit much appreciation of the complexities in the relationships. For example, the three-group analyses showed that the Algonquins are significantly different from both the Athabascans and the non-Aboriginals on the individualism variable and that the Athabascans and the non-Aboriginals are not significantly different on that variable. In addition, the four-group test situation for the individualism variable further clarified that the difference between the Aboriginals and non-Aboriginals in the two-group test, or the

difference between the Algonquins and the non-Aboriginals in the three-group test, appears to be attributable to the difference between the Cree and the non-Aboriginals. The four-group analysis showed that there are no significant differences between the Ojibway and the non-Aboriginals or between the Athabascans and the non-Aboriginals. Accordingly, while a predictive statement that non-Aboriginal groups score higher than Aboriginal groups on individualism can be supported, it masks many important differences and similarities that exist among various groups.

The Aboriginal groups in Canada are diverse and, as a result, they are similar to and different from one another and mainstream Canadian society in different ways. The goal of facilitating interactions or improving the effectiveness of interactions among groups requires more accurate understandings of the relationships among the groups. General comparative statements that are made at the gross level of Aboriginal and non-Aboriginal groups probably will not be as helpful for improving our understanding as comparative statements that are made at finer levels of differentiation and that can better identify differences and similarities among Aboriginal cultures and between various Aboriginal cultures and mainstream Canadian culture.

11.3 Comparisons with Other Studies that Measure Culture of Canadians: Table 41 presents the VSM indices that were calculated for various groups of Canadians in Hofstede (1980, 2001), Punnett and Withane (1990) and this study. It shows that there is considerable variability in the indices from the different studies.

| Table 41: VSM Indices Reported for Various Groups of Canadians (adapted in part from Hofstede (1980, 2001) and Punnett and Withane (1990)) | | | | | | |
|---|----------------------------|------------|-----------|------------|------------|------------|
| Group | Source | PDI | UA | IDV | MAS | LTO |
| IBM employees | Hofstede (1980, 2001) | 39 (1980) | 48 (1980) | 80 (1980) | 52 (1980) | 23 (2001) |
| Anglo-Canadian federal government managers | Punnett and Withane (1990) | 29 | 27 | 62 | 37 | na |
| Franco-Canadian federal government managers | Punnett and Withane (1990) | 39 | 27 | 48 | 33 | na |
| Fast food restaurant managers | Punnett and Withane (1990) | 92 | -0 13 | 41 | 80 | na |
| Algonquin Gov't 1 | this study (2010) | 13 | 91 | 73 | 0 | 27 |
| Algonquin Gov't 2 | this study (2010) | 7 | 90 | 74 | -18 | 25 |
| Algonquin Gov't 3 | this study (2010) | 25 | 109 | 89 | -17 | 30 |
| Algonquin Gov't 4 | this study (2010) | 20 | 115 | 82 | -2 | 34 |
| Algonquin Gov't 5 | this study (2010) | 12 | 85 | 69 | 20 | 24 |
| Athabaskan Gov't 1 | this study (2010) | 21 | 78 | 91 | -26 | 33 |
| Athabaskan Gov't 2 | this study (2010) | 6 | 86 | 97 | -35 | 26 |
| Athabaskan Gov't 3 | this study (2010) | 19 | 93 | 78 | -39 | 39 |
| Athabaskan Gov't 4 | this study (2010) | 4 | 74 | 94 | -5 | 26 |
| Non-Aboriginal Gov't 1 | this study (2010) | 38 | 108 | 81 | 11 | 40 |
| Non-Aboriginal Gov't 2 | this study (2010) | 15 | 97 | 98 | -27 | 32 |
| Non-Aboriginal Gov't 3 | this study (2010) | 35 | 81 | 87 | -1 | 42 |
| Non-Aboriginal Gov't 4 | this study (2010) | 40 | 90 | 104 | -14 | 35 |

In terms of power distance, the indices for the Aboriginal governments in this study tend to be lower than the indices for the non-Aboriginal governments, as predicted. The

indices that were calculated for non-Aboriginal governments are generally similar to the indices that Punnett and Withane calculated for Anglo- and Franco-Canadian managers within the federal government. The power distance index that Punnett and Withane (1990) calculated for fast food restaurant managers in Windsor, however, seems unexpectedly high. That index might be an outlier or it could indicate that power distance indices reflect organizational or occupational culture as well as national culture. Fast food restaurant managers can be expected to be more highly entrepreneurial than IBM or government employees.

The uncertainty avoidance indices that were calculated in this study, both for the Aboriginal and non-Aboriginal governments, are all surprisingly high relative to the indices from the other studies. Those indices are also not as predicted in the literature and possibly suggest that the uncertainty avoidance indices capture organizational effects. The uncertainty indices that were calculated in this study for the Athabaskan governments tend to be lower than the indices that were calculated for the non-Aboriginal governments. That finding is as predicted in the literature. However, the highest indices for uncertainty avoidance in this study are associated with the Algonquin governments. The UA indices of the Algonquin governments tend to be higher than those of the non-Aboriginal governments. That result is not consistent with the predictions in the literature. The uncertainty avoidance index that Punnett and Withane (1990) calculated for fast food restaurant managers in Windsor seems surprisingly low relative to the other indices. That particular index could be another outlier or could also suggest that the

uncertainty avoidance indices reflect organizational or possibly occupational culture as well as national culture

The IDV indices that were calculated in this study tend to be higher than the IDV indices from the other studies. However, the individualism indices that were calculated for the Algonquin governments are somewhat similar to Hofstede's (1980, 2001) index for IBM employees in Canada. The indices that were calculated for the Athabaskan and non-Aboriginal governments, however, tend to be much higher than individualism indices from the other studies. That finding might indicate that the individualism indices reflect organizational culture as well as underlying societal culture.

The masculinity indices that were calculated in this study are very much lower than the indices from the other studies and could possibly suggest that the masculinity indices reflect organizational culture as well as underlying societal culture. The masculinity index that Punnett and Withane (1990) calculated for restaurant managers in Windsor, who are probably quite entrepreneurial, is surprisingly high relative to the other indices. That index could be an outlier or it could be another indicator that the masculinity indices reflect the organizational culture of fast food restaurants or the occupational culture of restaurant managers as well as the national culture of Canadians.

Punnett and Withane (1990) did not calculate a long term orientation index for any of the groups in their study. The indices that were calculated in this study, however, appear to be similar to the index that Hofstede's (2001) calculated for IBM employees in Canada.

Overall, the indices from the various studies are sufficiently different that it is difficult to think that the indices from any one study could accurately reflect Canadian national culture. In some cases, the indices within variables are extremely different and would imply quite different results if they are accepted as reflecting Canadian national culture. For example, if the power distance indices for one of the particular groups of Canadians that are represented in Table 41 were generalized to represent Canadian national culture more broadly, then Canadian society could be characterized as exhibiting very low, low, medium or very high power distance. Similarly, depending on which group's MAS indices are used, Canada's national culture could be characterized as exhibiting extremely low, low, medium or high masculinity.

This finding would seem to be a clear warning that there are risks associated with generalizing the results for a sampled subgroup as if those results could also reliably characterize a larger social grouping in which the sub-group is embedded. While VSM indices are useful for understanding differences and similarities among groups, it seems doubtful that the indices for a sub-group or organization would reflect as accurately the cultural characteristics of the larger, national society within which the sub-groups or organizations are embedded. Generalizing about the characteristics of a national culture based on the characteristics of a sampled subset of the national society appears to be a risky undertaking at this early stage of our understanding.

12. Contributions of the Research

The thesis presents and interprets a VSM profile for each participating government based on indices for five dimensions of culture. The sets of VSM indices for the Aboriginal governments and non-Aboriginal governments and the comparative analyses that identify differences and similarities among the Aboriginal groups and between comparable Aboriginal and non-Aboriginal organizations are the most important contributions of this study.

Another important contribution of this study was the development of the alternate method for application in circumstances where only small numbers of groups participate in a study. The VSM technique utilizes group means for calculating indices along the various cultural dimensions. Cross-cultural comparisons based on the VSM search for differences and similarities between groups based on the VSM indices for those groups. The alternate method, however, utilizes the inputs provided directly by the respondents. Cross-cultural comparisons based on the alternate method search for differences and similarities between groups based on much larger numbers of responses organized into groups.

The study provided an abundance of evidence that the alternate method is able to identify differences among culturally different groups and that the VSM is also able to find differences when large numbers of cases are available. The study also provided evidence that the VSM and alternate method work at the level of sub-national societies within Canadian national society.

The VSM indices that were calculated in this study for the Aboriginal governments build on Simonsen's earlier work with an unidentified Australian Aboriginal group, which was reported by Hofstede (2001). Research, such as Simonsen's study and this study, that focuses on Aboriginal organizations and societies, is still relatively uncommon within organizational and management studies. Interestingly, Simonsen's work produced extremely high indices for uncertainty avoidance and individualism that are similar to the unexpectedly high uncertainty avoidance and individualism indices that were calculated for the Aboriginal governments that participated in this research.

The study also contributes to an improved understanding of the VSM approach. To the extent that the surveyed governments can be accepted as representing the communities or societies underlying the governments, this study showed that the VSM technique works at the level of sub-national societies within Canada and that it can identify differences and similarities among sub-national societies that are culturally distinct but embedded within the larger Anglo-Canadian society. Research that is based on Hofstede's values survey module and conducted at the level of sub-national societies is relatively uncommon within organizational and management studies.

In the MANOVAs and ANOVAs that were conducted using the VSM and alternate method, significant differences were identified most frequently along the power distance and long term orientation dimensions. Significant differences between groups were also identified in the responses they provided for the questions that are used in calculating

individualism indices. Significant differences also could have been identified along the masculinity variable if the level of significance had been set at $p = .05$.

The variables that are most useful for distinguishing among the Aboriginal groups are different from the variables that are most useful for distinguishing the Aboriginal groups from non-Aboriginal groups. Differences in power distance and individualism are important for distinguishing Aboriginal groups from non-Aboriginal groups. Differences in masculinity, which become appreciable at the .05 level of significance, are important for distinguishing the Algonquins, and more specifically the Cree, from the Athabascans. Differences in individualism help to distinguish Aboriginal groups from non-Aboriginal groups and also help to distinguish among some Aboriginal groups when the level of significance is relaxed from $p = .01$ to $p = .05$.

The finding that the results for the uncertainty avoidance dimension do not differ significantly for any of the governments in any of the analyses is somewhat surprising and raises a question about the usefulness of that dimension. The finding might also support earlier observations by the Chinese Culture Connection (1987) and McSweeney (2002) that the uncertainty avoidance dimension could be removed from the VSM framework because it is not a well formed dimension for national cultures globally.

This study further develops ideas originally put forward in the Canadian management literature about how Aboriginal and non-Aboriginal organizations and societies are different and similar in terms of their VSM indices along Hofstede's four original

dimensions of culture Chapman *et al* (1991) and Redpath and Neilsen (1997) both put forward the view that the VSM indices for Aboriginal societies and organizations would be lower than the corresponding indices for Canadian or North American national cultures along the power distance, uncertainty avoidance, individualism and masculinity dimensions

The results from this research support the predictions by Chapman *et al* (1991) and Redpath and Neilsen (1997) concerning the power distance and individualism dimensions The research identifies significant differences between groups as predicted in the Canadian management literature for those two dimensions However, in terms of individualism, the sampled Aboriginal and non-Aboriginal governments probably do not differ as profoundly as the literature expected The research results for the uncertainty avoidance dimension, and for the masculinity dimension when alpha is set at .01, do not support the literature because no significant differences were found between the Aboriginal and non-Aboriginal governments in terms of those dimensions

Chapman *et al* (1991) and Redpath and Neilsen (1997) both believe that the VSM indices for Aboriginal societies or organizations would exhibit high collectivism However, the indices that were calculated for the nine Aboriginal governments using the classic VSM method indicate that the Aboriginal governments are highly individualistic organizations Under the alternate method, the responses of the Aboriginal government employees for the questions that are considered in calculating the VSM indices also show the Aboriginal governments to be highly individualistic This is a surprising result that

does not agree with the conventional wisdom that Aboriginal societies are more collectivistic than non-Aboriginal societies. The research has not attempted to explain that particular finding. It is possible, however, that the high degree of individualism is a feature of the organizational culture rather than the underlying societal culture and reflects a loose attachment of the respondents to the government organizations.

The results also show that the Aboriginal and non-Aboriginal governments exhibit a very high degree of femininity. The finding in respect of the Aboriginal organizations is consistent with the predictions made by Chapman *et al* (1991) and Redpath and Neilsen (1997). The finding in respect of the non-Aboriginal governments, however, likely is not consistent with the expectations of those articles. It is likely that the articles expected that non-Aboriginal governments would reflect a higher degree of masculinity. In addition, the degree of femininity that is exhibited by the Aboriginal and non-Aboriginal governments in this research is likely more extreme than Chapman *et al* (1991) or Redpath and Neilsen (1997) would have anticipated.

Comparisons among the indices that were calculated in this study for Aboriginal and non-Aboriginal governments in Canada and the indices that Hofstede (1980, 2001) and Punnett and Withane (1997) previously calculated for other groups of Canadians are interesting and informative. In some cases, the sets of indices are so different that it must be concluded that they cannot all accurately reflect Canadian national culture. The indices appear to be most useful for characterizing the organizations that were sampled in the various studies. In connection with this study, the government indices are considered

to accurately reflect some of the cultural characteristics of the governments. Thereafter, they are thought to be somewhat useful for characterizing the community cultures that underlie the government organizations but that continue to be close to the source of the data. Even at that level, however, some of the findings, such as the high levels of individualism that are associated with the Aboriginal governments, are difficult to reconcile with our understandings of the cultures of the Aboriginal societies that underlie the governments.

The findings from this study, however, suggest that it likely is not good practice to generalize the results too far away from the source of the data. If it is difficult to generalize from the cultural characteristics of an organization to the characteristics of the community where the organization is situated, then it must be even more difficult to make attributions about the cultural characteristics of a national society based on the observed characteristics of sampled organizations that are embedded within that society. Based on the comparison of the indices that have been calculated for various samples of Canadians, it seems likely that the indices that Hofstede attributed to national cultures would also have contained a considerable amount of information about the cultural characteristics of the IBM Corporation whose employees he sampled.

This study shows that comparisons made at the level of more segmented groups are more instructive than gross comparisons made at the level of less differentiated groups. For example, a comparison made between Canadian and European culture would not be expected to be very helpful in illuminating the range of similarities and differences that

could be identified in a comparison between Canadian culture and Italian, German, French, Spanish, English or other European cultures. This study shows that grouping various Aboriginal organizations or societies together for the purpose of understanding features of Aboriginal culture means that important similarities and differences among Aboriginal groups will be attenuated or lost in the analysis.

As interactions with and among Aboriginal communities or organizations are increasing, we have arrived at a point where we need better and more specific understandings of similarities and differences. We can do better than make gross comparisons between Aboriginal and non-Aboriginal groups. For defining and understanding similarities and differences between groups, it is recommended that Aboriginal organizations, universities, governments and businesses adopt analytical frameworks, like the VSM or the alternate method, and apply them with more carefully segmented and differentiated groups rather than with larger and more general groups such as those that only distinguish Aboriginals from non-Aboriginals.

13. Biases and Limitations of the Research

This chapter identifies some of the biases that may be present in the research and summarizes some of its limitations

13.1 Data Limitations: The most important limitation of this study is the small number of participating governments. It proved to be very difficult to find Aboriginal governments that were interested and willing to participate in the research. Where governments were prepared to participate, it was quite expensive to administer the surveys and collect the data. Data were collected from only 14 governments. The survey of one of the Cree governments produced only nine completed questionnaires, which were insufficient for producing reliable indices for that government. Ultimately, VSM indices were produced for only 13 governments and an alternate method, which is related to and based on the VSM method, had to be adopted for the research.

13.2 Use of the Alternate Method: The alternate method is based on the responses for the questions that are used for calculating the VSM indices. The alternate method, however, is slightly different from the classical VSM method and, wherever the alternate method was used, the findings are slightly removed from the findings for the VSM. Although the findings from the alternate method are different from those of the VSM, they remain relevant and useful if they are interpreted carefully. Nevertheless, it is likely that the findings for research questions two and three under the alternate method will be subject to criticism, at least in some quarters, because they are not actually based

on the VSM. The criticism could be addressed by administering the VSM survey with more governments to greatly increase the number of sets of classically derived VSM indices. Ideally, VSM indices would have been available in this study for more than 30 governments in each of the ethno-linguistic groups. The use of the alternate method, however, is justifiable in circumstances where sample sizes are small. The results from the VSM are consistently replicated by the alternate method but, because the alternate method takes better advantage of the inputs provided by individual respondents, the alternate method discriminates among groups even more effectively than the VSM.

13.3 Possible Limitations of the Alternate Method: This research concludes that the alternate method is able to identify significant differences among culturally different groups. The research also concludes that the VSM method can identify differences between groups when sufficient numbers of groups participate. Even the alternate method was unable to identify differences between Cree and Ojibway groups, for which 67 and 55 completed surveys, respectively, were available. Sample sizes of 67 or 55 are already larger than the number of employees in a typical Aboriginal government. It seems unlikely that the alternate method will be able to identify differences between the Cree and the Ojibway. That result however may be explained by the shared Algonquin heritage of the Cree and Ojibway.

The finding that neither the VSM nor the alternate method identified significant differences between the Ojibway and the Athabascans is an unexpected result and more difficult to explain. The Ojibway and the Athabascans are not closely related from a

cultural perspective. It is possible that the finding of no significant differences is a spurious artefact associated with the particular governments that participated in this study. It is also possible that the two groups exhibit similar VSM profiles for different reasons or that cultural differences between them are evident in other areas apart from the VSM dimensions. In any case, the results from this study show that the VSM and the alternate method are not able to identify differences between the Ojibway and Athabaskan governments.

13.4 Level of Analysis: Ultimately, this research is interested in how Aboriginal societies are similar to and different from one another and how they are similar to and different from Canadian society more generally. Data for the research were gathered from local governments and the findings are relevant, in the first instance, for the surveyed governments. By extension, the findings about a local government may be accepted as being representative of the community society that underlies the government. It is by even further extension that the findings about a government could be interpreted as reflecting Aboriginal or non-Aboriginal societies or organizations more generally.

The comparisons that are made in section 11.3 about the results from this study and earlier studies by Hofstede (1980, 2001) and Punnett and Withane (1990) illustrate the risks that may be associated with generalizing about the cultural characteristics of a national society based on the characteristics of a sampled sub-element of society. The profiles for Canadian society that emerge from the various studies would be so different that the profiles cannot all reasonably be accepted as accurately representing the cultural

characteristics of Canadian society. The indices in each of the studies can be accepted as being correct for its particular sample of Canadians but the indices for some samples become contradictory when they are interpreted as reflecting the larger Canadian national culture.

The VSM indices appear to be better suited for making comparisons about organizational and community cultures than for making comparisons about the larger national cultures in which the community societies and organizations are embedded. The VSM indices calculated in this study can be accepted for the sampled governments and probably can be accepted as being reasonably indicative of cultural characteristics of the communities underlying the participating governments. For the purposes of research question three, however, the combined surveys of all of the employees of the Aboriginal or non-Aboriginal governments, respectively, have been accepted as representing, respectively, Aboriginal organizations and societies more generally or Anglo-Canadian organizations or Anglo-Canadian society more generally. The analyses for research question three may be vulnerable to criticism in that regard.

Hofstede's work (1980, 2001) was widely criticized for interpreting the results from IBM employees as being representative of the national society of the countries where the IBM employees worked. Particularly in connection with research question three, this study may be vulnerable to the same kinds of criticism because it accepts the characteristics of Aboriginal and non-Aboriginal government employees as being representative of Aboriginal or non-Aboriginal societies more generally. In that regard, however, the

decision to use government employees in this study to represent a society is reasonable and defensible because government employees include elected officials, executive officers and managers, professionals and program specialists, program officers, administrative staff and general labourers. They provide a broader range of representation than IBM employees for example.

This research probably has done better than Hofstede's earlier work in identifying some of the rich complexities in the cultural attributes of sub-societies within Canadian national society. The research makes certain conclusions about Aboriginal and non-Aboriginal organizations and societies and claims to have made a contribution toward an improved understanding of the cultural characteristics of some sub-national societies within Canada but stops short of making a claim that the VSM indices it produced accurately reflect Canadian national culture. The results from this research are relevant mainly for the participating Aboriginal and non-Aboriginal governments and, by extension, may be accepted as being somewhat relevant for the Aboriginal and non-Aboriginal communities that underlie those governments. It seems less likely that the results will be as accurate or informative about characteristics of Canadian national culture or about Aboriginal cultures generally.

13.5 Use of English Surveys This research is based on an English language version of Hofstede's VSM questionnaire. There is some evidence that the language of a questionnaire influences the responses that are provided. Ralston *et al* (1995) showed that, in the context of Chinese managers, the language that is chosen for a survey

influences the responses and that information that could be important for cross-cultural understandings can be lost where surveys are administered in a single language

The use of English questionnaires for this research probably masked or partially masked some differences among the groups of Aboriginal governments and between the Aboriginal and non-Aboriginal governments. If the surveys had been translated into the appropriate languages for the Aboriginal groups, it is possible that different results would have been obtained. If the surveys had been translated, greater differences might have been discernable within the dimensions where this research found differences and additional differences might have been evident along some dimensions where this research found no differences.

13.6 Sources of Error: There are several possible sources of error in this study. The respondents, for example, might not have fully understood all of the questions in the VSM questionnaire and the various responses for a given question might not have been based on uniform understandings or interpretations of the questions. There is ample evidence from the questions that arose during the administration of the surveys and from the survey results that some of the questions in Hofstede's original questionnaire are open to different interpretations. The 18 questions that are used for calculating the VSM indices, however, are all relatively straight forward.

The respondents could also have chosen to respond falsely to some questions. For example, there are two known instances where false information was supplied for

question D11. Fortunately, the responses for that question are not relevant for calculating the VSM indices. It is also possible that the data set includes other responses that are false but that have not been identified as being false. Overall, because participation in the survey was voluntary, there would seem to be little motivation for participants to deliberately provide false answers. The protocol for entering responses into the data set treated all the responses as being true.

It is unlikely that any transcription errors remain in spreadsheets that were used for the analyses. After each government survey had been completed, the responses were coded into two separate spreadsheets. The spreadsheets were compared and the responses were examined and entered again in those cases where the spreadsheets showed different responses for a question. After all of the responses from all of the surveys had been coded into a data set, the responses were compared again with the responses in the original survey questionnaires and the spreadsheet was corrected before the statistical tests were undertaken.

13.7 Other Frameworks: There are other ways, beyond the VSM and alternate method, for analyzing culture and identifying similarities and differences among cultures. This research was based completely on the VSM and alternate method and probably has made only a limited contribution to the ongoing debate about the merits of the VSM relative to other methods for describing and understanding culture.

14. Future Research

Several avenues for future research emerged from this study. One of the modifications that were made to the VSM survey questionnaire for this study was the inclusion of a question asking respondents to identify the particular ethno-linguistic or cultural group to which they belong. The responses to that question show that some employees in each government identify themselves as belonging to an ethno-linguistic or cultural group that is different from the primary cultural group of the society within which the government functions.

For example, not all of the employees of the Ojibway governments identified themselves as being Ojibway and not all of the employees of the Cree governments identified themselves as being Cree. By removing those non-typical surveys, it might be possible to achieve greater degrees of differentiation among groups organized by language family. After such non-typical surveys have been removed, the remaining data would be expected to better reflect the cultural characteristics of the underlying ethno-linguistic groups, even though the actual organizational and community groupings themselves might be more heterogeneous.

It would be interesting to analyze the data sets again after the responses from the non-typical employees are removed. Even though that approach would produce somewhat unrealistic portrayals of the government organizations and the current societies

underlying them, which are increasingly diverse, such an approach could increase the differentiation among the various groups

In the analyses that were conducted in this study, the uncertainty avoidance dimension was not helpful for distinguishing any group from any other group. It is possible that a multivariate model that excludes uncertainty avoidance could differentiate the groups more effectively than a model, such as the one used in this study, which includes uncertainty avoidance. It is recommended that the MANOVAs and other analyses be repeated after the uncertainty avoidance variable has been removed.

If enough governments participate, the VSM technique is able to distinguish among various types of governments based on their classically derived indices. Additional VSM survey work should be undertaken with other Ojibway, Cree and Athabaskan governments to increase the numbers of participating governments and confirm that significant differences among the governments can be established from their VSM indices even where the effect sizes are relatively small.

By increasing the numbers of participating governments, the analyses could be conducted at more specific levels of language. For example, in the same manner that the Algonquin language family includes Ojibway, Cree and other languages, the Athabaskan language family includes a number of distinct languages and cultures. If there were a sufficient number of participating governments, the VSM indices and other results that were attributed in this research to the Athabaskan language family could be presented at a more

specific level of detail for the Dene, Gwich'in, Han, Tutchone or other Athabaskan language groups

To expand the set of indices, it is also recommended that the survey be administered with other willing Aboriginal governments representing the Siouan, Salish, Tsimshian, Wakashan, Iroquoian, Haida and Kutenai language families. In terms of the non-Aboriginal governments in Canada, the survey could also be applied with French-speaking governments in Canada. Most Aboriginal governments in Canada would be able to participate in the survey using the English questionnaire. Administering the survey with French speaking governments, however, would likely require that the questionnaire be translated into French.

The finding that the VSM and alternate method did not identify significant differences between the Ojibway and the Cree is not surprising because they are culturally similar but the finding that the methods did not identify significant differences between the Ojibway and the Athabascans is unexpected because those groups are not culturally related. Additional work is required for confirming that the VSM profiles of the Ojibways and Athabascans are similar and for determining the reasons why that is the case.

The finding that Aboriginal governments exhibit extremely high uncertainty avoidance is also not well understood and calls for more research. Expanded sampling would produce enough evidence to conclude either that the uncertainty avoidance dimension is helpful for differentiating between some groups or, alternatively, that it is not helpful for any of

the analyses. It is also possible that expanded sampling could also produce evidence that the masculinity indices of at least some Aboriginal groups in Canada are lower than the corresponding indices for non-Aboriginal groups, as predicted in the literature.

The finding that Aboriginal governments in Canada exhibit extremely high individualism, rather than high collectivism, is counterintuitive and warrants further research. In that regard, the degree of the employee attachment to Aboriginal and non-Aboriginal governments should be explored further by comparing the data collected with the VSM survey about average length of employee service and employee intentions to remain with their government employers. The model for modern Aboriginal governments in Canada was created more by the Department of Indian and Northern Affairs than by the Aboriginal communities themselves and a finding that employees exhibit a low degree of attachment to those governments would not be surprising.

The study produced some evidence to suggest that the VSM indices or VSM' values of the governments of the self-governing Aboriginal groups could be different from those of the governments of the Aboriginal groups that continue to operate primarily under the *Indian Act*. For example, the mean of the uncertainty avoidance indices for the self-governing Aboriginal groups was determined to be lower than the corresponding mean for the governments that operate under the *Indian Act*. It is recommended that the database be modified to remove data about the non-Aboriginal governments and to distinguish the data for the self-governing Aboriginal groups from the data for groups that operate under the *Indian Act*. That would make it possible to undertake a broad

range of analyses for determining whether there are other significant differences between those groups in terms of their VSM indices or VSM' values. It might also open up another field of useful comparative analyses about Aboriginal governments and organizations.

One of the principal interests of the research has been to explore how Aboriginal cultures differ from one another and from Canadian national culture. Indices were calculated for governments in the belief that those organizations would reflect the cultural characteristics of the underlying societies. An important finding from this research and, in particular, from the comparison of the government indices with the indices that were calculated previously by Hofstede (1980, 2001) and Punnett and Withane (1997) is that the VSM indices seem to reflect organizational culture and perhaps occupational culture as well as underlying societal culture.

Accordingly, if VSM indices were calculated for other groups or organizations that are typically found in all of the target societies, such as gas station employees, school teachers, senior citizens, licensed tradespersons or restaurant staff, for example, it is possible that different sets of indices would result for any given society. It would be interesting to learn whether and how the indices calculated for different types of respondents differ. In particular, it would be interesting to learn whether the relative positioning of the government indices that was revealed through this research would be reproduced in the analyses based on other types of respondents.

The predictions about the management implications of the significant differences that were identified in this research need to be tested empirically. Furthermore, the magnitude of difference that is required for practical management effects to be observable still has to be established and will have to be determined through further studies.

This study accepts that interactions among culturally diverse organizations can be inherently more difficult than interactions among culturally similar organizations and that the effectiveness of cross cultural transactions and interactions can be improved by managers and employees being sensitized to the cultural similarities and differences that are exhibited by the interacting groups. Government managers, business managers and academics are encouraged to become more aware of the cultural diversity that exists among Aboriginal societies in Canada. The managers of Aboriginal governments need to be aware that cultural differences affect their interactions with different Aboriginal groups as well as their interactions with non-Aboriginal governments and businesses. Aboriginal government managers also need to recognize that Aboriginal governments are now culturally diverse organizations that likely will become even more heterogeneous in the future. Managers both of Aboriginal and non-Aboriginal organizations will benefit from a broad range of applied research into the effects of culture on organizations and management practices.

This study produced evidence that the VSM and alternate method can identify cultural differences among groups that are affiliated with different ethno-linguistic traditions.

The evidence that the VSM and alternate method work in the context of Aboriginal cultures is of particular interest because this study recognizes that the Aboriginal societies in Canada are culturally diverse. The VSM and alternate method are means by which all Canadians can appreciate some of the cultural characteristics of Canadian society and of the Aboriginal communities that are embedded within it. The VSM and alternate method provide the basis for an improved understanding of the cultural differences and similarities that exist among various elements of Canadian society. Governments, universities and Aboriginal institutions can do better than rely on relatively unhelpful generalizations about Aboriginal cultures and Canadian culture. The VSM and alternate method are means for us to better understand one another and for facilitating and improving interactions across cultures.

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16. Annexes

Annex 1-1 VSM Indices for 40 Countries (compiled from Hofstede (1980))

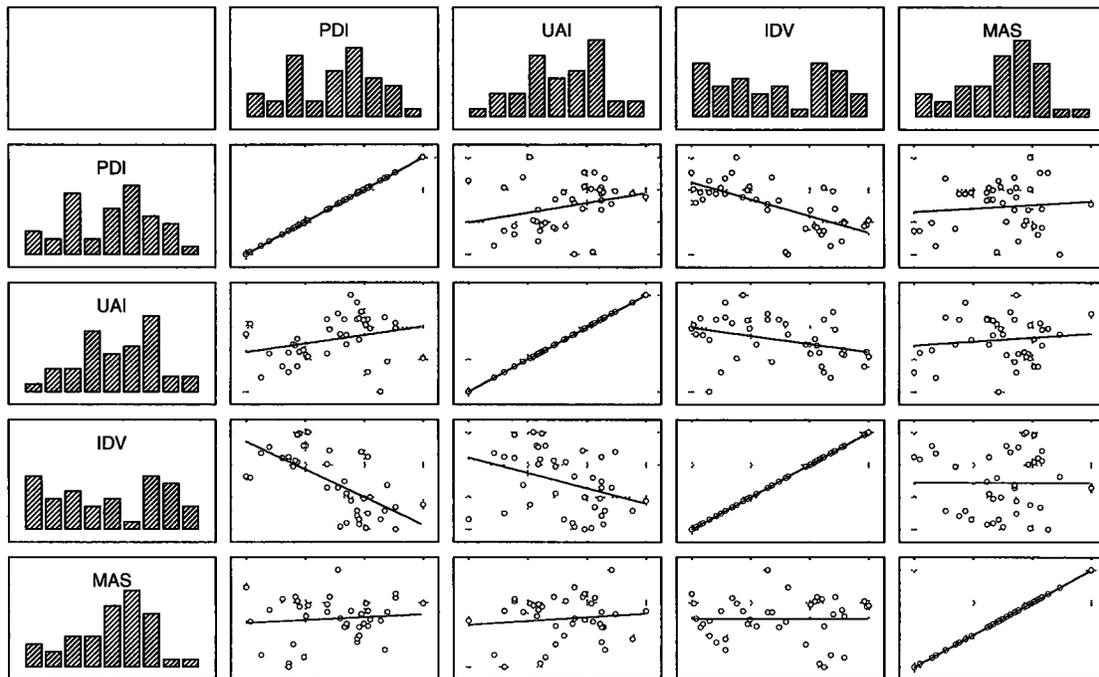
| Country | Power Distance | Uncertainty Avoidance | Individualism Collectivism | Masculinity Femininity |
|---------------|----------------|-----------------------|----------------------------|------------------------|
| Argentina | 49 | 86 | 46 | 56 |
| Australia | 36 | 51 | 90 | 61 |
| Austria | 11 | 70 | 55 | 79 |
| Belgium | 65 | 94 | 75 | 54 |
| Brazil | 69 | 76 | 38 | 49 |
| Canada | 39 | 48 | 80 | 52 |
| Chile | 63 | 86 | 23 | 28 |
| Columbia | 67 | 80 | 13 | 64 |
| Denmark | 18 | 23 | 74 | 16 |
| Finland | 33 | 59 | 63 | 26 |
| France | 68 | 86 | 71 | 43 |
| Germany | 35 | 65 | 67 | 66 |
| Great Britain | 35 | 35 | 89 | 66 |
| Greece | 60 | 112 | 35 | 57 |
| Hong Kong | 68 | 29 | 25 | 57 |
| India | 77 | 40 | 48 | 56 |
| Iran | 58 | 59 | 41 | 43 |
| Ireland | 28 | 35 | 70 | 68 |
| Israel | 13 | 81 | 54 | 47 |
| Italy | 50 | 75 | 76 | 70 |
| Japan | 54 | 92 | 46 | 95 |
| Mexico | 81 | 82 | 30 | 69 |
| Netherlands | 38 | 53 | 80 | 14 |
| Norway | 31 | 50 | 69 | 8 |
| New Zealand | 22 | 49 | 79 | 58 |
| Pakistan | 55 | 70 | 14 | 50 |
| Peru | 64 | 87 | 16 | 42 |
| Philippines | 94 | 44 | 32 | 64 |
| Portugal | 63 | 104 | 27 | 31 |
| South Africa | 49 | 49 | 65 | 63 |
| Singapore | 74 | 8 | 20 | 48 |
| Spain | 57 | 86 | 51 | 42 |
| Sweden | 31 | 29 | 71 | 5 |
| Switzerland | 34 | 58 | 68 | 70 |
| Taiwan | 58 | 69 | 17 | 45 |
| Thailand | 64 | 64 | 20 | 34 |
| Turkey | 66 | 85 | 37 | 45 |
| United States | 40 | 46 | 91 | 62 |
| Venezuela | 81 | 76 | 12 | 73 |
| Yugoslavia | 76 | 88 | 27 | 21 |

Annex 1-2 VSM Indices for 50 Countries and 3 Regions (compiled from Hofstede (2001: 500))

| Country | Power Distance | Uncertainty Avoidance | Individualism Collectivism | Masculinity Femininity | Long Term Orientation |
|----------------|----------------|-----------------------|----------------------------|------------------------|-----------------------|
| Argentina | 49 | 86 | 46 | 56 | |
| Australia | 36 | 51 | 90 | 61 | 31 |
| Austria | 11 | 70 | 55 | 79 | 31 |
| Belgium | 65 | 94 | 75 | 54 | 38 |
| Brazil | 69 | 76 | 38 | 49 | 65 |
| Canada | 39 | 48 | 80 | 52 | 23 |
| Chile | 63 | 86 | 23 | 28 | |
| Columbia | 67 | 80 | 13 | 64 | |
| Costa Rica | 35 | 86 | 15 | 21 | |
| Denmark | 18 | 23 | 74 | 16 | 46 |
| Ecuador | 78 | 67 | 8 | 63 | |
| Finland | 33 | 59 | 63 | 26 | 41 |
| France | 68 | 86 | 71 | 43 | 39 |
| Germany | 35 | 65 | 67 | 66 | 31 |
| Great Britain | 35 | 35 | 89 | 66 | 25 |
| Greece | 60 | 112 | 35 | 57 | |
| Guatemala | 95 | 101 | 6 | 37 | |
| Hong Kong | 68 | 29 | 25 | 57 | 96 |
| Indonesia | 78 | 48 | 14 | 46 | |
| India | 77 | 40 | 48 | 56 | 61 |
| Iran | 58 | 59 | 41 | 43 | |
| Ireland | 28 | 35 | 70 | 68 | 43 |
| Israel | 13 | 81 | 54 | 47 | |
| Italy | 50 | 75 | 76 | 70 | 34 |
| Jamaica | 45 | 13 | 39 | 68 | |
| Japan | 54 | 92 | 46 | 95 | 80 |
| Korea (South) | 60 | 85 | 18 | 39 | 75 |
| Malaysia | 104 | 36 | 26 | 50 | |
| Mexico | 81 | 82 | 30 | 69 | |
| Netherlands | 38 | 53 | 80 | 14 | 44 |
| Norway | 31 | 50 | 69 | 8 | 44 |
| New Zealand | 22 | 49 | 79 | 58 | 30 |
| Pakistan | 55 | 70 | 14 | 50 | 0 |
| Panama | 95 | 86 | 11 | 44 | |
| Peru | 64 | 87 | 16 | 42 | |
| Philippines | 94 | 44 | 32 | 64 | 19 |
| Portugal | 63 | 104 | 27 | 31 | 30 |
| South Africa | 49 | 49 | 65 | 63 | |
| Salvador | 66 | 94 | 19 | 40 | |
| Singapore | 74 | 8 | 20 | 48 | 48 |
| Spain | 57 | 86 | 51 | 42 | 19 |
| Sweden | 31 | 29 | 71 | 5 | 33 |
| Switzerland | 34 | 58 | 68 | 70 | 40 |
| Taiwan | 58 | 69 | 17 | 45 | 87 |
| Thailand | 64 | 64 | 20 | 34 | 56 |
| Turkey | 66 | 85 | 37 | 45 | |
| Uruguay | 61 | 100 | 36 | 38 | |
| United States | 40 | 46 | 91 | 62 | 29 |
| Venezuela | 81 | 76 | 12 | 73 | |
| Yugoslavia | 76 | 88 | 27 | 21 | |
| Arab countries | 80 | 68 | 38 | 53 | |
| East Africa | 64 | 52 | 27 | 41 | 25 |
| West Africa | 77 | 54 | 20 | 46 | 16 |

Annex 2 Bivariate Correlations Among VSM Indices for Four Dimensions

Correlations (42-6112 STA 7v*40c)



Annex 3 Seven Dimensions of Culture Summarized from Trompenaars (1998)

Relationships with People

Universalism versus Particularism (rules versus relationships): Universalism is often portrayed as a feature of modernization per se, of more complex and developed societies and particularism is often portrayed as a feature of smaller, mostly rural communities in which everyone knows everyone personally. Universalist societies tend to focus more on rules than on relationships and particularist societies tend to focus more on relationships than on rules. These are complimentary rather than opposing preferences.

Communitarianism versus Individualism (the group versus the individual): Individualism is often regarded as the characteristics of a modernizing society, while communitarianism is suggestive of more traditional societies. In individualistic societies, the focus is on individual needs while in communitarian societies, the focus is on the group. These are complimentary rather than opposing preferences.

Neutral versus Emotional (the range of feelings expressed): Persons in affective societies tend to show their emotions whereas persons in neutral societies tend to keep their feelings controlled and subdued. In neutral societies, warm, expressive or enthusiastic behaviours may be interpreted as lack of control and may be inconsistent with high status. In affective societies, a detached, ambiguous or cool demeanour may be interpreted as a negative evaluation or disdain.

Diffuse versus Specific (the range of involvement): Specificity and diffuseness are about social strategies for getting to know other people. Persons in societies that have adopted a strategy of specificity relate to others in a direct manner, and get to the point in a purposeful fashion. Persons in societies that have adopted a strategy of diffuseness relate to others in a less direct and more circuitous manner.

Achievement versus Ascription (how status is accorded): Some societies accord status to people on the basis of their achievements, while other societies ascribe status by virtue of age, class, gender, education and other characteristics. In an achievement-oriented environment, personal titles tend to be used when relevant for the competence an individual brings to a task. In ascription-oriented societies, titles are used more extensively, and especially when they clarify a person's status within an organization.

Attitudes Toward Time

Sequential versus Synchronic (past, present and future as linear or overlapping): In terms of their orientations toward time, Anthropologists have identified three types of societies. Present-oriented societies are relatively timeless and traditionless and they tend to ignore the future. Past-oriented societies are concerned about maintaining past traditions or restoring past traditions in the present. Future-oriented societies envision a more desirable future and set out to realize it. It is chiefly societies that fall into the last category that experience economic and social development. Time can be seen as a series of sequential events passing us at intervals and can also be seen as being cyclical and repetitive, containing the past, present and future as seasons or rhythms.

Attitudes Toward Nature and the Environment

Internal versus external control (being in control or subject to external control): Societies have developed two major orientations toward nature. They tend either believe that they can and should control nature by imposing their will upon it or they believe that they are part of nature and subject to its laws, directions and forces. Societies with an internal locus of control often display a dominating attitude toward the environment while societies with an external locus of control often display more flexibility or compromise in dealings with nature.

Annex 4 10 Motivational Types of the Schwartz Value Survey (Schwartz 1992)

Power The motivational goal of power values is the attainment of social status and prestige and the control or dominance over people and resources

Achievement The primary goal of this type is personal success through demonstrated competence. Competence is evaluated in terms of what is valued by the system or organization in which the individual is located

Hedonism The motivational goal of this type of value is pleasure or sensuous gratification for oneself. This value type is derived from organismic needs and the pleasure associated with satisfying them

Stimulation The motivational goal of stimulation values is excitement, novelty, and challenge in life. This value type is derived from the need for variety and stimulation to maintain an optimal level of activation. Thrill seeking can be the result of strong stimulation needs

Self-Direction The motivational goal of this value type is independent thought and action (e.g., choosing, creating, exploring). Self-direction comes from the need for control and mastery along with the need for autonomy and independence

Universalism The motivational goal of universalism is the understanding, appreciation, tolerance, and protection for the welfare for all people and for nature

Benevolence The motivational goal of benevolent values is to preserve and enhance the welfare of people with whom one is in personal contact. Benevolence is a concern for the welfare of others that is defined more narrowly than Universalism

Tradition The motivational goal of tradition values is respect, commitment and acceptance of the customs and ideas that one's culture or religion imposes on the

individual A tradition mode of behaviour becomes a symbol of the group's solidarity and an expression of its unique worth and, hopefully, its survival

Conformity The motivational goal of this type is restraint of actions, inclinations, and impulses that are likely to upset or harm others and violate social expectations or norms. It is derived from the requirement that individuals inhibit inclinations that might be socially disruptive in order for personal interaction and group functioning to run smoothly.

Security The motivational goal of this type is safety, harmony, and the stability of society or relationships and of self.

Annex 5-1 Rokeach's Terminal Value Averages and Composite Ranks (compiled from Rokeach (1973))

| Terminal Value Averages and Composite Rank Orders for American, Australian, Israeli and Canadian Samples of College Men | | | | |
|--|----------------------|------------------|---------------|----------------|
| | United States | Australia | Israel | Canada |
| | n = 169 | n = 279 | n = 71 | n = 125 |
| A comfortable life | 10.3 (11) | 12.6 (13) | 12.8 (15) | 11.6 (13) |
| An exciting life | 10.8 (12) | 9.2 (11) | 8.7 (9) | 9.8 (11) |
| A sense of accomplishment | 7.1 (5) | 6.3 (4) | 7.5 (7) | 9.2 (9) |
| A world at peace | 9.3 (10) | 8.2 (9) | 4.7 (1) | 10.0 (12) |
| A world of beauty | 14.1 (18) | 13.0 (15) | 14.5 (17) | 12.3 (15) |
| Equality | 12.3 (13) | 9.0 (10) | 9.3 (10) | 9.7 (10) |
| Family security | 8.1 (7) | 9.5 (12) | 7.9 (8) | 7.5 (7) |
| Freedom | 4.7 (1) | 4.9 (3) | 6.5 (4) | 4.5 (1) |
| Happiness | 6.2 (2) | 7.5 (7) | 6.0 (3) | 4.7 (2) |
| Inner harmony | 8.8 (9) | 7.7 (8) | 10.9 (13) | 7.4 (6) |
| Mature love | 7.4 (6) | 6.6 (5) | 6.5 (5) | 5.6 (3) |
| National security | 13.8 (17) | 13.9 (17) | 5.6 (2) | 16.6 (17) |
| Pleasure | 13.1 (15) | 12.7 (14) | 11.2 (14) | 12.3 (14) |
| Salvation | 13.4 (16) | 15.9 (18) | 15.9 (18) | 17.6 (18) |
| Self-respect | 7.0 (4) | 7.5 (6) | 9.7 (11) | 6.9 (4) |
| Social recognition | 12.9 (14) | 13.7 (16) | 13.5 (16) | 13.9 (16) |
| True friendship | 8.7 (8) | 4.9 (2) | 10.1 (12) | 7.3 (5) |
| Wisdom | 6.8 (3) | 4.7 (1) | 7.3 (6) | 8.3 (8) |

**Annex 5-2 Rokeach's Instrumental Value Averages and Composite Ranks
(compiled from Rokeach (1973))**

| Instrumental Value Averages and Composite Rank Orders for American, Australian, Israeli and Canadian Samples of College Men | | | | |
|--|----------------------|------------------|---------------|----------------|
| | United States | Australia | Israel | Canada |
| | n = 169 | n = 279 | n = 71 | n = 125 |
| Ambitious | 6.4 (3) | 7.8 (6) | 8.7 (7) | 9.4 (11) |
| Broadminded | 6.7 (4) | 4.6 (2) | 9.2 (9) | 6.4 (4) |
| Capable | 7.5 (5) | 8.2 (8) | 6.5 (4) | 9.9 (12) |
| Cheerful | 12.0 (15) | 8.5 (9) | 12.2 (14) | 8.8 (6) |
| Clean | 14.1 (17) | 13.9 (17) | 12.6 (15) | 15.4 (17) |
| Courageous | 8.4 (8) | 8.7 (10) | 9.8 (12) | 9.1 (8) |
| Forgiving | 10.5 (12) | 9.3 (11) | 14.3 (18) | 9.1 (10) |
| Helpful | 11.9 (14) | 10.2 (13) | 9.3 (10) | 9.1 (9) |
| Honest | 5.2 (1) | 4.0 (1) | 5.1 (1) | 3.0 (1) |
| Imaginative | 10.8 (13) | 11.5 (15) | 13.1 (16) | 10.6 (15) |
| Independent | 7.7 (6) | 7.9 (7) | 9.9 (13) | 6.9 (5) |
| Intellectual | 8.5 (9) | 10.6 (14) | 7.7 (6) | 8.9 (7) |
| Logical | 8.3 (7) | 9.9 (12) | 5.9 (3) | 10.5 (14) |
| Loving | 9.1 (11) | 7.5 (4) | 9.1 (8) | 6.4 (3) |
| Obedient | 15.0 (18) | 15.3 (18) | 13.6 (17) | 16.6 (18) |
| Polite | 13.2 (16) | 12.1 (16) | 9.7 (11) | 14.6 (16) |
| Responsible | 5.9 (2) | 5.2 (3) | 5.2 (2) | 5.6 (2) |
| Self-controlled | 8.6 (10) | 7.5 (5) | 7.6 (5) | 10.2 (13) |

Annex 6-1 McCarrey *et al.*'s Figure 1 Concerning Terminal Values (from McCarrey *et al.* (1978))

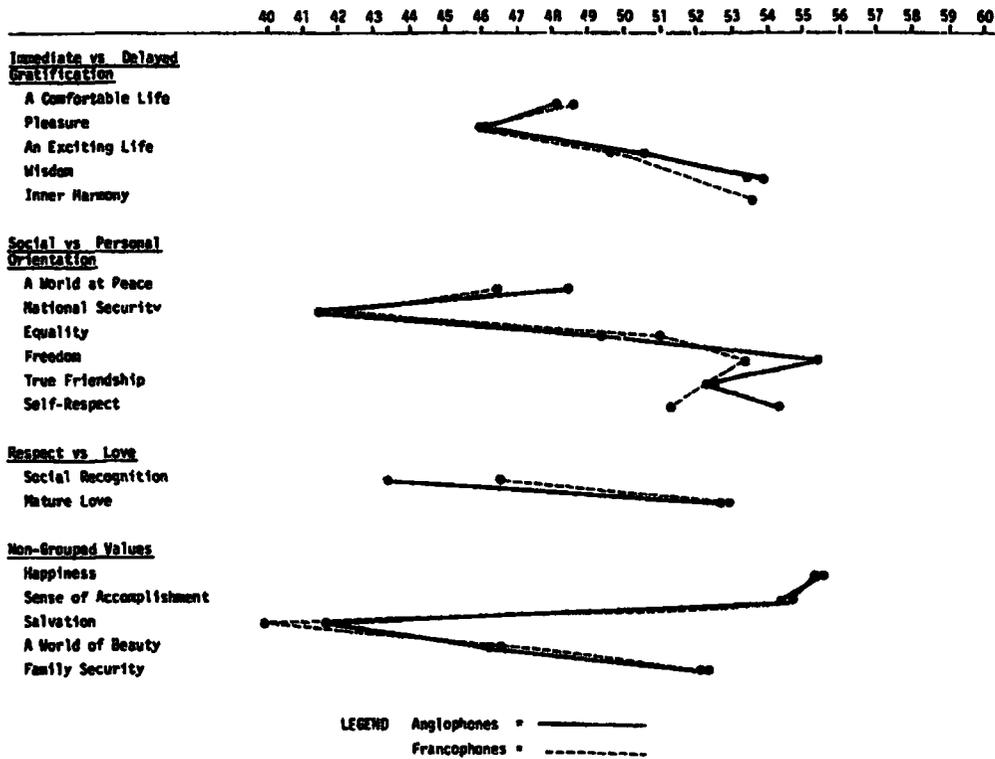


FIGURE 1
THE MEAN TERMINAL VALUE PROFILES FOR ANGLOPHONES (*N* = 690) AND FRANCOPHONES (*N* = 250)

Annex 6-2 McCarrey et al.'s Figure 2 Concerning Instrumental Values (from McCarrey et al. (1978))

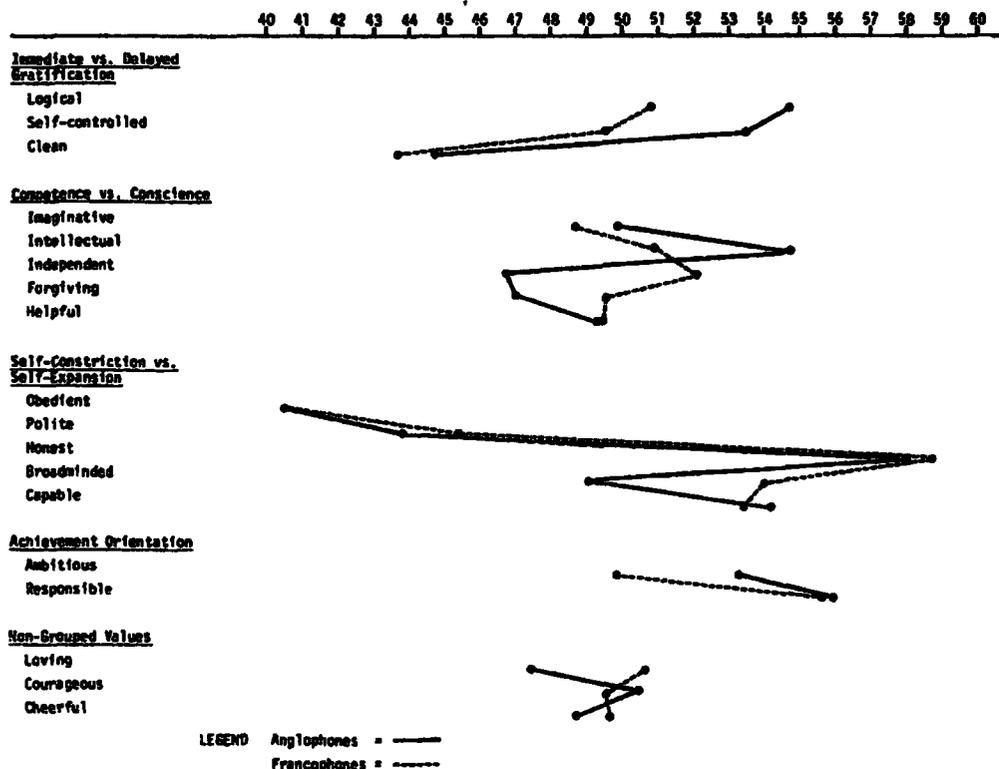


FIGURE 2
THE MEAN INSTRUMENTAL VALUE PROFILES FOR ANGLOPHONES (N = 690) AND FRAN-
COPHONES (N = 250)

Annex 7 Countries of the “Anglo Cluster”

| Countries of the “Anglo Cluster” (adapted from Ronen and Shenkar (1985)) | | | | | |
|--|--|--|--|---|--|
| Haire, Giselh and Porter (1966) ¹² | Sirota and Greenwood (1971) ¹³ | Ronen and Kraut’s SSA of Sirota and Greenwood (1971) ¹⁴ | Ronen and Kraut (1977) | Griffeth, Hom, Denisi and Kirchner (1980) ¹⁵ | Hofstede (1980) |
| U K U S | U K U S Australia Canada India New Zealand South Africa Austria Switzerland | U K U S Australia Canada India New Zealand South Africa | U K Ireland South Africa Israel | U K Canada | U K U S Australia Canada Ireland New Zealand South Africa |

¹² Haire, M , Ghiselli, E E , and Porter, L W (1966) *Managerial thinking An international study*, New York Wiley

¹³ Sirota, D , and Greenwood, J M (1971) Understanding your overseas workforce *Harvard Business Review*, 49(1), 53-60

¹⁴ Ronen, S and Kraut, A I (1977) Similarities among countries based on employee work values and attitudes *Columbia Journal of World Business*, 12(2), 89-96

¹⁵ Griffeth, R W , Hom, P W , Denisi, A and Kirchner, W (1980 August) *A multivariate, multinational comparison of managerial attitudes* Paper presented at the annual meeting of the Academy of Management, Detroit

Annex 8 Punnett and Withane's (1990) Hypotheses and Test Results

| Hypotheses and Test Results (adapted from Punnett and Withane (1990)) | |
|---|----------------|
| Sampling Situations and Hypotheses | Results |
| Situation 1: Anglophone and Francophone Managers Within a Department of the Government of Canada in Ottawa | |
| 1 1 Anglophones are expected to score higher than Francophones for Individualism | Supported |
| 1 2 Anglophones are expected to score lower than Francophones for Uncertainty Avoidance | Not Supported |
| 1 3 Anglophones are expected to score lower than Francophones for Power Distance | Supported |
| 1 4 Anglophones are expected to score higher than Francophones for Masculinity | Supported |
| 1 5 Both Anglophone and Francophone managers are expected to score lower for Individualism than Hofstede's (1980) sample for Canada | Supported |
| 1 6 Both Anglophone and Francophone managers are expected to score higher for Uncertainty Avoidance than Hofstede's (1980) sample for Canada | Not Supported |
| 1 7 Both Anglophone and Francophone managers are expected to score higher for Power Distance than Hofstede's (1980) sample for Canada | Not Supported |
| 1 8 Both Anglophone and Francophone managers are expected to score lower for Masculinity than Hofstede's (1980) sample for Canada | Supported |
| Situation 2: Canadian and American Managers of Fast Food Restaurants in Canada and the United States | |
| 2 1 American managers are expected to score higher than Canadian managers for Individualism | Supported |
| 2 2 American managers are expected to score lower than Canadian managers for Uncertainty Avoidance | Supported |
| 2 3 American managers are expected to score higher than Canadian managers for Power Distance | Supported |
| 2 4 American managers are expected to score higher than Canadian managers for Masculinity | Supported |
| 2 5 Both American and Canadian managers are expected to score lower for Individualism than Hofstede's (1980) samples for the USA and Canada, respectively | Supported |
| 2 6 Both American and Canadian managers are expected to score lower for Uncertainty Avoidance than Hofstede's (1980) samples for the USA and Canada, respectively | Supported |
| 2 7 Both American and Canadian managers are expected to score higher for Power Distance than Hofstede's (1980) samples for the USA and Canada, respectively | Supported |
| 2 8 Both American and Canadian managers are expected to score higher for Masculinity than Hofstede's (1980) samples for the USA and Canada, respectively | Supported |
| Situation 3 First and Second Generation Italian-North American Construction Workers in Various Locations in Canada and the USA | |
| 3 1 First-generation is expected to score lower than second-generation for Individualism | Supported |
| 3 2 First-generation is expected to score higher than second-generation for Uncertainty Avoidance | Supported |
| 3 3 First-generation is expected to score higher than second-generation for Power Distance | Supported |
| 3 4 First-generation is expected to score higher than second-generation for Masculinity | Supported |
| 3 5 First-generation and second-generation are expected to score lower for Individualism than Italians and North Americans, respectively | Supported |
| 3 6 First-generation and second-generation are expected to score lower for Uncertainty Avoidance than Italians and North Americans, respectively | Supported |
| 3 7 First-generation and second-generation are expected to score higher for Power Distance than Italians and North Americans, respectively | Supported |
| 3 8 First-generation and second-generation are expected to score lower for Masculinity than Italians and North Americans, respectively | Supported |

Annex 9 Cultural Differences Between Canada and the United States – a summary of the literature (adapted from O’Grady and Lane (1996))

| | |
|--|-------------------------------|
| Achievement Orientation | U S > C |
| Level of Aggressiveness | U S > C |
| Level of Optimism | U S > C |
| Action Orientation (Belief in the Timeliness of Action) | U S > C |
| Belief in Hard Work | U S > C |
| Attitudes Toward Authority (government) | |
| - Negative attitudes toward government, questioning of authority | U S |
| - Positive attitudes toward government, deference to authority | U S |
| Belief in Competitiveness | U S > C |
| Risk Propensity | |
| - Positive attitudes toward risk | U S |
| - Hunger for security | C |
| Masculinity Dimension | U S > C |
| Uncertainty Avoidance Dimension | U S < C |
| Individualism-Collectivism Dimension | |
| Individualism | U S > C |
| Power Distance Dimension | U S < C |
| Commitment to Winning | U S > C |
| Mastery over One's Environment | U S > C |
| Cautiousness | U S < C |
| Attitudes toward equality | |
| - U S more egalitarian than C | U S > C (Lipset 1963,1989) |
| - C more egalitarian than U S | U S < C (Rokeach 1973) |

Annex 10 Generic Survey of Government Employees: A Test of the Values Survey Module in the Context of Aboriginal and Non-Aboriginal Governments in Canada (Aboriginal government version)

Background and purpose: The XYZ First Nation study is being conducted by Ken Medd, who is a Ph D student from the Eric Sprott School of Business at Carleton University. He can be contacted through the Eric Sprott School of Business, 1125 Colonel By Drive, Ottawa, Ontario, Canada, K1S 5B6, or via (613) XXX-XXXX.

The purpose of this study is to better understand some of the effects that culture has on organizations and management practices – in this case on the organization and management practices of the government of the XYZ First Nation.

The study will be based in part on the following survey of attitudes and values that was developed more than 30 years ago by the IBM Corporation for operating and managing subsidiary corporations in different countries around the world. Modified versions of the survey have since been used in hundreds of other studies in different social settings.

Voluntary participation: The government of the XYZ First Nation has agreed to participate in this study and to make time available for its employees to complete this questionnaire. Your participation in the survey is appreciated and encouraged. Larger numbers of survey responses are usually more helpful than a smaller number of responses for understanding an organization. However, it is up to each individual respondent to determine whether to participate in the study. The fact that your employer has agreed to make time available for you to complete the survey questionnaire enables you to complete the survey during working hours but does not require you to complete it. Participation in the study is voluntary and at the discretion of the individual respondents.

If you decide to participate in the study, you will not be required to answer any question that you are not comfortable answering. A full set of responses from each respondent is preferred but participants are free to choose to not answer any question that they are not comfortable answering.

Analysis for group – not for individuals: Respondents may complete the questionnaire privately or in a group setting. In either case, all respondents will be anonymous in the final report. For respondents who choose to answer the questionnaire in a group, their choice to participate in the survey cannot be treated confidentially, but they will be anonymous in the final report and all of their responses will be treated confidentially. For those respondents who prefer to complete the questionnaire privately, their choice to participate in the survey will be treated confidentially along with their responses.

The unit of analysis for this survey is the XYZ First Nation government. Accordingly, the survey responses will be organized and analyzed to reveal characteristics of the First Nation government or group. No analysis will be done about the specific answers provided by any particular respondent. The final report will not contain any names of, attributed quotes from, identifiable comments from or other references to individual respondents. **Please do not write your name on the survey questionnaire.**

Values Survey Questionnaire

A Questions

A1 Are you

- 1 Male
- 2 Female

A2 How long have you been employed by this organization?

- 1 One year or less
- 2 More than one year and up to, but not more than, three years
- 3 More than three years and up to, but not more than, seven years
- 4 More than seven years and up to, but not more than, fifteen years
- 5 More than fifteen years

A3-A18 About your goals

People differ in what is important to them in a job. In this section, we have listed a number of factors that people might want in their work. We are asking you to indicate how important each of these is to you.

In completing the following section, try to think of those factors which would be important to you in an ideal job, disregard the extent to which they are contained in your present job.

PLEASE NOTE Although you may consider many of the factors listed as important, you should use the rating “of utmost importance” only for those items which are of the *most* importance to you.

With regard to each item, you will be answering the general question
“How important is it to you to _____”

Please mark one response for each statement.

How important is it to you to:

| | | 1 of utmost importance to me | 2 very important | 3 of moderate importance | 4 of little importance | 5 of very little or no importance |
|-----|---|---------------------------------------|------------------------|--------------------------------|------------------------------|--|
| A3 | have challenging work to do – work from which you can get a personal sense of accomplishment? | 1 | 2 | 3 | 4 | 5 |
| A4 | have an element of variety and adventure in the job | 1 | 2 | 3 | 4 | 5 |
| A5 | live in an area desirable to you and your family? | 1 | 2 | 3 | 4 | 5 |
| A6 | have an opportunity for high earnings? | 1 | 2 | 3 | 4 | 5 |
| A7 | work with people who cooperate well with one another? | 1 | 2 | 3 | 4 | 5 |
| A8 | have training opportunities (to improve your skills or to learn new skills)? | 1 | 2 | 3 | 4 | 5 |
| A9 | have good fringe benefits? | 1 | 2 | 3 | 4 | 5 |
| A10 | get the recognition you deserve when you do a good job? | 1 | 2 | 3 | 4 | 5 |
| A11 | have good physical working conditions (good ventilation and lighting, adequate work space, etc)? | 1 | 2 | 3 | 4 | 5 |

How important is it to you to:

| | | 1 of utmost importance to me | 2 very important | 3 of moderate importance | 4 of little importance | 5 of very little or no importance |
|-----|--|---------------------------------------|------------------------|--------------------------------|------------------------------|--|
| A12 | have considerable freedom to adopt your own approach to the job? | 1 | 2 | 3 | 4 | 5 |
| A13 | have security of employment | 1 | 2 | 3 | 4 | 5 |
| A14 | have an opportunity for advancement to higher-level jobs? | 1 | 2 | 3 | 4 | 5 |
| A15 | have a good working relationship with your direct superior ? | 1 | 2 | 3 | 4 | 5 |
| A16 | be consulted by your direct superior in his or her decisions | 1 | 2 | 3 | 4 | 5 |
| A17 | fully use your skills and abilities on the job? | 1 | 2 | 3 | 4 | 5 |
| A18 | have a job that leaves you sufficient time for your personal or family life? | 1 | 2 | 3 | 4 | 5 |

A19-A31 About the satisfaction of your goals

In the preceding questions, we asked you what you want in a job. Now, as compared to what you want, **how satisfied are you at present with:**

| | | 1 | 2 | 3 | 4 | 5 |
|-----|--|-------------------|-----------|--|--------------|----------------------|
| | | very satisfied | satisfied | neither satisfied nor dissatisfied | dissatisfied | very dissatisfied |
| A19 | the challenge of the work you do – the extent to which you can get a personal sense of accomplishment from it? | 1 | 2 | 3 | 4 | 5 |
| A20 | the extent to which you live in an area desirable to you and your family? | 1 | 2 | 3 | 4 | 5 |
| A21 | the opportunity for high earnings in this organization? | 1 | 2 | 3 | 4 | 5 |
| A22 | the extent to which people you work with cooperate with one another? | 1 | 2 | 3 | 4 | 5 |
| A23 | your training opportunities (to improve your skills or learn new skills)? | 1 | 2 | 3 | 4 | 5 |
| A24 | your fringe benefits? | 1 | 2 | 3 | 4 | 5 |
| A25 | the recognition you get when you do a good job? | 1 | 2 | 3 | 4 | 5 |
| A26 | your physical working conditions (ventilation, lighting, work space, etc)? | 1 | 2 | 3 | 4 | 5 |
| A27 | the freedom you have to adopt your own approach to the job? | 1 | 2 | 3 | 4 | 5 |

In the preceding questions, we asked you what you want in a job. Now, as compared to what you want, **how satisfied are you at present with:**

| | | 1 | 2 | 3 | 4 | 5 |
|-----|---|-------------------|-----------|--|--------------|----------------------|
| | | very satisfied | satisfied | neither satisfied nor dissatisfied | dissatisfied | very dissatisfied |
| A28 | your opportunity for advancement to higher-level jobs? | 1 | 2 | 3 | 4 | 5 |
| A29 | your working relationship with your immediate manager/superior? | 1 | 2 | 3 | 4 | 5 |
| A30 | the extent to which you use your skills and abilities on your job? | 1 | 2 | 3 | 4 | 5 |
| A31 | the extent to which your job leaves you sufficient time for your personal or family life? | 1 | 2 | 3 | 4 | 5 |

A32 How often do you feel nervous or tense at work?

- 1 I always feel this way
- 2 Usually
- 3 Sometimes
- 4 Seldom
- 5 I never feel this way

A33 How long do you think you will continue working for this organization?

- 1 Two years at the most
- 2 From two to five years
- 3 More than five years (but I probably will leave before I retire)
- 4 Until I retire

- A34 If an employee did take a complaint to higher management, do you think that employee would suffer later on for doing this (such as getting a smaller salary increase, or getting the less desirable jobs in the department, etc)?
- 1 Yes, the employee would definitely suffer later on for taking a complaint to higher management
 - 2 Yes, probably
 - 3 No, probably not
 - 4 No, the employee definitely would not suffer later on for taking a complaint to higher management
- A35 How often would you say your immediate manager is concerned about helping you get ahead?
- 1 Always
 - 2 Usually
 - 3 Sometimes
 - 4 Seldom
 - 5 Never

The descriptions below apply to four different types of managers First, please read through these descriptions

- Manager 1 Usually makes his or her decisions promptly and communicates them to his or her subordinates clearly and firmly Expects them to carry out the decisions loyally and without raising difficulties
- Manager 2 Usually makes his or her decisions promptly, but, before going ahead, decides to explain them fully to his or her subordinates Gives them the reasons for the decisions and answers whatever questions they may have
- Manager 3 Usually consults with his or her subordinates before he/she reaches his or her decisions Listens to their advice, considers it, and announces his or her decision The manager then expects all to work loyally to implement it whether or not it is in accordance with the advice they gave
- Manager 4 Usually calls a meeting of his or her subordinates when there is an important decision to be made Puts the problem before the group and tries to obtain consensus If he/she obtains consensus, he/she accepts this as the decision If consensus is impossible, he/she usually makes the decision him/herself

A36 Now, for the above types of manager, please mark the one that you would prefer to work under

- 1 Manager 1
- 2 Manager 2
- 3 Manager 3
- 4 Manager 4

A37 And, to which one of the above four types of managers would you say your manager most closely corresponds?

- 1 Manager 1
- 2 Manager 2
- 3 Manager 3
- 4 Manager 4
- 5 My manager does not correspond closely to any of them

A38 How many years of formal school education did you complete (starting with primary school)?

- | | |
|--------------------|----------------------|
| 1 10 years or less | 6 15 years |
| 2 11 years | 7 16 years |
| 3 12 years | 8 17 years |
| 4 13 years | 9 More than 17 years |
| 5 14 years | |

A39 How old are you?

- | | |
|------------|---------------|
| 1 Under 20 | 6 40-44 |
| 2 20-24 | 7 45-49 |
| 3 25-29 | 8 50-54 |
| 4 30-34 | 9 55-59 |
| 5 35-39 | 10 60 or over |

A40 Considering everything, how would you rate your overall satisfaction in this organization at the present time

- 1 I am completely satisfied
- 2 Very satisfied
- 3 Satisfied
- 4 Neither satisfied nor dissatisfied
- 5 Dissatisfied
- 6 Very dissatisfied
- 7 I am completely dissatisfied

B Questions

- B1 If you had a choice of promotion to either a managerial or a specialist position and these jobs were at the same salary level, which would appeal to you most? (You may already have been promoted in either direction, but just assume you could start again)
- 1 I would have a strong preference for being a specialist
 - 2 I would have some preference for being a specialist
 - 3 It does not make any difference
 - 4 I would have some preference for being a manager
 - 5 I would have a strong preference for being a manager
- B2 All in all, what is your personal feeling about working for a First Nation government that is primarily managed by persons who are not members of that First Nation?
- 1 All in all, I prefer it this way
 - 2 It makes no difference to me one way or the other
 - 3 I would prefer that it was not this way
- B3 All in all, what is your personal feeling about working for a First Nation government that is primarily managed by persons who are not members of any First Nation?
- 1 All in all, I prefer it this way
 - 2 It makes no difference to me one way or the other
 - 3 I would prefer that it was not this way
- B4 Suppose you quit this organization Do you think you would be able to get another job in your line of work at about the same income?
- 1 Yes, definitely
 - 2 Yes, probably
 - 3 No, probably not
 - 4 No, definitely not
- B5 How often would you say your immediate manager insists that rules and procedures are followed?
- 1 Always
 - 2 Usually
 - 3 Sometimes
 - 4 Seldom
 - 5 Never

- B6 How do you feel or think you would feel about working in a First Nation government organization for a manager who is not from that First Nation?
- 1 In general, I would prefer to work for a manager who is from my own First Nation
 - 2 Whether my manager is from my own First Nation would make no difference to me
 - 3 In general, I would prefer to work for a manager who is not from my own First Nation
- B7 How do you feel or think you would feel about working in a First Nation government organization for a manager who is not from any First Nation?
- 1 In general, I would prefer to work for a manager who is from a First Nation
 - 2 Whether my manager is from a First Nation would make no difference to me
 - 3 In general, I would prefer to work for a manager who is not from a First Nation

How frequently, in your experience, do the following problems occur?

| | | 1 very frequently | 2 frequently | 3 sometimes | 4 seldom | 5 very seldom |
|-----|--|-------------------------|-----------------|----------------|-------------|---------------------|
| B8 | Employees being afraid to express disagreement with their managers | 1 | 2 | 3 | 4 | 5 |
| B9 | Being unclear on what your duties and responsibilities are | 1 | 2 | 3 | 4 | 5 |
| B10 | People above getting involved in details of your job which should be left to you | 1 | 2 | 3 | 4 | 5 |
| B11 | Some groups of employees looking down upon other groups of employees | 1 | 2 | 3 | 4 | 5 |

B12-B21 About your beliefs:

We are interested to know whether the personal opinions of government employees differ from First Nation to First Nation. Listed below are a number of statements. These statements are *not* about the organization as such, but rather about general issues.

Please indicate the extent to which you personally agree or disagree with each of these statements. Please mark one response for each statement.

Remember We want *your own opinion* (even though it may be different from that of others in your First Nation)

| | | 1 strongly agree | 2 agree | 3 undecided | 4 disagree | 5 strongly disagree |
|-----|--|------------------------|------------|----------------|---------------|---------------------------|
| B12 | An employer organization should have a major responsibility for the health and welfare of its employees and their immediate families | 1 | 2 | 3 | 4 | 5 |
| B13 | Having interesting work to do is just as important to most people as having high earnings | 1 | 2 | 3 | 4 | 5 |
| B14 | Competition between employees usually does more harm than good | 1 | 2 | 3 | 4 | 5 |
| B15 | Employees lose respect for a manager who asks them for their advice before making a final decision | 1 | 2 | 3 | 4 | 5 |
| B16 | Employees in government should participate more in the decisions made by management | 1 | 2 | 3 | 4 | 5 |
| B17 | Decisions made by individuals are usually of higher quality than decisions made by groups | 1 | 2 | 3 | 4 | 5 |

Please indicate the extent to which you personally agree or disagree with each of these statements. Please mark one response for each statement

Remember We want *your own opinion* (even though it may be different from that of others in your First Nation)

| | | 1 strongly agree | 2 agree | 3 undecided | 4 disagree | 5 strongly disagree |
|-----|--|------------------------|------------|----------------|---------------|---------------------------|
| B18 | An employer organization should do as much as it can to help solve society's problems (poverty, discrimination, pollution, etc) | 1 | 2 | 3 | 4 | 5 |
| B19 | Staying with one employer organization for a long time is usually the best way to get ahead in your career | 1 | 2 | 3 | 4 | 5 |
| B20 | The rules of the employer organization should not be broken – not even when the employee thinks it is in the organization's best interests | 1 | 2 | 3 | 4 | 5 |
| B21 | Most employees in government prefer to avoid responsibility, have little ambition and want security above all | 1 | 2 | 3 | 4 | 5 |

C Questions**C1-C8** **About your goals** Please mark one response for each statement**How important is it to you to:**

| | | 1 of utmost importance to me | 2 very important | 3 of moderate importance | 4 of little importance | 5 of very little or no importance |
|----|---|---------------------------------------|------------------------|-----------------------------------|------------------------------|--|
| C1 | Have the security that you will not be transferred to a less desirable job? | 1 | 2 | 3 | 4 | 5 |
| C2 | Work in a department that is run efficiently? | 1 | 2 | 3 | 4 | 5 |
| C3 | Have a job that allows you to make a real contribution to the success of your organization? | 1 | 2 | 3 | 4 | 5 |
| C4 | Work in an organization that is regarded as successful? | 1 | 2 | 3 | 4 | 5 |
| C5 | Work in an organization that stands in the forefront of modern technology? | 1 | 2 | 3 | 4 | 5 |
| C6 | Work in a congenial and friendly atmosphere? | 1 | 2 | 3 | 4 | 5 |
| C7 | Keep up-to-date with the technical developments relating to your work? | 1 | 2 | 3 | 4 | 5 |
| C8 | Have a job on which there is a great deal of day-to-day learning? | 1 | 2 | 3 | 4 | 5 |

C9-C19 **About general beliefs** Please mark one response for each statement

| | | 1 strongly agree | 2 agree | 3 undecided | 4 disagree | 5 strongly disagree |
|-----|--|------------------------|------------|----------------|---------------|---------------------------|
| C9 | A good manager gives his or her employees detailed and complete instructions as to the way they should do their jobs. A good manager does not give them merely general directions and then depend on them to work out the details. | 1 | 2 | 3 | 4 | 5 |
| C10 | Most employer organizations have a genuine interest in the welfare of their employees. | 1 | 2 | 3 | 4 | 5 |
| C11 | In general, the better managers in an employer organization are those who have been with the organization for the longest time. | 1 | 2 | 3 | 4 | 5 |
| C12 | There are few qualities in an employee more admirable than dedication and loyalty to his or her employer organization. | 1 | 2 | 3 | 4 | 5 |
| C13 | Most employees have an inherent dislike of work and will avoid it if they can. | 1 | 2 | 3 | 4 | 5 |
| C14 | Most employees want to make a real contribution to the success of their organization. | 1 | 2 | 3 | 4 | 5 |
| C15 | For getting ahead in government, knowing influential people is usually more important than ability. | 1 | 2 | 3 | 4 | 5 |

About general beliefs Please mark one response for each statement

| | | 1 strongly agree | 2 agree | 3 undecided | 4 disagree | 5 strongly disagree |
|-----|--|------------------------|------------|----------------|---------------|---------------------------|
| C16 | By and large, employer organizations change their policies and practices much too often | 1 | 2 | 3 | 4 | 5 |
| C17 | A large organization is generally a more desirable place to work than a small organization | 1 | 2 | 3 | 4 | 5 |
| C18 | Even if an employee may feel he or she deserves a salary increase, he or she should not ask the manager for it | 1 | 2 | 3 | 4 | 5 |
| C19 | The private life of an employee is properly a matter of concern to his or her employer organization | 1 | 2 | 3 | 4 | 5 |

D Questions

In your private life, how important is each of the following to you? Please circle one response for each line across

- 1 = of utmost importance
- 2 = very important
- 3 = of moderate importance
- 4 = of little importance
- 5 = of very little or no importance

| | | | | | | |
|----|-----------------------------------|---|---|---|---|---|
| D1 | Personal steadiness and stability | 1 | 2 | 3 | 4 | 5 |
| D2 | Thrift | 1 | 2 | 3 | 4 | 5 |
| D3 | Persistence (perseverance) | 1 | 2 | 3 | 4 | 5 |
| D4 | Respect for tradition | 1 | 2 | 3 | 4 | 5 |

D5 How frequently, in your experience, are subordinates afraid to express disagreement with their superiors?

- 1 very seldom
- 2 seldom
- 3 sometimes
- 4 frequently
- 5 very frequently

How much do you agree or disagree with each of the following statements? Please circle one response for each line across

- 1 = strongly agree
- 2 = agree
- 3 = undecided
- 4 = disagree
- 5 = strongly disagree

| | | | | | | |
|----|---|---|---|---|---|---|
| D6 | Most people can be trusted | 1 | 2 | 3 | 4 | 5 |
| D7 | One can be a good manager without having precise answers to most questions that subordinates may raise about their work | 1 | 2 | 3 | 4 | 5 |
| D8 | An organization structure in which certain subordinates have two bosses should be avoided at all cost | 1 | 2 | 3 | 4 | 5 |
| D9 | When people have failed in life it is often their own fault | 1 | 2 | 3 | 4 | 5 |

- D10 If you have or had a paid job, what kind of job is it?
- 1 No paid job (including full time students)
 - 2 Unskilled or semi-skilled manual worker
 - 3 Generally trained office worker or secretary
 - 4 Vocationally trained craftsperson, technician, informatician, nurse, artist or equivalent
 - 5 Academically trained professional or equivalent (but no manager of people)
 - 6 Manager of one or more subordinates (nonmanagers)
 - 7 Manager of one or more managers
- D11 Are you a member of the council of the First Nation?
- 1 Yes
 - 2 No

E Questions

E1 Are you a member of a First Nation?

- 1 Yes
- 2 No

If you answered “yes” to question E1, please proceed to questions E2 through E6 If you answered “no” to question E1, please proceed to questions E5 and E6

E2 Of which First Nation are you a member?

E3 Have you been a member of the same First Nation since birth?

- 1 Yes
- 2 No

E4 If you answered “no” to question E3, of which First Nation(s), if any, were you previously a member?

E5 With which First Nation, if any, does (or did) your mother feel most closely associated?

E6 With which First Nation, if any, does (or did) your father feel most closely associated?

E7 Do you consider yourself to be insert name of FN's ethno-linguistic group?

END

Thank you for your participation and cooperation

Annex 11: Research Description and Cover Letter for Aboriginal Governments

Month day, 2007

Mr XYZ
 Manager
 _____ First Nation
 P O Box
 Town, Province
 Postal Code

Dear Mr XYZ,

Further to our telephone conversation, I am writing to request your cooperation in arranging for the government of the _____ First Nation to consider participating in an academic study that I am planning for 2007 and 2008

I am currently registered as a part-time student in the Ph D in Management program at Carleton University's Eric Sprott School of Business. I have completed most of my course work and am now turning attention to possible topics for my dissertation research. My general research interests concern the effects of culture on organizations and management practices. My academic advisor is Professor David Cray, who can be contacted at (613) 520-7802

For the research, I will be applying a technique from organizational science that has been used in the business world for more than 30 years to identify some of the effects of culture on management practices and organizational design. The technique is based on a values survey module (VSM) questionnaire. I would like to conduct my research in the context of First Nation organizations.

During 2006, I obtained an authority from the Carleton University Ethics Committee to conduct a trial of the VSM survey questionnaire. I administered the questionnaire at one First Nation in Ontario and, based on that experience, I am satisfied that it can be used for my research and to identify effects of culture on the organization and management of First Nations. Additional details about the VSM questionnaire and the proposed research are set out in the attached proposal.

The study design depends in part on the number of First Nations that choose to participate. I am hopeful that 30 to 40 First Nations will participate, which will allow me to test hypotheses about five "dimensions of culture" and their effects. If only a few First Nations choose to participate, then the study design would be limited to testing hypotheses about one or two dimensions of culture and their effects. In order to complete a proposal for the dissertation research, I am currently trying to determine whether there are 30 to 40 First Nations that would be willing to participate.

If the _____ First Nation chooses to participate, then, with its permission, I would visit the reserve at a mutually agreeable date and time to administer the survey to employees that are willing to complete it. I would ask that the government of the _____ First Nation make time available for its employees to complete the questionnaire, which consists of 108 questions. Approximately one hour is required for completing the questionnaire and about two hours should

be budgeted for a complete session including introducing the questionnaire, responding to employees' questions about the survey and actually completing the questionnaire. No employee would be obligated to participate and those who do participate would not be required to answer any question that they are not comfortable answering. Individual survey questionnaires would be treated in confidence.

I will prepare a management report for the government of the _____ First Nation about the results from the survey. The results would be reported in an aggregate manner that would not allow the responses to be linked to specific employees. The Ontario First Nation that tested the survey questionnaire in 2006 found the report to be useful for dealing with issues related to employee retention and development. The _____ First Nation management report would also set out _____ First Nation's scores for the dimensions of culture that are revealed through the VSM questionnaire. Those scores should also be useful for the _____ First Nation's management purposes, including organizational design and negotiations with other groups. I expect to be able to provide the _____ First Nation management report within about 60 days following the date when the survey is administered.

My dissertation will be different from the management reports that I provide for the participating First Nations. Depending on the study design and the number of participating First Nations, I would use results from as many as 20 of the VSM questions to test hypotheses for my dissertation. If only a few First Nations participate, then the research questions would likely be more limited and based on the results from fewer than 20 questions. I would emphasize that the dissertation will focus on the dimensions of culture rather than on the participating First Nations. The dissertation will not identify the _____ First Nation or any other First Nation as a participant and will not display the _____ First Nation data or the data from other First Nations in a manner that would allow readers to identify the participating First Nations. When survey data have been collected from all of the participating First Nations, I will prepare a set of graphic displays to show each First Nation its dimension scores in the context of the scores for the other participating First Nations. A separate set of graphics will be prepared for each participating First Nation to protect the identities of the other First Nations and to ensure that the dimension scores for any particular First Nation would be known only to that First Nation. Those products will be provided after the survey data have been collected from all of the participating First Nations.

For your information, I have attached a proposal that sets out additional details about the research. I hope that on the strength of this letter and the attached proposal you will be able to ask the Chief and Council whether the _____ First Nation would participate in the research and allow me to administer the VSM survey to the government employees of the _____ First Nation. I will contact you by phone within the next few weeks to follow up on this request and I invite you to contact me at (613) 996-2192 if you wish to discuss this proposal in more detail. Thank you for your assistance in this matter.

Sincerely,

Ken Medd

c c Professor David Cray