

ATHABASCA UNIVERSITY

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT

(NUNAVUT) CULTURE

BY

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A DISSERTATION

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

DOCTORATE IN BUSINESS ADMINISTRATION

FACULTY OF GRADUATE STUDIES

ATHABASCA, ALBERTA

MARCH 2026

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Approval of Dissertation

The undersigned certify that they have read the dissertation entitled
MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

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Dedication

This dissertation is dedicated to Inuit and Nunavummiut. I hope the findings are of use to the Government of Nunavut and Nunavut more generally.

Acknowledgement

I wish to acknowledge the guidance and patience of my supervisor, the Late Dr. Alex Kondra, and committee members: Laura MacKenzie, Dr. Jocelyn Grira, and Dr. Shaun McQuitty. I also wish to thank my two external examiners, Professor Gert Jan Hofstede and Dr. Michael Bender.

I also wish to thank the Government of Nunavut, including the department heads, who kindly let me distribute questionnaires to their GN employees. I also wish to thank the 523 GN employees who kindly agreed to complete the questionnaires.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Abstract

This study examines the boundary conditions of Hofstede's national culture model in the Nunavut Inuit context. It explores how measured scores might support intercultural understanding. Using the Value Survey Module 2013, data were collected from Inuit ($n = 222$), non-Inuit ($n = 244$), and first-generation Canadian ($n = 57$) employees of the Government of Nunavut (GN) ($n = 523$). The six Hofstede dimensions were calculated using Hofstede's method with demographically matched samples ($n = 64$, both groups) (power distance [8], individualism [61], masculinity [26], uncertainty avoidance [44], long-term orientation [65], and indulgence [66]) and compared to predictions based on generational Inuit emic knowledge captured in Inuit Societal Values, Inuit Qaujimagatuqangit Principles, and Maligarjuaq Laws. The findings showed considerable alignment between the predicted and measured scores. This suggests that the Hofstede model might still be helpful in cultural training, organizational development, intercultural communication, and negotiation by the GN, despite the growing criticisms of the model, its limitations, and the availability of other models. Some of the study's statistics were of concern. These included sample sizes based on Cohen's d (for all except power distance and masculinity) as well as the Yamani equation, which found that the matched sample sizes ($n = 64$ for Inuit/non-Inuit groups) would only result in an 87.7/87.8% confidence interval. Cronbach's alphas were also very low or negative, which is a concern if the ecological fallacy is discounted (the VSM 2013 is not an isomorphic instrument). Although there was no significant difference in response styles between the two groups, some differential item functioning (DIF) was flagged, especially for the masculinity (3 items) and indulgence dimensions (2 items).

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Measurement invariance was completed despite the inadequate sample size ($n = 64$), showing overall poor results. The GN's continued use of the model should acknowledge these issues. At the same time, it would be desirable to have an iterative emic study to create a possibly broader and more specific model for Nunavut, ideally by an Inuk scholar who would bring their cultural lens to the research.

Keywords: Cross-cultural research, Subnational culture, Hofstede dimensions, Indigenous cultures, Inuit, VSM 2013

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Preface

Whilst living and working in Nunavut, I completed a Master of Business Administration. In that program, a couple of courses examined the Hofstede cultural model and its application at the country level. I wondered if the model, which had been used extensively in intercultural training and other business applications, could be of greater use in Nunavut if the scores were determined for Inuit, the model already being used in the Government of Nunavut (GN) for cultural general training.

Nunavut is Canada's newest territory. Located in the Arctic, Nunavut comprises approximately 21% of Canada's land mass, whilst having only approximately 0.1% of its population. Of these 37,000 people, approximately 85% are Inuit who have lived here for generations. The other 15% of the population (*Qallunaq*) have come relatively recently, either from southern Canada or abroad.

The GN is striving for proportional Inuit representation in its workforce. Although it has improved in recent years, the level is still significantly below the target. One way the GN is addressing this is by creating a work environment that incorporates Inuit culture and helps newcomers understand it through both culture-specific and culture-general training. This cultural training is also meant to help newcomers deliver culturally sensitive service to the Inuit majority.

Although the Hofstede model is used in the GN's culture-general training, its use is limited as the scores for Inuit culture had not yet been measured. I thought that this research could address that knowledge gap, helping to further intercultural understanding, improve work environments, provide better service delivery, and other business applications.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

These initial thoughts were shared with some of my colleagues, both Inuk and Qallunaq, and I received positive feedback. That marked the beginning of my journey in the Doctor of Business Administration program, which my employer, the GN, has supported.

The proposed research was passed through Athabasca University's Ethics Review Board (Ethics File # 24898), including an additional Indigenous review. Additionally, the *Tri-Council Policy Statement on Research Ethics* was adhered to. As the research was to be completed in the Nunavut Settlement Area, the research proposal also passed through the Nunavut Research Institute's (NRI) approval process (Licence # 05 001 23N-M). This process included referrals to the mayor and senior administrators of Nunavut's twenty-five communities (hamlets), with the City of Iqaluit requiring a separate process. The NRI process also included referral to the Social Policy Department of Nunavut Tunngavik Incorporated (NTI), the territorial organization representing the interests of Inuit. Additionally, the NRI process included referral to the Ittaq Heritage and Research Centre, an organisation based in Clyde River which represents Inuit-led research, land-based programming, and multimedia. This process led to the approval of the research within Nunavut.

Additionally, the GN central agencies (deputy ministers) of the Department of Executive and Intergovernmental Affairs, the Department of Human Resources, and the Department of Justice approved of the research, which involved GN employees. Further, each deputy minister's approval was sought before the distribution of the survey to their respective department employees. In addition, the Justice Department did a legal review of the research within the GN to ensure compliance with all government policies and

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

ethics. Furthermore, participation in completing the survey questionnaire used in this research was voluntary, expressly stated, with each respondent making a personal choice to participate or not.

Because I was utilizing documented Inuit knowledge, I am very grateful that Laura Mackenzie, an Inuk herself, agreed to be on my research committee to provide cultural guidance.

Despite my initial belief in the Hofstede model, the research process has revealed several limitations and criticisms of the model that continue to accumulate. There are also other cultural models available, some of which are continuously evolving.

An aphorism generally attributed to George Box (1976) is that “All models are wrong. But some are useful.” I believe that this is the case for the Hofstede Model. It is far from perfect, and not all the dimensions may apply to Inuit culture, but the model might still have some utility in Nunavut. However, the GN may want to consider emerging models in their culture general training in the future, as well as conducting combined emic-etic research into “Made in Nunavut” cultural dimension models.

I hope that some find this dissertation useful.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

Table of Contents

FGS Approval Page.....	ii
Dedication	iii
Acknowledgement.....	iv
Abstract	v
Preface.....	vii
Table of Contents	x
List of Tables.....	xxii
List of Figures and Illustrations	xxiv
List of Symbols, Nomenclature, or Abbreviations.....	xxv
Chapter 1. Introduction	1
Historical and Cultural Background of the Inuit in Nunavut	3
Ancient origins and pre-European contact.....	3
Early contact with Europeans	4
Colonization, relocation, and settlement in the 20th century	4
Inuit political mobilization and the creation of Nunavut.....	5
Contemporary Inuit life in Nunavut.....	6
How the Created Knowledge will be Used	7
Employee orientation / intercultural training.....	7

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

Culturally sensitive organisational design	9
Culturally sensitive policy development.....	12
Intercultural communications (negotiation and marketing).....	13
Cultural base line	15
Overview of the Rest of the Dissertation	16
Chapter 2 - Hofstede and Other Cultural Scales	18
Chapter Introduction.....	18
Definitions of Culture.....	18
Hofstede’s definitions of culture.....	20
Cultural Scales.....	25
Hofstede	26
Rokeach	30
Trompenaars and Hampden-Turner	31
Schwartz.....	33
GLOBE	37
Inglehart-Welzel	40
Minkov-Hofstede	43
Inuit Qaujimagatuqangit	47
Criticisms of Hofstede’s Scale	49
Theoretical basis	50

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

Original survey structure and framework construction	50
Language of the survey instrument.....	51
Sample size	52
Sample design.....	52
Subnational cultures.....	53
Small set of dimensions/missing dimensions	54
Confusing descriptors of dimensions.....	55
Cultural change.....	56
Individual dimensions.....	59
Levels of culture	60
Indices and behaviour	60
Defense of the Hofstede Scale.....	61
Critique of the VSM2013 Survey Instrument	65
Research Gaps in the Literature	72
Chapter Summary.....	75
Chapter 3. Inuit Societal Values, Inuit Qaujimajatuqangit Principles, and Maligarjuaq	
Laws	77
Chapter Introduction.....	77
Terminology	78
Inuit Qaujimajatuqangit (IQ)	78

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

Inuit Societal Values (ISVs)	78
Inuit Qaujimagatuqangit (IQ) Principles	78
Traditional Ecological Knowledge (TEK).....	79
Maligarjuaq Laws	79
Implementation of IQ Principles Within the GN	79
Why IQ Principles are being implemented in the GN workplace	79
How IQ principles are being implemented in the GN workplace.....	81
Successes and limitations of implementing IQ Principles and Inuit Societal Values within the GN.....	83
Improving cultural orientation within the GN	86
Implementation of IQ Principles in other northern organisations	89
A Subjective, Qualitative Evaluation of Expected Hofstede Score Ranges for Inuit Culture	89
Author's biases	90
Relative score ranges	93
Prediction of Expected Hofstede Scores	93
Using Inuit Societal Values	93
Using the Eight IQ Principles	96
Using the four Maligarjuaq Laws	102
Using the management literature	102

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

Chapter Summary.....	105
Chapter 4 - Methodology	107
Chapter Introduction.....	107
Paradigm	108
Research philosophy	109
Definitions: matching and anchoring.....	112
Research questions.....	117
Past Extension Studies.....	123
Nanhekhan (1990).....	124
Nasierowski and Mikula (1998)	125
Medd (2010)	126
Other “Canada” replication studies.....	126
Value Survey Module (VSM).....	127
Bias and Level of Equivalence	128
Translation/Cultural Equivalence Issues	130
Precondition guidelines.....	131
Test development guidelines	132
Confirmation guidelines	133
Administration guidelines.....	134
Interpretation guidelines	135

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

Documentation guidelines	135
Language versions	135
Research Design	137
Participants.....	138
Sampling	141
Data collection	146
Ethical considerations	147
Analysis of Results.....	148
Reliability and validity.....	148
Data analysis	150
Response bias.....	157
Differential item functioning	159
Measurement invariance	161
Comments section.....	163
Interpretation and Significance of the Findings	163
Inuit Hofstede dimensions	164
Southern Canadian Hofstede dimensions	165
Assumptions	165
Limitations	166
Delimitations.....	172

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

Chapter Summary.....	174
Chapter 5 - Results.....	176
Chapter Introduction.....	176
Response Rates.....	178
Comments Section.....	180
Overseas Representation	182
Provincial/Territorial Representation	183
Demographic Distributions	184
Gender distribution	185
Type of job.....	185
Supervisory responsibilities	186
Age.....	187
Level of education	188
Years with the GN	188
Inuit Hofstede Dimension Scores – Matched and Anchored	189
Additional Statistical Analysis	194
Hotelling’s T ²	194
Cohen’s d.....	196
Cronbach’s alpha	197
Aggregation Analysis	199

MEASURING AND USING THE HOFSTEDÉ DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

Analysis of individual question responses.....	202
Response Style Biases	205
Differential Item Functioning.....	207
Measurement invariance.....	208
Chapter Summary.....	209
Chapter 6 – Discussion.....	211
Chapter Introduction.....	211
Data Collection Phase.....	211
Response rates.....	215
Comments Section	216
Demographics of Inuit and non-Inuit groups.	218
Exploring the Boundary Conditions of the Hofstede Model with the Values Measured for Inuit Culture.....	219
Power distance	221
Individualism	222
Masculinity	223
Uncertainty avoidance	224
Long-term orientation.....	224
Indulgence.....	225
Additional Statistics.....	226

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

Hotelling's T^2	226
Cohen's d.....	227
Cronbach's alpha.....	228
Aggregation analysis.....	231
Individual question responses.....	233
Response style biases.....	233
Differential item functioning.....	234
Measurement invariance.....	235
Differences Between Measured Non-Inuk, Canadian-Born Sample Values and Those from Previous Studies.....	237
Power distance.....	238
Individualism.....	239
Masculinity.....	239
Uncertainty avoidance.....	240
Long term orientation.....	240
Indulgence.....	240
Implications of the Inuit Hofstede Dimension Scores for the GN.....	240
Employee orientation/Intercultural training.....	241
Culturally sensitive organisational design.....	242
Culturally sensitive policy development.....	243

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

Intercultural negotiation and marketing.....	244
Acting as a cultural baseline	253
Implications of the Hofstede Dimension Values for Individual Departments within the Government of Nunavut	253
Power distance	254
Individualism	258
Masculinity	262
Uncertainty avoidance	267
Long-term orientation	271
Indulgence.....	274
Recommendations to the GN Regarding Human Resource Research.....	277
Future Research Recommendations	278
Chapter Summary.....	282
Chapter 7 - Conclusion.....	283
Ten Key Findings from the Research.....	285
References	291
Appendix 1: AU Research Ethics Board: Certificate of Ethical Approval.....	324
Appendix 2: Nunavut Research Institute Scientific Research Licence.....	326

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

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TITLE: Measuring and Using the Hofstede Dimension of Inuit (Nunavut) Culture

OBJECTIVES OF RESEARCH:

The proposed research questions are: "Is the Hofstede National Culture Scale applicable to a subnational, indigenous (Inuit) culture?" and "What are the Hofstede Dimension Scores for Inuit (Nunavut) culture and How Are They Useful?". The research objectives are to see if the Hofstede model, typically used at the national/country level to provide insights of differences between country level cultures, is useful at the societal level to provide insights between Inuit workplace preferences and other countries in the Hofstede framework which has data for 104 cultures. All Government of Nunavut employees will be solicited to take part in the research, once approvals are obtained from direct supervisors/directors.

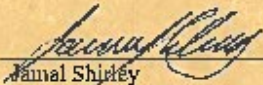
DATA COLLECTION IN NU:

DATES: January 1, 2023 to December 31, 2023

LOCATION: All Nunavut Communities

Scientific Research License 05 001 23N-M expires on December 31, 2023

Issued at Iqaluit, NU on November 01, 2022


Jamal Shirley
Science Advisor



.....326

Appendix 3: GN Employee Letter and Email327

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

Appendix 2: Nunavut Research Institute: Scientific Research Licence **Error! Bookmark not defined.**

Appendix 3: GN Employee Letter and Email **Error! Bookmark not defined.**

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

List of Tables

Table 1	<i>Mean and Median Values for Countries currently in the Hofstede Framework</i>	92
Table 2	<i>Hofstede Dimension Score Range Descriptors</i>	93
Table 3	<i>Summary of Predicted Hofstede Dimension Score Ranges</i>	106
Table 4	<i>Burrell and Morgan's (1979) Four Paradigms</i>	108
Table 5	<i>Previous Canadian Hofstede Scores Measured</i>	127
Table 6	<i>Survey Distribution Method</i>	139
Table 7	<i>Total Population of GN Employees</i>	140
Table 8	<i>Response Rates</i>	179
Table 9	<i>Comment Types and Sentiment Classes</i>	180
Table 10	<i>Region of Origin of the First-Generation Immigrant Populations at the Sample and National Level</i>	183
Table 11	<i>Province of Origin for the Populations at the Sample and National Level</i>	184
Table 12	<i>Hofstede Values Calculated with Matching of Samples</i>	190
Table 13	<i>Independent One-tailed T-tests</i>	196
Table 14	<i>Cohen d Values</i>	197
Table 15	<i>Cronbach's Alpha Coefficients Between Inuit and Non-Inuit Groups (Simplified Feldt Test)</i>	199
Table 16	<i>Cronbach's Alpha and Inter-Item Correlations</i>	200
Table 17	<i>Significance of Differences in Question Responses</i>	202
Table 18	<i>Questions That Displayed Significant Differences in Responses</i>	204
Table 19	<i>Response Style Biases</i>	206
Table 20	<i>DIF Summary</i>	207

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

Table 21 *Measurement Invariance*208

Table 22 *Comparison of Measured Hofstede Dimensions to A Priori Predictions*220

Table 23 *Inuit Culture Hofstede Value Predictions Compared to Canadian Values*....221

Table 24 *Comparisons Between Measured Southern Canadian Hofstede Values and
Other Published Results*237

Table 25 *Dimension Ranges for Coene and Jacobs (2017) Mindset Clusters Compared
to Inuit Hofstede Values*245

Table 26 *Example Countries in Coene and Jacobs (2017) Mindset Clusters*247

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

List of Figures and Illustrations

Figure 1 Hofstede’s “Onion Diagram” that Depicts the Relationship Between Cultural Values and Practices.....22

Figure 2 Hofstede’s Levels of Mental Programming - Relationship between Personality, Culture, and Human Nature.....23

Figure 3 UK/Canadian Hofstede Scores91

Figure 4 Gender Distribution by Group (Inuit vs. Non-Inuit)185

Figure 5 Job Type Distribution by Group (Inuit vs. Non-Inuit)186

Figure 6 Supervisory responsibility by group (Inuit vs. non-Inuit).....186

Figure 7 Age Group Distribution by Group (Inuit vs. non-Inuit).....187

Figure 8 Education Level Distribution by Group (Inuit vs. non-Inuit)188

Figure 9 Hofstede Dimension Values for Cultures Currently Known.....191

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

List of Symbols, Nomenclature, or Abbreviations

Anchoring – The process of adding additional cultures to the Hofstede framework by sampling a new culture and a matched sample of a country in the original Hofstede IBM survey. Discussed in Chapter 4. The alternate term, grounding, is avoided in this proposal to improve clarity.

CVSCALE – Individual Cultural Values Scale.

GLOBE – Global Leadership and Organisational Behaviour Effectiveness. A cultural scale, discussed in Chapter 2.

GN – Government of Nunavut.

Hofstede Cultural Scale – In this dissertation, this refers to Hofstede’s six-dimensional national culture scale, not his six-dimensional organisational culture scale.

Hofstede Framework – The scores of individual country-level cultures that have been determined using the VSM (Value Survey Module – see below). As of May 7, 2020, as per the Hofstede-insights website, there were 130 cultures within this framework.

IBM – International Business Machines. The international company in which the original Hofstede surveys were carried out in the 1970’s.

IQ Principles – Inuit Qaujimajatuqangit Principles. Discussed in Chapters 2 and 3.

ISVs – Inuit Societal Values. Discussed in Chapters 2 and 3.

Maligarjuaq Laws – Four main cultural “laws” discussed in chapter 3.

MANOVA – Multiple Analysis of Variance. A procedure for comparing multivariate sample means.

Matching – the process of measuring the Hofstede dimensions of two (or more) national/societal cultures, at least one of which was measured in the original IBM

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

survey. The difference in scores between the two new samples can then be applied to the original country scores to fit the new national/societal culture into the Framework, making it comparable to the whole 130 cultures already present. The more specific term, pairing, is used when only two nations/societies are sampled. However, for clarity, the term matching is used throughout this dissertation.

Qallunaq – A non-Inuit person.

SPSS – Statistical Package for the Social Sciences (Version 29). IBM Software thused to analyse the results obtained through this dissertation.

VSM – Value Survey Module. The survey instrument distributed to respondents to determine the scores for the Hofstede dimensions.

VSM 2013 – The most recent VSM survey instrument.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Chapter 1. Introduction

During his time in Nunavut and studies for his Master of Business Administration (MBA), the researcher became interested in the differences between Inuit and other cultures. More specifically, he became interested in how these cultural differences have implications for the workplace and in interactions between Inuit composed organisations and other organisations (both Canadian and foreign). He became especially intrigued with the Hofstede six-dimensional scale of national culture (Hofstede, Hofstede, & Minkov, 2010) as a useful tool to recognise differences between cultures and provide insight into cross-cultural understanding. He especially noted Hofstede's assertion that the scale could also be useful at the subnational level as well as at the more commonly measured national level (Hofstede, 2001, p. 464).

The amount of research that had been completed concerning relative Hofstede dimensions and management topics such as human resource management, leadership, organisational behaviour, negotiation, and marketing (e.g., Hofstede, 2001) led the researcher to believe that similar research, determining Hofstede scores for Inuit culture, would be of benefit to the Government of Nunavut (GN) and other Nunavut/Inuit organisations. This is because Nunavut organisations have significant cultural diversity due to Inuit representation, employees from southern Canada, and employees who are first-generation immigrants to Canada. Nunavut organisations are also increasingly interacting with non-Nunavut organisations both in Canada and abroad. In both cases, knowledge of similarities and differences in Hofstede values could lead to improved interactions and reduced misunderstandings.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

As discussed throughout this dissertation, the Hofstede model, and the cultural dimensions paradigm more broadly, have been the subject of mounting criticism and concern, both in terms of its methodological foundations and its conceptual limitations. These critiques extend beyond Hofstede's framework to include other dimensional models within the field of cross-cultural studies. Notably, the field has continued to evolve, with Minkov (2018) proposing a modified version of the Hofstede model that consolidates the individualism and power distance dimensions into a single construct, retains the long-term orientation dimension, and omits the masculinity, uncertainty avoidance, and indulgence dimensions. This revised model is positioned as being more universally applicable, and its empirical validity has been replicated at least once (Minkov & Kaasa, 2021a, 2022). While such a streamlined model may offer broader cross-cultural generalizability, the question remains whether the original Hofstede model and its six dimensions retain practical utility in the specific context of Nunavut. Paradoxically, despite its Western etic origins and acknowledged limitations, the Hofstede model may still hold relevance for understanding cultural dynamics within Nunavut, particularly when applied critically and reflexively.

Given the above, the practical purpose of this research was first to measure the Hofstede dimension scores of Inuit culture. To explore the boundary conditions of the scale in the Inuit context, emic Inuit Societal Values, Inuit Qaujimagatuqangit (IQ) Principles, and Maligarjuaq Laws were used to a priori predict the scale's six scores, to check for convergence. Secondly, the measured scores were placed (anchored) within the Hofstede Framework so that the values can potentially be directly compared with the other already measured 130 cultures within the framework. The usefulness of

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

knowing these Hofstede scores, the “so what” of the research, was in five main areas, as discussed below. The implications of knowing these measured differences for each dimension are further discussed in detail in Chapter 6 of this dissertation.

Therefore, the two overarching proposed research questions were:

“Is the Hofstede National Culture Scale applicable to a subnational, Indigenous (Inuit) culture?”

and

“What are the Hofstede Dimension Scores for Inuit (Nunavut) culture and How Are They Useful?”

Historical and Cultural Background of the Inuit in Nunavut

As this research involves the Inuit, the reader needs to have some understanding of their history. The Inuit are an Indigenous people whose ancestral homelands span the circumpolar Arctic regions of Canada, Alaska, and Greenland. In the Canadian context, most Inuit reside in Inuit Nunangat, which comprises four regions encompassing Inuit land claim settlements, including Nunavut, representing both a territorial and cultural homeland.

Ancient origins and pre-European contact

The Inuit of Nunavut are descendants of the Thule people, who migrated eastward from Alaska into the Eastern Arctic around 1000 CE (McGhee, 2007). This migration marked a significant cultural transformation in the region, as the Thule displaced or absorbed earlier Paleo-Inuit groups, notably the Dorset culture. The Thule were highly adapted to Arctic marine environments, relying extensively on sea mammal hunting and demonstrating sophisticated technological innovation, including the

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

development of the qajaq (kayak), umiak (skin boat), dog sleds, and complex winter dwellings made of snow and stone (Friesen, 2013). Seasonal mobility and deep ecological knowledge were fundamental to their survival, fostering a worldview grounded in reciprocity, community cohesion, and environmental stewardship.

Early contact with Europeans

European incursions into the Eastern Arctic began as early as the late 16th century with voyages such as those of Martin Frobisher. However, more sustained contact emerged in the 18th and 19th centuries through whaling expeditions, Christian missionary activities, and the establishment of fur trading posts by the Hudson's Bay Company (Tester & Kulchyski, 1994). These interactions introduced new tools and trade goods, as well as diseases, alcohol, and cultural disruptions. While Inuit demonstrated remarkable adaptability in incorporating certain technologies and materials, the intensification of external influences initiated long-term structural transformations, including altered food systems, shifting gender roles, and increased dependency on foreign goods.

Colonization, relocation, and settlement in the 20th century

The 20th century saw the emergence of more direct and often coercive forms of state intervention. Following World War II, the Canadian federal government expanded its presence in the Arctic to assert sovereignty during the Cold War and to integrate Inuit populations into the broader Canadian state. This period saw the forced relocation of several Inuit families to remote High Arctic settlements, such as Grise Fiord and Resolute Bay, during the 1950s. Although ostensibly for hunting opportunities, the relocation was in reality intended to establish territorial claims (Marcus, 1995). These

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

relocations led to significant hardship, including food insecurity, isolation, and the breakdown of kinship networks.

In addition, the residential school system forcibly removed Inuit children from their communities to assimilate them into Euro-Canadian norms (Truth and Reconciliation Commission of Canada, 2015). This system resulted in language loss, cultural disconnection, and intergenerational trauma that continues to affect Inuit communities today. Parallel to these developments, Inuit were increasingly encouraged or compelled to settle in permanent communities, often with little support or planning, thus transitioning from a predominantly nomadic subsistence lifestyle to a wage-based economy with limited employment opportunities and growing social challenges.

Inuit political mobilization and the creation of Nunavut

Amid growing marginalization and cultural erosion, Inuit across the Canadian Arctic began to mobilize politically in the 1970s, asserting their rights to land, culture, and self-determination. These efforts culminated in the signing of the Nunavut Land Claims Agreement (NLCA) in 1993, the most comprehensive Indigenous land settlement in Canadian history. The agreement granted the Inuit legal title to approximately 350,000 square kilometers of land and provided financial compensation, while also establishing co-management regimes for wildlife, environmental protection, and resource development (Abele, 2009).

On April 1, 1999, Nunavut was officially established as a separate territory, carved from the eastern portion of the Northwest Territories. Nunavut represents a unique form of public governance rooted in Inuit values and culture, where the GN operates as a non-ethnic government open to all residents but informed by Inuit

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Qaujimaqatunngit (IQ), the collective body of Inuit traditional knowledge and worldview (White, 2006).

Contemporary Inuit life in Nunavut

The establishment of Nunavut was a landmark in Inuit self-determination; however, it did not resolve all legacies of colonization. Today, Inuit in Nunavut continue to navigate profound challenges, including chronic housing shortages, inadequate access to healthcare, underfunded education systems, and food insecurity (Kral, 2016). Suicide rates remain among the highest in Canada, particularly among youth, underscoring the enduring effects of intergenerational trauma.

At the same time, Inuit organizations such as Nunavut Tunngavik Incorporated (NTI) and Inuit Tapiriit Kanatami (ITK) actively work to protect Inuit rights, promote language and cultural revitalization, and influence national policy. Inuktitut remains a majority language in many communities, and traditional knowledge is increasingly integrated into education, governance, and environmental stewardship.

The Inuit of Nunavut have demonstrated remarkable resilience across centuries of transformation, from the Thule migration and early European contact to forced assimilation and political resurgence. The creation of Nunavut marked a significant milestone in Indigenous self-governance, though structural inequalities persist. Understanding this historical and cultural context is vital for any scholarly inquiry into contemporary Inuit life, particularly studies involving cultural frameworks, policy development, or cross-cultural studies in Nunavut.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

How the Created Knowledge will be Used

This section describes five main application areas of interest to the researcher due to the usefulness to the business of the GN and other Nunavut-based organisations. These five areas are: Employee orientation/intercultural training, culturally sensitive organisational design, culturally sensitive policy development, intercultural communications (negotiation and marketing), and acting as a cultural baseline. Each of these five main areas are now introduced.

Employee orientation / intercultural training

The GN has cultural orientation training for new hires that includes both culture-specific and culture-general training courses. Culture-specific training, orienting new employees to the Inuit culture, is extremely important to create cultural awareness and understanding. Culture-general orientation, such as utilizing relative Hofstede scores and creating cultural awareness of similarities and differences, can also lead to improved work output (Bhawuk, 1998). This is because it is easier for the learner to both absorb the material and apply it to new situations, including different cultures (Hofstede, Pedersen, & Hofstede, 2002, p. x). This should be of special interest to the GN as there is a diversity of employees from different national origins within the organisation. It should also be of use to other organisations working in or for Nunavut for similar reasons. These other organisations include local governments, federal government departments, private sector organisations (e.g., Agnico Eagle gold mine), and not-for-profits (e.g., Catalyst+).

Measuring the Hofstede dimensions for Inuit potentially allows this culture to be compared along the scale's six dimensions to other cultures, southern Canadian, as well

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

as the many other cultures that are represented by the GN workforce. These other non-Inuit cultures are collectively referred to as Qallunaq by Inuit. Although the Hofstede model is introduced in a culture general training course delivered to new employees, the model has never been validated for use in the Nunavut context, and the Hofstede dimension values for Inuit have never been measured, limiting the model's use.

Knowing the Hofstede values for Inuit culture in relation to other cultures helps bring awareness to employees regarding how values, perceptions, and needs vary, also allowing personal insight as we are often blind to our own cultural lenses. An example would be how employees of differing cultures vary in comfort level to inclusion in (or exclusion from) decision-making by superiors. This attribute is affected by the dimension of power-distance of different cultures (Hofstede, Hofstede, & Minkov, 2010, p. 76).

This increased cultural awareness of differences between a person's own culture and Inuit culture should allow better interaction within the workspace, among employees, and between employees and management. Though it must be borne in mind that the cultural values measured, and the relative differences, are averages for the two groups. There is considerable variability at the individual level. This needs to be stressed when used in any training component. Increased awareness and sensitivity to average differences will also allow better service delivery between GN employees and the Inuit majority population they serve. A couple of examples include non-Inuit teachers and their interactions with Inuit students and parents, and health care professionals' interactions with patients. Both interactions are also affected by the power-distance dimension (Hofstede, Hofstede, & Minkov, 2010, p. 72).

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

However, it is not just the knowledge of the power-distance dimension that is useful in the workplace and interactions with clients. For example, the masculinity-femininity dimension is correlated with preferred management style (Hofstede, Hofstede, & Minkov, 2010, p. 170), and differences in the individualism-collectivism dimension have been shown to correlate with employee reward preference (Hofstede, Hofstede, & Minkov, 2010, p. 124).

Culturally sensitive organisational design

Much contemporary management/leadership thought is based on cultural-centric research (Baruch, 2001) that may not apply fully to all cultures, including Inuit. More specifically, behavioural science research has frequently been conducted on people from Western, Educated, Industrialised, Rich, Democratic (WEIRD) societies, and often students, who are not very representative of most of the world's population (Henrich, Heine, & Norenzayan, 2010a) which is an issue when research findings are then assumed to apply universally. To illustrate further, a survey of psychological journals found that 96% of research subjects were from Western industrialised countries, representing just 12% of the world's population (Arnett, 2008).

Hofstede (1980), as well as others such as Meyer (2015a,b), talk about how national (or societal) culture can affect organisational topics. Gaining an insight into how Inuit culture differs from, or is similar to, other cultures opens up discussion on how managerial topics, including supervision, leadership, teamwork, organisational structure, and motivation, could be finely tuned to the Nunavut context. For example, it would help southern Canadians and first-generation immigrants who are new to Nunavut to understand the preferred management and leadership styles of Inuit, thus helping the

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

newcomers to adjust to Inuit workplace preferences. This should be of interest to both public and private sector organisations in Nunavut.

To clarify, this use to finely-tune southern contemporary management/leadership thought should improve the training outcomes from management/leadership topics delivered through the GN's training calendar. The above being said, this insight into Inuit preferred management and leadership style can also provide perspectives that can be exported south to improve leadership and management of southern organisations. It is hard to argue against the relevance of IQ principles to any modern workplace, where contemporary management topics such as collaboration, the use of teams, and the empowerment of individuals are often advocated (such as Grieser, 2019).

Additionally, research focusing on historically sparsely researched populations can provide a stringent test of the universality of social theories (Henrich, Heine, & Norenzayan, 2010b). In this case, research utilising the Hofstede model for Inuit can provide a test of the model's boundary conditions. Boundary conditions refer to the limits or contexts within which a theory or model is valid (Busse, Kach, & Wagner, 2017). In this case, whether a model developed in one culture(s) appears to apply to another, specifically Inuit culture.

Institutionalisation has occurred in Nunavut: she has inherited organisational structures, rules, and laws from the former Northwest Territories, from which Nunavut was created/separated in 1999. These large organisational structures are relatively new to the Inuit culture. Many were absent even early last century, with the Northern Company, Royal Canadian Mounted Police (RCMP), and church organisations being the first large organisations to arrive. Traditionally, Inuit lived and moved as small family

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

groups. Government and private sector structures have largely been inherited from the south, though Inuit culture is likely to increasingly influence these structures with time, as it already has.

Hofstede, Hofstede, and Minkov (2010, p. 22) discuss how a society's values affect its institutions (rules, laws, and organisations) and vice versa. Hofstede, Hofstede, and Minkov (2010, p. 314) also discuss how national culture affects the preferred configuration, preferred coordination mechanism, and the key part of organisational structure. These authors discuss how the dimension of uncertainty avoidance and power distance interact to create five classification typologies:

- Low Uncertainty/Low Power distance (e.g., United Kingdom):
Adhocracy, Mutual adjustment, Support Staff
- Low Uncertainty/High Power Distance (e.g., China):
Simple structure, Direct supervision, Strategic apex
- High Uncertainty Avoidance/Low Power Distance (e.g., Germany):
Professional Bureaucracy, Standardization of Skills, Operating core
- High Uncertainty Avoidance/High Power Distance (e.g., France):
Full bureaucracy, Standardization of work processes, Technostructure
- Moderate Uncertainty Avoidance/Moderate Power Distance (e.g., USA)
Divisional form, Standardisation of outputs, Middle line.

Knowing where Inuit culture fits along these two dimensions (uncertainty avoidance and power distance) is useful for two reasons. First, it explores the boundary condition of the Hofstede model. Inuit designed their government's structure, which includes a consensus-based government, decentralisation, and empowerment of

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

communities, based on their values (Kulchyski, 2017). This government structure reflects a low uncertainty avoidance and low power distance culture, where adhocracy, mutual adjustment, and support staff are more important. Second, knowing these values can help ensure that this culturally appropriate form is understood and maintained by newcomers, as Nunavut continues to evolve as a separate, unique jurisdiction. This knowledge is therefore beneficial for professionals involved with organisational design for the GN and other organisations who may not themselves be Inuit, recognising that Inuit are currently vastly underrepresented at the professional and management levels within the organisation (Government of Nunavut, 2023)

Culturally sensitive policy development

Policy development at all levels of government reflects the values held by those who craft and approve the policies, i.e., written rules reflect unwritten rules. However, the various policies should reflect the values of the populace they serve. Elected officials obtain power based on the popularity of their espoused values, thus representing the population. However, policy documents are often initially drafted by officials, such as policy analysts, who, especially in the case of Nunavut, may not be from the majority culture. The GN had an Inuit employment rate of 52.6% compared to a Nunavut population of 85% Inuit at the time of the survey (Government of Nunavut, 2023). More notable is that at the professional level, which includes these policy analysts, the Inuit representativeness is even lower at 32.3%, with similar levels for middle management

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

(30.8%) and senior management (24.8%) who are also involved in policy development for their respective departments. These numbers are based on filled positions.

The above situation is unlikely to change in the near term. It is therefore beneficial for those crafting the draft documents to have a better sensitivity to the cultural value differences between theirs and Inuit and how these differences may impact policy choices. The Hofstede relative dimensions draw attention to some of these differences and help critical thought into how the drafts should be written, with fine-tuning from public input and elected officials to ensure agreement. In the discussion chapter, the impact of each specific dimension score is detailed.

Intercultural communications (negotiation and marketing)

Generally, internationally, intercultural communication has become a topic of increasing importance due to globalisation. This is also true in Nunavut. Inuit are increasingly interacting with other countries regarding trade as markets change, for example, in sealskins with the European Union and China (George, 2010). Other factors, such as global warming, are also increasing Inuit interaction with other cultures. Global warming is increasing the areas of open water in the Arctic which is leading to increased interest in Arctic fisheries, Arctic shipping routes, and oil and gas exploration. For example, Inuit (represented by the Inuit Circumpolar Council of Canada) are involved in consultations with countries such as Norway, Russia, and Japan concerning arctic fishing areas (Zerehi, 2016). Nunavut also has vast, largely untapped resources, including tourism (Travel Nunavut, 2023), which is becoming increasingly significant to Nunavut's economy. For example, in 2018, the number of Chinese tourists to the territories was expected to double by the year 2021 (Rosen, 2018), although the

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Coronavirus outbreak affected this projection in the short to medium term. More recently, Travel Nunavut, the territorial travel/tourism industry association, has projected the doubling of the Nunavut travel industry from over \$400 million in 2019 to a one-billion-dollar impact in 2030 (Travel Nunavut, 2023).

Inuit will therefore increasingly interact with foreign governments, foreign corporations, and foreign nationals. Comparison of Hofstede dimensions provides greater insight into cultural differences that may affect intercultural communication and understanding. Without knowledge and sensitivity of cultural differences and practices, misunderstandings can occur during negotiations (e.g., Salacuse, 1998; Sebenius, 2002). Therefore, this insight into cultural differences should add to improved negotiation outcomes for Inuit and Nunavut with different cultures. For example, Inuit from this current research are considered as belonging to the “Connected” cluster from Coene and Jacobs’ (2017) typology, discussed in Chapter 6. Knowing that a negotiation partner is from the same cluster, such as Sweden, will allow understanding that negotiation behaviour will be similar. Generally, there is a quest for balance and consensus in negotiations with countries in the connected cluster (Coene & Jacobs, 2017, p. 78). Conversely, when negotiating with a country from a different cluster, such as the United Kingdom, which belongs to the competitor cluster in Coene and Jacobs’ (2017) typology, there will be different negotiation dynamics. For this cluster, negotiation will take the form of a contest, with compromise rather than consensus being the goal (Coene & Jacobs, 2017, p. 48).

The Hofstede model also provides insight into marketing topics. For example, combinations of various dimensions have an impact on marketing topics such as status

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

needs, product buying motives, advertising styles, and brand personality (de Mooij, 2021). Culturally sensitive marketing is of benefit to both the private sector, Inuit and Nunavut businesses, as well as the GN, which markets various programs and services to the Inuit majority.

Cultural base line

Generally, cultural values are considered by many to be stable over time. It is cultural practices (heroes, rituals, and symbols) that are more susceptible to change through increased connectivity in the world (Hofstede, Hofstede, & Minkov, 2010, p. 19). However, as discussed more extensively in Chapter 2, this view of the stability of values is not universally accepted (e.g., McSweeney, 2024). Gradual changes in cultural values, measured by Hofstede dimension scores, that may occur are unlikely to cross relatively with the scores of other societies (Hofstede, 2010, p. 34). That is to say, if Culture A has a lower score than Culture B, then Culture A's score will likely remain lower despite changes in both A's and B's actual scores. However, this has not always been shown to be the case. For example, Akaliyski (2023) found considerable changes in the individualism dimension over time, including changes in relative position.

The individualism/collectivism dimension is the most sensitive to change over time, as is influenced by the wealth of a society; increasing wealth tends to cause an increase in individualism for that country/society (Hofstede, 2001, p. 254) presumably due to decreased reliance on social capital provided by a more collectivist society.

However, cultural evolution and the change of indices over time could be of increased concern for Inuit who are worried about non-Inuit acculturation and the loss of their Inuit culture. There may also have been impacts from the residential school era,

MEASURING AND USING THE HOFSTEDÉ DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

where Inuit were removed from their families to go to residential school. Determining Hofstede dimensions now could allow for monitoring going forward.

Knowing the Hofstede scores for Inuit (Nunavut) culture could also be useful in other future research looking at Hofstede scores in other Inuit groups (Inuvialuit in the Northwest Territories; Kalaallit, Kalaallisut, Tunumiit, and Inughuit in Greenland; and Inupiat/Yup'ik in both Alaska and Russia) or other First Nations groups, in North America and elsewhere, that may be of interest to Inuit and First Nations more generally.

Overview of the Rest of the Dissertation

This dissertation continues with the literature review (Chapter 2), where seven cultural scales are reviewed and the choice for the Hofstede scale in the research is defended.

Chapter 3 then focuses on Inuit Qaujimagatuqangit (IQ) Principles, Inuit Societal Values, and Maligarjuaq Laws in greater detail, having also been introduced in Chapter 2. The chapter starts by detailing how and why the IQ Principles are being implemented within the GN. These principles are front and center in the GN's current efforts to implement Inuit culture within the organisation. The results of this research (the Hofstede dimension scores) could be used in conjunction with, not replace, these rich guiding principles. The chapter then uses these IQ Principles, Inuit Societal Values, and Maligarjuaq Laws (along with the author's etic subjective evaluation and the limited literature) to predict the range of each of the six Hofstede cultural dimension scores that were determined by this research. This prediction of score ranges prior to the research

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

being carried out assisted in exploring the boundary conditions for the use of the Hofstede model, more generally in a subnational, Indigenous (Inuit) context.

Chapter 4 is the methodology chapter that discusses how the research was carried out, including details on the research design, data analysis, and assumptions. Chapter 5 then details the results of the research, including the measured Hofstede dimension scores and additional statistics such as internal reliability and differential item functioning (DIF). Chapter 6 follows, where the relevance, usefulness, and business implications of the research results are discussed, along with future research recommendations. The concluding chapter 7 summarises the dissertation and provides ten key takeaways for the GN.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Chapter 2 - Hofstede and Other Cultural Scales

Chapter Introduction

This chapter is a literature review that focuses on scales used to illustrate differences in national (societal) culture, which have uses in business settings. The chapter discusses why the Hofstede scale was the most appropriate scale to use in this research. The first section clarifies what is being measured by the Hofstede scale by defining that part of national (societal) culture that the Hofstede scale specifically deals with. The second section then reviews several cultural scales that can be used to compare cultures across several dimensions: quantified attributes.

The third section refocuses on the Hofstede scale to acknowledge several criticisms that have been made against the scale, which continue to mount. The fourth section defends the Hofstede scale and why it was chosen for this doctoral research to measure cultural dimensions of Inuit culture. The fifth section critiques the survey instrument (VSM2013) used in the research, whilst the sixth section outlines gaps in the research literature that this doctoral research addressed. This chapter ends with a chapter summary.

Definitions of Culture

It should be noted that all the scales reviewed for this research aim to measure, or describe, national (societal) culture regarding values. However, culture has many diverse definitions. For example, Kroeber and Kluckhohn (1952) identified 164 distinct definitions of culture, a number that continues to grow (Taras, Roney, & Steel, 2009). Baldwin, Faulkner, Hecht, and Lindsley (2006) raised this number to 300 definitions from different disciplines, adding their own definition of culture as “an

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

empty sign that people fill with meaning from their own academic backgrounds or personal experiences” (Baldwin et al., 2006, p. 24). Even culture itself affects the definitions of culture. That is to say, the concept of culture is culture-bound (Matsumoto & Juang, 2023, p. 16). These authors also have their own definition: “unique meaning and information systems, shared within groups and transmitted across generations, which allows groups to meet survival needs, pursue happiness and wellbeing, and derive meaning from life.” (p. 16)

Some of the many definitions are outdated, Avruch (1998, pp. 14–16) identifies at least six interrelated and inadequate conceptions of culture, rooted in outdated anthropological perspectives. These include the notions that culture is homogeneous, culture is a concrete "thing," culture is uniformly shared among all members of a group, individuals possess only a single culture, culture is merely a set of customs, and culture is timeless. According to Avruch, these ideas are not only flawed but also mutually reinforcing, contributing to a static and oversimplified understanding of culture.

Despite the “breadth, scope, and enormity of culture” (Matsumoto & Juang, 2023, p. 16), attempts have been made to categorize the definitions by various authors. For example, Kroeber and Kluckhohn (1952) organize the many definitions into a typology of six major categories: descriptive, historical, normative, psychological, structural, and genetic. A seventh category includes incomplete definitions.

Descriptive definitions list culture’s content, such as tools, beliefs, and customs. Historical definitions often employ terms rooted in social heritage or tradition. Normative definitions focus on rules, ideals, or values that affect behaviour. Psychological definitions see culture as a product of human learning, adjustment, or

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

habit. Structural definitions emphasize organized systems or patterns within culture. Genetic definitions explain culture in terms of origins and development. Kroeber and Kluckhohn (1952, p. 181) also have their own definition: “Culture consists of patterns, explicit and implicit, of and for behavior acquired and transmitted 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.” This definition attempts to integrate psychological, symbolic, historical, and normative elements.

Considering the Hofstede model was chosen for this research, Hofstede’s definitions of culture are focused on in this dissertation: “The collective programming of the mind which distinguishes the members of one group or category of people from another” (Hofstede, 2001, p. 9). Although not all academics agree with his definitions, using Kroeber and Kluckhohn's (1952) typology, Hofstede's definition and framework can be categorized primarily as normative due to the emphasis on shared cultural values and behavioral norms. However, it also has descriptive aspects since it identifies and categorizes observable cultural traits.

Hofstede’s definitions of culture

Hofstede considers values to be the deeply held beliefs that are acquired during the formative, childhood years of life and are resistant to change over time (Hofstede, 2001, p. 11), though this stability is not agreed upon by all (such as Avruch, 1998; Akaliyski, 2023; Minkov, 2025). These values are described by scales utilizing dimensions, a continuum from one extreme to the other. For example, Hofstede’s individualism/group dimension (discussed later) describes the cultural value of identity,

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

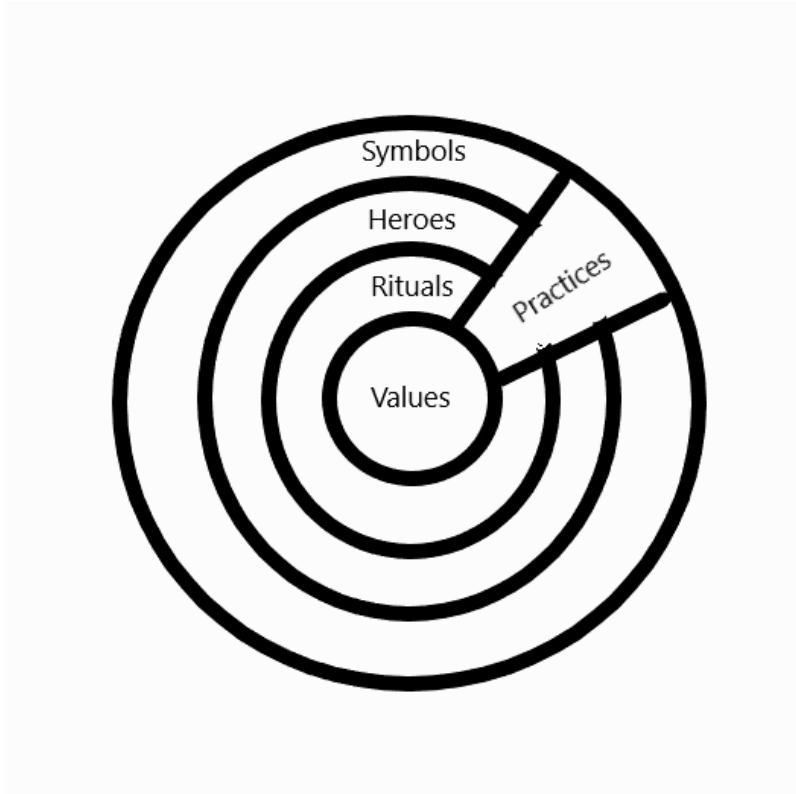
whilst his masculinity/femininity dimension describes cultural gender (Hofstede, Hofstede, & Minkov, 2010). Cultural gender means the extent to which a culture supports a traditional, stereotypical view of masculine and feminine traits in general (competitiveness/soft-heartedness), which may partly include whether a culture is more competitive (termed masculine cultures) or caring (termed feminine cultures)

Other elements of culture, according to Hofstede, may include symbols, heroes, and rituals; collectively referred to as practices (Hofstede, 2001, p. 11). These are considered less stable than the core values. The relationship between values and practices (rituals, heroes, and symbols) is illustrated by Hofstede's (2001, p. 11) "onion diagram," which has been redrawn in Figure 1. The values that the proposed research focuses on are so fundamental to culture, often being expressed unknowingly, that Hofstede refers to them as the "software of the mind" (Hofstede, Hofstede, & Minkov, 2010, P. 8).

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

Figure 1

Hofstede's "Onion Diagram" that Depicts the Relationship Between Cultural Values and Practices.

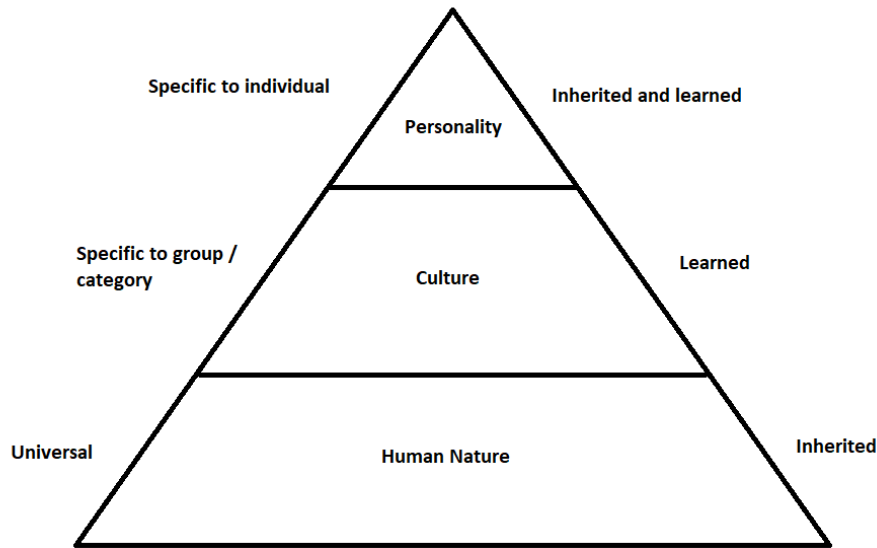


To further clarify what is being measured when referring to “culture” a comparison to personality and human nature should also be made. Hofstede considers these to be three unique levels in mental programming. Human nature is universal and inherited, whilst culture is specific to a group or category and is learned. Personality is specific to the individual and is both inherited and learned (Hofstede, Hofstede, & Minkov, 2010, P. 6). An illustration of these three levels is redrawn in Figure 2.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Figure 2

Hofstede's Levels of Mental Programming - Relationship between Personality, Culture, and Human Nature



It should be noted that the above model, depicting the three levels of mental programming, is not universally accepted. Following work by Minkov, Van de Vijver, and Schachner (2019) who looked at the Big-Five model across multiple countries, Minkov and Schachner (2024) conclude that personality traits are the building blocks of culture, with culture being viewable (another definition of culture) “as a system of ecological combinations of personality traits” (p. 2). The Big Five refers to a widely accepted model of personality traits in psychology, also known as the Five-Factor Model (FFM), even though the original model is based on WEIRD samples as described by Henrich, Heine, and Norenzayan, 2010a). WEIRD being defined as Western, Educated, Industrialised, Rich and Democratic countries, which are not very representative of most of the world’s population.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Additionally, Yoo, Donthu, and Lenartowicz (2011) applied Hofstede's dimensions to the individual level through the CVSCALE (Individual Cultural Values Scale), implicitly stating that culture also exists at the individual level. Furthermore, the revised Minkov-Hofstede model has constructs that show both group-level and individual-level internal reliability/factor structure (Minkov, Sokolov, Tasse, Jamballuu, Schachner, & Kaasa, 2023), again suggesting that culture can be considered as also present at the individual level. However, for the Hofstede model, this is not the case. I.e., the group level constructs (dimensions) are not isomorphic; they do not have a similar structure at the individual level.

Additionally, a criticism of the above diagram is that it suggests culture is only learned, not inherited. Although culture largely depends on historical, ecological, and social learning, Chiao and Blizinsky (2009) found possible genetic influences on cultural differences, suggesting that there has been culture-gene coevolution.

Above, a reference to culture belonging to a group or category is made. This can be at the national (or societal) level, which the Hofstede national culture scale purports to measure, or for other groups such as organisations and professions. These other groupings of culture are better measured with other instruments rather than the Hofstede 6-D societal scale. For example, Hofstede (Hofstede, Neuijen, Ohayv, & Sanders, 1990) has a second scale that measures organisational culture consisting of six, but different, dimensions. These dimensions are process/goal oriented, parochial/professional, open/closed system, employee/job oriented, tight/loose control, and normative/pragmatic. Another general difference between cultures of different types of groups can be viewed as their emphasis on values or practices (heroes, symbols, and

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

rituals). Whereas Hofstede's national (societal) culture scale is based on differences in values, his organisational culture scale is based on differences in practices (Hofstede, Neuijen, Ohayv, & Sanders, 1990).

Cultural Scales

Several cultural scales have been proposed by various researchers over the years. This section first summarises the Hofstede six-dimensional national (societal) culture scale, the scale chosen for this research. Despite the strengths of the Hofstede Scale, it is important to realize that it is not the only scale for national (societal) culture comparisons. Six alternative scales are briefly reviewed with an explanation of why they were not or could have been chosen for this research. They are: Rokeach (1973), Trompenaars and Hampden-Turner (1998), Schwartz (1992), the Global Leadership and Organisational Behavior Effectiveness model (GLOBE) (House et al., 2004), Inglehart (2006), Minkov-Hofstede (2022). Meyer (2014) was also reviewed but was dropped from the analysis because her model was anecdotal rather than being based on empirical data (Cooper, 2014).

Inuit Qaujimajatuqangit (IQ) Principles (Government of Nunavut, 2019c) are then introduced. IQ principles are further discussed in Chapter 3 due both to its strong role within the Government of Nunavut (GN) and the fact that the qualitative statements were used to predict the Inuit Hofstede dimension score ranges, and thus the applicability of the Hofstede scale to a sub-national, Indigenous (Inuit) population. It is beyond the scope of this literature review to exhaustively discuss each of the alternate scales. However, the aim is to give enough details to make the case for using the Hofstede scale in the proposed research and/or the case for possibly using these

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

alternate models in future Nunavut research. After each of these alternate scales are summarised, attention will return to the Hofstede scale to provide a critique and defence of the choice for this research.

Hofstede

In this subsection the Hofstede's Six-dimensional national (societal) culture scale will be briefly described, which will be referred to as the Hofstede model in this dissertation. The first four dimensions (Power-Distance, Individualism, Masculinity, and Uncertainty Avoidance) were originally constructed by Geert Hofstede based on research data obtained in the 1970s from employee surveys at International Business Machines (IBM) (Hofstede, 1980). An additional, fifth dimension, long-term/short-term orientation, was added in 1987 based on research in Asia (Chinese Culture Connection, 1987; Hofstede & Bond, 1988). The sixth dimension, Indulgence versus Restraint, was added in 2010 based on analysis of data from the World Values Survey (Hofstede, Hofstede, & Minkov, 2010, p. 280).

The six dimensions are more complex than the single descriptors indicate. This summary is provided based on Hofstede (2001; 2011; 2017); Hofstede, Hofstede, and Minkov (2010), and Hofstede, Pederson, and Hofstede (2002). The six dimensions are as follows:

- Power-Distance - In higher power distant cultures, the least powerful accept and expect that power is distributed unevenly. Older people are both respected and feared. Conversely, in low power distant cultures, hierarchical structures are only tolerated for operational efficiency and parents treat children as equals.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

- Individualism-Collectivism - Individualism relates to independence of the individual, rather than in collectivism where members are interdependent on each other and are socially constrained. In collectivist societies, the emphasis is on the group rather than the individual. It is expected that the individual will share the beliefs and thoughts of the group, individual beliefs are less tolerated. This dimension refers to horizontal collectivity rather than vertical, which is covered by the power-distance dimension. When considering collectivity, the boundaries of the actual group are also important, i.e., the membership of the ingroup as opposed to outgroups. This dimension is the most susceptible to change over time. For example, as wealth increases, individual societies tend to become more individualistic (Hofstede, 2001, p. 254). This is even the case in wealthy countries that are relatively more collective, such as Japan (Ogihara, 2018).
- Masculinity-Femininity – As with the other Hofstede dimensions, the names of the dimensions can be confusing if the exact definitions of the dimensions, which often have depth and complexity, are not considered. This dimension has been called the taboo dimension (Hofstede, 1998) as many researchers/readers do not like the title, such as Redpath and Nielsen (1997). It must be remembered that the two poles (masculine/feminine) refer to national (societal) cultures, as defined by Hofstede, and not individual sex roles – real, perceived, or stereotyped. In masculine societies, there is an emphasis on winning and competing; being assertive and controlling. In feminine societies, there is sympathy for the weaker members; goals are more holistic; and inclusion is important. Caring for others has greater emphasis. Feminine societies are also deemed to place a greater emphasis on preservation of the environment over

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

economic growth (Hofstede, 1998). In masculine societies, there is often a sharper distinction of gender roles.

- **Uncertainty Avoidance** - Uncertainty includes ambiguity. It relates to anxiety and distrust with the unknown. In cultures with high uncertainty avoidance, there is a need for habits, rituals, and to know the truth. An increased reliance on religion and faith may occur. Where religion is present, it is often less tolerable of alternative beliefs. In a society or organisation, there may be an increase in the use of written rules and procedures, even if these are not followed.

- **Long-term/short-term Orientation** - In a long-term oriented culture, the world is in flux, and preparing for the future is always needed. Success in the future is important. In a short-term oriented culture, the world is, or should be, stable, so adhering to the past is morally good. However, a short-term orientation may be able to better adapt to change by avoiding rigid long-term plans, thus being more adaptable, at least at the organisational level (Kanter, Stein, & Jick, 1992, p. 390). This dimension has been strongly correlated with economic development (Hofstede, Pederson, & Hofstede, 2002, p. 236), although there are exceptions.

- **Indulgence** - In an indulgent culture, it is good to be free, following your impulses. Friends are important, and life is good. In a restrained culture, life is considered hard and duty is revered.

The addition of the sixth dimension did not see the end of research on the Hofstede model. Kirkman, Lowe, and Gibson (2006) summarized and critiqued international business research inspired by Hofstede over the past three decades, laying the groundwork for future research. Beudelsdijk, Kostova, and Roth (2016)

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

demonstrated that Kirkman et al.'s (2006) ideas had informed and inspired research, leading to significant progress in the application of the model in international business over the preceding decade. Both sets of authors focused on cultural distance, which affects the entry decisions into new markets (Kogut & Singh, 1988). Among other recommendations, Beudelsdijk et al. (2016) suggested focusing on supranational regions as units of scale, as they are important in international business for market entry decisions.

There has been mounting criticism of the model, as discussed later in this chapter. At the same time, research on other models continues. This includes a modified Minkov-Hofstede model that is also discussed later in this chapter. Despite this, research that both extends the model to new countries or regions and utilises the model is still common. For example, several national governments have recently embarked on extensions (Minkov & Kaasa, 2021). Examples of recent uses of the model in research include Festing and Proff (2025), Lee, Lee, and Lee (2025), Yang, Zadorozhny, Petrides, Sau Man Catalina, and Pan (2025), Zheng, Zhao, Yasmin, and Sokolova (2025), Chang and Wu (2023) and Wang, Bakota, Buljan and Shang (2025). Whilst university textbooks, including those in cross-cultural psychology, commonly reference the model (such as Matsumoto & Juang, 2023).

The potential impacts of the six dimensions are summarised in Hofstede (2001) and Hofstede, Hofstede, and Minkov (2010), which are used to more fully discuss the purported implications of the known scores from this research, the “so what” of the research, in the discussion chapter.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Rokeach

In *The Nature of Human Values* (Rokeach, 1973), a comparison between individual and cultural values in a management setting was made. This was one of the first studies of its kind. Rokeach viewed values as enduring beliefs that a specific mode of conduct or end-state of existence is personally or socially preferable. I.e., he sought to understand how personal values shape behaviour and attitudes (Rokeach, 1968). There was an original narrow focus on male American, Australian, Israeli, and Canadian college students, i.e., a WEIRD (Henrich, Heine, and Norenzayan, 2010a) sample set. WEIRD being defined as Western, Educated, Industrialised, Rich and Democratic countries, which are not very representative of most of the world's population. From the Rokeach Value Survey, eighteen terminal values and eighteen instrumental values were identified. Instrumental values are preferable modes of behaviour to achieve the terminal values, or desired end states.

As well as the narrow focus, other criticisms of Rokeach's values system include those made by Gibbins and Walker (1993), who questioned whether the thirty-six values are the critical ones and whether the number could have been reduced with better selection criteria. For example, through improved factor analysis and addressing multicollinearity, where more than one factor measures the same underlying construct. Gibbins and Walker (1993) also had validity concerns regarding how the respondents ranked the values.

Rokeach's work is more of historical relevance, as a precursor to more in-depth and geographically broad studies such as Schwartz (1992) and Hofstede's (although he too focused on a narrow sample set, mainly middle-class males in a business

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

environment), rather than a competing scale to be used in this study. It prefigured later models, such as Schwartz's Theory of Basic Human Values, which refined and expanded on Rokeach's categories in a more culturally comparative context, with Rokeach focusing on individuals as the unit of analysis.

However, the model or its methodology is still used in political psychology, consumer behaviour, marketing, leadership studies, organisational research, and education and youth development. It is often used in conjunction with other instruments, such as by Zharkynbekova, Shakhputova, Galiyeva, and Absadyk (2025), and by itself as well, such as by Ariail, Smith, Smith, and Khayati (2024).

An interesting aspect of the Rokeach Value Survey is that it asks participants to place each set of values in a forced order of importance (Rokeach, 1973), rather than relying on Likert scales as is the case, for example, in the Value Survey Module 2013 and extensively in the World Values Survey (WVS).

Trompenaars and Hampden-Turner

Trompenaars and Hampden-Turner's (1998) seven-dimension scale is interesting because two of its dimensions explicitly deal with time and the environment, whilst Hofstede's scale has these values/factors embedded in other dimensions (such as long-term/short-term and masculine/feminine). The database for this scale contained over 30,000 responses from more than 50 countries (Trompenaars & Hampden-Turner, 1998). Though the expanded dataset now includes responses from over 100,000 individuals across more than 140 countries (Trompenaars & Hampden-Turner, n.d.a)

The seven dimensions from Trompenaars and Hampden-Turner (1998) are:

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

- Universalism/particularism – Universalism is when the same rule should always apply regardless of relationships. Particularism considers context, including relationships.
- Individualism/communitarianism – Is the focus on “I” or on “we”, i.e., on the individual or the group.
- Specific/diffuse – Specific is when an individual in a certain culture tends to have a single personality in all walks of life whereas diffuse is when an individual in a certain culture tends to have multiple personalities in different aspects of life, such as work and home.
- Neutral/emotional – In neutral cultures interactions tend to be objective and detached whereas in emotional (or affective) cultures expressing emotion is acceptable.
- Achievement/ascription – Whether status is gained by effort and success or based on age, class, gender, and education.
- Sequential/synchronous time – Refers to the perception of time. Do events happen one after another or at the same time, i.e., multitasking.
- Internal direction/external direction – Internal direction is when the culture tends to believe that the environment can be manipulated and changed whilst external direction believes that humankind should adjust and live in harmony with the environment.

There are several criticisms of the Trompenaars and Hampden-Turner scale that reduced its potential use in the research. One of the biggest criticisms is a validity concern, whereas Hofstede’s scale had been purportedly validated by numerous studies (Hofstede, 2001, p. 65). When the Trompenaars and Hampden-Turner scale is examined

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

through correlation and factor analysis, only two dimensions can be confirmed statistically, these being individualism/achievement and universalism/diffuse (Hofstede, 1996). This finding raised concerns about Trompenaars' methodology and conclusions. Additionally, St Claire-Ostwald (2007) questions cultural biases and base assumptions used to formulate the scale, while McSweeney (2016; 2024) more generally questioned the validity of national cultural scales, which would include Trompenaars and Hampden-Turner's.

An additional criticism shared with the Hofstede model is that the dimensions were largely derived inductively from business surveys, rather than being grounded in a strong theoretical framework. It is a data reductionist model, not a theoretical model. Also, again sharing with Hofstede model, is the methodological weakness of being based on data from a small segment of the population, primarily managers in multinational companies, so there are the same questions of whether the results may reflect corporate culture rather than national culture, and its limitations regarding generalizability to the national population (McSweeney, 2002, 2024). Like Hofstede, Trompenaars has been criticized for assuming a relatively fixed view of culture, implying that national cultural traits are stable, underestimating possible impacts of globalization, migration, and individual variation within societies.

Nevertheless, the model remains in use, including the author's Culture for Business Tool. (Trompenaars & Hampden-Turner, n.d.b.).

Schwartz

Shalom Schwartz's Theory of Basic Human Values (1992; 2012) has made a significant contribution to understanding both individual and cultural value systems. His

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

model, rooted in social psychology, identifies ten universal values shared across cultures and explains how these values influence human behavior and decision-making. Unlike models such as Hofstede's (1980, 2001), which focus on national-level dimensions, or Inglehart's (1997) focus on postmaterialist values, Schwartz's theory connects both individual and cross-cultural levels, making it highly adaptable for research.

Initially, the Schwartz Value Survey (SVS) was developed to identify personal values that could explain cultural diversity and value conflict. The survey was first conducted in 20 countries and identified ten broad motivational values. These values are based on basic human needs, social functioning, and group survival. Over time, the model has been validated in more than 80 countries using updated tools such as the Portrait Values Questionnaire (PVQ), confirming its reliability across cultures (Schwartz, 2012). The SVS asks people to rate each of 56 specific values (plus one filler) on a 9-point scale from "Opposed to my values" (-1) to "Of supreme importance" (8). Each of the ten value types is measured with multiple items (usually 5 to 8) to ensure accuracy (Schwartz, 1992, 2006, 2012).

The ten basic human values in Schwartz's theory are:

- Self-direction – valuing independence, creativity, and freedom to choose one's own path
- Stimulation – seeking excitement, novelty, and variety
- Hedonism – focusing on pleasure and enjoyment
- Achievement – pursuing success through skill and effort
- Power – desiring control over people or resources

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

- Security – wanting safety, stability, and order
- Conformity – following rules and meeting social expectations
- Tradition – respecting customs, religion, and heritage
- Benevolence – caring for the well-being of close others
- Universalism – promoting justice, equality, and concern for all people and the environment

A unique feature of Schwartz's model is its circular structure. Values are arranged in a circle based on the degree of similarity in their motivations. Values with similar goals (like stimulation and self-direction) are placed next to each other, while conflicting values (like stimulation and conformity) are on opposite sides. This structure forms five pairs of opposing value types, helping researchers see how values relate or clash across individuals and cultures.

Schwartz later grouped the ten values into four broader dimensions (Schwartz, 2012):

- Openness to Change: Self-Direction, Stimulation, and Hedonism
- Self-Enhancement: Achievement, Power, and Hedonism
- Conservation: Security, Conformity, and Tradition
- Self-Transcendence: Universalism and Benevolence

Although Schwartz lists ten values, his framework is often used to compare cultures along a spectrum of individualism and collectivism. It shares similarities with other cultural models but offers a more nuanced breakdown of human motivations. Compared to Hofstede's model, it may be less focused on national differences but provides deeper insight into personal values.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

One key advantage of Schwartz's framework is that it enables individual-level analysis without compromising the ability to compare across cultures. Unlike Inglehart's (1997) model, which ties values to economic development, Schwartz includes a broader range of motivations that are not dependent on modernization.

The theory is especially valuable because it highlights both the universal nature of values and the relationships among them. It provides researchers with a strong, tested method to explore how individuals perceive what matters most to them and how cultures may become more similar or distinct over time.

In the Nunavut context, Schwartz's model could be a strong alternative to Hofstede's, especially if future research includes Inuit participants to test how well the values fit with their culture. Both the SVS and PVQ-RR include 57 items, compared to 33 in Hofstede's VSM2013. While longer, this may not pose a problem in Nunavut, depending on how willing respondents are to complete it. Additionally, there are various versions of the PVQ that have as few as 21 items, although this number does not include demographic questions. The VSM2013 has 24 items used in its constructs in direct comparison. The lower number of items would tend to increase response rates. Although increasing the number of items per construct would improve measurement accuracy, the low number of items per construct is a similar criticism to that of the VSM2013.

The model's strengths include solid cross-cultural evidence, a detailed list of values, and a flexible structure. However, its complexity and overlaps with models like the revised Minkov-Hofstede version may make interpretation more difficult. Another possible strength is that the Portrait Values Questionnaire (Schwartz, Melech, Lehmann,

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Burgess, Harris, & Owens, 2001) uses a more descriptive response format. Respondents are shown a series of vignettes and are asked to what extent the people in the vignette also describe the respondent. This approach is believed to address the issue with Likert scales, where cultural differences, such as a tendency to be in harmony or dissent, affect scoring response bias (Fischer & Smith, 2021, p. 332).

Schwartz's model remains widely used today. For instance, the PVQ is part of the European Social Survey (European Social Survey, n.d.), demonstrating its continued relevance in cross-cultural research.

GLOBE

Project GLOBE (Global Leadership and Organisational Behaviour Effectiveness) could be considered a competing scale to the Hofstede Scale, as it has the benefit of utilising quantitative data and is continuously growing in the extent of cultures studied.

The GLOBE scale has the following nine dimensions, though it should be noted that each dimension has an “as is” (descriptive) component versus a “should be” (normative) component. So, the scale can be viewed as having nine dimensions with two components each, or having eighteen dimensions (House et al., 2004). The normative component varies by country, as does the descriptive component.

- Uncertainty avoidance – the extent that members of an organisation or society try to avoid uncertainty by establishing social norms, rituals, and bureaucratic practices to reduce unpredictability of future events.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

- Future orientation – the degree to which individuals in organisations or societies engage in future oriented behaviours such as planning, investing, and delaying gratification.
- Institutional collectivism (or social collectivism) – the degree that organisational and institutional practices encourage and reward collective distribution of resources and collective action.
- Ingroup collectivism – the degree that individuals express pride, loyalty, and cohesiveness in their organisations and families.
- Gender egalitarianism – the degree that an organisation or society minimizes differences in gender roles and reduces gender discrimination.
- Power distance – the degree to which members of an organisation or society accept that power should be stratified and concentrated at higher levels in organisations.
- Humane orientation – the degree to which individuals in organisations and societies encourage and reward fairness, altruism, friendliness, generosity, caring, and kindness.
- Performance orientation – the degree that individuals in organisations and societies encourage and reward group members for excellence and performance improvement.
- Assertiveness – the degree that individuals in organisations and societies are assertive, confrontational, and aggressive in social relationships.

As can be seen, there are several similarities to the Hofstede scale if the dimension tags are considered alone, as is the case for all the scales. However, it must be remembered that even if the dimension names are similar, it does not mean that the same phenomenon is being measured. For example, Alipour (2019) found that the

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

similarly labelled uncertainty avoidance dimensions in the two scales are negatively correlated and capture distinct concepts. This is known as the jingle fallacy, though the jangle fallacy, where similar dimensions from different models are differently named, also occurs.

There are several criticisms of the GLOBE scale. This scale focuses more on organisational culture, rather than national, regional, or societal culture (Minkov & Blagoev, 2012). Minkov and Blagoev (2012) also believed that some of the survey questions were worded in a way that led to a value paradox, i.e., uncertainty over whether a dimension was desired by an individual or deemed desirable for society. Similarly, McCrae, Terracciano, Realo, and Allik (2008) believe that the GLOBE scales are unfounded national stereotypes rather than society members' personality traits.

Additionally, although Minkov and Blagoev (2012) validate some of GLOBE's dimensions empirically, there are at least two – humane orientation and performance orientation – that do not generate convincing nomological networks, i.e., there is no pattern of correlations between the constructs and other variables based on theory.

A strength of the scale is that the research team was multicultural, both in the guiding team and the in-country collaborators (House et al., 2004). However, the large number of dimensions is a concern as it creates unnecessary complexity, (Venaik & Brewer, 2013), and some dimensions may measure the same phenomenon. (Minkov and Blagoev (2012).

In some circumstances, different scales may be more useful than others. For example, Doering, De Jong, and Suresh (2019) found that the GLOBE dimensions may

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

be more effective than the Hofstede dimensions in capturing the effects of national culture in an international supply chain setting.

Inglehart-Welzel

Inglehart (1997) factor analyzed national-level data from the World Value Survey (WVS) for 43 societies obtained in 1990. The WVS is one of the most significant and longest-running international social science research projects, focusing on understanding people's values, beliefs, and cultural changes worldwide. It has been widely applied in political science, sociology, economics, and cross-cultural psychology to explain trends such as democratization, economic growth, and modernization. The WVS is conducted in waves and now represents over 90% of the world's population (World Values Survey Association, 2022).

The WVS probabilistically samples the general population of countries. In contrast, Hofstede's data were collected from a single corporate entity (IBM), comprising middle-class, employed, and often male informants (McSweeney, 2002, 2024). Another difference is that WVS data is longitudinal, being conducted in waves every few years. In contrast, Hofstede's data are cross-sectional, although a replication was conducted five years after the initial data collection, and other replications on different populations have been conducted since (Taras, Steel, & Kirkman, 2012).

Inglehart identified two primary dimensions: traditional versus secular and survival versus self-expression. These two dimensions share similarities with the Hofstede model. Inglehart's traditional versus secular-rational dimension is related to Hofstede's power distance and individualism dimensions, whilst his survival versus self-expression dimension partially overlaps with Hofstede's individualism, indulgence, and

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

uncertainty dimensions (Inglehart & Welzel, 2005). This overlap was also shown by Kaasa (2021), who conceptually demonstrated that the Inglehart, Hofstede, and Schwartz models were similar based on keyword analysis.

Welzel, a political scientist, is one of the most important collaborators and successors of Inglehart, and he played a key role in advancing and refining Inglehart's model of cultural values. Their collaboration is foundational to the Inglehart–Welzel cultural map and the Human Development Model, which together form a central part of the WVS framework (World Values Survey Association, 2022). Welzel (2013) refined the Self-Expression dimension by linking it more explicitly to democratic values, gender equality, and freedom of choice. He also empirically validated the dual-axis model through factor analysis of WVS data across countries and waves.

Inglehart and Welzel considered cultural values to be subject to change over time, in contrast to Hofstede, who viewed cultural values as relatively stable. In *Modernization, Cultural Change, and Democracy* (2005), they merge modernization theory with extensive empirical data on human values to explain political transformations. They show that fundamental shifts in people's values and beliefs are reshaping political, economic, sexual, and religious behaviors. These shifts follow predictable patterns, mainly in line with an updated modernization theory. They argue that modernization is a process of human development, where economic progress drives cultural changes that promote individual autonomy, gender equality, and the spread of democracy. They propose a model of social change that anticipates how value systems will likely evolve in the future, highlighting the essential role of mass values in the rise and consolidation of democratic institutions.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

However, this modernization convergence hypothesis, where the family model of inter-dependence shifts to one of independence with economic development and urbanization, is considered to be too simplistic by Kağıtçıbaşı (2005). Her family model considers a separation between material and psychological interdependence. That is to say that with increasing affluence, material independence increases, but psychological interdependence continues, as it is compatible with changing lifestyles. Therefore, progression to a greater cultural individualism is altered.

Freedom Rising (Welzel, 2013) builds upon and advances Inglehart's theory by formalizing the Human Empowerment Model. Welzel, Kruse, Brunkert, and Brieger (2025), in *The Cool Water Effect*, extend the theoretical debate by arguing that the West's emancipatory movements have geo-climatic roots, centered on what they term the Cool Water Condition. A setting of cool seasons, regular rainfall, and coastal proximity that disperses water and key resources. This dispersal necessitated the decentralized management of land, water, and labor, thereby embedding local autonomy into society and fostering self-governing institutions, such as households, religious communities, and businesses. The Cool Water Theory is employed to explain the geo-climatic origins of Western cultural exceptionalism, specifically the development of individualism, emancipatory values, and democracy in historically Western societies.

A key difference with Hofstede is that Inglehart emphasized change over time from materialism to post-materialism, providing a dynamic framework to understand how cultures shift, especially under the influence of modernization, democracy, and globalization. His core theories are value change theory and post-materialism theory, whilst Hofstede's is culture dimensions theory. Whereas Inglehart emphasizes that

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

values evolve through generational replacement (Inglehart, 1997, p. 70), Hofstede argues that cultural values are remarkably stable over time because they are formed during childhood (Hofstede, 2001, p. 11).

Whereas Hofstede's model is used in the current research to compare Inuit (workplace) values with those of southern Canada and other cultures, Inglehart's model could have been used to examine longitudinal modernization effects, such as generational changes, value shifts, and the impact of education. However, questions from the WVS would need to have been utilised, which currently number around 300 (World Values Survey Association, 2022). This would make it very difficult to obtain sufficient sample sizes based on response rates and population sizes, as people would be less likely to commit to the time to take the survey. However, the number of questions could have been reduced for this study. The VSM2013, in comparison, has just 33 questions. The country (in this case territory) must also be able to conduct a probability-based survey of at least 1,000 respondents, representative of its entire adult population (18+), As Nunavut's adult population is just 24,775 this would require a 4% response rate and the survey would need to be done in compliance with WVS methodology, including conducting the interviews in person. This is challenging to achieve when the population is dispersed across 25 remote communities.

Minkov-Hofstede

Michael Minkov has played and continues to play a central role in the development and refinement of Hofstede's cultural dimensions, as summarized by Minkov (2025). His work contributed to the refinement of Hofstede's fifth dimension, long-term orientation (Hofstede & Minkov, 2011; Minkov & Hofstede, 2012; Minkov,

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Bond, Dutt, Schachner, Morales, & Sanchez, 2018) and to the creation of the sixth dimension, indulgence versus restraint (Minkov & Blagoev, 2009). In this contribution, Minkov also showed how thrift (i.e., restraint) leads to economic development, at least up to a certain level of development. He also discusses how long-term orientation also leads to good economic outcomes.

Minkov and Hofstede (2014) showed that the uncertainty avoidance dimension replicated across nationally representative samples from Europe. Minkov and colleagues later revised the original individualism dimension using large-scale, nationally representative World Value Survey (WVS) samples (Minkov, Dutt, Schachner, Morales, Sanchez, Jandosova, Khassenbekov, & Mudd, 2017). These nationally representative samples contrast with Hofstede's original data, which were drawn from a single multinational corporation.

As Minkov's research progressed, he and his collaborators began to question the validity and replicability of the complete six-dimensional Hofstede model, despite the vast amount of research that had validated the dimensions, including Minkov and Hofstede's (2014) work on uncertainty avoidance which showed this dimension as a valid and reliable measure of national culture, as an example.

Minkov and Kaasa (2021a) noted that the Hofstede model had never been replicated in its entirety and criticized its predictive limitations. They argued for the removal of the uncertainty avoidance and masculinity dimensions because they appeared to be artifacts of the original IBM dataset, i.e., they did not replicate in nationally representative samples. The long-term and individualism did replicate, however. Indulgence, though not the focus of this critique, was also later found to be unstable and

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

poorly correlated with objective indicators (Minkov & Kaasa, 2022). These arguments had already been presented in Minkov et al. (2017), who also believed that the power distance dimension was a logical facet of individualism. Minkov et al (2018) had suggested that the long-term orientation dimension may be one of the most significant dimensions of national culture, as it spans a geographic continuum from East Asia to Africa and Latin America and is strongly associated with educational achievement.

Minkov and Kaasa (2021a) further tested the revised model using work-related values, aligning more closely with Hofstede's original focus. This study confirmed that uncertainty avoidance and masculinity did not replicate in nationally representative samples, reinforcing their earlier conclusions. They urged scholars and practitioners to reassess the use of the original Hofstede model, a position echoed by Bell and Claes (2024), who state that the model has fallen out of "favor in a world of interpretivist, postmodern, and critical approaches to cultural issues" (p. 82). Minkov (2018) had also previously recommended that consultancies and business schools need to be aware of the original Hofstede model's deficiencies rather than teach the model uncritically.

In addition to improving internal consistency, the revised two-dimensional model proved remarkably stable across different cultural research frameworks. Kaasa and Minkov (2022) demonstrated that their individualism and flexibility (long-term) dimensions aligned with the primary constructs of Inglehart's, despite the two studies having different study designs and two-dimensional solutions. Minkov and Kaasa (2024) extended this finding to the Schwartz model. The idea that just two universal dimensions are present in all dimension-based cultural models was first proposed by

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Fog (2021). Kaasa (2021) had conceptually demonstrated that the Inglehart, Hofstede, and Schwartz models were similar based on keyword analysis.

Notably, the two-dimensional Minkov–Hofstede model aligns with geographic variables such as latitude and longitude, suggesting an “objective” basis for cultural variation (Minkov, 2025). It also replicated well across subnational regions, including the 50 U.S. states (Minkov & Kaasa, 2021b) and in Russia, specifically for the individualism dimension (Minkov, Sokolov, Ponarin, Almakaeva, and Nastina, 2023). This indicates that the new model has potential for use at the regional level, suggesting its potential application in the Nunavut context.

Despite its strengths, including parsimony and empirical rigor, the revised Minkov–Hofstede two-dimensional model has its limitations. Its reduced dimensionality may omit nuances relevant in specific cultural or organizational contexts. While Kaasa and Minkov (2022) argue that uncertainty avoidance and masculinity are artifacts of the IBM dataset and lack replicability, it remains possible that these dimensions retain contextual relevance within specific institutional settings, including large organisations composed of employed adults such as the GN.

The revised model helps explain a wide range of global societal differences and could become increasingly valuable for organisational settings. However, the present study did not adopt the revised model, as it remained under active validation and has not yet been widely adopted in applied business settings. For example, there appears to be no research relating the effects of the modified dimensions on the secondary models of organisational structure (Hofstede, Hofstede, & Minkov, 2010, p. 314), negotiation (Coene & Jacobs, 2017), and marketing (de Mooij, 2021), which are derived from the

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Hofstede model. These secondary models are discussed further in Chapter 6.

Nonetheless, Minkov's recent findings reinforce the importance of critically evaluating the Hofstede framework and avoiding overreliance on dimensions that lack universal replicability.

This new model warrants further research by testing its boundary conditions in the Nunavut context. It should be considered by the GN in future cultural general training, pending additional research on its application in organisational settings.

Inuit Qaujimajatuqangit

Although Inuit culture has not been quantified by an etic scale like those explained above, there have been many rich, emic, qualitative descriptions. This includes the essential knowledge held by the Elders and traditionally passed down through the generations following an oral tradition. This overarching Inuit traditional knowledge is termed Inuit Qaujimajatuqangit. It includes a subset of knowledge that deals with values, named Inuit Societal Values. From these Inuit Societal Values, the GN, through consultation with Elders, has chosen eight Inuit Qaujimajatuqangit (IQ) Principles.; these form our organisational values. The description of these terms is expanded upon in the terminology section of the next chapter.

The Inuit Societal Values are self-described, from interviews with Elders. The problem (but also the strength) with the self-proclaimed IQ principles is that they are subjectively described by the society members themselves. It is not fully known whether these are the actual values of a culture (descriptive) or the aspired to values (normative). There is also a need for distinction in whether these principles are desired by a person themselves or seen as desirable for the society as a whole – a value paradox.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

It should be noted that whilst “Gaps” models exist that focus on such differences in some areas of business administration, such as SERVQUAL in service quality that compares expected quality with perceived (actual) quality, the only scale that attempts to do this among those scales considered in this proposal and context is the GLOBE model which considers both normative and descriptive components of each dimension.

The following is a summary of IQ principles based on GN literature (Such as Government of Nunavut, 2019a).

- *Inuuqatigiitsiarniq* - Respecting others, relationships, and caring for people.
- *Tunnganarniq* - Fostering good spirit by being open, welcoming, and inclusive.
- *Pijitsirniq* - Serving and providing for family and community.
- *Ajiiqatigiinni* - Decision making through discussion and consensus.
- *Pilimmaksarniq* - Development of skills through practice, effort, and action.
- *Piliriqatigiinni* - Working together for a common cause.
- *Qanuqtuurniq* - Being innovative and resourceful.
- *Avatittinnik Kamatsiarniq* - Respect and care for the land, animals, and the environment.

These IQ Principles are important to the GN as guiding principles. The measured Hofstede scores are not intended to replace this important guiding framework; they are meant to be used in conjunction with this framework, allowing an attempt at an objective, or rather a quantitative, comparison with other cultures. This will aid in cultural orientation within the GN, allowing improved, culturally relevant human resource management, client service delivery, organisational design, and policy development.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Due to the importance of IQ Principles in the GN and the need for the research results to be used in conjunction with this typology, Chapter 3 will look closer at the implementation of IQ Principles within the GN. That chapter will also use these principles, along with more general Inuit Societal Values and Maligarjuaq Laws, to develop predictions of Hofstede score ranges for Inuit. These Inuit principles, values, and laws will therefore also function in the role of exploring the boundary conditions of the Hofstede model, and the scale's use for a sub-national, Indigenous (Inuit) culture.

Criticisms of Hofstede's Scale

Although Hofstede's scale is still the dominant paradigm (Parboteeah, Hoegl & Cullen, 2008), with the survey instrument, the VSM 2013 remaining the instrument of choice for studies on cultural values (Taras, Steel, & Stackhouse, 2023), there have been several criticisms of Hofstede's framework and approach over the years, which have continued to mount. Some of these appear to have been adequately defended by Hofstede (e.g., Hofstede, 2001, p. 73). Others have led to an evolution and improvement of the scale. This section will review some of the criticisms that have been lodged. Similar reviews of criticisms have been made by Medd (2010) and McSweeney (2016). Whilst this section is focused on the criticisms of the Hofstede scale, some of these criticisms are also applicable to the other scales discussed above. Two examples of criticisms discussed below that apply to the other scales, such as GLOBE and Trompenaars, include the language of the survey instrument and the presence of subnational populations (McSweeney, 2016, 2024).

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Theoretical basis

D'Iribarne (1997) noted that there was no theoretical basis for the dimensions Hofstede identified during his original analysis. This is to say, the Hofstede model is a data reductionist model, not a theoretical model; it is derived from data. This is a criticism of the model. This was echoed by Robinson (1983), who noted that Hofstede's (1980) analysis lacked prior theorizing. Punnett and Withane (1990) also observed that the value of Hofstede's approach has been questioned generally due to this lack of an adequate theoretical basis. Furthermore, Cray (2007) points out that researchers who use Hofstede's dimensions unquestioningly and atheoretically can be detrimental to international management, because the scale overly simplifies complex interactions within a culture. This view is shared by McSweeney (2016). However, this oversimplification also applies to other models discussed above, especially those with fewer dimensions, such as the modified Minkov-Hofstede model.

Original survey structure and framework construction

Similarly, due to the lack of a theoretical base, the original IBM survey questions were less than ideal. For example, some dimensions were originally calculated based on the results of the same questions, which would tend to create collinearity (Dorfman & Howell, 1988; Fernandez, Carlson, Stepina, & Nicholson, 1997; Goodstein, 1981; McSweeney, 2002). To clarify, within each dimension (factor) there are multiple questions that correlate but are not identical. However, some of the questions were used in multiple dimensions in the earlier research, but not so in the later VSM (Value Survey Module – the survey instrument) versions. This is problematic because the regression coefficients are not uniquely determined. As a result, the

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

interpretability of the scale is compromised, since the coefficients are influenced by other features and do not have a unique meaning. (Hair, Black, Babin, & Anderson, 2010).

Also, as there was no theoretical groundwork before the IBM surveys were originally administered, there was a variety of survey questions that did not relate directly to Hofstede's final constructs (Robinson, 1983; Dorfman & Howell, 1988). However, more recent versions of the Hofstede Value Survey Module have addressed these two issues.

Language of the survey instrument

D'Iribane (1997) expressed concern regarding the effect of translation on the meaning of survey questions, stressing the effect of translation of survey questions on responses, which can make some dimensions difficult to directly compare between countries. D'Iribane's main concerns were with the power-distance dimension and uncertainty avoidance dimension, and problems with the English/French translations of the respective survey questions. Raltson, Cunniff, and Gustafson (1995), meanwhile, cautioned researchers in the use of non-native language instruments. The latter can be addressed by offering the survey in the native language. The former can be minimised by back-translating to ensure accuracy (Brislin, 1970). The issue of translation is further detailed in the International Test Commission's (2017) *Guidelines for Translating and Adapting Tests*, which is more thoroughly covered in the "Translation/Cultural Equivalence Issues" of Chapter 4.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Sample size

Hofstede's original IBM surveys consisted of over 116,000 completed questionnaires from 72 countries (Hofstede, 2001, p. 2). Some researchers, such as Goodstein (1981) and McSweeney (2002), point out that for some countries, the sample size would have been insufficient to extrapolate to the national culture. Pakistan would have been an example, with only 37 questionnaires completed (Hofstede, 2001, p. 476). However, the survey results have purportedly been validated through numerous replications since the original surveys (Hofstede, 2001, p. 66), and additional studies have been completed since, adding to the number of surveys administered (including instrument version) and number of countries studied.

Sample design

Many researchers (e.g., Goodstein, 1981; Hunt, 1981; McSweeney, 2002; Robinson, 1983; Shackleton & Ali, 1990; Sivakumar & Nakata, 2001) have doubted whether employees of a single firm could accurately represent the population of a nation. This could create biases in that the informants had a higher proportion of managers and administrators from manufacturing branches and an underrepresentation of the working classes (Robinson, 1983). Also, the exclusivity of the informants from IBM could cause biases in the original IBM surveys due to employer selection effects (Robinson, 1983), and other homogenisation of IBM employees during application self-selection processes (Fernandez et al., 1997) and homogenisation during employer hiring decisions and socialization processes once hired (Shackleton & Ali, 1990). Moore (1962) had previously recognised these effects more generally as the homogenisation of the labour force.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Hofstede defends the sampling design by noting how this homogeneity removes many variables, allowing nationality to be focused on (Hofstede, 2001, p. 73) even though this could affect the validity and generalizability of the absolute values. The narrow sample is a strength as it removes some variables that would have been present if a more diverse sample were used, such as by utilising multiple organisations differing in size, sector, and profit/non-profit status. Hofstede comments that there is little benefit in comparing “Spanish nurses to Swedish policemen” (Hofstede, 2001, p. 23).

Subnational cultures

Authors such as Jaeger (1986), Shackleton and Ali (1990), Sivakumar and Nakata (2001), and McSweeney (2016) have criticized Hofstede for considering national cultures as being homogenous. For example, Canada is a multicultural nation, with an Anglo/Franco divide and a mosaic of First Nations cultures. As Canada is considered multicultural and does not have a “melting pot” mentality (Canada Country Review, 2020), it is likely that many more subnational cultures are maintained, such as in various recent immigrant groups. Canada is not an anomaly. Baskerville (2003), for example, discusses how there are at least 35 different cultures within 14 Middle East Nations; 98 unique cultures in 48 African countries, 81 cultures within 23 Western European countries, and 147 native cultures in North America (along with another nine folk cultures). Taras, Steel, and Kirkman (2016) found that 80% of the variation in cultural values can reside within countries, with just 20% variation between, which they argue shows that country is a poor proxy for culture.

Increased international mobility may also modify country-level boundaries of culture (Baskerville, 2003; Cray, 2007; McSweeney, 2002). There may also be effects

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

of acculturation among these different cultures, where a culture might be assimilated by another, usually dominant one (Berry, 1992). However, the process of acculturation is complex. Berry's model, for example, also includes other acculturation strategies such as integration, separation, and marginalization. These other processes can lead to the retention of subcultures within a country. This thread is picked up again in the "Cultural change" subsection.

However, Hofstede does not dispute this heterogeneity within any country. He uses examples such as Belgium to show how two cultures have continued to coexist since Roman occupation (Hofstede, 2001, p. 119). He also believes that the Value Survey Module could be applied at the subnational societal level (though not for use at the organisational or occupational cultural level) (Hofstede, 2001, p. 464).

Small set of dimensions/missing dimensions

Some researchers, such as Cray (2007) and Sivakumar and Nakata (2001), have criticized Hofstede's scale for having too few dimensions that can hide other important differences, either from being absent or from being hidden within the broad dimensions.

Hofstede (2001, p. 21) notes that "additional dimensions are only meaningful if they are both conceptually and statistically independent from those already available." Scales, including the Hofstede cultural scale, are not supposed to be as complex as reality if they are to be of assistance, so less is more. Hofstede (2001, p. 71) cites Miller (1956), who argued that "useful classifications should not have more than seven categories, plus or minus two" though this is a heuristic. Despite this, there have been several attempts to add additional dimensions to Hofstede's scale. The most extensive came from the GLOBE study (House et al., 2004). These attempts have often been met

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

with criticism. For example, Minkov and Blagoev (2012) found that many of the proposed extra dimensions in the GLOBE study were in fact facets of the already existing Hofstede dimensions.

The above being said, there have been two successful additions of dimensions. These were the long-term/short-term and the indulgence/restraint dimensions. Hofstede also remained open to the addition of further dimensions (Hofstede, 2017), and Minkov and Hofstede (2011) note that the success of the Hofstede scale has been due to the flexibility to change and modification.

The reverse of this criticism is also present. As discussed in the previous section, the more universal Minkov-Hofstede model removes the masculinity, uncertainty avoidance, and indulgence dimensions, with the power distance dimension being considered a facet of the individualism dimension (Minkov, 2025). Further, it is considered that this two-dimensional structure is similar across the Schwartz and Inglehart models.

Confusing descriptors of dimensions

The descriptors of the dimensions (power distance, individualism, masculinity, uncertainty avoidance, long-term orientation, and indulgence) can be confusing without a more in-depth study of what the dimensions are describing. This ambiguity has been noted by critics such as House et al. (2004). Minkov and Hofstede (2011) explain how uncertainty avoidance is not the same as risk avoidance, another example of a source of confusion for users of the scale.

More generally, there is the potential for confusion between the named dimensions of different models, though this criticism, by its nature, is not directed

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

solely at the Hofstede model. Different models have utilised the same name for dimensions that measure different things (the jingle fallacy), whilst different names have been applied to dimensions measuring similar cultural phenomena (the jangle fallacy) (Fog, 2021).

Cultural change

Sivakumar and Nakata (2001), McSweeney (2016; 2024), and Akaliyski (2023) have questioned the enduring relevance of Hofstede's cultural dimension scores, arguing that cultural values can and do change over time. Their concern is that the data derived from the original IBM surveys may no longer reflect contemporary cultural realities. Even within the five-year period during which the IBM data were collected, some variation was observed, particularly in the individualism–collectivism dimension.

Despite these concerns, Hofstede (2001, p. 36) argues that while absolute scores may shift due to external changes or modernization, the relative differences between countries remain robust. This stability is attributed to the deep-rooted nature of national cultural values, which are typically formed in early childhood and remain largely stable over time, according to Hofstede. He illustrates this with the case of Belgium and the Netherlands, neighboring countries with enduring cultural differences that trace back to the historical boundaries of the Roman Empire (Hofstede, 2001, p. 454).

Supporting Hofstede's view, Inglehart (2008) and Beugelsdijk, Maseland, and Hoorn (2015) contend that Hofstede's dimensions are stable over time when considered in relation to other countries. Beugelsdijk and Welzel (2018) further support this claim, asserting that geographic and historical factors can explain half of the variation between countries, and that national culture distances tend to persist despite absolute cultural

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

change. They acknowledge that dimensions such as individualism and indulgence do tend to increase over time, primarily due to economic development and generational shifts, but maintain that the relative rankings of countries are generally consistent. Hofstede (2001, p. 36) emphasizes this point, stating that changes in absolute values should not affect the relativity of cultural differences: there should be little to no “leapfrogging” between countries. Numerous empirical studies, including Nazim and Wajidi (2016), confirm the resilience of these relative rankings over time.

In contrast to these claims of stability, other researchers argue that cultural change over time can disrupt the relative positioning of nations. McSweeney (2024) strongly challenges Hofstede’s assertion of stability, stating that it was not supported by longitudinal evidence. He argues that Hofstede lacked sufficient data collected over consistent periods to draw such conclusions. Furthermore, McSweeney contends that external events, such as wars or mass migration, can significantly reshape national cultures. Isanski and Nowak (2024) provide an illustrative example of this, noting the major cultural shifts resulting from forced migration between Ukraine and Poland following Russia’s recent invasion.

Akaliyski (2023) adds to this critique by suggesting that shifts in the individualism dimension over the past 50 years may not have occurred in parallel across countries. As a result, country scores could be misranked when compared to those from earlier periods. While Akaliyski acknowledges that multiple factors could be responsible, he cautions against assuming the automatic preservation of relative positions over time.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

While Hofstede may not have initially possessed sufficient evidence to support his claims of cultural stability, later research has attempted to fill this gap. For instance, Beugelsdijk, Maseland, and Hoorn (2015), using World Values Survey (WVS) data across two birth cohorts, concluded that cultural differences between countries have remained broadly stable over time. They did, however, note caveats, such as the presence of age-related effects and the underlying question of whether Hofstede's dimensions are indeed valid representations of national culture today.

Acculturation can also affect cultural values. Proximal acculturation involves physical, ongoing contact that results in psychological changes (Bender & Adams, 2021, p. 5), such as the interaction of Inuit and Qablunaaq (from multiple country origins) living in Nunavut, or when Inuit move to live or study down south. However, Chen, Benet-Martínez, and Ng (2014) argue that cultural change over time may also occur due to globalisation and remote acculturation. The concept of remote acculturation was proposed by Ferguson and Bornstein (2012). This occurs through indirect and intermittent contact between geographically separated groups, facilitated by increasing technology, trade, and media. It can affect behaviours, identity, family values, intergenerational discrepancies, and parent-adolescent conflict, and can be as strong as acculturation of emigrants (Chen, Benet-Martínez, & Ng, 2014). This will also be happening in Nunavut and for Inuit due to online activities, media, and increasing tourism.

The subject of acculturation is complex. Research in the area more than doubled between the 1990s and 2000s (Sam & Ward, 2021, p. 17). Various models have been proposed, which are beyond the scope of this dissertation, but could be an interesting

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

research topic for Nunavut, especially if there was an interested Inuk researcher who could provide their cultural lens to the research questions.

Individual dimensions

Hofstede has also been criticized for assuming that the dimensions are equally relevant to all societies. Cray (2007) suggested that this may not be the case.

McSweeney (2002) notes how the uncertainty avoidance dimension has not been shown to be relevant to all national cultures. Additionally, Redpath and Nielsen (1997) concluded that the long-term/short-term dimension is not particularly useful for understanding the cultural values of Aboriginal organisations or societies in North America. There is cultural diversity among the various First Nations groups in North America (Medd, 2010), so dimensions that may not be relevant to some Indigenous groups may still be relevant for others, including Inuit.

Yeh and Lawrence (1995) believed that the long-term/short-term orientation and the individualism/collectivism dimension are, in fact, highly correlated and should not be used in their current forms. More recently, various authors have obtained empirical data that suggest there appear to be just two universally valid dimensions among the six in the Hofstede model, as discussed in the last section. These include individualism-collectivism (which encompasses low and high-power distance) and long-term orientation. The other three dimensions (uncertainty avoidance, masculinity, and indulgence) did not replicate well with other samples. This has resulted in a modified model, named the Minkov-Hofstede model.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Levels of culture

National culture is not the only level of culture that affects outcomes (McSweeney, 2016). Other levels of culture, such as occupational/professional, organisational, subnational, and supra-regional cultures, can also play a part (McSweeney, 2002; 2024). Cray (2007) also noted that Hofstede's approach largely ignores the potential for interactions between national and organisational culture. Taras et al. (2016) found that demographic groupings such as occupation and socioeconomic status were better than country borders in capturing similarities in values between people.

Hofstede, however, does not dispute that there are societal cultures at multiple levels – including supra-regional and sub-national. Hofstede even suggests that the Value Survey Module could be implemented at these levels (Hofstede, 2001, p. 464). However, Hofstede stresses that the National 6-D scale and associated Value Survey Module should not be implemented at the organisation or professional level. Hofstede has developed an alternate organisational culture dimension scale for these levels (Hofstede, 2017).

Hofstede is also clear that the dimensions measured with the model, and the VSM 2013, are not isomorphic; these dimensions are culture-level constructs, not to be confused with individuals. This is an issue because it limits the number of statistical tests that can be carried out, such as Cronbach's alpha.

Indices and behaviour

Some researchers, such as Ralston, Cunniff, and Gustafson, (1995) and Dorfman and Howell (1988) considered that Hofstede's societal level values would be less

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

applicable at the micro level, useful for management purposes. Other researchers, such as Cray and Mallory (1998) and Cray (2007), were concerned that values-based approaches generally ignore the gap between values and behaviour.

It seems that with the former, personality tests exist that can assist this micro-level management. However, this is one weakness of the Hofstede model, in that the constructs are at the group, cultural level. The constructs are not isomorphic; they do not have a similar structure at the individual level. This contrasts with other models, such as the revised Minkov-Hofstede and its two dimensions.

Regarding the latter, it seems that Hofstede's survey question design, especially the later versions (such as Hofstede & Minkov, 2013), make great effort in focusing on actual values/behaviours of the individuals rather than those of others that the individual interacts with, avoiding a value paradox. Similarly, there is an emphasis on actual behaviours (descriptive) rather than behaviours aspired to (normative) (Hofstede, Hofstede, & Minkov, 2010, p. 28).

Defense of the Hofstede Scale

This section outlines the strength of the Hofstede scale, which, in addition to the comments to criticisms in the previous section, acts as a defense of using the Hofstede Scale in the current research.

Like the fierce intellectual battles for the "King of the Castle" that was metaphorized by Martin, Frost, and O'Neill (2004) in their discussion of the structure of organisational culture, there has been much contention over the Hofstede and other competing scales, such as with GLOBE and the modified Minkov-Hofstede model.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

This has been a healthy conflict that has enabled readers to evaluate the relevance of the Hofstede scale more critically in the context of proposed research. From reading the critics and defences and having begun to look more in depth at other scales, including GLOBE and the Minkov-Hofstede model, it was still concluded that the Hofstede scale, and measuring the six dimensions, would at that time be useful for the GN and other Nunavut organisations such as in cross-cultural training; culturally relevant leadership, management, and policy development; and intercultural interactions with other nations (or societies). There is an extensive body of knowledge that has investigated how differences in the dimension scores affect these topics, as summarised in Hofstede (2001) and Hofstede, Hofstede, and Minkov (2010), which will be applied to the Inuit culture once the Hofstede dimension scores are determined.

Since the 1970s, numerous studies have examined the influence and popularity of the Hofstede scale. The Hofstede scale was still the best-known and most widely used framework in comparative management literature toward the end of the last century (Dorfman & Howell, 1988; Fernandez et al., 1997). Hofstede's framework has had a far greater impact on comparative management research than older frameworks such as Rokeach, Trompenaars, and Schwartz (Medd, 2010) with the survey instrument, the VSM 2013, remaining the instrument of choice for studies on cultural values (Taras, Steel, & Stackhouse, 2023). It seems able to currently stand up to the GLOBE scale, although the Minkov-Hofstede model is more parsimonious and universal in application.

The benefits of the Hofstede scale include its clarity, simplicity, and appeal to managers (Cray, 2007; Kirkman, Lowe, & Gibson, 2006; Punnett & Withane, 1990).

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Business researchers were increasingly using Hofstede's framework (Sivakumar & Nakata, 2001). This still seems to be the case despite the challenge by the GLOBE (and Minkov-Hofstede) scales. For example, Zainuddin, Yasin, Arif, and Abdul Hamid (2018) note that the Hofstede scale has been used to measure its cultural dimensions for all European Union countries, which was not the case for GLOBE. Also, Zainuddin et al. (2018) note that the Hofstede scale has fewer dimensions than the GLOBE scale, simplifying its structure and, more importantly, these dimensions are statistically distinct. GLOBE's nine (times two) dimensions have high intercorrelation, which leads to multicollinearity problems (Laskovaia, Shirokova & Morris, 2017), though this is more of a statistical issue than an effect of practical use or interpretation.

Several citation studies conducted on Hofstede's work show the dominance of the Hofstede paradigm. For example, Søndergaard (1994) found that Hofstede's work was the most widely cited in the field at that time. Søndergaard (1994) also found that the four original Hofstede dimensions have been confirmed through replications by other researchers. The Hofstede scale was still the most widely established and used in the international business literature, with the dimensions becoming the standard tool for measuring and comparing cultures (Breuer, Ghufraan & Salzmann, 2018).

Baskerville (2003) specifically analysed the citation of *Culture's Consequences* (Hofstede, 1980) and found that the book was cited most frequently in the management and psychology fields and dominates the field of cross-cultural management.

Cray (2007) conducted a citation analysis in four top management journals for those articles that contained the word "culture" or a derivative in the title or abstract. Seventy-eight percent of the articles contained at least one citation to one of Hofstede's

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

works. Cray (2007) further compared the frequency of Hofstede citations to five other top authors in the field (which included Schwartz, Trompenaars, and Triandis) and found that Hofstede was cited more frequently than the other five authors combined. Hofstede's scale is also typically mentioned when describing culture in international business and marketing textbooks, such as Mead (2005).

More recently, Søndergaard (2024) has further analysed the citation frequency for Hofstede and the change in this frequency with time. He demonstrated this using a graph, showing that the frequency continued to increase until 2019-2021 and then dropped off by approximately 20%, with the most recent data point being around 2022. However, he does not discuss the reason for this drop. It is feasible that this drop could partly be due to COVID lockdowns, which have been shown to have affected at least some research areas (e.g., Pariafsai, Dixit, & Fields, 2023; Pebdani, Zeidan, Low, & Baillie, 2023).

Kirkman et al. (2006) concluded that the large-scale studies since *Culture's Consequences* (Hofstede, 1980) first appeared have overall confirmed (sustained and amplified) rather than contradicted Hofstede's conclusions. However, criticism of the model has continued to increase in recent years, as was discussed in the previous two sections.

Although Johnson and Lenartowicz (1998) suggested that more research was needed to be conducted to determine how Hofstede dimensions may change over time, along with more current measurements, Hofstede (2001) has argued that the dimensions are stable over very long periods of times, with the most notable exception being individualism/collectivism which seems to be affected by economic development

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

(Hofstede, 2001, p. 254). This, however, has been contested by others, as discussed in the last two sections.

Inuit may be interested in looking at changes over time across all dimensions. Measuring differences between Elders and younger generations could show, for example, the impact of residential schooling, where students were taken out of their communities during the critical period of development of cultural values. This insight could also be utilized to enhance and refine office culture and client service delivery to better align with a multigenerational workforce and/or client base.

When the Hofstede IBM study was published in 1980, it was by far the largest study into cultural differences that had been conducted. Although the GLOBE project studied 62 countries, the Trompenaars' surveys more than 50, the Minkov-Hofstede model based on 56 countries and the Schwartz on 82 countries, similar to the number of countries studied by Hofstede in the 1980 study. There have also been extensions of the Hofstede application, which now numbers 130 nations and the other models. Over time, the original advantage of being able to compare with more countries has diminished, especially as international databases, such as the World Value Survey, have increased access to country-level data.

A model cannot be chosen just for its popularity, however, and a decision in the past may not hold today. Future research could explore the use of other models and, more importantly, include a stronger emic component.

Critique of the VSM2013 Survey Instrument

The questionnaire itself is subject to critique, with the VSM 2013 being the most recent version of the survey tool designed to measure Hofstede's dimensions of national

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

(or societal) culture. The subsequent analysis and critique are based on the actual survey instrument and the Values Survey Module 2013 Manual (Hofstede & Minkov, 2013), drawing on the works of Wilson (2014) and Churchill (1979).

- Random error is reduced by having a simple format with clear options. This also applies to the VSM2013; this is a positive as it improves accuracy. However, this could have been confirmed to be true for both Inuit and non-Inuit with the use of focus groups.

- Systematic error could be present for Inuit culture due to social desirability bias on some questions. For example, Question 13 asks how important “doing a service to a friend” is. Service to community and family is one of the espoused Inuit Qaujimajatuqangit principles (Inuit Societal Values). This is a negative because it could cause differential item functioning (DIF) between the two groups, masking the actual cultural impact. This being said, Q13 was not flagged by DIF analysis, as discussed in Chapter 6.

- There has been some effort to reduce “tick syndrome” by reversing the order of Q 20 (5 is “always”, rather than “never”). However, reverse orders introduce their own problems where a respondent may not notice the reversed order (Wilson, 2014, p. 165). This is therefore both negative and positive. A better approach could have been to reverse code half of the questions. This would have added the benefits of allowing checking for any net acquiescence response biases, as discussed in the “Response bias” subsection of Chapter 4.

- The VSM 2013 is a module, so that the core questions remain the same for each survey (comparability), but locally relevant items can be added. This is a positive, but

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

for this study, it was deemed necessary to keep the questionnaire short to aid in obtaining adequate responses. This would have been a more rigorous study if an emic approach had been added, including having open-ended qualitative questions. A future iterative emic study would be a suggestion for future research, ideally by an Inuk to add a cultural lens to the research.

- Cronbach's alphas have been calculated for the original four dimensions. All were over 0.700 (0.715 to 0.842) (Hofstede & Minkov, 2013, p. 10), which is the rule of thumb for reliability (Hair et al., 2010). This is a positive as it suggests internal reliability. However, the alphas in the current research suggest very low reliability for both groups. It is essential to note that these items attempt to measure a cultural phenomenon observed across multiple countries. This cannot be expected to hold at the individual level within or across a few countries, including in the current study; the instrument is not isomorphic across two levels. However, other researchers, for example, Gerlach and Eriksson (2021) and Taras, Steel, and Stackhouse (2023), did complete mult-country studies and still found low values for alpha, suggesting low reliability. This is a negative as it suggests low reliability of the most recent VSM 2013 version used in the current study.

- Each of the six constructs (dimensions) is measured by more than one question, four each, which is a positive. It could be argued, however, as above, that these items lack internal reliability. There could also be an argument that more items would increase the accuracy of measuring a dimension. For example, Pallant (2020, p. 8) states that when there is a small number of items for each construct, i.e., less than 10 (the VSM 2013 has only four items per construct), then Cronbach's alphas can be pretty small.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Further, the author recommends calculating and reporting the mean interitem correlation for the items instead, which was completed and reported on in the current research.

Additionally, if there were more items per construct, there would be a greater likelihood that the breadth of the dimension is being captured.

- An analysis of variance on the dimension scores shows a significant country/nation effect, which is positive, as it shows the validity of the model at the country/nation level.
- The mean country scores for each dimension are uncorrelated, i.e., they are separate dimensions/constructs, not part of the same phenomenon. This is a positive as it strengthens the validity of each dimension, that the scores are measuring complete constructs; however, this has been challenged by other researchers such as Minkov et al (2017), who consider the power distance dimension to be a logical facet of individualism. Correlated dimensions also lead to multicollinearity problems (Laskovaia, Shirokova & Morris, 2017), though this is more of a statistical issue than an effect of practical use or interpretation.
- Although a perfect, universal instrument across all populations/cultures is not achievable, replication studies have proven validity of many of the dimensions – either all or most, varying by study. This is a positive; however, this view is not shared by all researchers, such as Beugelsdijk and Welzel (2018). Minkov (2025) summarises that there are only two truly universal dimensions that replicate across the general population, which are similar to Hofstede's dimensions of individualism and long-term orientation.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

- Face validity may be an issue with translations. The translations available on the Hofstede website may not have been validated. The VSM 2013 was translated into Inuktitut, Inuinnaqtun, and French for this research. However, only four Inuktitut versions were utilised (and only two were screened into the matched Inuk sample). No one used the Inuinnaqtun version. The Quebec French version was filled by twelve respondents (with only four screening into the matched, non-Inuit sample). Regardless of the low use of the non-English versions, it was important that the questionnaire be available in all four official languages out of respect for the four official Nunavut languages. It should be noted, however, that the back translation could have been conducted more rigorously, as detailed by the International Test Commission (2017)'s *Guidelines for Translating and Adapting Tests*, as discussed in Chapter 4. This document details a methodology in which a committee is involved in both the forward translation and the back translation to confirm the accuracy of the translation. This lack of rigor is a negative, as errors could cause DIF between language versions. This would have been a more significant issue if more of these language versions were used.
- The English wording of the questions appears to possess the six desirable characteristics: useful, focused/single, brief, non-ambiguous, non-technical, and grammatically simple. This improves response accuracy and is less likely to result in DIF between groups. However, this could have been confirmed more rigorously by pre-testing or using focus groups to evaluate, as outlined in the International Test Commission's 2017 document. This lack of rigour is a negative.
- There appears to be good question ordering. The questions seem to get more complicated toward the end of the questionnaire, for example, Qs 21-24 ask for the

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

extent of agreement, which requires more thinking. This is a positive as it encourages completion of the questionnaire.

- The potentially sensitive (demographic) questions are at the end, which aids in completion. However, the sensitivity of the questions to both populations (Inuk and southern Canadian) could have been pretested with focus groups, following the International Test Commission's guidelines. This lack of rigor is a negative.

- The questionnaire is short, so it is more likely to be completed. There are 33 questions in all. This is a positive. Alternative longer questionnaires could have been used, including the addition of qualitative open-ended questions. However, this would have resulted in a lower uptake of starting and completing the questionnaire. Keeping the questionnaire short in this study was considered essential, where obtaining adequate sample sizes was a concern.

- The iterations of the VSM versions appear to have followed Churchill's (1979) guidelines and arguably are still in the process as Hofstede remained open to further dimensions, though some have criticized Hofstede for a lack of theory underlying the measure (D'Iribarne, 1997; Punnett & Withane, 1990; Robinson, 1983). Norms have been developed in that formulas have been constructed so that the dimension measures fall between 0 and 100. Though comparisons across individual countries are of importance. This is partly a positive, though newer studies may result in values outside of this range. There is also a negative side in that it adds complexity to the equations for each dimension, rather than relying on simple means.

- The VSM 2013 uses a 5-point Likert scale, which is an odd number (allowing the possibility of a neutral response) and falls within the recommended range of 5 to 9

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

(Cox, 1980). This is a positive, though there are arguments to increase the number of Likert points to improve accuracy and reduce the likelihood of some forms of response style bias.

- The VSM 2013 manual recommends a sample size of 50 respondents, and no smaller than 20 for fully matched samples, though this is a heuristic sample size that may not be empirically based. These sample sizes may appear small, but they are the minimums that Hofstede recommends. This research aimed for a much higher sample size in each group as this would more accurately reflect the two populations, and M. Minkov (personal communication, April 9, 2021) recommends aiming for 100-200 (again a heuristic) for populations that have at least grade 12 education, which is true for most if not all GN employees. Sample size requirements are discussed in more detail in Chapter 4, though $n = 64$ for each matched group is considered too small for some of the dimensions when Cohen's d values are calculated. This is a negative as it reduces both accuracy and the ability to do specific statistical tests such as looking for differential item functioning and performing factor analysis.

- The VSM 2013 is not isomorphic. It is not usable at the individual level, so many standard statistical techniques are restricted. This is a negative, as, for example, the issue with internal reliability analysis discussed previously. This is in contrast to newer instruments such as the CVSCALE (Yoo et al, 2011), which has had further psychometric validation at the individual level (Dhingra, Srivastava, and Srivastava, 2024). Furthermore, the revised Minkov-Hofstede model has constructs that show both group-level and individual-level internal reliability/factor structure (Minkov et al., 2023).

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

- The VSM 2013 has not been used with Inuit in Nunavut before. There could have been cultural differences in response styles, for example. However, no significant differences were found for those styles that could be compared in this study. There may also have been differential item function (DIF) due to culture, which this study did flag, though with low certainty due to sample sizes, even with the larger unmatched sample sizes of $n = 222$ for Inuit and $n = 244$ for non-Inuit, which also retains the potential confounding demographic differences. The risk of DIF could have been reduced by pretesting with focus groups to confirm the cultural convergence of item meanings.
- Construct validity could also be an issue with the VSM 2013. This could have been investigated by utilising experts, Inuit themselves, to critically evaluate the face and content validity following a similar methodology used by Taras et al (2023, p. 2).

Research Gaps in the Literature

Although Hofstede dimensions have been measured for many countries around the world (Hofstede, 2017), there has been sparse research measuring Hofstede dimension scores for subnational cultures. This is despite Hofstede's assertions that the scale would be applicable to societal cultures at the subnational level (Hofstede, 2001, p. 464). Medd (2010) noted that there were some predictions in the Canadian management literature regarding Hofstede dimensions for some Aboriginal and non-Aboriginal groups, but no measured scores. Medd's (2010) research administered the Hofstede Value Survey Scale (VSM) to Algonquin and Athabaskan Aboriginal groups, showing some differences in the indices between these groups, as discussed in Chapter 3. However, Medd (2010) did not anchor these surveys with countries present in the original IBM surveys, so the relative scores cannot be used outside of his specific study.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

They are still discussed in Chapter 6, with the caution that they would be an imperfect comparison with this research data, as they are from different Indigenous groups, different organisations, and from over ten years ago. There has been no published research into measuring or subjectively estimating the Hofstede indices for Inuit.

Therefore, as stated in Chapter 1, there are two goals of this research. The first is to determine whether the Hofstede Scale might be applicable to a subnational culture, and Inuit in particular, a test of its boundary conditions. The results of the study are compared to the emic cultural descriptions found in IQ Principles, Inuit Societal Values, and Maligarjuaq Laws. This research also extends past research, which has both developed the Hofstede scale and applied that scale to over one hundred other cultures around the world (Hofstede, 2017). The comparison with other “Canada” studies and the Algonquin and Athabaskan Aboriginal groups (Medd, 2010), which also measured southern Canada scores, is also interesting.

The results of this research allow the Inuit culture to be placed within this mosaic, or framework, of society-level cultures within the Hofstede model. This allows greater insight into how Inuit culture varies from other cultures around the world, which can lead to improved interaction and avoidance of misunderstandings. However, it needs to be realised that the ranking of countries along each dimension may have changed over time, i.e., relatively rather than just absolutely, as more extensively discussed in the section on “Cultural change” subsection above.

Regardless, newcomers to Nunavut can use these approximate rankings to gain insight into potential differences and better match their actions to Inuit workplace and client preferences. Indeed, Inuit workplace preferences – with emphasis on respect,

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

relationships, inclusivity, service, discussion/consensus, training, teamwork, innovation, and care for the environment (covered by the eight IQ principles) are all topics and areas of improvement that would be beneficial in organisations elsewhere in the world, including southern Canada.

As the GLOBE scale also uses a survey methodology, this survey scale was considered as well, in addition to the Hofstede survey. However, it was considered risky in that the questionnaire distributed would become lengthy, which could have had a detrimental effect on the reliability of responses to later questions, because respondents could have experienced survey fatigue (Browne & Keeley, 2015, p. 116).

Any research looking at determining cultural attributes based on existing scales, such as Hofstede's, should be mindful that there may be other dimensions not currently captured, like when Hofstede's fifth dimension (long-term/short-term orientation) was added. This fifth dimension was developed when Michael Bond asked Chinese colleagues to develop a list of values, which addressed the prior Western research bias (Hofstede, 2001, p. 351). However, conducting a similar exercise based on Inuit perspectives through an emic approach, such as using a lexicological method discussed by Cheung, van de Vijver, and Leong (2011), was beyond the scope of the current research but would be a valuable iterative study.

In addition to the possibility of other dimensions, several authors believe that six dimensions are too many, as noted by Beugelsdijk and Welzel (2018) and Minkov (2025), discussed previously.

MEASURING AND USING THE HOFSTEDÉ DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Chapter Summary

This chapter has reviewed seven cultural scales (Hofstede, Rokeach, Trompenaars and Hampden-Turner, Schwartz, GLOBE, Inglehart-Welzel, and Minkov-Hofstede), along with Inuit Qaujimagatuqangit. While acknowledging the criticisms of the Hofstede model and more recent development of alternate models (such as GLOBE and Minkov-Hofstede), the chapter concluded that the Hofstede scale was the best scale to use for the research at the time due to its robustness, the fact that the dimension values can be compared to the 130 country cultures that are already embedded in the Hofstede framework, and its use in secondary models of organisational structure, negotiation, and marketing, as utilised in Chapter 6. Despite critiques of its nation-centered approach, Hofstede's framework remains widely used in social sciences due to its empirical (though questioned) foundation and adaptability to various disciplines (such as Chang & Wu, 2023; Huang et al., 2024; Lajnef & Ellouz, 2024; Noorbehbahani & Salehi, 2021). Hofstede's cultural dimensions theory provides a framework for understanding cultural differences in cross-cultural contexts.

The chapter discussed how the research filled a knowledge gap in two ways. First, the use of the Hofstede scale for a subnational Indigenous, specifically Inuit, culture was explored by testing the boundary conditions in the Nunavut context with the help of Inuit knowledge contained in documented Inuit Societal Values, IQ Principles, and Maligarjuaq Laws. Further, the actual Hofstede scores for Inuit culture were determined and placed within the existing Hofstede framework, acknowledging the mounting criticisms of the model and methodological weaknesses. Knowing these relative scores, they will be used to discuss possible implications for policy

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

development, particularly in human resources, including cross-cultural training and organisational development in Chapter 6. The scores were determined by a methodology detailed in Chapter 4, referred to as the Hofstede method. Next, however, Inuit Societal Values, IQ principles, and Maligarjuaq Laws will be discussed and used in developing the predictions for the Inuit Hofstede scores.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Chapter 3. Inuit Societal Values, Inuit Qaujimajatuqangit Principles, and Maligarjuaq Laws

Chapter Introduction

The Canadian territory of Nunavut (“Our Land”) was officially created through the Nunavut Land Claim Agreement (NLCA) between the federal government and the Inuit of Nunavut in 1999 (Griebel, 2014). Since creation, the Government of Nunavut (GN) and other institutions of public governance have been striving to integrate Inuit Qaujimajatuqangit (Inuit traditional knowledge) into their operations, institutions, and policies (Lévesque, 2014). The GN has adopted eight Inuit Qaujimajatuqangit (IQ) principles intended to help guide GN decision-making and practices.

After a brief overview of terminology, this chapter begins by discussing the business reasons why IQ principles are being implemented in the workplace, how they are being implemented, and the effectiveness of implementation.

The relevance of this chapter is that the IQ Principles, and more generally, Inuit Societal Values and Maligarjuaq Laws, are used to predict the Hofstede score ranges measured. The results of the quantitative Hofstede measurements and the qualitative IQ Principles/Inuit Societal Values/Maligarjuaq will then be compared for compatibility, showing whether the Hofstede scale is relevant in a subnational, Indigenous, specifically Inuit, cultural context and/or whether the stated values are descriptive or normative.

IQ Principles are also important to the GN. The Hofstede scores measured in this research will complement these principles, allowing further understanding of cultural differences and allowing uses including in human resource management, organisational design, and policy development.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Terminology

Inuit Qaujimajatuqangit (IQ)

Inuit Qaujimajatuqangit can be translated as “Inuit knowledge already acquired that is still relevant today.” (Lévesque, 2014, p. 116). It is therefore a very broad term reflecting traditional knowledge of the Inuit peoples. (Karetak, Tester, & Tagalik, 2017).

Inuit Societal Values (ISVs)

Inuit Societal Values are a subset of Inuit Qaujimajatuqangit. As indicated by the term, the focus is on values – of how Inuit believe Inuit should live. Inuit Societal Values is an epistemology or theory of knowledge. Arnakak (2000) discusses how Inuit Societal Values draw on traditional knowledge of how Inuit live as a people to create healthy, sustainable communities. These values allowed Inuit to survive in one of the most extreme and barren environments on the planet. Inuit Societal Values were a way to rationalize thought and action of the traditional Inuit family-kinship model. Inuit Societal Values were originally transmitted orally between generations, rather than through texts.

Arnakak (2000) grouped these values under social and familial obligations, practical obligations, and ethical obligations. These are listed later in this chapter, where they are used to form predictions for score ranges for each of the Hofstede dimensions determined from the research, hence helping to explore the boundary conditions for the scale’s use in this context.

Inuit Qaujimajatuqangit (IQ) Principles

These are the eight specific Inuit societal values that have been formally adopted by the GN as guiding principles, or organizational values (Government of Nunavut,

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

2019a). The specific eight principles were decided upon based on relevance to an organisational setting and in consultation with Elders. The eight principles, and their English descriptions, will be discussed later in this chapter where they will be used (along with the Inuit Societal Values and Maligarjuaq Laws) to form predictions for the Hofstede score ranges determined from the research, and hence acting to help explore the boundary conditions for the Hofstede scale's use in this context.

Traditional Ecological Knowledge (TEK)

Traditional Ecological Knowledge (TEK) is another term that often appears in research literature. As its name implies, this is traditional knowledge that is specific to ecological or environmental aspects (Wenzel, 2004). Inuit Qaujimajatuqangit includes TEK; however, TEK is absent from the specific eight IQ principles adopted by the GN as guiding principles. TEK is, however, utilised within specific GN, such as the Division of Wildlife Management. Even though TEK may be directly absent from the IQ principles, Tunnganarniq more broadly includes a respect for all living things.

Maligarjuaq Laws

These are four main cultural laws, or rather, ethical commitments or principles. A literal translation of the Inuktitut word Maligarjuaq is “big things that must be followed” (Karetak, Tester, & Tagalik, 2017, p. 40). The four Maligarjuaq Laws are listed later in this chapter and discussed in relation to predicted Hofstede score ranges.

Implementation of IQ Principles Within the GN

Why IQ Principles are being implemented in the GN workplace

IQ principles are being implemented in the GN workspace to create an organisation more representative of Inuit culture, recognising that Nunavut's population

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

is composed of 85% Inuit. Having an organisation that is more representative of Inuit culture should provide better, culturally relevant service delivery to Nunavut's population, whilst also creating a working environment that is more desirable to Inuit themselves, remembering that a goal of the GN is to reach the same 85% Inuit representation in its workforce, whilst it was at 52.6% at the time of the survey (Government of Nunavut, 2023).

A service delivery model based on Inuit culture will create value to the served public (and Inuit employees), similar to the manner discussed by Ravasi, Rindova, and Dalpiaz (2012) – even though those authors focused on the cultural side of value creation in the private sector, rather than public. Further, the IQ principles reflect several contemporary management/leadership thoughts. For example, corporate social responsibility is encapsulated in the IQ principles of Pijitsirniq (serving and providing for family and/or community) and Avatittinnik Kamatsiarniq (respect and care for the land, animals, and the environment). Another example is the relevance to the concept of servant leadership of the IQ principle Pijitsirniq. While inclusive leadership (Wuffli, 2016) is stressed through the IQ principles of Inuuqatigiitsiarniq (respecting others, relationships, and caring for people), Tunnganarniq (fostering good spirit by being open, welcoming, and inclusive), Aajiiqatigiinni (decision making through discussion and consensus), and Ikajuqtigiinni (working together for a common cause). IQ principles could be used to show other cultures how to excel in areas such as collaboration, teamwork, and empowerment, acting as a gold standard.

Implementation of IQ principles within the GN also reflects the aspirations of Inuit, as detailed in articles 23 and 32 of the Nunavut Land Claim Agreement

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

(Government of Nunavut, 1993), to create a workplace and service environment in the GN that incorporates Inuit societal values in order to provide an effective and excellent public service that is grounded in the ethics and philosophy of Inuit, including the four Maligarjuaq Laws (Karetak, et al., 2017).

Implementing Article 23 of the Nunavut Land Claim Agreement also brings cost benefits to the GN and the territory (PriceWaterhouseCoopers, 2003). Increasing Inuit representation reduces the need to recruit southern employees who have additional recruitment costs, such as search agency and relocation expenses. Increasing Inuit employment also decreases the level of Inuit unemployment in the territory, reducing welfare costs and the demand on public housing.

How IQ principles are being implemented in the GN workplace

Eight specific IQ principles have been formally adopted as GN guiding principles. This has been the first step in incorporating these values into the workplace. These principles are detailed in GN discourse, such as on the GN website (Government of Nunavut, 2019a) and in posters that are displayed in GN offices.

Further, these principles are referenced in discourse from individual departments and divisions within the GN organisation and the legislative assembly. For example, *Request for Decision* documents that are placed before cabinet to outline options are encouraged to reference IQ principles where relevant to justify recommendations and decisions. IQ principles are also discussed prior to staff meetings in some offices to set the tone of group discussions.

To assist in the implementation of IQ principles and Inuit societal values in the workplace, the Inuit Qaujimajatuqangit Branch within the Department of Culture and

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Heritage has been formed. The Inuit Qaujimagatuqangit Division coordinates the development of Inuit Qaujimagatuqangit and Inuit societal value initiatives across government.

Two GN Human Resource Manual policies specifically address Inuit Qaujimagatuqangit. The two policies are the *Inuit Qaujimagatuqangit Policy* (Government of Nunavut, 2019c) and the *Cultural Immersion Day Policy* (Government of Nunavut, 2019d).

The first policy details how IQ principles should be used in communication, leadership, facilitating meetings, cross-cultural awareness, interacting with the public, language, professional development, and teamwork. The second policy promotes the equivalence of two days of cultural immersion through Inuit cultural/traditional activities, often on the land (i.e., out on the tundra or sea ice), to provide a greater understanding of Inuit societal values and languages, which can help employees better understand the needs and aspirations of the public.

New employees are socialised to the IQ principles through constant exposure to them in GN discourse. Employee orientation training (a one-day event) includes a discussion of Inuit Qaujimagatuqangit (Government of Nunavut, 2019e). There is also a more specific cultural orientation (one-day event) that focuses on IQ principles, traditional knowledge, traditional responsibilities, and relationship to the environment (Government of Nunavut, 2019f).

Further development of cultural awareness and understanding of IQ principles and Inuit societal values is achieved during leadership training programs (Hivuliqtikhanut Leadership Development Series) aimed at emerging leaders,

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

supervisors, and senior managers. This development program utilises a leadership competency model grounded in Inuit societal values (Government of Nunavut, 2019g). More specific Indigenous cultural competency training is delivered to some staff regarding truth and reconciliation to help deal with the impact of past residential school experiences (Government of Nunavut, 2019h).

In addition to formal training courses, the GN also runs a voluntary mentorship program where mentees and mentors are matched based on stated needs and stated expertise. One subject area that can be requested/offered is mentoring in Inuit societal values to better function in a cross-cultural environment (Government of Nunavut, 2019i). Cultural immersion days, available to all staff, are also carried out, as mentioned above. Some offices also hold periodic (approximately monthly) IQ sessions, lasting a couple of hours, during which Inuit cultural practices, language, and values are discussed.

At the legislative level, an external body, Inuit Qaujimajatuqangit Katimajit, has been formed to provide advice and assistance with Inuit Qaujimajatuqangit initiatives within the government departments. “Working with the interdepartmental Tuttarviit, the Katimajit assists in government efforts to achieve an Inuit Qaujimajatuqangit approach in its service delivery and day-to-day operations.” (Legislative Assembly of Nunavut, 2015, p. 1). The Tuttarviit committee is composed of deputy ministers from each department.

Successes and limitations of implementing IQ Principles and Inuit Societal Values within the GN

As detailed above, the GN has made great efforts in implementing IQ principles

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

within the organisation through policies, training, and structures. There have been some recognised deficiencies in the functioning of the Inuit Qaujimajatuqangit Katimajit and Tuttarviit committees, and their creation of an Inuit Qaujimajatuqangit Strategy, which is being addressed through the implementation of four recommendations from the Standing Committee on Oversight of Government Operations and Public Accounts. (Legislative Assembly of Nunavut, 2015).

One hindrance to fully implementing IQ principles in the workplace is the fact that the GN is still a long way from the goal of proportional Inuit representation. As stated above, this was still at 52.6% compared with a goal of 85% at the time of the survey (Government of Nunavut, 2023). The situation is more dire when one considers the varying proportion of Inuit in different employment classifications within the organisation. Whilst employees classified as administrative support had reached the 85% level (85.9%) and paraprofessionals were at 63.4%, other employee classifications were below 50%: Senior Management was only at 25%, Middle Management at 30.8%, professional at 32.3% and Executive at 45% (Government of Nunavut, 2023).

Creating an organisational culture that is reflective of Inuit societal values is more difficult when the number of Inuit is low, especially in leadership positions. It is also harder to hire and retain Inuit under these circumstances. Societal cultural values are deeply held personal values that are difficult to change, though greater acknowledgement of differences can assist in intercultural communication and adaptation by non-Inuit employees. This is one business area that the research addresses: increasing the knowledge regarding cultural differences.

Tester and Irniq (2008) question whether Inuit Qaujimajatuqangit can ever truly

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

be implemented in the management and development of Nunavut, where Inuit Qaujimajatuqangit challenges characteristic assumptions of western science such as the separation of humans from other forms of life. Similarly, the Maligarjuaq Laws can be difficult to implement in an office environment, where they focus on respect all forms of life (Karetak, et al., 2017). Griebel (2014) talks about how challenging it is to boil down Inuit societal values into just eight core Inuit Qaujimajatuqangit principles. The difficulty lies in trying to fit complex and rich cultural values into a simple set of rules and values meant for practical use. Some Inuit also criticize the eight IQ principles chosen because they have been removed from the broader cultural context that gives them meaning (Griebel, 2014), Inuit Qaujimajatuqangit being a holistic concept that includes spiritual as well as factual knowledge (Tester & Irniq, 2008) that cannot be divided into pieces (Karetak, Tester, & Tagalik, 2017).

Inuit Qaujimajatuqangit and Inuit Societal Values have evolved for peoples that have a close connection to the land and have, until recently, lived in small family-based structures. Large bureaucratic organizations are likely to experience conflicting cultural values at the industry/sector culture and occupational/professional culture levels through the process of institutionalisation.

Doucette (2003), however, outlines successes in incorporating IQ principles into library services and programs at Nunavut Arctic College, achieved through discussions with staff members and students for input. This is despite western-style formal education through institutions being vastly different from traditional knowledge transfer through immediate and extended family units. Inuit culture has an oral tradition of knowledge transmission whilst Western knowledge is more text-based. Ayres (2012) also

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

documents how the new Nunavut education system is incorporating IQ traditional Inuit knowledge, a shift from the former Northwest Territories system of education and pedagogy that was adopted primarily from the Province of Alberta.

Conversely, Lokacheva (2007), through interviews with residents, found that modern institutions of governance have been affected minimally by traditional Inuit structures, values, and ways of decision making. Griebel (2014) also mentions how some departments within the GN have been more active and successful in developing and implementing IQ-related policies than others. Differences could be due to leadership, Inuit representation, and business area: The Department of (at the time named) Culture, Language, Elders, and Youth having the most success, perhaps obviously.

Levesque (2014) admits that Inuit Qaujimagatunangit has still relatively limited influence within the GN; however, he believes that it has the potential, in the long run, to reshape Nunavut institutions and make them more representative of Inuit culture. Levesque argues that Inuit Qaujimagatunangit is not a practice of resistance to colonial order but a way for Inuit to assume control and adapt their institutions.

Improving cultural orientation within the GN

The above discussion has provided an overview of why and how the GN is endeavouring to implement IQ principles, and more generally, Inuit societal values into the workplace. This is only possible by orienting southern hires (southern Canadians and more recent immigrants) to Inuit culture. As discussed, cultural orientation is currently being conducted by the GN through various training and workplace practices. The cultural orientation training includes short courses that fall into two main areas. First, culture-specific training focuses on introducing new employees to Inuit culture,

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

highlighting its unique values and principles. Second, culture-general training provides a broader understanding of cultural awareness that is applicable to various cultures. This combined approach ensures that employees are both informed about specific Inuit cultural practices and equipped with general cultural sensitivity skills. Currently, the Inuit cultural values that are communicated and taught are qualitative and subjective in nature. However, culture-general orientation, such as utilizing relative Hofstede scores and creating cultural awareness on how cultures differ, can lead to improved work output (Taras, Steel, & Kirkman, 2011). These authors also state that management systems need to be devised regarding culture to avoid “conflict, misunderstanding, dissatisfaction, undermined morale, and high turnover” (p. 11). This is one of the major business reasons for measuring the relative Hofstede scores, so that the Hofstede model can be used more fully in GN intercultural training to enhance organisational productivity.

Eschbach, Parker, and Stoeberl (2001), for example, found that intercultural training reduced the time necessary to achieve cultural proficiency and reduced the time necessary to become effective and productive in assignments. One way that improved work output can be achieved by cross-cultural training is through a better understanding of motivation, whether for example, individual rewards or groups rewards are best in a particular culture, which is reflected in the individualism dimension (Williamson, Burnett, & Bartol, 2009), one of the Hofstede dimension scores measured by the research. Another example would be through a better understanding of the expectation of subordinates to be involved in decision making, or a greater comfort with following orders, which is affected by the power distance dimension (Hofstede, Pederson, &

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Hofstede, 2002, p. 100), yet another Hofstede dimension score measured by the research. There are many other potential cultural impacts on management and leadership from these dimensions which are more fully discussed in Chapter 6. This would be of special business interest to the GN as there is a diversity of employees from different national origins within the organisation.

The efficacy of the GN cultural awareness training can be increased by utilising the Hofstede model more fully. The model can show how Inuit culture differs, relatively, from the many other cultures entering and present in the GN workplace, along the specific Hofstede dimensions. The research measured these relative cultural scores (Hofstede dimensions) which can now be compared quantitatively, or relatively, to other cultures and be used in such training and in other aspects of GN organisational design, management, and operations/functions. This knowledge is of huge practical use to the GN, although the criticism of the model discussed elsewhere in this dissertation should be noted.

There is also the risk that the stated values, such as the IQ Principles, are desired rather than desirable (i.e., desired for oneself compared to desirable in others, the value paradox) or are aspired to values rather than actual values (i.e., normative rather than descriptive). This is another benefit of quantitatively measuring the Hofstede dimensions of Inuit culture, as it is the knowledge of differences between values that are important in cross-cultural understanding. And increased cross-cultural understanding can improve management, supervision, and client service delivery.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Implementation of IQ Principles in other northern organisations

In this research, there is a focus on IQ principles implementation and cultural orientation within the GN due to the researcher's specific practical interests as a GN employee. It should be noted, however, that other large organisations with operations in Nunavut such as: The federal government; Cooperative and Northern Company (community stores); Canadian North and First Air (airlines); TMAC, Baffin Lands, and Agnico Eagle (mining operations); and the Catalyst+ (a non-profit organisation), also have, or should have, cultural orientation programs for similar reasons as those stated for the GN. These organisations could therefore also benefit from the research results by gaining knowledge of cultural differences and their impact on business areas such as human resource management and negotiation.

A Subjective, Qualitative Evaluation of Expected Hofstede Score Ranges for Inuit Culture

This chapter so far has discussed why IQ principles are being implemented in the GN workplace, and how they are being implemented. It was meant to explore how IQ principles are being integrated into the public sector organisations of Nunavut, highlighting successes and limitations. It was necessary to discuss the role of IQ Principles and Inuit Societal Values more fully in the workplace because the results of the research can be used in conjunction with, not replace, the role of these important descriptions of Inuit culture. The IQ Principles, Inuit Societal Values, and Maligarjuaq Laws are qualitative descriptions of what are important to Inuit. The measured Hofstede scores will allow comparisons of these scores with other cultures, showing the magnitude of any differences. For example, from the IQ principles and Inuit Societal

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Values, Inuit culture can be considered one of high inclusion. But other cultures may also consider theirs to be inclusive. How do they compare to Inuit culture? Are they as inclusive, more inclusive, or could they be less inclusive when compared to Inuit culture? Knowing these differences allows greater cultural understanding and adaptation by staff and GN leaders which would allow better, culturally relevant human resource practices such as whether group or personal awards are more appropriate in employee recognition programs. Increasing Inuit employee satisfaction in the workplace will assist the GN in hiring and retaining Inuit: A major business goal of the GN due to commitments under Article 23 of the Nunavut Land Claim Agreement.

This chapter now analyzes Inuit culture, using Inuit Societal Values, the eight Inuit Qaujimajatuqangit (IQ) Principles, and Maligarjuaq Laws; and the Hofstede's national culture scale. From this analysis, Hofstede score ranges (high/moderate/low) are estimated. Based on this analysis, albeit subjective (due to lack of actual measured scores), the Inuit culture was predicted to be one of: low power distance, low individualism, low masculinity, moderately low uncertainty avoidance, moderately long-term orientation, and moderately low indulgence. This estimation was undertaken for two reasons. Firstly, to develop predictions for the score ranges to be more accurately determined by the research, as detailed in Chapter 4. Secondly, they also allowed for the testing of the boundary conditions for the Hofstede model's, use in a subnational, Indigenous (Inuit) context.

Author's biases

The Hofstede national culture scale includes six dimensions, which have been quantitatively measured for many cultures through survey-based research. These had not

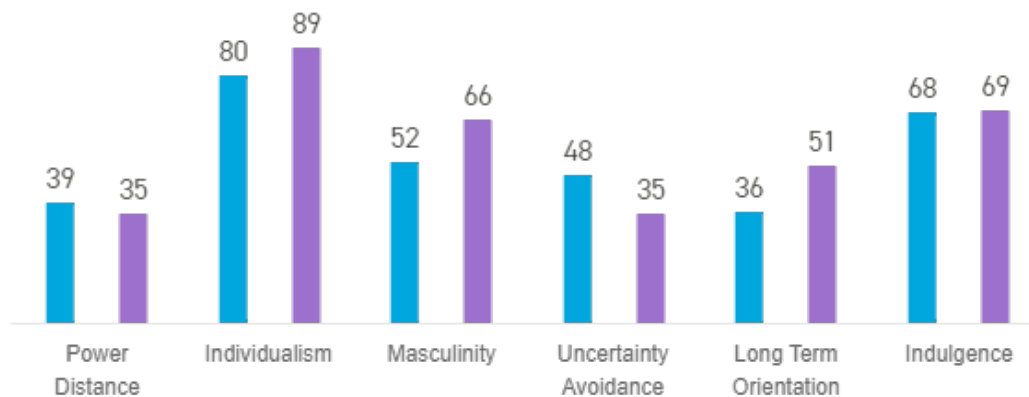
MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

been measured for the Inuit culture, which this research rectifies: allowing business recommendations in areas such as human resource management, negotiation, and policy development that are cognizant of Inuit cultural preferences.

To help develop predictions for expected score ranges, the researcher also subjectively analysed his perception of Inuit culture concerning the Hofstede dimensions in this chapter. As he included his own subjective evaluation of Inuit culture, it is necessary to first consider his own ethnocentric vantage point, his cultural lens. As a person who grew up in the United Kingdom, though with a Canadian father and having now lived in Canada for more than half his life, his “norm” in relation to Hofstede national culture dimensions can be summarized in the chart below (Figure 3, based on data from Hofstede, 2017). As Hofstede believes that our “software of the mind” is formed in the first ten years of life in the family, living environment, and school (Minkov & Hofstede, 2011, p. 14), there is greater weight given to the United Kingdom scores.

Figure 3

UK/Canadian Hofstede Scores



Note:

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Purple (right bar) = United Kingdom; Blue (left bar) = Canada

The scales for each dimension were normalised by Hofstede to range from 0 to 100, although subsequent countries added may fall outside of this range. From the data available for 130 countries, the mean and median values were calculated. These are as shown in Table 1.

Table 1

Mean and Median Values for Countries currently in the Hofstede Framework

	PDI	IDV	MAS	UAI	LTO	IVR
Mean	59	45	49	68	45	45
Median	62	44	49	70	45	43

Note:

PDI = Power Distance; IDV = Individualism; MAS = Masculinity; UAI = Uncertainty Avoidance; LTO = Long Term Orientation; IVR = Indulgence.

From Figure 3 (United Kingdom scores) and Table 1 (mean/median scores), most cultures would tend to appear to have a greater power distance, greater collectivism, greater femininity, higher uncertainty avoidance, lower indulgence, and perhaps a shorter-term orientation than the researcher's own. The preceding being recognized, the researcher provides his own subjective view of Inuit culture from his own experiences, in addition to those Inuit self-described values encapsulated in Inuit Societal Values, IQ Principles, and Maligarjuaq Laws. This dilemma illustrates the benefits of determining Hofstede cultural dimensions for the Inuit culture through quantitative research to provide a relatively more objective (quantitative) evaluation. The relative differences

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

then being used to provide better, culturally relevant human resource practices, client service delivery, organisational design, and policy development.

Relative score ranges

Throughout this chapter, subjective ranges will be given for each of the Hofstede dimension scores. Although no studies were located that specify the corresponding actual values for the subjective score ranges, they are relative to the cultures already placed within the Hofstede framework and/or relative to the respective author's own culture. Initially, the value scores in the framework were calculated to range from 0 to 100, though some subsequent countries are now outside of this range on some dimensions. Furthermore, as discussed above, 50 is not necessarily a mean or median score. This being said, the score ranges that will be used to describe the range descriptors (low, medium, high, etc.) for this research will be based on M. Schachner (personal communication, April 14, 2021) as detailed in Table 2.

Table 2

Hofstede Dimension Score Range Descriptors

	V. LOW	LOW	MOD LOW	MEDIUM	MOD HIGH	HIGH	V. HIGH
Scores	<21	21-35	36-45	46-55	56-65	66-80	>80

Prediction of Expected Hofstede Scores

Using Inuit Societal Values

Inuit Societal Values were introduced under the terminology section, above. These values will now be listed and discussed, in conjunction with the researcher's own subjective evaluation to determine the expected Hofstede score ranges. The scores were

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

then measured allowing the testing of the boundary conditions of the scale. After the Inuit Societal Values are discussed, the same will be undertaken for the eight IQ Principles adopted by the GN, and then the Maligarjuaq Laws. Please see above for a discussion on the score range values that are considered to represent the descriptors (high, medium, low, etc.).

Social and familial obligations. This subsection comments on insights obtained from the social and familial obligations within Inuit Societal Values.

- *Integration was essential for individual, family, and social survival. The underlying assumption and expectation were harmony and integration.* This reflects high collectivism.
- *Transmission of knowledge and skills to allow self-reliance and self-sufficiency but also allowing contribution to the common good.* Overall, this is indicative of high collectivism.
- *Respect for station, office, and place in society to allow integration into the group (family/social).* This might be construed as high power distance. There is certainly reverence to Elders and those who can provide. However, overall, the researcher considers that Inuit culture exhibits a low power distance. This conclusion is supported by anecdotal observations, such as children participating equally in activities and being treated as equals. (also see Briggs, 2000), so that there is less power distance in these formative years (whereas English children are “to be seen but not heard” - a proverb of general usage).

Practical obligations. This subsection comments on insights obtained from the practical obligations within Inuit Societal Values.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

- *Taking and using only what is needed to allow survival in a resource-constrained environment.* This could indicate a low indulgence score, as Inuit have remained constrained in the way they conduct themselves, placing a higher emphasis on the collective good rather than personal interest or gain. This idea of restraint repeats several times below. Thrift is also conducive to a long-term orientation.

- *Social safety net from traditional kinship structures to ensure the dignity and integration of all its members; assistance being regarded as interdependence, rather than dependence.* This shows a high emphasis on social capital and a more collectivist culture. It also suggests a more caring, inclusive feminine culture. This is in line with most traditional cultures and reflects the researcher's own anecdotal perception of present-day Inuit culture.

- *Resource use showed constraint due to limited access, whilst also having regard for cooperation and communal needs.* These are reflective of higher collectivism and low indulgence. It may also suggest higher femininity.

Ethical Obligations. This subsection comments on insights obtained from the ethical obligations within Inuit Societal Values.

- *Respect to allow group functioning.* This suggests a collectivist culture, whilst probably not indicating high power distance, as mentioned above.

- *Charity, though in an interdependent manner.* This seems to reflect an emphasis on social capital and a collectivist culture, as well as a more caring, feminine culture.

- *Trust through mutual reciprocity in kinship structures.* This also seems to reflect an emphasis on social capital and a collectivist culture.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

- *Discipline and restraint from deviations from accepted norms.* Close-knit configurations of family/social groups allow closed intergenerational networks (as discussed by Coleman, 1988). This shows a collectivist culture.

Summary of insights from Inuit Societal Values. From the above, it seems that Hofstede dimensions for Inuit culture would score high collectivism, low masculinity, moderately low indulgence, and low power distance. Based on Inuit desire to retain their culture and emphasis on the past, the researcher would add a short-term orientation (but see below for a counterargument). Uncertainty avoidance could not be evaluated from the Inuit Societal Values but is discussed when the eight IQ principles are subsequently focused on.

Using the Eight IQ Principles

In this section, each of the six Hofstede dimensions will be detailed and considered in relation to the eight IQ principles being integrated into GN organizational culture. Again, these principles were used to help determine the boundary conditions for the use of the Hofstede scale with a subnational, Indigenous population.

Power distance. *In higher power distant cultures, the least powerful accept and expect that power is distributed unevenly.*

It should be noted that some authors, such as Minkov (2017), believe that this dimension should be part of a modified individualism-collectivism dimension, as discussed in chapter 2,

High power distance is thought to have originated when larger societies were formed and acceptance of leadership was necessary to allow control and functioning of these larger societies (e.g., Hofstede, Hofstede, & Minkov, 2010, p. 86). Large-scale

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

organizations are a relatively recent occurrence in Inuit society. The first large-scale organisations that arrived in Nunavut were the church organisations, the Hudson Bay Company, and the Royal Canadian Mounted Police (RCMP). Nowadays, there is a plethora of large bureaucratic institutions. Due to the relatively newness of these large organisational structures, the researcher believed that power distance would still be relatively low for Inuit culture. An anecdotal example, the previous Premier lived in the researcher's community, and there was no noticeable power displayed in the local store or other public places. Elders are respected and revered, but on the whole, organizations are (informally) flat.

The IQ principles that seem to reflect low-power distance are: Tunnganarniq (fostering good spirit by being open, welcoming, and inclusive); Piliriqatigiinniq (working together for a common cause); Inuuqatigiitsiarniq (respecting others, relationships, and caring for people); and Aajiiqatigiinniq (decision making through discussion and consensus).

Individualism-Collectivism. *Individualism relates to independence of the individual, rather than in collectivism where members are interdependent on each other and are socially constrained.*

It should be noted that some authors, such as Minkov et al (2018), believe that although this is a universal dimension, there are better constructs in other models as discussed in Chapter 2.

The researcher would expect Inuit culture to be relatively more collectivist than many other cultures, especially those of modern Western cultures. This is based on the history of family/group nomadic culture. Although Hofstede considers that the cultural

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

dimensions are quite stable over time, this dimension has been recognized as the one most susceptible to change. This is because as individual wealth increases, there is less reliance on social capital (Hofstede, Pederson, & Hofstede, 2002, p. 35). Perhaps partly because of the relatively recent contact with western values, small tight-knit communities, and that poverty is still chronic in Nunavut, this collectivism still seems to be prominent. The researcher's personal anecdotal observations are that there is still a focus on community and family, food sharing, and relationship to the land in a subsistence manner.

The IQ principles that seem to reflect collectivism are: *Piliriqatigiinni* (working together for a common cause); *Inuuqatigiitsiarniq* (respecting others, relationships and caring for people); *Pijitsirniq* (serving and providing for family and community) and *Aajiiqatigiinni* (decision making through discussion and consensus). *Tunnganarniq* (fostering good spirit by being open, welcoming, and inclusive) tends to suggest less collectivist as newcomers, outside of the group, are welcomed.

Masculinity-Femininity. *In masculine societies, there is an emphasis on winning. In feminine societies, there is sympathy for the weaker members. Masculine societies also tend to have greater gender role differentiation.*

It should be noted that some authors (such as Minkov, 2017) believe this dimension is an artifact of the IBM context in which the original Hofstede research was conducted and should be discarded, as discussed in Chapter 2.

The researcher has anecdotally found that Inuit are very open and accepting, both of outsiders and people who are different. He does not find Inuit to be competitive (except in traditional games) and considers them to be very modest. Anecdotally, he has

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

to coach many of his Inuit staff to be more assertive in interviews and to not think that they are being boastful in how they talk of their achievements, and the importance of selling themselves. Therefore, he would conclude that Inuit culture is feminine.

The IQ principles that seem to reflect a feminine culture are: Tunnganarniq (fostering good spirit by being open, welcoming, and inclusive); Inuuqatigiitsiarniq (respecting others, relationships, and caring for people); Aajiiqatigiinni (decision making through discussion and consensus); Avatittinnik Kamatsiarniq (respect and care for the land, animals, and the environment); and Pijitsirniq (serving and providing for family and community). Additionally, Tuqsurausiit (Inuit kinship and naming customs) (Owlijoot & Flaherty, 2013) confirm the important role of female members in the society.

Uncertainty Avoidance. *Uncertainty includes ambiguity, it relates to anxiety and distrust with the unknown. In cultures with high uncertainty avoidance, there is a need for habits, rituals, and to know the truth.*

It should be noted that some authors (such as Minkov, 2017) now believe that this dimension is an artifact of the IBM context in which the original Hofstede research was conducted and should be discarded, as discussed in Chapter 2.

This is difficult to judge. Spirituality/religion is high among the Inuit, which can be a sign of uncertainty avoidance. Based on the researcher's experience with Inuit employees at the clerical level, there can be a tendency toward uncertainty avoidance, exhibiting difficulty acting in ambiguous situations. However, this may be due to differences in education levels rather than culture. The researcher has worked with many other Inuit who were able to deal with ambiguity, though these individuals appear

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

to have more education, and rise to positions where greater ambiguity is present, such as into professional and leadership/management positions.

The IQ principle that may be indicative of high uncertainty avoidance is Aajiiqatigiinniq (decision making through discussion and consensus) whilst Qanuqtuurniq (being innovative and resourceful) appears to indicate a low uncertainty avoidance.

Long-term Orientation. *In a long-term oriented culture, the world is in flux, and preparing for the future is always needed. In a short-term oriented culture, the world is stable, so adhering to the past is morally good.*

It should be noted that some authors, such as Minkov et al (2018), believe that although this is a universal dimension, there are better constructs in other models as discussed in Chapter 2.

As discussed previously, the descriptors of the Hofstede dimensions can be confusing (House et al., 2004). There is also the possibility that certain dimensions are dialectic, meaning that a culture could be both short-term and long-term oriented in different ways. For example, Inuit culture could be short-term oriented, with a focus on the past and maintaining culture, whilst at the same time being long-term oriented with considerations for the future. This dialectic property was also a conclusion for First Nations by Redpath and Nielsen (1997).

On one hand, Inuit appear to be short-term oriented, with an emphasis on maintaining their culture and language, remembering that a short-term orientation in Hofstede's typology is focused on the past and present with respect for tradition (Hofstede, Hofstede, & Minkov, 2010, p. 239). On the other hand, Inuit have been

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

remarkably adaptable and forward-looking, with many Inuit having lived in, or living in, both worlds (i.e., are bicultural). The researcher would lean to the latter (Inuit cultures being long-term oriented) as traditionally Inuit have had to also be very adaptable to the changing seasons and changes in movement of animal herds. They have also shown exceptional long-term vision when one considers the long-term implications and foresight of the Nunavut Land Claim Agreement.

The IQ principles that may reflect a long-term orientation are: Aajiiqatigiinniq (decision making through discussion and consensus) and Qanuqtuurniq (being innovative and resourceful).

Indulgence. *In an indulgent culture, it is good to be free, following your impulses. Friends are important, and life is good. In a restrained culture life is considered hard and duty is revered.*

It should be noted that this dimension was dropped from the modified Minkov-Hofstede model.

This is difficult to judge based on the researcher's own anecdotal experiences. He would say that the Inuit culture is indulgent, but it must be remembered that it is based on his own lens. He, as an individual, is restrained; He seems to be always living for tomorrow.

The IQ principle that may be indicative of restraint is Pijitsirniq (serving and providing for family and community), which could indicate a sense of duty, which would be considered restrained. *Avatittinnik Kamatsiarniq* (respect and care for the land, animals, and the environment) may also be indicative of constraint.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Using the four Maligarjuaq Laws

In this section, each of the four Maligarjuaq Laws will be considered for their insights into the predicted Hofstede dimension score ranges.

- *Working for the common good and not being motivated by personal interest or gain.* This suggests a high rating for collectivism.
- *Living in respectful relationships with every person and thing that one encounters.* This suggests a high femininity rating.
- *Maintaining harmony and balance.* This suggests a high femininity and collectivism rating.
- *Planning and preparing for the future.* This suggests a higher long term orientation rating.

Using the management literature

There is a lack of studies measuring Hofstede scores for First Nation cultures, except for Medd (2010), and none completed specifically for Inuit culture, recognizing that Inuit culture is distinct from other Indigenous groups. There are a few authors, however, who have qualitatively predicted whether the Hofstede scores would tend to be on the high or low end of the scales for Indigenous cultures generally. Although there is likely to be considerable variation in Hofstede scores between individual Indigenous cultures (Medd, 2010), similar to variabilities within Asian, European or South American cultures. These predictions will now be discussed to further assist in predicting the Hofstede score ranges for Inuit culture and ultimately exploring the boundary conditions for the use of the Hofstede scale in the context of this research. It should be noted that there were no specific numbers provided to correspond with the

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

subjective high/low magnitudes in these studies. Please see Table 2, above, for a list of score range values that are considered to represent the descriptors (high, medium, low, etc.) in this research.

Redpath and Nielsen (1997) used the Hofstede scale to examine cultural effects on the management of an Indigenous organisation. Their key conclusions were that Indigenous cultures tended to be low on power distance, individualism, masculinity, and uncertainty avoidance.

They considered the long-term/short-term orientation to be less relevant for their analysis, partly due to the murky difference between the two ends of the scale. The authors did not comment on the sixth dimension, indulgence versus restraint, because this dimension had not yet been added to the scale. In conclusion, the Redpath and Nielsen (1997) predictions for native cultures were congruent with the researcher's predictions for Inuit culture.

Chapman, McCaskill, and Newhouse (1991) used the Hofstede scale to discuss their analysis of management in contemporary Aboriginal organisations. In conclusion, their analysis implied high collectivism and low power distance, uncertainty avoidance, and masculinity. Again, these conclusions are congruent with the researcher's predictions for Inuit culture. Chapman et al. (1991) are silent on the last two dimensions, as these were added to the scale later.

Julien, Wright, and Zinni (2010) did not specifically use the Hofstede scale to describe Aboriginal leadership but did use terminology that enables discussion of their findings in relation to the Hofstede scale. The authors considered Aboriginal leaders to be high on collectivism and long-term orientation and low on power distance,

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

uncertainty avoidance, and masculinity. Regarding indulgence/restraint, this is more difficult to discern from the paper. Again, the findings of this paper are congruent with the analysis based on Inuit Societal Values, IQ Principles, and Maligarjuaq Laws earlier in this chapter. This comes with the same caveat that there is likely considerable variation among Aboriginal cultures.

Medd (2010) is interesting because he did specifically use the Hofstede survey instrument to measure two First Nations cultures in southern Canada – Algonquin and Athabaskan groups. However, only the original four dimensions (power distance, uncertainty avoidance, individualism, and masculinity) were measured. Additionally, there is likely considerable variation between individual Indigenous groups, including Inuit.

The results from the research carried out by Medd (2010) were interesting for two reasons. First, he found significant differences in some of the dimensions between the two native groups, i.e., not all Indigenous cultures are the same. For example, although the two Indigenous cultures were low in masculinity, as predicted, there were significant differences between the two Indigenous cultures. There are also likely differences with Inuit culture from these Indigenous groups.

The second finding of interest was that not all the predictions in the management literature were confirmed. Only power distance and masculinity were congruent with the predictions, not uncertainty avoidance and individualism. It is interesting to see how the measured Hofstede dimension values compare to the predictions based on the discussion in this chapter, and to Medd's (2010) results, which will be discussed in Chapter 6.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Chapter Summary

This chapter opened with a discussion of Inuit Societal Values and IQ Principles, why they are important to the GN, and how they are being implemented. The chapter then evaluated Inuit Societal Values and the eight GN adopted IQ Principles in relation to Hofstede dimensions. The researcher has commented on both the subjectivity of his own anecdotal evaluations and whether the self-described Inuit cultural values are aspirational, rather than cultural realities, and whether they reflect what society should be, or the individual. This ambiguity points to the benefits of conducting a quantitative, survey-based evaluation like those that have been conducted for many other cultures around the world. The results of the research will then allow knowledge of these differences to improve GN operations by providing culturally relevant human resource management, organisational design, client service delivery, and policy development.

The researcher has also mentioned some difficulties in interpreting Hofstede dimensions due to interpretation of what the values precisely (or not) relate to, especially when considering alternate typologies, such as Inuit Societal Values, IQ principles, and Maligarjuaq Laws. Inuit Societal Values, IQ principles, and Maligarjuaq Laws can span more than one of the Hofstede dimensions, creating some difficulties in prediction.

These expected Inuit Hofstede dimension score ranges in relation to southern Canadian Hofstede values will be used as predictions for the Inuit scores measured in Chapter 4 using the Hofstede method, whilst also serving to test the boundary conditions for the use of the Hofstede scale in a subnational, Indigenous context. In summary, if the Hofstede scale is applicable in the context of this research (i.e., the boundary condition of the model has been extended), the measured Hofstede scores are expected to be low

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

power distance, low individualism, low masculinity, moderately low uncertainty avoidance, moderately high long-term orientation, and moderately low indulgence.

Table 3 summarises how these conclusions were reached.

Table 3

Summary of Predicted Hofstede Dimension Score Ranges

Hofstede Dimension	Inuit Societal Values	IQ Principles	Maligarjuaq Laws	Management Literature	Other Observations	CONCLUSION
Power Distance	LOW	LOW	N/A	LOW	LOW	LOW
Individualism	LOW	LOW	LOW	LOW	LOW	LOW
Masculinity	LOW	LOW	LOW	LOW	LOW	LOW
Uncertainty Avoidance	N/A	LOW	N/A	LOW	HIGH	MODERATELY LOW
Long Term Orientation	N/A	HIGH	HIGH	HIGH	HIGH and LOW	MODERATELY HIGH
Indulgence	LOW	LOW	N/A	N/A	HIGH and LOW	MODERATELY LOW

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Chapter 4 - Methodology

Chapter Introduction

This chapter details the methodology that was used in the research. First, this introduction section states the paradigm, research philosophy, and research questions. Definitions of the terms of matching and anchoring are also included, as these concepts are fundamental to the process of comparing additional cultures to the Hofstede framework of existing cultures. There is then a section referring to past Hofstede extension studies on which the research methodology is based. That section also gives a brief historical overview of the VSM survey instrument.

With the background covered in the first two sections, the third section then discusses bias and equivalence, before focusing on translation/cultural details, including how the translation/adaptation phase could have been more rigorous. The fifth section covers the research design, including participants, sampling, data collection, and ethical considerations. The analysis of results section then examines reliability and validity, data analysis, response bias, differential item functioning (DIF), measurement invariance, and the analysis of comments received. This is followed by a section on how the results will be interpreted. The penultimate section discusses the assumptions: limitations and delimitations before the chapter summary.

Once the relative Hofstede scores are calculated for Inuit in the results chapter (Chapter 5), the business implications are discussed in Chapter 6, which includes the implications for improved, culturally relevant human resource management, client service delivery, organisational design, policy development, and intercultural negotiation.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Paradigm

Burrell and Morgan (1979) saw the social scientific world as four paradigms across two primary axes. These four paradigms identify sets of assumptions that identify separate social-scientific realities (p. 29). The two primary axes were radical change/regulation and objective/subjective. The four paradigms (radical humanist (subjective and radical change); interpretive (subjective and regulation); radical structuralist (radical change and objective); and functionalist (regulation and objective)) are shown in Table 4.

Table 4

Burrell and Morgan's (1979) Four Paradigms

	Radical Change	Regulation
Objective	Radical Structuralist	Functionalist
Subjective	Radical Humanist	Interpretive

This research could erroneously be seen as lying in the functionalist paradigm. If the research is seen as “objective”, a scale being used in an attempt to measure cultural values and regulation, in that cultural differences are considered relatively stable. Functionalist research “seeks to provide rational explanations for social affairs” (Burrell & Morgan, 1979, p. 26).

Although Minkov and Kaasa (2021b) demonstrated that subjective cultural structures can mirror objective cultural structures and further argued in Minkov and Kaasa (2022) that the revised dimensions possess an objective basis, given their strong correlations with geographic variables, it can also be more strongly argued that the present research remains inherently subjective. This subjectivity arises from the

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

interpretive process involved in analyzing Inuit societal values, the Inuit Qaujimaqatunqangit principles, and Maligarjuaq Laws. Furthermore, while the cultural dimensions offer an attempt at measurement, they may still be viewed as subjective constructs, as the dimensions themselves do not possess an independent, objective existence (Hofstede, 2002). From this perspective, the study aligns with the interpretive paradigm, characterized by subjectivity and a focus on regulation.

The paradigm used in this research is also that national/societal cultures can be compared to each other along certain measurable indices or dimensions. Dimensions are “complex variables defined by intercorrelated items” (Minkov, 2013, back cover). Although there have been several scales proposed, the Hofstede scale is being used for reasons discussed in Chapter 2. Additionally, this research considers that this scale can be utilized to show differences between subnational cultures, as suggested by Hofstede (2001, p. 464), and that knowledge of these differences is useful to improve the business operations of the GN. These assertions will be discussed in Chapter 6.

Research philosophy

Using definitions from Wilson (2014, p. 8), the philosophy of the research has an epistemology of positivism, an ontology of subjectivism (see discussion above), and a value-free axiology. The research approach is deductive, and the research strategy is quantitative. The research design was cross-sectional in nature with data collection having occurred through a survey. The research takes an etic perspective in that the cultures being measured are from an outsider. Inuit culture is being measured by a non-Inuk person, and a Western-based model is being utilised.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

This research considered some a priori knowledge about Inuit culture, derived from emic knowledge in the form of self-stated IQ Principles, Inuit Societal Values, and Maligarjuaq Laws. This knowledge was used to develop predictions for the score ranges of the Hofstede dimensions for Inuit culture. Furthermore, this a priori knowledge is used to help test the boundary conditions of using the Hofstede model in a new culture before using the results to make business recommendations to the GN.

A more in-depth discussion on the etic and emic approaches to describing culture is warranted. Cheung et al (2011) discuss the differences between etic and emic research approaches in the study of personality within a cultural context. Further, they proposed a third combined approach.

The goal of the imposed etic approach is to address the universality of established often Western models, i.e., to transport and test. The methods used tend to be top-down and Western in origin, often employing linear, positivistic, and empirical approaches. This description matches that of the research conducted in this dissertation.

Although Cheung et al (2011) state that etic approaches have a sound methodological basis, they point out that the approach has come under scrutiny due to both substantive and methodological reasons. The main substantive challenge is the implied emphasis on Western traits and assumptions. What can be missing is an understanding of local cultural concepts and differences.

The primary methodological challenges include cross-cultural biases that lead to systemic measurement issues. An example would be differences in response styles to Likert-type questions due to acquiescence or extremity responding. Acquiescence is when a respondent tends to respond positively to a question. In contrast, extremity

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

responding is a tendency to respond more strongly to a question, such as strongly agree or strongly disagree (Harzing, 2006). A further issue is differential item functioning (DIF). DIF occurs when respondents with the same test score (or construct value, as used in this dissertation) do not score similarly on an item that makes up the construct (Zumbo, 1999, p. 5). This is relevant to the research in this dissertation, as Likert scales were used to compare two different cultures. Any differences measured could be partly due to response bias or DIF.

The goal of the emic approach is to conduct a more in-depth analysis of a specific culture, exploring it to discover culture-specific variations. It requires understanding a culture from within, using concepts and categories that are meaningful to the members of the culture themselves. They can also be used to test whether Western, or other, constructs apply universally. An emic approach can also explore the perspective of Inuit at a psychological level.

In some ways, this research employed an additional emic approach, utilizing Inuit traditional knowledge that has been passed down through generations to test the boundary conditions of the Hofstede model. However, an emic approach, as articulated by Cheung et al. (2011), could have involved developing lexically derived dimensions. Lexically derived dimensions are when culturally related words or adjectives in the local language (in this case, Inuktitut) are grouped through factor analysis based on how they cluster in people's self-descriptions and peer ratings. The addition of the fifth Hofstede dimension, long-term orientation, was developed through emic research in China, where the Chinese Value Survey was created from a Chinese cultural perspective, resulting in

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

the new dimension not captured in the original Hofstede model. A similar emic approach could be conducted in future research for Inuit culture.

It should be noted, however, that the emic approach, as introduced by Pike (1954), is itself a Western-developed research technique even though it aims to understand cultures from an insider's (non-Western) perspective. However, the methodology is grounded in Western academic traditions, including qualitative interviews, ethnography, lexicology, content analysis (of novels, proverbs, and folk descriptions), and participant observation. Even when researchers try to de-centre themselves, the tools, logic, and validation processes often reflect Western academic norms. The paradox is that the emic approach is designed to escape Western bias, yet it is itself a Western construct created to study non-Western or minority cultures more effectively.

Regardless, Cheung et al. (2011) subsequently propose a third, combined emic-etic approach. This approach combines the methodological rigor of the etic approach and the cultural sensitivity of the emic approach. It examines the universality of specific dimensions in existing models, incorporating the cultural nuances of the target population, which can then be leveraged to enhance the model's universality across a broader range of cultures. This could be an approach for future research, ideally led by an Inuk to bring an Inuit cultural perspective to the research questions. This use of an iterative process is mentioned by Cheung et al. (2011, p. 597).

Definitions: matching and anchoring

Throughout this dissertation, two terms are used: matching and anchoring. These two terms are now explained to clarify what is being achieved by surveying the two

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

populations (Inuit and Qallunaq) within the GN. Both terms relate to the addition of cultures to the existing Hofstede framework of countries, of which there are so far 130. These 130 countries have had Hofstede dimension scores calculated. Some for all six dimensions, and some for four or five depending on when they were added (or even one or two if the country was in the World Value Survey (WVS) but not in any VSM-based study).

The issue of adding additional cultures to this framework is that the original countries were from surveys completed within a private sector technology company, IBM, over five decades ago. As new countries have been added over the years, these countries' Hofstede scores have been based on measurements within (or across, as with the World Value Survey), often vastly different types of organisations, from different types of workers, and in different time periods. Each of these additional factors, or independent variables, means that measurements made will be different in part due to these other factors, and not solely due to the independent variable of country (or society) effect. Matching (or pairing if there are only two societies being sampled) is when a sample from a new country, not yet present in the framework, is matched with a sample from a country that is already in the framework by attempting to control all other independent variables except for country/society. This includes ensuring that the two samples are taken from the same organisation (such as a multinational corporation or students at a university from different origin countries or, in this research, employees of different origins within a single organisation) and that both samples have similar gender mixes and types of workers and if possible, education level and age (although there can be other confounding factors such as generation and Zeitgeist effects).

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

The principle of matching samples to allow the determination of differences in national/societal scores is illustrated in the following equations:

$$\text{APPARENT SOCIETY (1) SCORE} = \text{ACTUAL SOCIETY (1) SCORE} + \text{EFFECT(ORGANSISATION)} + \text{EFFECT(GENDER)} + \text{EFFECT (LEVEL OF EDUCATION)} + \text{EFFECT (AGE)} + \text{EFFECT (LEVEL IN ORGANISATIONAL HIERARCHY)} + \text{EFFECT (PROFESSIONAL STATUS)}$$
$$\text{APPARENT SOCIETY (2) SCORE} = \text{ACTUAL SOCIETY (2) SCORE} + \text{EFFECT(ORGANSISATION)} + \text{EFFECT(GENDER)} + \text{EFFECT (LEVEL OF EDUCATION)} + \text{EFFECT (AGE)} + \text{EFFECT (LEVEL IN ORGANISATIONAL HIERARCHY)} + \text{EFFECT (PROFESSIONAL STATUS)}$$

From the matching of the two samples and subtracting the scores of one from the other:

$$\text{APPARENT SOCIETY (1) SCORE} - \text{APPARENT SOCIETY (2) SCORE} = \text{ACTUAL SOCIETY (1) SCORE} - \text{ACTUAL SOCIETY (2) SCORE}$$

Through the matching of samples from the two societies, the differences in the two apparent scores are equal to the differences between the two actual scores; the effects of organisation, gender, level of education, age, level in organisation, and professional status cancel out. However, it should be noted that differences in response style or item functioning do not cancel out. As shown later, response style may not be an issue, as no significant differences in response style were found. However, some DIF were flagged.

Through the matching of samples, the relative scores are calculated. It is these differences in scores that are of interest. The measured values of the scores of each

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

society from the samples are less useful because they only allow a comparison between the two societies being sampled in the research, i.e., the measured scores have less utility than the differences in these scores. This principle appears to suggest that stratified samples are required. However, there is no standard composition utilised across all studies, only a requirement for the samples to be matched within individual studies. Minkov (M. Minkov, personal communication, March 27, 2021) recommended that once the responses have been collected, individual responses are randomly removed from the stratum that is overrepresented to arrive at the matched samples. This process was simplified using the sample matching function in the Statistical Package for the Social Sciences, Version 29 (SPSS), without fuzz factors (which the researcher calls strict matching). Fuzz factors are when exact matches are not required, and the matching criteria are relaxed.

Although this strict matching process resulted in an adequate (depending on the method used to determine) sample size for each of the two groups, an alternate method was formulated during the data collection phase. This alternate method was going to be employed if the strict matching method resulted in too small a size of the two matched groups, which was a minimum of 20 each. The alternate method would have determined which confounding factors had the greatest and least influence on the dependent variables (each of the six dimensions, individually). The confounding factors of greatest influence would have been determined by multiple regression in SPSS, after converting the nominal/ordinal independent variables into dummy variables. The independent variables that accounted for the greatest variation could have then been strictly matched, whilst those with less of an influence could have been matched with fuzz factors,

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

allowing for close, but not perfect, matching for those independent variables. Again, this alternative method was not needed due to adequate, strictly matched sample sizes.

Once the differences between the scores are known, the new country, or society, can be placed (or anchored) within the Hofstede framework of existing countries. This utilises the difference between the two new samples and adding (or subtracting) to the scores for that country that is already in the framework. This is how the new country (or society) scores can be compared with the existing 130 cultural scores in the framework. This makes the use of the scores exponentially more valuable because the business implications of interaction between Inuit and multiple different cultures, recognising that the GN has a high proportion of first-generation immigrants in its workforce and interacts with other cultures across borders.

The following equation illustrates the above process of anchoring.

$$V_h2 = V_h1 + (V_s1 - V_s2)$$

Where:

V_h2 is the new Hofstede culture score to be placed (anchored) within the framework.

V_h1 is an existing Hofstede country score within the framework.

V_s1 is the measured score determined for the new sample of a country already in the framework.

V_s2 is the measured score determined for the new sample of a country that is not yet in the framework.

This had to be done for the score for each of the six dimensions. In this research, the existing country in the framework is southern Canada, and the additional country (or

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

society in this case) is Inuit culture. More accurately, the “southern Canadian” culture is Qallunaq, or non-Inuit, and would include first-generation immigrants. This subpopulation (first generation immigrants) was therefore removed from the sample, which was possible from demographic data obtained in the surveys.

As the VSM technique is being applied to employees within the GN, Inuit and non-Inuit (or Qallunaq), the differences between the indices can be interpreted with caution as showing differences between Inuit culture in Canada and non-Inuit culture in Canada. Organisational culture effects are effectively controlled because both samples are from the same organisation, the GN. Other independent variables that may impact dimension scores, such as gender, age, education level, organizational position, and professional status, are controlled by ensuring that both samples have identical distributions of these factors. They have been “matched”. There is an assumption that the non-Inuit GN respondents will give the same scores as non-Inuit southern Canadians, i.e., there are no self-selection effects on those who venture north. Although this is an imperfection, the benefits (keeping organisational culture effects constant) were considered greater by the author. This is explored more by comparing the non-Inuit group scores with past studies looking at Canadian samples.

Research questions

As stated in Chapter 1, and threaded throughout this proposal, two main research questions will be addressed. The first one is: “Is the Hofstede national culture scale applicable to a subnational, Indigenous (Inuit) culture?” whilst the second one is: “What are the Hofstede dimension scores for Inuit (Nunavut) culture and how are they useful?” These two overarching questions will now be expanded on.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Is the Hofstede national culture scale applicable to a subnational,

Indigenous (Inuit) culture? The first question examines whether the Hofstede scale can be used for a subnational Indigenous population, specifically Inuit. I.e., the boundary conditions of the Hofstede model are tested with a new, unique culture. Although the Hofstede scale has been used for many cultures around the world, with 130 countries now anchored within the Hofstede framework, there has been limited application at the subnational level, and none for Indigenous populations that could be identified, except Medd (2010). This is even though Hofstede believed that his scale could be used at these subnational levels, specifically stating that the VSM indices could be used to describe regional, ethnic, and religious cultures as well as national cultures (Hofstede, 2001, p. 464).

The research, therefore, measured the relative Hofstede scores for Inuit culture, and the results were compared to the predicted ranges from Chapter 3. This research predicted that characteristics of Inuit culture would be observable in the indices and are different from those measured for southern Canadian GN employees (Qallunaq) along all or some of the Hofstede dimensions.

Although the researcher believed that the scale could be used in this context, it was possible that this was not the case for some or all of the dimensions. For example, as discussed before, McSweeney (2002) noted how the uncertainty avoidance dimension is not relevant to all national cultures, and Redpath and Nielsen (1997) concluded that the long-term/short-term dimension is not particularly useful for understanding the cultural values of Aboriginal organisations. Additionally, the Minkov-Hofstede modified model considers that there are, in fact, just two universal dimensions, as discussed in the

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

"Cultural Scales" section of Chapter 2. It may be the case that only the individualism (which includes the power distance dimension) and the long-term orientation dimension are applicable. This remains open to question as Inuit have a unique culture that paradoxically might be amenable to the Western-based Hofstede model.

Exploring the boundary conditions for all dimensions is necessary before the measured Hofstede scores are used in the second research question. Testing the boundary conditions of the scale for use in this context also paves the way for further use of the scale in other similar situations, which has huge practical significance beyond this research because it would suggest that the Hofstede scale is a possibly valid tool for use with Indigenous populations in other parts of the world. However, other models may also be applicable, and there should also be a strong emic component.

It should be noted that the term face validating was originally used in this dissertation to indicate the informal comparison of the qualitative descriptions of Inuit culture and the measured Hofstede dimension. Whereas validating in the true sense means providing support for an idea using external data, the reverse situation (i.e., in this research, qualitative descriptions, not data, are being used to “validate” the measured Hofstede scores, which are data, not ideas). However, the term “face validity” has many alternative definitions in the literature, as discussed by Allen, Robson, and Iliescu (2023). An alternative description of the process used in this current research would be that this research aimed to explore the boundary conditions of the Hofstede model, testing it in the unique Inuit context, and this terminology is used throughout the dissertation.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Hofstede (2001, p. 16-19) warns about the reverse ecological fallacy in analysing the data used to obtain the values for the dimensions of culture. He warns that his model and instrument were designed exclusively for group-level analysis. The ecological fallacy occurs when it is wrongly assumed that an ecological correlation is equal to its corresponding individual correlation (Robinson, 1950). “Confusing cultures with individuals is the first pitfall of cross-cultural research” (Hofstede, 2001, p. 463). Hofstede (2001, p. 463) specifically states that doctoral students may have trouble explaining ecological-level research, where trying to test reliability across individual scores means committing a reverse ecological fallacy. Smith (2002) further discusses the ecological fallacy and the different levels of analysis in cross-cultural psychology.

Despite the above, the researcher was interested in the variability of the responses obtained at the individual level between the two groups (Inuk/non-Inuk). Additional statistical tests were therefore carried out on the individual responses. Hotelling’s T^2 (MANOVA – Multiple Analysis of Variance) statistical test was used to first determine if there was a statistically significant difference between the means of the two groups for the six dimensions combined. As there was a statistically significant difference, the post hoc tests (independent one-tailed t -tests) for each of the six individual dimensions between the two groups were carried out. One-tailed t -tests were used because the direction of the differences had been predicted a priori. Of increased relevance is whether these differences are practically significant as well as statistically significant. Although there are no known statements in the literature for what is a practically significant difference in scores, and the number would likely vary both by the specific dimension and the extraneous variable being considered, M. Schachner

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

(personal communication, April 14, 2021) considers a 10-point difference to be practically significant. It should be noted that, more recently, the accuracy of the existing Hofstede scores has been questioned (such as Akaliyski, 2023) so this level of accuracy is questionable. It must be remembered that if the scores of one or more dimensions are more similar between the two sampled populations, once anchored in the framework of 130 cultures, there will still be practical differences with at least some of the other cultures present.

From the analysis in Chapter 3, the predictions are now listed more generally in relation to southern Canadian culture.

Predictions for Question #1.

- Power distance index for GN Inuit will be lower than for non-Inuit GN Canadians (Qallunaq).
- Individualism - Collectivism index for GN Inuit will be lower (i.e., higher collectivism) than for non-Inuit GN Canadians (Qallunaq).
- Masculinity - Femininity index for GN Inuit will be lower (i.e., higher femininity) than for non-Inuit GN Canadians (Qallunaq).
- Uncertainty avoidance index for GN Inuit will be moderately lower than for non-Inuit GN Canadians (Qallunaq).
- Long-term - Short-term index for GN Inuit will be moderately higher than for non-Inuit GN Canadians (Qallunaq).
- Indulgence index for GN Inuit will be moderately lower than for non-Inuit GN Canadians (Qallunaq).

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

In many of the studies that apply the Hofstede scale, differences among groups are along some but not all dimensions (for example, Shackleton & Ali, 1990, and Ueno & Sekaran, 1992). So, Inuit and southern Canadians may differ on some but not all dimensions.

What are the Hofstede Dimension Scores for Inuit (Nunavut) culture, and how are they useful? This research question goes beyond the differences in the measured Hofstede scores for the two populations (GN Inuit/Non-Inuit) to anchor the Inuit results into the Hofstede Framework. This has a well-established methodology that Hofstede has clearly detailed. Once the Inuit scores had been anchored within the framework, they are comparable to all other cultures within the 130-country framework, recognizing possible wide margin of errors. Specifically, two extension studies that were commended by Hofstede: Nanhekhan (1990) and Nasierowski and Mikula (1998), were reviewed and are detailed in the next section.

Once these anchored scores are calculated and detailed in Chapter 5, a more detailed discussion occurs in Chapter 6 regarding the potential business implications of these differences, such as on human resource management, client services, and policy development.. There is a large volume of research on the implications of the relative Hofstede scores. For example, Hofstede, Hofstede, and Minkov (2010) details the effect of these differences of scores on various aspects of life such as: general norms, family, school, health care, workplace, state, politics and ideas, language, personality, behaviour, information technology, gender roles, attitudes toward sex, consumer behaviour, religion, organisation, motivation, citizen and state tolerance, business, ways of thinking, and personal feelings – all topics of interest to the conductance of GN

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

business. It should be noted, however, that there is a danger that these are “theoretical skyscrapers” built on “foundations of empirical jello,” borrowing from Schriesheim, Castro, Zhou, and Yammarino (2001, p. 516). As discussed extensively in Chapter 2, many authors have significant concerns with the Hofstede model and the research that has been based on it.

Once the relative scores have been determined, the relevance of these insights to the GN and Nunavut more generally is discussed, recognising the above. This is a huge “so what” of the research and is in addition to the value created in the use of the knowledge in allowing GN employees to become more aware of cultural differences and impacts in the workplace and on customer service.

Past Extension Studies

The research methodology discussed in this chapter is based on successful extension studies where additional national cultures have been added to the existing framework of (now) 130 countries. When the dimensions for a new culture are measured, they need to be compared and adjusted by matching the measurement with a country that was in the original 1970s research. This has been referred to as anchoring (Hofstede, 2001, p. 23), as was fully defined in the previous section.

The method of adjusting the Inuit scores to be comparable to existing country-level cultures in the framework is based on past studies where this same procedure has been implemented. Hofstede (2001, p. 464) mentions two specific studies that he considers commendable: Nanhekhan (1990) and Nasierowski and Mikula (1998), stating that extension studies can be very interesting. Hofstede (2001, p. 463) stresses the need to use matched samples, with the research always including one or more countries from

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

the original IBM research, though he also notes that adding a third country/culture to the sampling would likely make the research unwieldy at the doctoral level.

Hofstede (2002) criticized Spector, Cooper, and Sparks (2001) for having poorly matched samples, whilst Hofstede (2013) criticized Fischer and Al-Issa (2012) for not matching with a country in the original IBM research to allow anchoring into the framework. This research avoided these criticisms by including a southern Canada (i.e., a non-Inuit, Qallunaq, GN) sample. The two pieces of commended extension research (Nanhekhan, 1990, and Nasierowski and Mikula, 1998) will now be summarised, followed by a brief review of other replication (as opposed to extension) studies that included a southern Canada sample but did not anchor these scores into the existing Hofstede framework.

Nanhekhan (1990)

Nanhekhan (1990) added Suriname to the framework of existing countries. Nanhekhan obtained a matched sample by surveying employees of a single company having operations in both Suriname and the Netherlands; the Netherlands being the matched country in the original IBM research. Her research only included 25 employees in the smaller Suriname study. Although $n = 25$ for determining a country's scores seems far too small, it should be stressed that this is a study that Hofstede commends, and this doctoral research has larger sample sizes ($n = 64$) for each fully matched group.

The anchoring procedure used in the Nanhekhan research was a simple manoeuvre of subtracting or adding the differences between the two Netherlands samples (original IBM and New Company) from those found in the Suriname sample for each individual dimension, as described previously.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Nasierowski and Mikula (1998)

Nasierowski and Mikula (1998) extended the framework to Poland, using Canada as the paired, anchoring country. These researchers obtained matched samples by focusing on students/graduates in fields related to economics and business administration, who were in, or targeted for, managerial positions and who were, in general, young. The study obtained 316 responses from the Polish population and 133 from the Canadian population. The researchers also mention that after matching the samples based on additional demographic data, the responses were reduced to yield 53 males and 30 females from each country ($n = 83$ for both groups). This matching of gender numbers in each sample was to control the effect of gender on the dimensions, most notably the masculinity-femininity dimension. Although these sample sizes appear small, it should again be stressed that these are studies that Hofstede commends. The current study had a sample size of $n = 64$ for each group (Inuit/non-Inuit), which is a lower group size compared to the Nasierowski and Mikula (1998) study. However, the current doctoral research appears to have better-matched samples.

Nasierowski and Mikula (1998) detail how the samples were tested for similarity with t-tests; ensuring that the p-values in the paired t-tests were greater than 0.1 showed matching regarding age and job status, albeit at a low significance threshold, i.e., their groups were not perfectly matched on these confounding variables. It was initially planned to test for similarities between the two groups in this research if they could not be perfectly matched on all the independent variables. However, this was not the case, as the fully matched groups were of sufficient size ($n = 64$).

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Nasierowski and Mikula (1998) again detail the simple procedure of subtracting/adding differences between the two scores for the anchoring country (i.e., original IBM research and new sample) from the measured scores of the extended country.

Medd (2010)

Although the Hofstede values for Inuit have not been measured before, Medd (2010) did apply the VSM technique to First Nations groups in southern Canada. His PhD dissertation was also reviewed to help formulate the methodology for this research. Medd (2010) set out to measure dimension scores for two different First Nations groups, though some of his data was restricted due to low response rates. His studies revealed measurable differences along specific dimensions. Additionally, not all predictions in the management literature were confirmed. However, Medd (2010) did not specifically anchor his results into the framework, so his scores have limited use outside the scope of his research, recognising that it is the relativity of score values (rather than measured values) that are of higher utility in business applications. It should also be stressed that Medd (2010) did not measure Inuit culture, and there are likely differences between various Indigenous groups along some or all dimensions, as mentioned before.

Other “Canada” replication studies

As well as the Canadian scores found from the results of this research, and those in the original IBM studies, there have also been replication studies on (southern) Canadian national culture by Punnett (1991) – Anglo-Canadian and French-Canadian Government managers; Punnett and Whitane (1990) – Canadian fast food restaurant managers; and Nasierowski and Mikula (1998) - mentioned above. The scores of the

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

dimensions found from these studies are shown in Table 5 and are discussed in Chapter 6 in relation to the Hofstede dimension scores determined for Qallunaq in this research. Table 5 shows, for example, that the Punnett and Whitane (1990) study looking at fast food managers calculated a power distance (PDI) score of 92, whilst Nasierowski and Mikula (1998) calculated a PDI score of 37 for students surveyed.

Table 5

Previous Canadian Hofstede Scores Measured

Group	Source	PDI	IDV	MAS	UA	LTO	IVR
IBM Employees	Hofstede (1980)	39	72	52	48	54	68
Anglo-Canadian Federal Government Managers	Punnett (1991)	29	62	37	27	N/A	N/A
Franco-Canadian Federal Government Managers	Punnett (1991)	39	62	37	27	N/A	N/A
Fast food restaurant managers	Punnett and Whitane (1990)	92	41	80	-0.1	N/A	N/A
Economics and Business Admin. Students and graduates	Nasierowski and Mikula (1998)	37	49	53	-1	N/A	N/A

Note:

PDI = Power Distance; IDV = Individualism; MAS = Masculinity; UAI = Uncertainty Avoidance; LTO = Long Term Orientation; IVR = Indulgence.

Value Survey Module (VSM)

The Value Survey Module is the Hofstede survey instrument used to collect data for cultures being examined. The original IBM survey instrument in the 1970s consisted of 60 core questions, 60 recommended questions, and additional questions provided by

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

local managers (Hofstede, 2001, p. 45). The term VSM first appeared in Hofstede's (1980) edition of *Cultures and Consequences* (Hofstede, 2013), which is now referred to as the VSM80. There have been several iterations since. The VSM82, VSM94, VSM08 (Hofstede, 2013), and most recently the VSM 2013 (Hofstede & Minkov, 2013). The latest version has 30 questions and has been translated into several languages, but not Inuktitut, Inuinnaqtun, or French, which were required for this research. There had been a French version of one of the earlier VSM versions, but none are present for the VSM 2013. For this study, the French version was updated and reviewed by a Quebec francophone to ensure it was free from dialectal issues. Inuktitut and Inuinnaqtun versions were also created by professional Inuit translators whom the GN had recommended. This allowed the questionnaire to be available in any of Nunavut's four official languages.

It should be noted that although back translation was conducted to ensure correctness, this process could have been made more rigorous by following the methodology of the International Test Commission (2017)'s *Guidelines for Translating and Adapting Tests*. Therefore, later, these guidelines are reviewed concerning the use of translated versions of the VSM2013 in this research, along with potential response style biases resulting from cultural differences. I.e., biases that may obscure the valid cross-cultural differences, termed "impact" by van de Vijver and Leung (2021, p. 67). First, the forms of bias potentially present in this study are discussed more generally.

Bias and Level of Equivalence

The use of the VSM 2013 with different cultures is susceptible to three types of biases. These are construct, method, and item biases (Vijver & Leung, 2021, p. 15).

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Construct bias occurs when there are differences between the constructs of the two cultures. For example, in one culture, the construct may be broader or narrower, including or excluding certain aspects. This variation can also occur with short instruments; the VSM 2013, for instance, has only four items per construct. In either case, there is incomplete coverage of the construct, with not all domains included. As discussed elsewhere, this issue could have been addressed by using focus groups to assess the items and construct coverage, as was done by Taras et al. (2023). Even more helpful would have been the inclusion of a stronger emic, bottom-up component.

Method bias has several sources. These include differential social desirability, different response styles (deemed not an issue in this study as no significant difference found), different stimuli familiarity (such as with Likert scales, though deemed not an issue in this research, due to the focus on GN employees), lack of comparability of samples (not applicable in this study due to matching on demographics), difference in physical conditions of administration (deemed not an issue in this research due to similar office environments for all GN employees sampled), different similarity with response procedures, (not an issue in this research due to the deemed simplicity of instructions), tester/interviewer effects (not applicable in this study as not completed in person) and communication problems between respondent and interviewer (again, not applicable as no interaction other than delivery of the survey). Some of these assumptions, such as familiarity with Likert scales, could have been confirmed with focus groups.

Finally, Item bias can occur from poor item translation (likely not an issue in this study, due to low numbers of non-English versions utilised, but please see the next section). Inadequate item formulation, such as through complex wording (likely not an

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

issue, but this could have been confirmed with focus groups), items may invoke additional traits, and incidental difference in appropriateness of item content, such as referral to culture specific terms (this could also have been more rigorously checked by focus groups, but was deemed not to be an issue).

Construct bias can affect construct, metric, and scalar equivalency. (Vijver and Leung, 2021, p. 23). In metric equivalency, the same measurement unit is assumed, whilst for scalar equivalency, the same zero point is assumed. Construct bias tends to preclude direct score comparisons. In contrast, this research makes such comparisons, which is a criticism that should be considered, as there is a risk of construct bias.

Method bias and item bias can lead to both uniform and non-uniform bias. Neither affects construct equivalence but can affect metric and scalar equivalence. Scalar equivalence is affected by both uniform and non-uniform biases, but metric equivalence is only affected by non-uniform biases. When several items show non-uniform bias, cross-cultural score comparisons can be problematic. As shown later, although response style biases were found not to be statistically different between the two groups, there was significant measurement invariance and several items were flagged for DIF (differential item functioning), though the accuracy of these tests is limited by sample size.

Translation/Cultural Equivalence Issues

The International Test Commission's (2017) *Guidelines for Translating and Adapting Tests* provide guidance for the use of instruments in new languages and cultures. The document includes eighteen guidelines organised into six categories: precondition, test development, confirmation, administration, interpretation, and

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

documentation. Although these guidelines are broad, being intended for large-scale international educational achievement tests and credentialing exams, their use in cross-cultural psychology is also listed. They are also used to address cultural differences that affect responses, as well as language translation issues. This broader task is referred to as adaptation.

As the VSM2013 was both translated into new languages (Inuktitut, Inuinnaqtun, and Quebec French) and applied in a new cultural context, the use of the VSM2013 in this research will be critiqued based on these guidelines. As discussed at the end of this section, the use of non-English language versions was minimal, so their impact on the final dimensions calculated is likely to have been minimal. However, this low use was not fully known before the questionnaires were distributed. Therefore, it would have been beneficial if these more rigorous steps had been followed more closely. It is recommended that future research with Inuit culture utilising questionnaires follow these guidelines.

Precondition guidelines

The necessary permission from the holder of the intellectual property rights relating to the use of the test (questionnaire) was obtained from the usage conditions for the VSM2013 (Hofstede & Minkov, 2013), which permit its academic use.

The amount of overlap in the definition and content of the construct measured by the test (questionnaire) and the item content in the populations of interest was considered sufficient for the intended use of the scores. The survey was administered to a similar population of workers in the GN, matched for age, gender, education, and organizational level, differing only in terms of culture. The VSM2013 has work-related items familiar

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

to both cultures, as they are in a similar work setting. However, a more rigorous consideration could have been completed with focus groups to ensure the constructs make sense in both groups, similar to that conducted by Taras et al. (2023, p. 2). This assumption can also be challenged based on the limited comments received from the survey, discussed later, and the results from the differential item functioning (DIF) calculations.

The translators selected were native to both the target language and culture, which is a positive. It is also believed that both groups were familiar with Likert scales. However, this could have been tested more rigorously with observation, interviews, or focus groups.

Test development guidelines

Some translation guidelines were met. The translators were native speakers (essential) with relevant cultural backgrounds (recommended), being based in Nunavut. However, single translators were used rather than teams, limiting the diversity of expertise. Notably, the French-language group included respondents from various francophone countries, complicating cultural assumptions, though these were screened out of the samples. While Inuit translators had experience translating government documents, the absence of a formal reconciliation process and cross-language consistency checks (e.g., comparing French to Inuktitut versions) posed a challenge, particularly in Nunavut, where the lack of Inuktitut-French bilingual speakers made such comparisons difficult. This limits overall rigor.

Focus groups could also have explored construct equivalence between Inuit and southern Canadian populations, revealing any culturally specific interpretations of items.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

The survey's focus on workplace values and its administration to currently employed GN staff with at least the equivalent of a high school education mitigated some concerns regarding content relevance and comprehension. There were also no obvious cultural biases, such as referring to foreign animals or landmarks. However, if the survey had been used with individuals in traditional, non-wage economies, Elders, or others less familiar with Likert scales, then this assumption would not be recommended.

An initial response of 67 hard-copy surveys included an open-ended comment section. More structured methods, such as focus groups, would have better evaluated translation clarity, cultural fit, and respondent understanding. However, the sample size was insufficient for robust pilot analysis. A 100-participant pilot is often suggested as a heuristic (Lakens, 2022).

Confirmation guidelines

For the confirmation stage, a sample should be selected that has characteristics relevant to the intended use of the test and is of sufficient size and relevance for the empirical analysis. This was completed as discussed in the next section.

Evidence supporting the norms, reliability, and validity of the adapted version of the test in the intended populations is required. This could not be conducted with a pilot study, because sample sizes are restrictive even for analysis on the full sample ($n = 222$, Inuit, and $n = 244$, non-Inuit), which was conducted. However, results need to be interpreted with caution due to sample size limitations and the ecological fallacy. Also, it is more problematic removing items from an established, comparative scale, rather than an academic test or a psychological construct used within a country. Removing an

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

item(s) for constructs that are based on just four items may result in a greater negative impact than any benefits (Pallant, 2020, p. 106).

To provide relevant statistical evidence about the construct equivalence, method equivalence, and item equivalence for all intended populations, various tests were conducted. These included tests for extreme response styles, mid-point response styles, and moderate midpoint. Tests for net acquiescence response style could not be completed due to the nature of the data. DIF analysis and measurement invariance was also conducted.

Testing conditions were similar between the two groups, as both completed questionnaires in an office environment, with no imposed time limits. Score differences were also interpreted cautiously, acknowledging potential differences in construct, method, and item bias. However, invariance issues could not be entirely ruled out based on the methodology pursued and sample sizes achieved.

Administration guidelines

The questionnaire was not delivered orally, so there was no issue of differences between test administrators affecting results. Also, the instructions within the questionnaire were deemed to be adequate, with familiarity with Likert scales assumed due to the target populations (literate GN employees with at least a grade 12 education). However, this could have been confirmed by focus groups.

There were also no effects from differential test-taking environments between the two groups. All respondents responded in a similar climate-regulated office environment utilising modern computers and good internet connectivity.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Interpretation guidelines

To interpret any group score differences concerning all relevant available information, various analyses were conducted, including a comparison of demographic attributes and DIF. However, larger sample sizes would have increased the reliability of the statistical tests completed. Focus groups could have assessed and potentially addressed construct, method, and item bias. DIF results flagged some potential items, while comparison of response style differences showed no significant differences. Measurement invariance also highlighted potential issues.

Documentation guidelines

Technical documentation of any changes, including an account of the evidence obtained to support equivalence, is crucial when a test is adapted for use in another population. This has been accomplished through this dissertation, which aims to provide suggestions for improvements in similar future research and acknowledges that the VSM2013 language versions, if used in the future, should be revisited for accuracy. Providing documentation for test users is also important, as it supports good practice in the use of an adapted test with people in the context of the new population.

Language versions

No Inuinnaqtun versions of the VSM 2013 were utilized by respondents in this study. Inuinnaqtun is spoken in the western part of the territory, primarily in the communities of Cambridge Bay and Kugluktuk. Canada-wide, there are only an estimated 790 speakers (Statistics Canada, 2025). According to Statistics Canada (2023), there are only 210 Inuit who have Inuinnaqtun as their mother tongue in Nunavut, which accounts for 8.6% of the Inuit population (2,445) in these communities. In comparison,

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

there are 41,675 speakers of Inuktitut Canada-wide. Additionally, the average age of Inuinnaqtun speakers in Canada is 44, compared to 29 for Inuktitut (Statistics Canada, 2025). This suggests that the Inuinnaqtun language is in decline compared to Inuktitut, indicating that it would also be used less frequently in the workplace. However, there appears to be no data on how many GN employees speak Inuinnaqtun as their mother tongue.

Compounding the preceding, spoken use of the language does not necessarily equate to its written use, though many government documents are translated into Inuinnaqtun. The low use of written Inuinnaqtun, particularly within the GN, likely contributed to the non-use of this version. Since the language version was not used, there is, of course, no impact on the translation of the responses for Inuinnaqtun.

Inuktitut is more commonly used in Nunavut and within the GN, as the above numbers show. Most Inuit speak in English when Qallunaq are present but often speak in Inuktitut when they are not present. However, written communication, such as emails and draft documents (prior to translation), is usually in English. Due to the large number of Qallunaat within the GN, the working language is predominantly English, except in public settings where translators are present. Like Inuinnaqtun, spoken use does not necessarily equate to written use of Inuktitut syllabics. This could explain the low use of the Inuktitut (syllabics) version, garnering only four responses. After matching based on demographics, only two versions were selected for the $n = 64$ Inuit sample. Therefore, if there were impacts of translation on the Inuktitut versions, the impact would have been minimal.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

The French version had twelve responses, although many of these francophones were not actually from Quebec; the French version had been adjusted to the Québécois dialect. The eight responses from non-Quebecois were excluded from the samples, so the potential impacts of any translation issues for this subset would not apply to this study. After matching, there were only four responses that used the Quebecois French version. Therefore, any French language translation impacts would have been minimal,

Research Design

The research allows an attempt at direct comparisons of Hofstede dimensions between the Inuit culture and southern Canadian (Qallunaq) culture within the GN, which would in itself be useful to improve GN business operations in areas such as culturally relevant human resource management, client services, and policy development. However, the usefulness of the research increases vastly as the scores found for Inuit culture are adjusted to be comparable with other country cultures that have already been determined and are in the Hofstede framework, a process called anchoring. Though the accuracy of all scores should be questioned, as discussed in Chapter 2. Thus, for example, insights into intercultural communication between Inuit and the 130 other cultures are possible.

This is not a simple case of calculating the measured scores for Inuit from the survey conducted in the GN. The survey targets both Inuit and non-Inuit southern Canadians currently employed by the GN, a public-sector organization, as of 2023. In contrast, the original Hofstede research was carried out in the 1970s within IBM, a private-sector IT company. There are, therefore, confounding factors present, such as the time of measurement and the type of organisation.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

However, the process called anchoring adjusts the measured Inuit scores to be comparable to the 130 countries in the existing Hofstede framework. Effectively, the research methodology measures the Hofstede scores for Inuit/non-Inuit cultures whilst controlling for organisational culture effects (all participants work for the GN), and matching based on gender, age, education level, level in organisation, and professional status (the groups were matched using SPSS).

The research, therefore, measures the difference between the Inuit and non-Inuit Hofstede scores, which is of more use than the individual values, which cannot be directly input into the framework of the existing 130 national cultures. The difference in the two measured scores can be added or subtracted from the existing southern Canada anchored value, allowing an anchored Inuit score that can be compared with any of the 130 cultures already in the Hofstede matrix, recognizing the issues discussed throughout this dissertation, including potential bias, inequivalence, and inaccuracy of the existing scores in the framework.

Participants

An email list was created for each department from the GN Outlook system. Initially, lists were attempted to be formed from staff lists available on the GN intranet, however, these lists proved to be outdated to varying degrees.

From the created email lists for the departments/agencies that took part in the research, it is estimated that the sampled population was 2,146 employees (this was lower than the total number of GN employees shown in Table 7 as 3,591 mainly due to the absence of the Department of Health, Nunavut Arctic College, and Department of Education school staff from the sample population). Most of these employees were

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

contacted by email with an invitation to participate. This was either done directly by the researcher, with or without a heads-up email from the department/agency head, or via departmental internal communication. Some of the questionnaires were initially distributed in person. This method, though resulting in a higher response rate, was also very inefficient, and it was concluded that electronic distribution was less disruptive to the employees' work. The varying distribution methods utilised are summarised in Table 6.

Table 6

Survey Distribution Method

METHOD OF DISTRIBUTION	DEPARTMENT/AGENCY
Direct distribution (no heads-up email from department)	Executive and Intergovernmental Affairs
	Economic Development and Transportation
	Nunavut Business Credit Corporation
Direct distribution (heads up email from department)	Human Resources
	Culture and Heritage
	Justice
	Family Services
	Environment
	Nunavut Housing Corporation
	Finance
Distributed through departmental communications	Community and Government Services
	Education (excluding school staff)
Not distributed, departments became non-responsive	Nunavut Arctic College
	Health

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

The GN population of Inuit and non-Inuit employees at the time of the survey is shown in Table 7 (Government of Nunavut, 2023). Gender and Inuit/non-Inuit status is not always apparent from staff names. Country of origin is also not always apparent. However, this demographic data for the respondents was collected on the questionnaire.

Table 7

Total Population of GN Employees

	No reports	Middle management	Senior management	Total
Inuit (est.)	1,732 (57.0%)	110 (30.8%)	48 (24.9%)	1,890 (52.6%)
Non-Inuit (est.)	1,309 (43.0%)	247 (69.2%)	145 (75.1%)	1,701 (47.4%)
Total	3,041 (100%)	357 (100%)	193 (100%)	3,591 (100%)

Questionnaire responses of employees from all levels within the GN were solicited, except for the department heads and elected officials. Department heads were excluded from the study as the researcher sought to minimize the demand on their time beyond the brief three-minute presentation required for the approval of questionnaire distribution to their staff. Elected officials are a relatively small group with few non-Inuit that would not allow in group comparisons, so they were also excluded from the distribution. As shown in Table 6, only two departments did not take part in the research. Those departments had been very positive in response to this research, but due to workload could not seem to deliver on a verbal commitment to distribute surveys internally within the timelines of the research.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Respondents, therefore, included front-line workers, managers/supervisors (i.e., one level of control), and senior managers (i.e., directors and assistant deputy ministers). Respondents also included employees from differing educational and professional backgrounds, such as engineers (professionals) and clerical workers (non-professionals). It should be noted that teachers were not solicited as research within schools has a more restrictive research policy that could not be surmounted despite several requests. Additionally, as mentioned before, employees in the Department of Health and Nunavut Arctic College were not solicited due to the absence of departmental head approval.

A comparison of the demographics of the two populations (before matching; $n = 222$ for Inuit and $n = 244$ for non-Inuit, excluding first-generation Canadians) is presented in Chapter 5. Nominal demographic items (gender, job type, and level in organisation) are compared using Chi-square tests, and ordinal demographic items (level of formal education and age) are compared using the Mann-Whitney test. For years with the GN, a continuous variable, an independent samples t -test was used to compare the mean length of service. Levene's test for equality of variances was significant ($p < .001$), indicating unequal variances, so the Welch t -test was used.

Sampling

To anchor the results within the existing framework of indices, a matched sample was required from a country included in the original IBM research (Hofstede, 2001, p. 464). Southern Canada was the most accessible country culture for this research, with southern Canadian employees being present within the GN. This assumed that non-Inuit GN employees are representative of southern Canadian Culture.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Those southern Canadians who decide to venture north to work may tend to exhibit different Hofstede scores than those who do not. For example, it is conceivable that those southern Canadians in Nunavut may have lower uncertainty avoidance scores, being more comfortable with that which is different. However, the benefits are that the two groups are matched, both working for the same organisation. A similar critique was made of Hofstede's original IBM research, where employees in a single organisation (IBM) were used to compare country cultures.

At the time of the survey, Inuit representation was approximately 52.6% of the GN workforce (Government of Nunavut, 2023). However, the non-Inuit portion (47.4%) includes recent immigrants (first generation) to Canada. These cases were removed by obtaining additional demographic data from the survey, i.e., whether the respondent spent the majority of their first ten years of life in Canada or not. The list of other variables that were case-matched on were those measured by the VSM2013, namely gender, age, education level, occupation, and level in the organisation. Each of these demographic data has the potential to affect one or more of the Hofstede dimensions, which is why they are included in the VSM 2013.

In order to determine relative scores, the VSM2013 needed to receive responses from a minimum of 50 informants (ideally) for each group (Inuit/southern Canadian) or at least 20, considering a more homogenous sample, i.e., better matched samples. (Hofstede, 2001, p. 463). Again, it should be stressed that these are numbers that Hofstede uses, and these numbers are just a heuristic, though they continue to be used (for example, Barczyk, Rarick, & Winter, 2021). It was hoped that response rates would be significantly higher and within the range of at least 100-200 per group which Minkov

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

(M. Minkov, personal communication, March 27, 2021) considers sufficient for samples where the education level is grade 12 or above, which is the case for GN employees (though again this is a heuristic). Each of the two groups contained more than 200 responses before matching ($n = 222$ for Inuit and $n = 244$ for non-Inuit). Actual sample sizes were $n = 64$ for each group after strict matching.

In addition to the heuristic sample sizes discussed above, there are other empirical ways to determine sample size. Lakens (2022) conducted an overview of approaches and discussed six of the most common and applicable approaches for single studies (i.e., not including power analysis for meta-analyses). These approaches include collecting data from the entire population (which was attempted in this study, but the overall response rate was just 24%). Acknowledging that there was no justification is another approach, albeit a weak one. Using a heuristic, as discussed above, to determine the sample size is also a weak argument, as is the approach of determining the sample size based on resource constraints. However, this is often an operational reality.

That leaves two stronger approaches. These are to perform an a priori power analysis and planning for a desired level of accuracy. An example of the former is the use of Cohen's d , discussed in Chapter 5, although it was completed retrospectively. An example of the latter is the application of the Yamane equation.

Wilson (2014, p. 223) discusses the use of the Yamane equation to determine the sample size required for any given population size and precision requirement. Due to the small size of the GN population and the requirement of minimum group sizes after accounting for response rates, an attempt to solicit responses from 100% of the GN population was made. This also has the benefit of meaning that sampling does not matter

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

as much, because there is effectively a census of the entire population, even though it is exceptionally unlikely that the entire population would respond.

From the Yamane equation, however, a minimum sample size is calculated as follows:

$$n = N/(1+Ne^2); \text{ where } n = \text{sample size, } N = \text{population size, } e = \text{margin of error}$$

If the margin of error is 0.1 (i.e., at a low precision, 90% confidence interval):

$$n = 1,890/(1+1,890 \times 0.01) = 93 \text{ (For the Inuit population)}$$

$n = 1,379/(1+1,379 \times 0.01) = 95$ (for the non-Inuk population, less 19% first-generation immigrants).

Both these minimum values are higher than those found in the matched samples ($n = 64$), so the sample size based on this metric was not satisfied. For a sample size of $n = 64$ for both groups, the precision, e , can also be calculated:

$$e = \sqrt{((N-n)/(nN))}.$$

Therefore,

$e = \sqrt{((1,890-64)/(64*1,890))} = 0.123$ (i.e., 87.7% confidence interval for the Inuit population)

$e = \sqrt{((1,379-64)/(64*1,379))} = 0.122$ (i.e., 87.8% confidence interval for the non-Inuk population, less 19% first-generation immigrants).

Most GN departments/agencies allowed the questionnaires to be distributed to their staff. Table 6 summarises the methods agreed to by each department/agency.

Although the departments of Health and Nunavut Arctic College did not authorise the distribution to their staff within the time constraints of the research, the number of departments/agencies opting in was very high. It should also be noted that for the

MEASURING AND USING THE HOFSTEDÉ DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Department of Education, this distribution was limited to administrative staff, not to teachers/principals. This was due to the more restrictive research in school policy, which could not be surmounted.

The response sizes of 50 (despite its heuristic basis) for each group (Inuit/southern Canadian) were considered not to be a problem to obtain prior to the distribution of the questionnaire. It was calculated that if all GN employees were solicited, a 3.62% response rate for the smaller non-Inuit group would be required to meet the 50-respondent target, and just 1.45% for the 20-respondent target. It was hoped, however, that response rates would be higher, even closer to 30% which is a more normal response rate (Fowler, Cosenza, Cripps, Edgman, Cleary, Fowler, & Edgman-Levitan, 2019). A higher response rate would also allow for a greater buffer against matching losses, which reduces the sample size that can be used.

The actual overall response rate based on total questionnaires distributed was 24%. Response rates depend on many factors. These factors were optimised as discussed in the next section.

When the expected sample size (allowing for expected response rate) for the research was compared to the two extension studies commended by Hofstede (2001, p. 465f) (Nasierowski & Mikula, 1998, and Nanhekhan, 1990), it appeared favourable. Nasierowski and Mikula (1998) obtained 316 responses from the Polish population set and 133 from the Canadian sample, whilst Nanhekhan (1990) had just 25 responses from her smaller Suriname group. Actual response (excluding first-generation immigrants) was 466, which put the sample size of this research in a favorable light.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Nasierowski and Mikula (1998) state that after matching the samples, the responses were reduced to result in 53 males and 30 females from each country, for a total of 83. It was unclear how this matching procedure would have reduced the two group sizes in this doctoral research, a priori. There was no reason to believe that the percentage reduction would be any more severe. After matching, each group consisted of $n = 64$ participants for this research. Increasing the survey size to include non-GN public sector employees could have been an option, though undesirable, if the sample size obtained was a problem. However, this was not needed. The minimum group size of 50, or even 20, the heuristic mentioned above, was met.

Data collection

The VSM2013 questionnaire was primarily delivered by email, with links to a SurveyMonkey webpage detailed in Wilson (2014, p. 179). There were four separate links to each of the four language versions (English, Inuktitut, Inuinnaqtun, and French).

A limited number of paper copies ($n = 100$) were also distributed in the initial stages of the research. These were within the Department of Economic Development and Transportation, Human Resources, and Executive and Intergovernmental Affairs. Response rates by this method were 67% , however, it proved very time-consuming and difficult to gather the responses, and staff were often busy, on duty travel, or otherwise away from their desks when returning to pick up the survey. The distribution method was therefore adjusted to purely electronic means, with the email stating that PDFs/hard copies would be provided if requested. Only three respondents requested PDFs. It was hoped that this option would increase response rates if employees were nervous about clicking links, due to cybersecurity concerns.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

GN employees were encouraged to participate by an emailed letter (a copy is included in Appendix 1) and in the body of the email message. A reminder email was not sent, as it was deemed too intrusive, and good response rates were believed to have already been obtained. This email delivery mechanism was also more conducive to the fact that staff are distributed across Nunavut and are otherwise unreachable.

The email/letter briefly described how the research would be of benefit to the GN and the respondents themselves, which was expected to increase response rates (Wilson, 2014, p. 167).

The vast majority of GN employees are fluent in English. If the survey were to be extended to Inuit who were not GN employees, for example, Elders or those firmly in the traditional economy of hunting and carving, translations (Inuktitut/Inuinnaqtun) would have been more essential. It was expected that most of the respondents would use the English versions, which would have further reduce the risk of translation errors. In fact, very few used the Inuktitut version (4), none utilised the Inuinnaqtun version, and 12 utilised the French version. The vast majority (507) utilised the English versions. These numbers were reduced to 2 Inuktitut versions and 4 French versions in the final matched samples.

Ethical considerations

As well as approval by Athabasca University's Ethics Review Board (File # 24898), and additional Indigenous research review, the research proposal also needed to be approved by the Nunavut Research Institute (NRI) (Licence # 05 001 23N-M) because it was to be conducted within the Nunavut territory. This process took a few

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

months, with the final approval being valid for the 2023 calendar year. The NRI process is discussed in greater detail in the preface.

Permission from the GN was also needed to email surveys or survey instructions to the sample population's government email addresses. This proved easy to obtain in most cases, with the deputy ministers being very supportive. Overall approval was obtained from the Department of Executive and Intergovernmental Affairs and the Department of Human Resources, with secondary approvals from the individual department heads. The GN allowed employees permission to conduct the surveys on work time and GN computers; this was clarified by the GN legal division.

All responses were kept confidential and anonymous, which the web-based reply portal (SurveyMonkey) allowed. These efforts, as well as being ethical, likely improved response rates. Survey data was kept on GN-secured servers.

A few individuals expressed interest in receiving the final results, and these were noted. An executive summary will be distributed to individual department heads once the research is concluded.

Regarding the use of the VSM 2013 and existing data in the Hofstede framework, this is copyrighted but free to use for academic purposes (Hofstede & Minkov, 2013).

Analysis of Results

Reliability and validity

The overall validity of the VSM 2013 survey instrument and the Hofstede scale was discussed in Chapter 2, noting that many academics have issues with both. Data analysis of the survey results further address reliability and validity based on response

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

rates. For example, Cronbach's alphas were used to determine the reliability of question items. Measures of this kind of reliability assume multiple measures (questions) of the same thing. This is the case with the VSM2013, with each dimension score being calculated from four questions as detailed in the next subsection ("Data Analysis"). The assurance of face validity of the translated survey instruments (French, Inuktitut, and Inuinnaqtun) was confirmed by back-translating (Brislin, 1970). However, please refer to the "Translation/Cultural Equivalence Issues" section earlier in this chapter for a discussion on why this relatively simple technique may have been problematic.

To assess the internal consistency of the six cultural value dimensions derived from Hofstede's model (Power Distance Index [PDI], Individualism [IDV], Masculinity [MAS], Uncertainty Avoidance Index [UAI], Long-Term Orientation [LTO], and Indulgence versus Restraint [IVR]), Cronbach's alpha coefficients and inter-item correlations were calculated. Analyses were conducted separately for the Inuit ($n = 222$), non-Inuit (excluding first-generation Canadians) ($n = 244$), and total combined sample ($N = 466$). Each construct consisted of four items; all measured on an identical Likert-type scale.

Internal consistency was evaluated using SPSS. Cronbach's alpha values ≥ 0.70 were interpreted as acceptable, although in psychology, values of 0.60 and lower are often considered acceptable (Minkov, 2013, p. 187). This type of analysis is only appropriate when the constructs are at the individual level. In contrast, Hofstede's dimensions are at the cultural (societal) level, as discussed throughout this dissertation. Despite the low internal reliability observed at the individual level, confirmatory factor analysis (CFA) using SPSS's AMOS (Analysis of Moment Structures) add-on was

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

completed, even though the sample size ($n = 64$, both groups) was too small and the data did not meet the psychometric assumptions required for valid model testing.

To test for differences in internal consistency between Inuit and non-Inuit groups, a simplified Feldt test was applied following the method outlined by van de Vijver and Leung (2021, p. 65). The formula used was $F = (1 - \alpha_1) / (1 - \alpha_2)$, where α_1 and α_2 are the Cronbach's alpha values for the Inuit and non-Inuit groups, respectively. This test assumes equal test lengths and is appropriate for approximate group comparisons of scale reliability. The resulting F -ratio was evaluated using the F -distribution with degrees of freedom $df_1 = 221$ and $df_2 = 243$. Two-tailed p -values were computed.

Given that Hofstede's model is conceptualized at the societal level, individual responses were aggregated to the group level (Inuit vs. non-Inuit). To justify aggregation, intraclass correlation coefficients [ICC(1), ICC(2)] were computed. Welch's t -tests and effect sizes (Hedges' g) were used to test for significant cultural differences. This followed the procedure as outlined in Woehr, Loignon, Schmidt, Loughry, & Ohland (2015). One of the overarching questions of the research is the validity of the Hofstede scale for use in a subnational, Indigenous (Inuit) context. Although this validity could not be confirmed in the current research, the results of the predictions of the constructs based on the Inuit Societal Values, IQ Principles, and Maligarjuaq Laws, are presented in Chapter 5, as they help to test the boundary conditions of the model.

Data analysis

The indices calculated for Inuit and non-Inuit were based on the formulas provided by Hofstede for the VSM 2013 (Hofstede & Minkov, 2013). One of the main

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

purposes for determining the VSM indices for the non-Inuit (southern Canadian) GN employees is so that the predicted relative scores, and hence the scale's use in this context can be explored, i.e., the boundary conditions can be tested. The second reason is to anchor the Inuit scores within the existing Hofstede framework. The Inuit indices were adjusted based on differences between this study's non-Inuit Canadian indices and the Canadian indices found in the original Hofstede IBM study. There were likely differences between these two sets of southern Canadian scores (Hofstede, 2013) because the IBM study had respondents from a private sector technology company (IBM) whilst this study had respondents from a Canadian public sector organisation. After adjusting for differences (anchoring), the Inuit indices were then potentially comparable not just with the non-Inuit sample in this study, but also the indices of the other 130 cultures in the Hofstede framework, across each dimension measured. This is important, as many new employees in the GN are first-generation immigrants from other countries. Having the Inuit indices fit into the Hofstede framework allows comparisons with these other cultures. Anchoring into the Hofstede framework also allows uses such as insights into intercultural communication at the international scale. This allows business advantages to the GN, such as during negotiations with other nations.

The above being said, the accuracy of these scores for various countries' cultures is questioned by many academics, as discussed in Chapter 2. Also, although the two samples were matched on demographics, there is the issue of potential construct,

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

method, and item bias, which was discussed earlier in this chapter. So, scores should be taken with a wide margin of error.

As previously noted, questionnaire responses were obtained from employees at all levels within the GN, excluding elected officials and deputy ministers. The group of employees who took part in the survey exhibited a range of demographic differences, including age, education, and gender. To accurately capture and match the diversity within these responses, additional demographic questions were included at the end of the questionnaire. This additional data also allowed a comparison of the demographics between the two groups, which are reported on in Chapter 5. These additional questions may have been sensitive in nature, so were asked at the end to help improve response rates (Wilson, 2014, p. 166). These additional questions, which are considered as independent (confounding) variables in addition to the main Inuit/non-Inuit classification, were:

- Country/province where spent the majority of the first ten years of life (Nominal). Country or province/territory of origin was also solicited as it helped understand the population of the GN, but these small individual populations (per country/province/territory of origin) did not allow for usable additional subgrouping.
- Gender (Nominal: M/F). Required to allow sample matching, as gender may influence some of the dimensions, most notably the masculinity dimension.
- Age (Ordinal age ranges rather than ratio [actual] to maintain anonymity).
- Education (Ordinal: <Grade 12, grade 12, college diploma, bachelors, advanced degree).

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

- Level in organisation (Nominal: No direct reports, direct Reports, direct and indirect reports)
- Professional status: (Nominal: unskilled, generally trained office worker, vocationally trained, academically trained professional).
- Length of time within the GN (not matched on, but a group comparison is reported on in Chapter 5)

This additional information allowed case matching of respondents in each group (Inuk/Non-Inuk, excluding first-generation immigrants). This was what was done in the Hofstede research and the extension studies commended by Hofstede (2001, 464). Whereas surveying within one organisation removes the effect of organisational culture on any differences, professional/occupational cultural differences can be controlled, as well as age, gender, and years of education, from this additional demographic data. These latter three, age, gender, and years of education, were found by Hofstede to affect certain dimensions – for example, masculinity by gender and power distance by age and education level.

Quantitative analysis. As discussed previously, testing reliability across individual scores means committing a reverse ecological fallacy. The constructs are at the societal level; they are not isomorphic to the individual level for the VSM 2013. So, the results of the additional statistical tests should be interpreted with caution. These additional statistical tests were run using the SPSS software (Version 29).

In the MANOVA, the dependent variables were each of the six dimension scores. The independent variable was societal culture: Inuit or Qallunaq. Organisation effect, gender, profession, and years of education will be kept constant through the

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

matching of the two samples in all other aspects. Each dimension score was calculated from the answers to four different questions, as per the equations below (Hofstede & Minkov, 2013). Dimension scores were analysed both simultaneously, where MANOVA is appropriate, and then by examining post hoc tests to determine from which dimensions any significance arises. The latter being independent, one-tailed t-tests.

Power Distance Index (PDI)

$$PDI = 35(m07 - m02) + 25(m20 - m23)$$

in which $m02$ is the mean score for question 02, etc.

Individualism Index (IDV)

$$IDV = 35(m04 - m01) + 35(m09 - m06)$$

in which $m01$ is the mean score for question 01, etc.

Masculinity Index (MAS)

$$MAS = 35(m05 - m03) + 35(m08 - m10)$$

in which $m05$ is the mean score for question 05, etc.

Uncertainty Avoidance Index (UAI)

$$UAI = 40(m18 - m15) + 25(m21 - m24)$$

in which $m18$ is the mean score for question 18, etc.

Long Term Orientation Index (LTO)

$$LTO = 40(m13 - m14) + 25(m19 - m22)$$

in which $m13$ is the mean score for question 13, etc.

Indulgence versus Restraint Index (IVR)

$$IVR = 35(m12 - m11) + 40(m17 - m16)$$

in which $m11$ is the mean score for question 11, etc.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

In the “Research Design”, “Sampling” subsection above, it was explained how a heuristic minimum of 50 respondents per group (Inuit/Qallunaq) were required. A higher response rate than the minimums required would be beneficial to improve statistical power. This is especially the case for those dimensions (dependent variables) that have smaller effect size, i.e., those dimension scores that are more similar in value between Inuit and non-Inuit. The required sample size for achieving a desired power level, such as 0.8, can be calculated in advance. A power level of 0.8, which indicates an 80% probability of detecting an effect if it truly exists, is commonly used. For instance, with an effect size (Cohen’s *d*) of 0.5, representing a medium effect size, and a significance level (alpha) of 0.05, the minimum sample size needed per group for a two-tailed test is 64. Coincidentally, the sample size of each group (Inuk/non-Inuk) after matching was also 64. However, this number can vary widely depending on the expected effect size; it ranges from 21 to 1,571 as Cohen’s *d* changes from 0.9 (large effect size) to 0.1 (small effect size). However, two groups of 50 or more should have sufficient power if tested across six dimensions (means) simultaneously. SPSS was also used to determine actual Cohen's *d* values, which are reported on in Chapter 5.

Due to the use of SurveyMonkey software, which was set to require responses, there was no missing data. Also, the 67 paper responses did not contain any missing data. Had there been missing responses, pairwise deletions would have been made for the missing data. In either scenario, the amount of usable data would have been reduced, but more so in the list-wise deletions.

A further benefit of having a greater number of respondents than the minimum per group is that case matching could be used to better match the two groups of interest.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

The two groups were case-matched on management level, professional status, sex, age, and education. Each of these better-matched groups would have needed a minimum of 20 respondents, and preferably 50, as stated above, if this heuristic is relied on. Greater response rates also increased statistical power.

If enough numbers of respondents for perfect matching had not been obtained, then the groups would have been partially matched using fuzz factors in SPSS, and the groups would have been statistically checked for similarity (i.e., across level, gender, age, and education) using p -values (and t -values) for paired t -tests. The use of fuzz factors is a tool in SPSS which relaxes the matching of respondents to some degree to increase the number of pairs obtained.

A MANOVA based on type III sum of squares at $p = 0.05$, using Hotelling's trace as the multivariate statistic, as there are only two groups (independent variable – Inuk/non-Inuk). If subgroups were formed from the responses, then Wilk's lambda would have been used (Hair et al., 2010). Multiple pairwise comparisons were made using the Bonferroni Test set at .01. The Bonferroni correction is a method used to adjust the significance level when performing multiple pairwise comparisons to reduce the risk of Type I errors (false positives). The main idea is to divide the desired overall significance level (alpha) by the number of comparisons to maintain the overall error rate.

An additional analysis at the question response level was also carried out using two-tailed t -tests to compare the responses between the Inuk and non-Inuk groups.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Response bias

Response bias occurs when different groups respond differently to questions due to factors such as culture, age, gender, employment status, and educational background (Vaerenbergh & Thomas, 2013). For example, Moors (2012) found that women are more likely than men to use extreme response styles. Matching the two samples based on these demographics, as was done in the current research, would help mitigate these effects, except for cultural differences. Although differences in calculated Hofstede scores may reflect cultural differences on those constructs, the results may be biased due to differences in response styles or item functioning between the two cultures (as well as potential construct and method bias).

Vaerenbergh and Thomas (2013) list eight types of response style that could affect scores, adding error to the measured construct. These will be briefly defined, using a 5-point Likert scale as an example, as used in the current research. (1) Acquiescence response style (ARS). This is when there is a tendency for the person to agree with a statement, regardless of its content. I.e., they would tend to use 1s and 2s. This style tends to decrease means. (2) Disacquiescence response style (DARS) is the opposite of acquiescence, i.e., 4s and 5s are used more frequently, inflating means. (3) Net acquiescence response style (NARS) is the tendency to show greater acquiescence than disacquiescence, decreasing means. (4) Midpoint response style (MRS) where there is a tendency to use 3s, which brings the means closer to the midpoint. (5) Extreme response style (ERS) where there is a tendency to use 1s and 5s, which brings the observed means closer to the midpoint. (6) Mild response style (MLRS) where there is a tendency to use 2s, 3s, and 4s, bringing the means closer to the midpoint. (7) Response

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

range (RR) with a tendency to use a narrow or wide range. (8) Non-contingent responding (NCR) where there is randomness in the responses, meaning that they are not effectively reflecting the construct. Most research has been focused on investigating ARS, DARS, ERS, and MRS (Vaerenbergh & Thomas, 2013).

Vaerenbergh and Thomas (2013) also summarise studies that have investigated the effects of scale format, mode of data collection, cognitive load, interviewer experience, survey language, and topic involvement on the various types of response style biases. Most of these effects would have little effect on the current research. Scale format effects should cancel out between the two groups, as should mode of data collection, cognitive load, interviewer experience (not applicable), and topic involvement. However, this could have been investigated more rigorously using focus groups. Also, survey language could have had an effect, as described in the “Translation/Cultural Equivalence Issues” section earlier in this chapter. Few non-English versions of the VSM2013 were used and ultimately screened into the matched samples; therefore, the effects from any potential translation issues should be minimal.

Regarding the effects of culture on response styles, unfortunately, NARS biases cannot be investigated with any accuracy for the VSM2013, as there is only one reverse-coded question (Q20). In hindsight, the VSM2013 could have been modified to create reverse coding for half of the items. This could have enabled the calculation of the NARS index, as well as the modeling of latent acquiescence factors. The sample size ($n = 64$ per group) is also too small for multi-group confirmatory factor analysis or method factor modeling, though were completed. A future study could investigate these response styles among Inuit, given that Likert scales are often used in Nunavut.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

In theory, reversing the coding of half of the questions (and, importantly, half of the items making up each dimension) could mean that any ARS, DARS, and NARS biases will cancel out. However, this assumption has been disproven by Billiet and McClendon (2000). In the case of the VSM2013, this logic would also be weakened by the fact that each item is weighted differently in the calculations used to determine the six dimensions, a weakness of the scale. Although the questions were not formatted with reverse-coded Likert responses, each dimension consisted of two negatively weighted items and two positively weighted items, which may tend to cancel out the effects of these three biases. However, as the weighting of each question differs, this assumption is also complicated.

ERS, MRS, MLRS, ARS, and DARS indices are calculated based on the percentage of questions with relevant Likert responses, divided by the total number of questions. For this research, 24 questions (items) were used to assess the indices, with the matched samples being used ($n = 64$), for both groups). Differences between the two groups are then tested for significance. The matched groups were used because demographic differences can also affect response style. For example, being lower in an organisation or having a lower education level tends to increase the level of acquiescence, where a respondent tends to reply positively to Likert questions (Hofstede, 2001, p. 56).

Differential item functioning

Differential item functioning (DIF) analysis was also conducted for each of the 24 items. These analyses are primarily used in psychometrics and educational/psychological testing to determine whether individual test items (questions)

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

are biased or function differently across groups, even when those groups have equal levels of the underlying trait being measured (e.g., math ability, cultural values, anxiety). It works by assuming that for respondents matched on the sum of the scores for each of the four items contributing to each construct, they should answer each item similarly (Zumbo, 1999, p. 5). This is a significant assumption, given that the constructs are at the group-cultural level. The VSM2013 is not intended for use at the individual level.

Several different methods can be employed, depending on the type of data and sample sizes (van de Vijver & Leung, 2021; International Testing Commission, 2017). As this current study involved Likert scales (polytomous), the method initially chosen was the generalised Mantel-Haenszel procedure (GMH) utilizing the R computer program. However, as a minimum of 200 is recommended for each group (Meade & Lautenschlager, 2004), the analysis was conducted on the full sample of each group ($n = 222$ for Inuit and $n = 244$ for non-Inuit). Likert responses had to be collapsed into three ($\leq 3 = 1$; $3 = 2$; $\geq 4 = 3$) or two ($\leq 3 = 0$; $\geq 4 = 1$), ordinal categories to reduce sparsity and meet assumptions for contingency-based DIF methods. This was still required with these larger samples, which was another reason not to use the smaller matched samples ($n = 64$).

The fact that the Likert scales had to be collapsed affected the reliability of the GMH method, so additional logistic regressions (LR) were run in R. The intent was to look for convergence in results from the two methods to confirm significant DIF, or not. Other, more sophisticated models, which require a larger number of respondents per group, could not be used due to the limitations of the sample size. For example, item

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

response theory requires 500 respondents, while studies on factorial structure require “perhaps” 300 (International Testing Commission, 2017, p. 18).

The GMH procedure is an extension of the classical Mantel-Haenszel procedure, allowing for polytomous (ordinal) response categories (Fidalgo & Madeira, 2008). Analyses were conducted using the `difMH()` function from the `difR` package in R (Magis, Béland, & Raïche, 2024). specifying the focal group as Inuit (coded as 1) and the reference group as non-Inuit (coded as 0).

Matching was based on the total score of all items within each construct (dimension), accounting for negatively weighted questions. The test yields a chi-square statistic and associated p -value for each item, as well as a signed standardized P -difference (STD P -DIF) effect size. Items with $p < .05$ and α_{MH} substantially $\neq 1.0$ were flagged.

For the logistics regression, adjusted p -values (e.g., using Benjamini-Hochberg correction) and ΔR^2 values were used to assess DIF significance and effect size. Items were flagged if adjusted $p < .05$ and ΔR^2 exceeded .01

Measurement invariance

The six Hofstede VSM2013 constructs are conceptualized as culture-level constructs, representing aggregated societal values rather than individual personality traits. In Hofstede’s approach, these indices are calculated as weighted averages of group means for specific survey items (e.g., $PDI = 35[m7 - m2] + 25[m9 - m23]$).

However, because the present study includes only two cultural groups (Inuit, non-Inuit), it was not possible to conduct a true culture-level factor analysis across multiple units, as would be required to test measurement invariance strictly at the culture

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

level. Instead, measurement invariance testing was conducted at the individual response level, treating group membership as a grouping variable. This approach examines whether individuals from each group interpret and respond to the VSM2013 items in the same way, providing insight into potential item-level biases that could influence aggregated culture scores.

The demographically matched samples ($n = 64$ for each group) were used as comparisons are being made between groups. This is a small problematic sample size, as discussed below.

Separate multi-group confirmatory factor analyses (mgCFA) were conducted for each construct using AMOS, an SPSS addon (Arbuckle, 2021). Each construct comprised four distinct items and was analyzed independently to ensure construct-specific conclusions. For each construct, three nested models were estimated: Configural invariance (same factor structure across groups); Metric invariance (equal factor loadings across groups); and Scalar invariance (equal factor loadings and intercepts across groups).

Model fit was assessed using the Comparative Fit Index (*CFI*), Tucker–Lewis Index (*TLI*), Root Mean Square Error of Approximation (*RMSEA*), and Standardized Root Mean Square Residual (*SRMR*) (Hu & Bentler, 1999). Model comparisons used the guidelines of $\Delta CFI \leq .01$ and $\Delta RMSEA \leq .015$ for invariance (Cheung & Rensvold, 2002; Chen, 2007). When full scalar invariance was not supported, partial scalar invariance was tested by freeing intercept constraints for non-invariant items identified via modification indices and prior DIF analyses (Byrne, Shavelson, & Muthén, 1989).

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

The matched sample included $n = 64$ Inuit and $n = 64$ non-Inuit respondents, which is below conventional CFA recommendations (often ≥ 200 per group; Kline, 2016). Small sample sizes can produce unstable parameter estimates and inflate the likelihood of inadmissible solutions, and therefore, results should be interpreted with caution.

Comments section

The last question in the survey was an open-ended comment section. The comments were classified as none (i.e., “none”, “n/a”, etc. was written), thanks, good luck, good survey, praise (for GN/Nunavut), unrelated grumble (about the GN), irrelevant (such as added career history), other (relevant), question specific, gender question, and 4-day work week (request). These were further grouped into four sentiment categories (none, positive, negative, other) to allow the conditions for a Chi-square test of independence to be satisfied. This test was then conducted to examine whether the distribution of sentiments differed significantly between groups.

Interpretation and Significance of the Findings

The purpose of this research was to determine the Hofstede dimensions of Inuit culture and to find whether these dimensions reflected predicted ranges as described in Chapter 3. The latter part was to explore the boundary conditions of the scale before using the values to make business recommendations to the GN. Through anchoring, those scores for Inuit were placed within the existing Hofstede framework of 130 cultures, acknowledging that the accuracy of some of these scores has been brought into question, as detailed in Chapter 2. The two-group paired comparisons under the VSM involve the indices for Inuit GN employees and non-Inuit southern Canadian GN

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

employees (specifically, non-Inuit Canadians who were born and grew up in Canada, i.e., they have spent their first formative 10 years in Canada).

Inuit Hofstede dimensions

Sub-sections in the discussion chapter detail each of the six Hofstede dimensions in turn. The scores are compared to those of southern Canada and other cultures' values, by placing them within the Hofstede matrix. The practicalities of the differences are also discussed. It could be argued that small differences may have no practical significance. M. Schachner, (personal communication, April 14, 2021) suggests a 10-point score difference. G. J. Hofstede (personal communication, June 1, 2022) clarified that this is a good limit for untrained, outside observers, but a one-point difference on the scales could be significant for trained observers familiar with both cultural groups.

However, as discussed in Chapter 2, several authors, such as Akaliyski (2023), have less faith in the accuracy of the scores. Whilst others, such as Minkov and Kaasa (2022), believe that the Hofstede model collapses to just two universal dimensions (a form of individualism and long-term orientation). These issues are discussed in the relevant subsections of Chapter 6, along with statistical limitations of the study's data for specific dimensions.

Assuming that there is still some level of accuracy of the scores found, and those scores already determined, any similarity of individual indices is still useful knowledge as it could show common ground where management/leadership should be less concerned about cultural differences. Similarities with any culture already in the matrix, including southern Canadian scores, would still show differences with the other 130 cultures in the framework. This is the reason why the usefulness of the Inuit Hofstede

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

scores is increased significantly by anchoring into the existing Hofstede framework of over 130 country-level cultural scores.

Each of the six Hofstede dimension scores are discussed in depth regarding business implications for the GN in Chapter 6. These business implications include culturally relevant human resource management, client service delivery to an Inuit majority population, cross-cultural negotiation, culturally relevant organisational design, and culturally relevant policy development.

Southern Canadian Hofstede dimensions

Although Inuit Hofstede dimensions have not been measured to date, there has been other work on Hofstede values of southern Canadian national culture, including in the original Hofstede IBM studies, as discussed earlier.

In Chapter 6, thought is applied to why the southern Canadian group in this study may have differed from the other studies. Comparisons show that non-Inuit Canadians working for the GN in Nunavut have different Hofstede scores than those in the other studies. Possible reasons for such variety will be discussed. It would have been more surprising if sets of scores were similar, rather than dissimilar (Hofstede, 2013). The discussion on differences will allow consideration of confounding factors, which are a useful insight.

Assumptions

This section addresses the limitations and delimitations of the research. Both factors restrict the questions that can be answered and the extent to which the findings can be generalized. However, limitations are usually beyond the researcher's control,

MEASURING AND USING THE HOFSTEDÉ DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

whereas delimitations are deliberate constraints set before the project begins to define its scope (Theofanidis & Fountouki, 2018).

Limitations

Limitations threaten the internal and external validity of the research. The limitations recognised in this research included the following.

- As discussed in Chapter 2, culture is very broad. The Hofstede model examines a limited aspect of what could be considered culture. It cannot be used to describe a culture fully. Also, each construct within the model may be broader or narrower than what is being measured by the VSM 2013, so construct bias may be present, as discussed in Chapter 2.
- The study lacked a bottom-up emic study that could have created a new survey tool and model. However, if a new survey tool is developed or adapted, it further reduces the ability to compare scores between countries. This practice is warned against by Hofstede (2001, p. 464).
- The reliance on the role of the researcher is also a limitation. This is discussed more in Chapter 3 under the author's biases. This is one issue. Another is the reliance on the researcher's interpretations of the Inuit Qaujimaqatuuqangit Principles, Inuit Societal Values, and Maligarjuaq Laws to predict the Hofstede scores. This could have been made more rigorous by using a committee structure composed of Inuit. Further, committee/focus groups could have been used to determine cultural equivalence and any sensitivities to specific questions.
- Limitations and criticisms of the Hofstede model. These have been extensively discussed in Chapter 2. There is mounting criticism against the Hofstede model's six

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

dimensions, which do not replicate as well in general populations. It is argued that the masculinity and uncertainty avoidance dimensions are artefacts from the original IBM surveys. Power distance is considered part of the individualism dimension, and the indulgence dimension is unstable (Minkov, 2025). That is to say that there are likely only two truly universal dimensions. That being said, the VSM 2013 in this present study was distributed to similar populations to the IBM studies, as respondents were employed and middle-class. However, even the middle-class definition varies by country (van de Vijver & Leung, 2021, p. 11). The GN is also a much smaller, public-sector organisation, as opposed to an international private-sector organisation. The point being made is that the Hofstede model may be relevant to the GN context, and this appears to be the case based on the congruence with a priori predictions of the dimensions.

- Participant response rate. Not all the population surveyed responded. Where possible, tactics were used to increase response rates as discussed in the previous two sections. A low response rate could have affected the reliability of the results. If response rates had been too low within the GN, additional respondents could have been sought in other public sector organisations within Nunavut. However, response rates were high enough that this was not necessary. This was good, as it would have required additional approvals, which was undesirable as discussed in the “Delimitations” subsection.

- Although sample sizes after matching were considered acceptable based on heuristic recommendations by Hofstede and others, these sample sizes could be considered too small by other metrics. Cohen’s *d* analysis revealed problematic sample sizes for all dimensions except masculinity and power distance, presented in the next

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

chapter. The Yamane equation, detailed earlier in this chapter in the “Research Design” section, showed that for the matched samples ($n = 64$), there is an estimated margin of error of $\pm 12.3\%$ for the Inuit group and $\pm 12.2\%$ for the non-Inuit group. Although these are not classified as “very imprecise”, they are classified as “low precision / exploratory”. The results for the dimension scores, therefore, need to be interpreted with care.

- Violations of the assumptions of parametric analysis, such as normalcy and homogeneity of variance. This was checked during the data analysis, and where relevant, non-parametric statistical analyses were utilised.
- Limits of self-report. The type of respondent who was more likely to reply to the survey request may have affected the generalizability of the results, akin to the response rate issue, but where certain segments of the population may have been more or less likely to respond relative to other segments. Cultural aspects may also have affected willingness to participate and/or provide honest answers for high power distance cultures (Lihong & Miguel, 2013). However, this was unlikely to have been a limitation for Inuit responses given the very low power distance (8) found in this study and predicted a priori. For Inuit culture, this could tend to result in a higher level of trust, which would conceivably increase response rates. However, the actual response rate of the Inuit population ($n = 222$) within the GN was significantly lower than for non-Inuit ($n = 244$), as shown in the next chapter. This could have been due to cultural or demographic reasons. The demographics (such as age, education, and type of job) of each population before matching were significantly different between the groups, as shown in the next chapter.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

- It was believed that the nature of the work-related questions in the VSM2013 were also not very sensitive in nature, with demographic questions left to the end. However, this could have been more rigorously tested with focus groups from both cultures to evaluate the sensitivities of the questions asked. Additionally, having the demographic responses at the beginning of the questionnaire could have allowed dropout analysis to be conducted for those who do not fully complete the survey.

- Wilson (2014, p. 168) states that Likert scales are a Western questioning technique that may not be understandable in all cultures, with sensitivity to certain questions also varying by culture (p. 171). Again, this was assumed by the researcher not to be an issue for Inuit working in the GN with workplace-related questions of the VSM 2013. An open-ended “comments” question was added to the end of the questionnaire to capture any additional feedback, which is presented in the next chapter. Again, this assumption could have been more rigorously tested with focus groups from both cultures.

- Social desirability response bias – As discussed in Chapter 2, there may be systematic error present for Inuit from social desirability bias on some questions. For example, Q13 asks how important “doing a service to a friend” is. Service to community and family is one of the espoused Inuit Qaujimajatuqangit principles (Inuit Societal Values). However, Q13 was not flagged during the DIF analysis, recognising the limitations of the analysis due to sample size.

- As well as the social desirability response bias, different cultures can have other types of response style biases such as acquiescence, extreme response style, midpoint response style, and mild response style, as discussed in the “Analysis of Results”

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

section earlier in this chapter. However, for the types of response biases that could be tested with the available data, there were no significant differences between the two groups.

- No dropout analysis was conducted for those who opted not to complete the survey. This could have provided helpful insight into the perception of the survey by the two groups. For example, a sample of non-respondents could have been interviewed to determine attitudes toward the research. A greater quantity of open-ended qualitative questions could have also provided valuable insights.

- DIF is another issue that can occur due to translation issues or cultural interpretation differences. This was checked with the GMH procedure and the LR both in the R program. Although data limitations necessitate caution in interpreting the results, there appears to be DIF occurring on some items, as presented in the next chapter.

- There has been some effort to reduce “tick syndrome” by reversing the order of the Likert scales, for example, where five is “always”, rather than “never”. Reversing the order of Likert scales can create other methodological problems, however, where a respondent may not notice the reversed order (Wilson, 2014, p. 165), and this was commented on by one respondent. This often shows up in a factor analysis where negatively worded items produce their own factor. There is only one reverse-ordered question in the VSM2013, Q20 (Hofstede & Minkov, 2013).

- As discussed earlier, if half of the questions had been reverse-coded, tests for NARS bias could have been conducted. So, this was also a limitation.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

- Non-representative sample - generalizability to the entire population. The entire GN employee population was solicited. The raw Hofstede scores are not meant to be generalised to the entire Inuit population. The difference between the matched samples (GN employees) was of interest, and the adjustments made after anchoring.
- Face validity of any translated survey documents (Wilson, 2014, p. 133). As discussed earlier, the translation of surveys can result in loss or change of meaning. An attempt was made to minimise this through checking with back translating as per Brislin (1970). However, as discussed in the “Translation/Cultural Equivalence Issues” section earlier in this chapter, this process could have been done more rigorously by using teams of translators in both forward and backward translation, as well as utilising focus groups to confirm accurate translation. It was also found, as expected, that the English language version of the survey was utilised in most cases. Only two Inuktitut-completed questionnaires were screened into the matched samples ($n = 64$ per group), and only four French versions. This would have reduced the potential impact of any translation errors.
- Internal reliability of the VSM 2013 instrument. The internal reliability at the individual level of the instrument, as measured by Cronbach’s alphas, was appalling, with some cases even yielding negative values. However, as stressed throughout the dissertation, the VSM 2013 measures culture at the group level. Analyzing at the individual level is committing the ecological fallacy. This has been communicated by Hofstede on numerous occasions, including in response to researchers who have found low alphas when committing this fallacy. However, the VSM 2013 was found to have low internal reliability in a large-scale, multi-country study completed by Gerlach and Eriksson (2021) and Taras, Steel, and Stackhouse (2023). Therefore, although

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

low/negative Cronbach's alphas in the present study cannot be interpreted at the group level, there is still concern about internal consistency.

- In the Hofstede method, means are used. Doronila (2024) discusses how some have argued that, generally, means should not be used with ordinal scales such as Likert scales. This is because the use of means suggests interval-type data. Interval data refers to data where there is an equal distance between each Likert response. For ordinal data, medians or modes should be used, which also affects the choice between parametric and non-parametric statistical tests. However, others believe that, primarily when multiple items comprise a construct, such as with the VSM 2013, the scales behave like interval data, and parametric tests are robust.

Delimitations

Delimitations limit the scope of the research and are intentional. The delimitations for the research were:

- The questions forming the body of the VSM2013 were not modified. This was to allow the computation of the Hofstede dimensions in relation to those 130 country cultures already in the framework. Hofstede (2001, p. 43) stresses that student researchers resist the temptation to modify the questions, as this could affect the comparability of the scores determined. It is also bad form to modify a standardized scale other than to fit the context in which it is used, as this effectively implies creating a new scale.

- Only the VSM 2013 was administered (with the additional “comments” question). No other survey framework, such as GLOBE, was administered in this research. Although the use of all scales in the Nunavut context would allow interesting

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

insights, this would have made the project unwieldy. Additionally, increasing the number of survey questions for participants would have increased their time requirements and decreased response rates (Wilson, 2014, p. 166).

- An additional qualitative component did not occur. The idea of a mixed method approach was considered. It would have been interesting, for example, to develop questions with Inuit input – like the method used by Michael Bond with Asian students, allowing the fifth dimension to be added (Chinese Culture Connection, 1987). This could be an option for future research. It should be noted that one open-ended question was added at the end for additional comments, as detailed in the next chapter.
- Only one additional culture (southern Canadian) was intentionally sampled to allow anchoring. Hofstede (2001, p. 464) states that one or two countries that were sampled in the original IBM studies will allow anchoring but recommends just one additional anchoring country for doctoral students. Some respondents did not live their formative years, the first ten years of life, in Canada, so they were removed from the sample. This was determined from a question in the survey instrument.
- Only southern Canadians who spent the majority of the first ten years of their life in Canada were screened into the anchoring group by utilizing the demographic data from the survey. The southern Canada sample is also compared to other past studies that have measured the Hofstede scores for Canadian samples to consider factors for any differences and management implications within the GN.
- Only GN employees were surveyed. Based on expected response rates, and as discussed in the “Research Design” section, it was predicted that this would yield an adequate sample size. As a contingency plan, additional sampling could have occurred

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

in other public sector organisations in Nunavut, such as hamlet/city governments and the federal government, although this would have required additional approvals. However, this backup plan was not needed based on the matched sample sizes obtained, if the heuristic level of 50 (or 20) is used. Another contingency plan, formulated during the data-gathering phase, was to use fuzz factors in the matching of the two groups of interest. The use of fuzz factors is a method in SPSS that allows some relaxation of matching criteria. For example, one or more demographic groupings could be relaxed to within one bar away in a chart. This method allows a greater matched sample size. Again, this was not needed as strict matching produced adequate matched sample sizes.

Chapter Summary

This chapter has detailed the methodology used in this research. The introduction described the paradigm and research philosophy, along with the research questions. After reviewing past extension studies that were endorsed by Hofstede and a brief history of the VSM survey instrument, translation/cultural equivalence issues were covered. The research design was then covered. This included details on participants, sampling, data collection, and ethical considerations. The “Analysis of Results” section addressed how reliability and validity were determined, along with the data analysis conducted, the issue of response style bias, differential item functioning (DIF), and measurement invariance. This section included details on how the results (Hofstede dimension scores for Inuit) were anchored into the existing Hofstede framework of 130 country cultures, potentially allowing direct comparisons to these other cultures, as well as the southern Canadian scores measured in this research. This potential direct comparison with multiple cultures allows employees from many different cultural

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

backgrounds (first-generation immigrants) to better cater to an Inuit majority population, and increasingly, an Inuit proportionally represented public service.

The “Interpretation and Significance” section explained how the results will be interpreted and their significance, whilst the assumptions section discussed the extensive limitations and delimitations. Attention now will turn to the results of the research.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Chapter 5 - Results

Chapter Introduction

This chapter examines the data gathered from the survey. It begins with an overview of the response rates and an investigation of the comments received on the survey. This is followed by a detailed analysis of the origins of the non-Inuit respondents and a comparison with national statistics for Canada. This includes both the first-generation immigrant population (country of origin) and the province of origin of those born in Canada. This comparison is important as it highlights how closely the demographics of the non-Inuit sample match the national demographics of Canada, which serves as a reference for the new Inuit data. The demographic makeup of the Inuit respondents was then compared to that of the respondents from southern Canada.

Following these descriptive statistics, the six Hofstede dimensions are calculated. First, the measured values are calculated for both Inuit and non-Inuit from the Canadian-born segment. These are based on the two groups, which were fully matched on demographics using SPSS, i.e., matched by gender, age, education, professional status, and level in the organisation, with no fuzz factors. Fuzz factors are when SPSS relaxes the matching criteria on specified variables to a broader range of values. This matching resulted in a sample size of 64 for each of the two groups (Inuit/non-Inuit).

Following these calculations, the relative values are calculated for each dimension using the fully matched samples, resulting in six new values for Inuit culture as described in the method chapter (Chapter 4). These relative values are those values that can potentially be embedded within the existing matrix of Hofstede dimension values, i.e., they allow comparison with other country cultures, though the accuracy of

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

these values is questionable. With these relative values for Inuit culture known, the potential implications for business practices, the “so what” of the research, are discussed in Chapter 6.

The data was analysed as recommended by Hofstede. Completing statistical analysis to determine the significance of differences between the means is not appropriate due to the reverse ecological fallacy. The ecological fallacy, as described in Chapter 4, is when it is wrongly assumed that an ecological correlation is equal to its corresponding individual correlation (Robinson, 1950), i.e., that they are isomorphic. Culture is at the group level, not the individual, in the Hofstede model. However, see the discussion in Chapter 2, specifically in the “Hofstede’s definitions of culture” subsection, where it is argued that culture also exists at the individual level, even though an individual cannot have a culture of their own, and not all survey instruments are multilevel. As explained in the method chapter, the researcher was still interested in the variability between the two groups at the individual level, so a Hotelling’s T^2 (MANOVA) test, as detailed in the methods chapter, was undertaken. This is a Multivariate Analysis of Variance test, which was appropriate to use because of the presence of six dependent variables. The results of this analysis are therefore presented.

As the Hotelling’s T^2 test showed a significant difference between the two groups (Inuk/southern Canada), post hoc individual, one-tailed independent t -tests were conducted, so the results of this additional analysis are also shown. A one-tailed test was possible because the direction of the differences in means had been predicted a priori. The section further looks at Cohen’s d , Cronbach’s alphas, aggregation analysis,

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

differences in responses to individual questions, along with response style biases, differential item functioning analysis (DIF), and measurement invariance.

Response Rates

Most Government of Nunavut (GN) employees were invited to respond to the questionnaire. Unfortunately, two departments did not partake in the research because approvals from department heads could not be obtained within the timeline of the research. This was detailed in the method chapter.

Based on email lists, it was estimated that 2,146 employees received questionnaires, either on paper or electronically (SurveyMonkey links via email). This is an estimated number due to employee turnover and leaves. Many had auto-response messages to that effect, but not all. It was impossible to determine the extent of this discrepancy.

Out of the estimated 2,146 employees solicited, 523 responses were obtained. This equates to an overall response rate of 24%. This response rate, especially due to workload of an understaffed organisation and weariness of clicking on links/opening email attachments due to cybersecurity issues, was considered exceptionally good.

A relatively small number of questionnaires were distributed in hard copy. These were within the Iqaluit offices for the Departments of Economic Development and Transportation, the Department of Human Resources, and the Department of Executive and Intergovernmental Affairs. This proved very inefficient due to the need for multiple visits because of staff being unavailable for such things as being on duty travel. The response rate for this method was higher, however, at 67%. The researcher attributed

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

this higher response rate to the removal of the cybersecurity fear and the personalisation of the research.

Recipients of the survey instrument were given the opportunity to utilise one of four language options. Response rates for each language version were English (507), French (12), Inuktitut (4), and Inuinnaqtun (0). However, only 4 French versions and 2 Inuktitut versions were screened into the matched samples ($n = 64$ for each group).

Out of the total 2,146 Government of Nunavut employees invited to participate in the survey, there were an estimated 1,129 Inuit (52.6%) and 1,017 non-Inuit (47.4%), based on data from the time of the survey (Government of Nunavut, 2023). Survey responses were received from 222 Inuit and 301 non-Inuit employees (including first-generation Canadians), yielding response rates of 19.7% and 29.6%, respectively, as shown in Table 8.

Table 8

Response Rates

	Total GN	Population solicited	Responses	Response Rate
Inuit	53%	1,129	222	19.7%
Non-inuit	47%	1,017	301	29.6%
TOTAL	100%	2,146	523	24.4%

A two-proportion z -test revealed a statistically significant difference in response rates between the two groups, $z = -5.35$, $p < .001$ (two-tailed). Non-Inuit employees were significantly more likely to respond to the survey than Inuit employees.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Comments Section

The comments received are summarised in Table 9. A total of 110 open-ended responses were analyzed, i.e., 24% of the respondents left comments. A two-proportion z-test was conducted to evaluate whether Inuit and non-Inuit participants differed in their likelihood of leaving comments on the survey. Of the 222 Inuit respondents, 55 (24.8%) provided written comments, compared to 66 of the 301 non-Inuit respondents (21.9%). This difference was not statistically significant, $z = 0.76, p = .45$, indicating no meaningful difference in comment rates between the two groups.

Table 9

Comment Types and Sentiment Classes

Comment type	Inuit (n = 222)	Non-Inuit (n = 244)	Total	Sentiment class
"None"	13	13	26	None = 26
Thanks	12	11	23	Positive = 54
Good luck	6	11	17	
Good survey	4	7	11	Negative = 19
Praise	2	1	3	
Grumble	6	8	14	
Irrelevant	4	1	5	Other = 21
Other	5	3	8	
Questions	2	5	7	
Gender	0	4	4	
4-day	0	2	2	
Total	54	66	110	

Note.

“none” was written (omits non-response).

Praise was directed towards the GN; grumbling was against the GN.

Irrelevant included comments about life history.

Other includes relevant comments to the survey (see below).

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Questions included those comments about specific survey questions (see below).

Gender regarded the need to recognise gender diversity in the gender question.

A 4-day (work week) was an expression of desire.

Comment types were grouped into four sentiment categories: Positive, Negative, Other, and None. The distribution of sentiment categories was similar between Inuit and Non-Inuit participants (see Table 9). A Chi-square test of independence revealed no significant association between group membership and sentiment class.

$\chi^2(3, N = 120) = 0.60, p = .897$. All expected frequencies met the Chi-square test assumptions, and all expected cell counts exceeded $n = 5$.

The comments regarding specific questions pertained to Qs 8-12 (Q9 being commented on twice) and 21-24 for non-Inuit, as well as Qs 20, 22-24 for Inuit. These comments generally indicated that the questions were difficult or context-dependent. Regarding Qs 21-24, as noted earlier, they were considered more difficult than the previous questions, which is why they appear later in the questionnaire. Q 20 was commented on regarding the reverse coding and how it may have caused errors. Another comment was that for Q28, nurses should have been classified as professional, not vocational. This was received during the initial stage, so it was corrected in future distributions. Nurses were not part of the survey, however.

The “other” comments, listed below, were relevant to the research and are discussed in Chapter 6.

Inuit comments:

“Multiple choice should have comment options, so you can learn more about what is really happening.”

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

“I strongly believe all workplaces and organizations should solely run off the Inuit Qaujimagatuqangit.”

“Balance in work and personal life is important to do an efficient job.”

“I thought this would be more culturally oriented.”

“When respected in the office, it makes life a whole lot happier at home.”

Non-Inuit comments:

“Balance of work and life is critically important.”

“I believe commitment to one employer is important.”

“Nurses are professionals.”

Overseas Representation

Overall, the sample had 10.9% first-generation immigrants, compared to 23% of the population for Canada as a whole (Statistics Canada, 2022). The sample in this research exhibited the following distribution of countries within the first-generation immigrant segment: Philippines (8), Nigeria (8), Cameroun (6), Zimbabwe (5), UK (3), USA (3), China (3), India (2), Chile (1), Cuba (1), Malaysia (1), Tanzania (1), Bangladesh (1), Cote d’Ivoire (1), Sierra Leone (1), Antigua and Barbados (1), Sri Lanka (1), Brazil (1), Ghana (1), South Africa (1), Poland (1), Palestine (1), and Pakistan (1). Additionally, three responses were categorized as "Overseas," and one was labeled as "Asia".

Binning (or grouping) each country by region allows the differences in the distribution of first-generation immigrants to be compared to national values, as shown in Table 10. Compared to Canada-wide data, there was a much higher (449%) representation from Africa as a region, and to some extent the United States of America

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

(168%). This meant lower representation from the other regions, i.e., Asia (68%), Europe (33%), the Americas (64%), and Oceania/other (0%).

Table 10

Region of Origin of the First-Generation Immigrant Populations at the Sample and National Level

Region of origin	National level %	Sample Level #	Sample level %	Difference
Asia (incl. Middle East)	51%	19	35%	68%
Europe	23%	4	7%	33%
Caribbean, Bermuda, Central/South America	12%	4	7%	64%
Africa	10%	24	44%	449%
United States of America	4%	3	6%	142%
Oceania & Others	1%	0	0.0%	0%

These differences in the percentages of both first-generation immigrants broadly and the regional makeup within those populations do not affect the anchored values, as the first-generation segment was removed before matching.

Provincial/Territorial Representation

Table 11 shows the differences between the makeup by province/territory of the respondents, compared to that reported in Statistics Canada (2022) for Canada at the national level. As can be seen in the table, the sample’s representation from the provinces of Ontario and Alberta were similar to that at the country level. There was relatively more representation in the sample from the east coast provinces of Newfoundland and Labrador, Nova Scotia, Prince Edward Island, and New Brunswick. There were relatively lower proportions from the provinces of British Columbia,

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

Quebec, Saskatchewan, and Manitoba. This may be due to the relatively poorer economies in the east coast provinces driving migration. It is unknown what effect this has on the Hofstede values calculated for southern Canada. It is possible that the values for the provinces vary.

Table 11

Province of Origin for the Populations at the Sample and National Level

Province/Territory	Country level Population (1,000s)	Country level %	GN Sample	GN Sample %	Sample / Country
Ontario	15122.9	38.9%	72	38.1%	98%
Quebec	8683.2	22.4%	25	13.2%	59%
British Colombia	5344.9	13.8%	10	5.3%	38%
Alberta	4516.3	11.6%	24	12.7%	109%
Manitoba	1399.9	3.6%	5	2.7%	73%
Saskatchewan	1189.2	3.1%	4	2.1%	69%
Nova Scotia	1009.6	2.6%	16	8.5%	326%
New Brunswick	797.5	2.1%	8	4.2%	206%
Newfoundland and Labrador	520.3	1.3%	23	12.2%	908%
Prince Edward Island	168.4	0.4%	2	1.1%	244%
Yukon	44.1	0.1%	0	0.0%	0%
Northwest Territories	46	0.1%	0	0.0%	0%
TOTAL		100%		100%	

Demographic Distributions

This section presents the results of the demographic analysis comparing the two groups before matching. For Inuit, $n = 222$, and non-Inuit, $n = 244$.

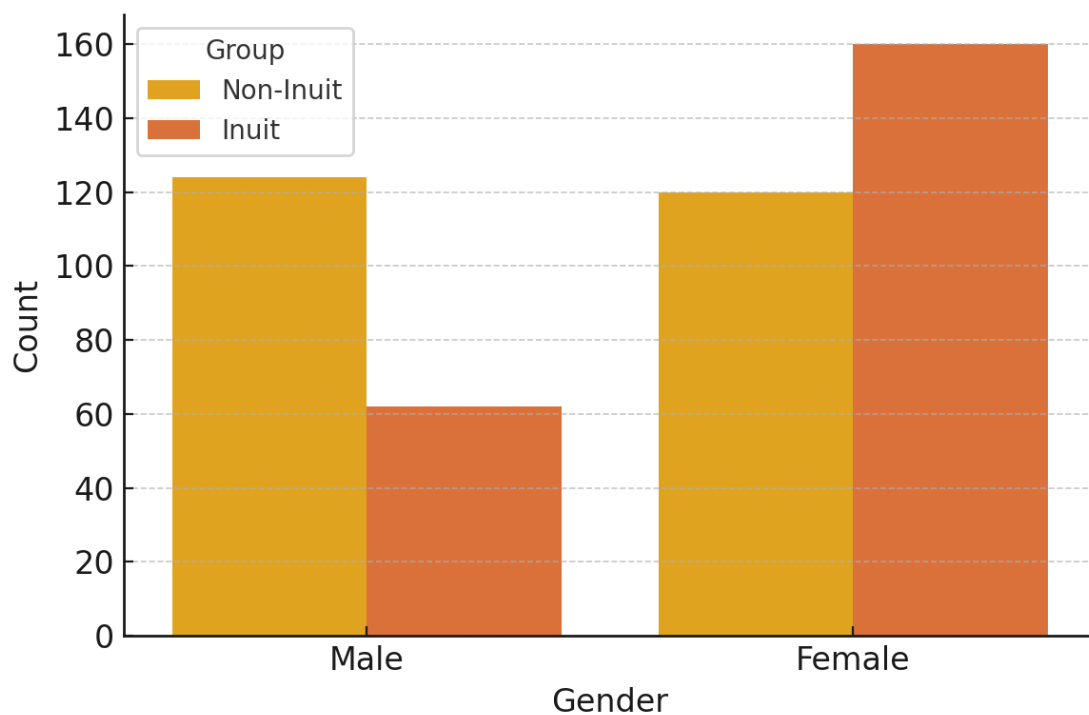
MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Gender distribution

A chi-square test showed a significant difference in gender distribution between Inuit and non-Inuit participants, $\chi^2(1, N = 466) = 25.40, p < .001$. Among females, 57.1% were Inuit, whereas among males, only 33.3% were Inuit, as shown in Figure 4.

Figure 4

Gender Distribution by Group (Inuit vs. Non-Inuit)



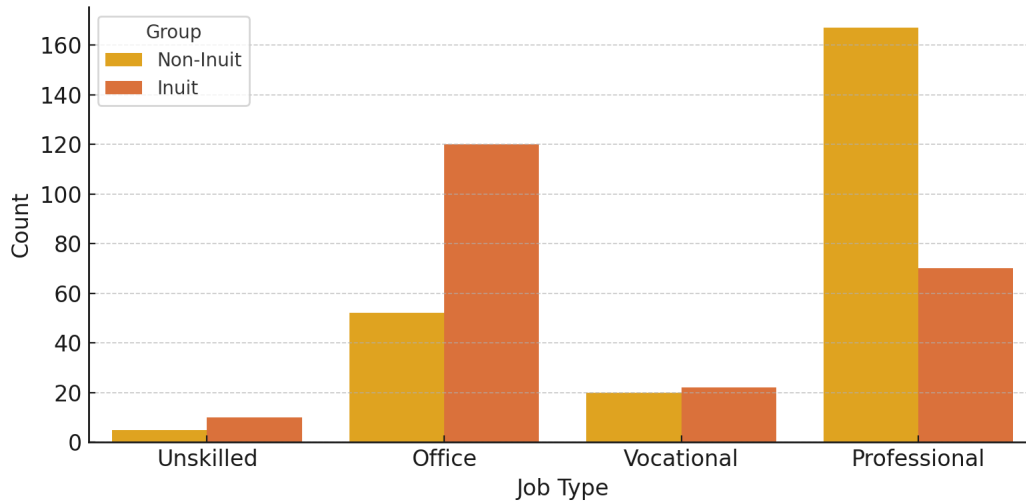
Type of job

There was a significant association between group and job type, $\chi^2(3, N = 466) = 67.46, p < .001$. Inuit participants were more frequently found in unskilled, semi-skilled, or vocational roles, whereas non-Inuit participants more commonly held academically trained professional roles (70.5% of those in professional roles were non-Inuit), as shown in Figure 5.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Figure 5

Job Type Distribution by Group (Inuit vs. Non-Inuit)



Supervisory responsibilities

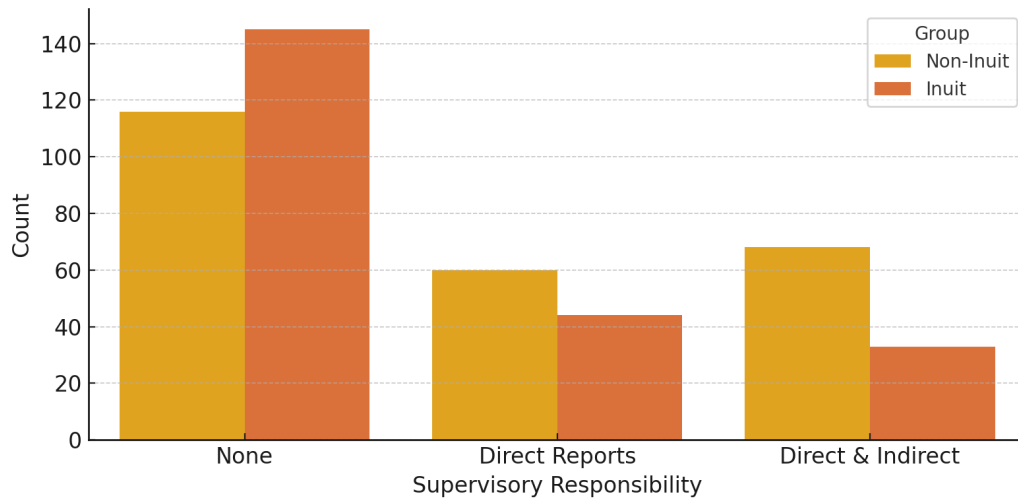
A significant relationship was found between group membership and supervisory level, $\chi^2 (2, N = 466) = 16.81, p < .001$. Non-Inuit participants were more likely to hold positions that involved supervising others, as shown in Figure 6.

Figure 6

Supervisory responsibility by group (Inuit vs. non-Inuit)

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MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

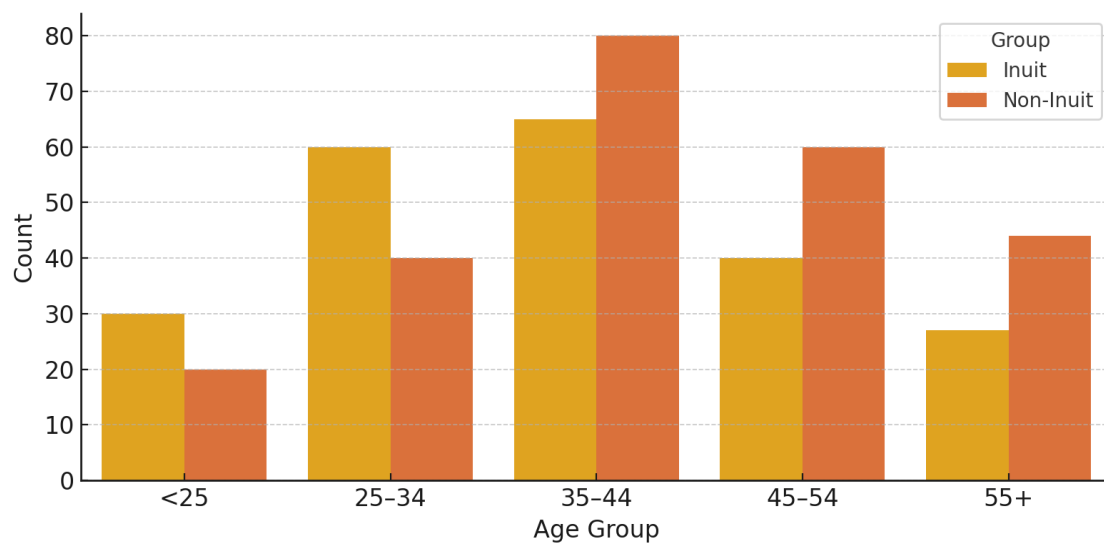


Age

A Mann–Whitney U test showed a marginally non-significant trend toward younger age among Inuit participants (mean rank = 221.15) compared to non-Inuit participants (mean rank = 244.73), $U = 24,343.0$, $z = -1.92$, $p = .055$, $r = .089$. The distribution is shown in Figure 7.

Figure 7

Age Group Distribution by Group (Inuit vs. non-Inuit)



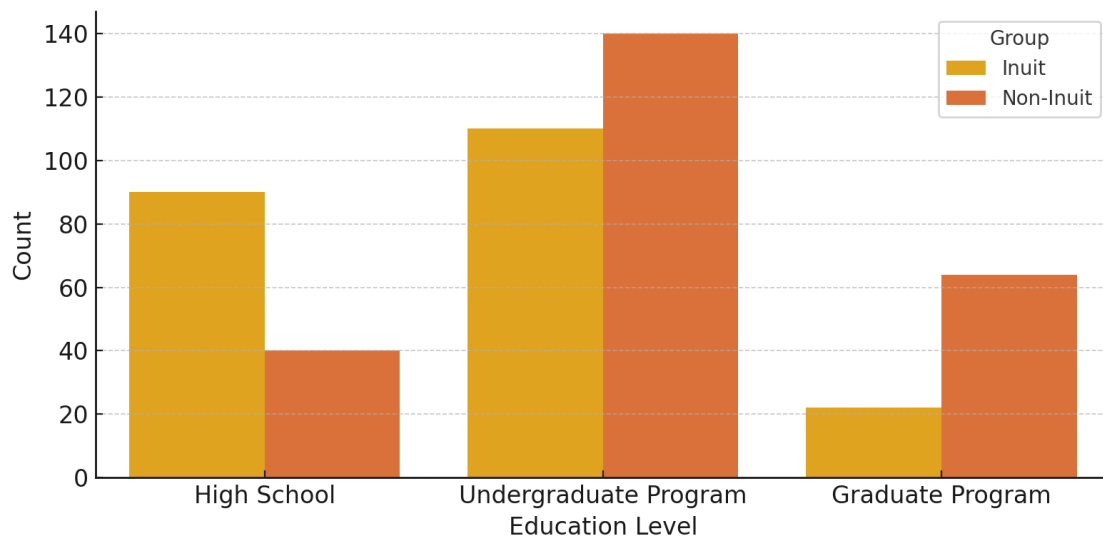
MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Level of education

Inuit participants had significantly lower levels of formal education than non-Inuit participants, $U = 10,511.0$, $z = -11.88$, $p < .001$, $r = .55$. The mean rank for Inuit participants was 158.85 versus 301.42 for non-Inuit. The distribution is shown in Figure 8.

Figure 8

Education Level Distribution by Group (Inuit vs. non-Inuit)



Years with the GN

An independent-samples t -test revealed a statistically significant difference in years of GN service between Inuit ($M = 9.85$, $SD = 8.29$) and non-Inuit participants ($M = 8.21$, $SD = 6.43$), $t(414.05) = -2.37$, $p = .018$. The effect size was small, Cohen's $d = 0.22$, 95% CI [0.04, 0.41], indicating that Inuit participants, on average, had worked slightly longer for the GN than non-Inuit participants.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Inuit Hofstede Dimension Scores – Matched and Anchored

Using data from all Inuk/non-Inuk samples that are perfectly matched along the five demographic factors (excluding first-generation Canadians) resulted in a sample size of 64 for each group (Inuk/non-Inuk). Table 12 summarises the calculated values using Hofstede's method. Again, no statistical comparison of means should be made as that would violate the reverse ecological fallacy. *N* is effectively two, the Inuk and non-Inuk samples.

To illustrate the data in Table 12, the power distance column is described. The first row consists of the measured value for non-Inuit, in this case, the score was 57.5. The next row shows the measured value for the Inuit group. In this case, 26.0. The difference between these two measured values is 21.5, which needs to be subtracted from the third row, which is the existing anchored value for southern Canada, 39. The result is an anchored score of 8 for Inuit culture. This is the score that can potentially be compared to the other existing 130 cultures in the Hofstede matrix. However, as noted earlier, it is likely that some of these scores have changed over time and may suffer from methodological issues (Akaliyski, 2023). The accuracy of the scores calculated can also be questioned, as sample sizes were small by some measures. Additionally, the accuracy of the scores may have been affected by DIF and measurement invariance.

The anchored values for the Inuit Hofstede dimensions were embedded in the Hofstede Matrix, as shown in the charts in Figure 9. The red bars are the values for Inuit. The blue bars show the values for those national cultures already embedded in the matrix. The green bars show those values for those cultures that showed up in the GN sample, which have also been calculated from previous studies. The orange bars are

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

those values previously found for southern Canada. The two yellow bars are to show the mean and median across all cultures currently in the matrix.

Table 12

Hofstede Values Calculated with Matching of Samples

	PDI	IDV	MAS	UAI	LTO	IVR
Non-Inuk (64)	57.5	32.8	-2.7	-23.8	-31.7	49.7
Inuk (64)	26.0	21.9	-29.0	-28.0	-20.7	48.0
Canada (existing)	39	72	52	48	54	68
Anchored Inuk Value	8	61	26	44	65	66

Note.

PDI = Power Distance; IDV = Individualism; MAS = Masculinity; UAI = Uncertainty Avoidance; LTO = Long Term Orientation; IVR = Indulgence.

Of interest, the Uncertainty Avoidance chart in Figure 9 shows that although the Inuit culture appears to have a moderately low score of 44, it is relatively low compared to most other cultures in the Hofstede matrix. Specifically, many cultures have higher scores than Inuit culture, while fewer have lower scores. This observation is explored in greater detail in Chapter 6.

Comparisons of the anchored Hofstede values with a priori predictions to explore boundary conditions of the model are discussed in the next chapter. The significance of

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

these values and the implications for the GN, the “so-what” of the research, are also discussed.

Figure 9

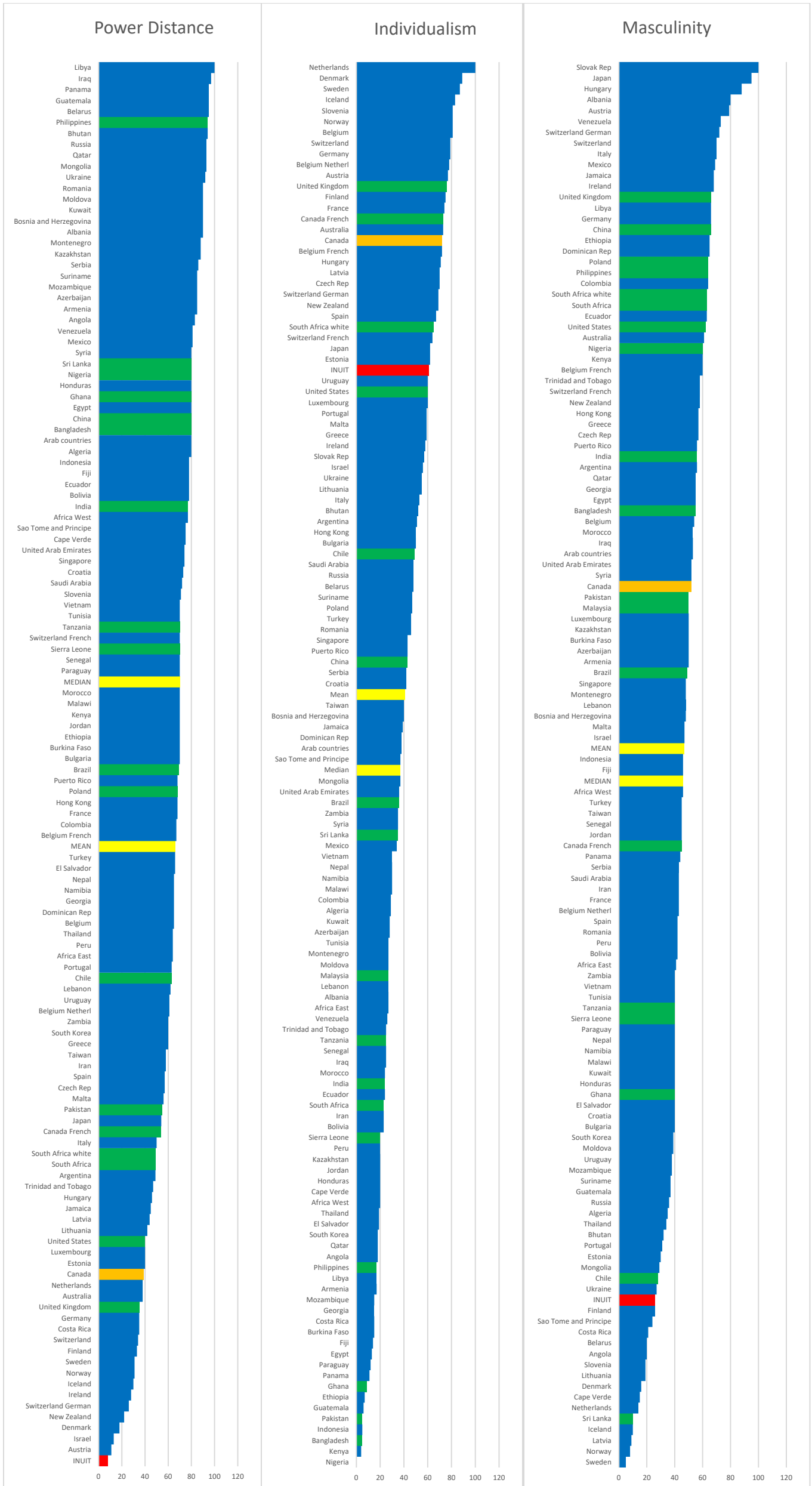
Hofstede Dimension Values for Cultures Currently Known

(Next 2 Pages)

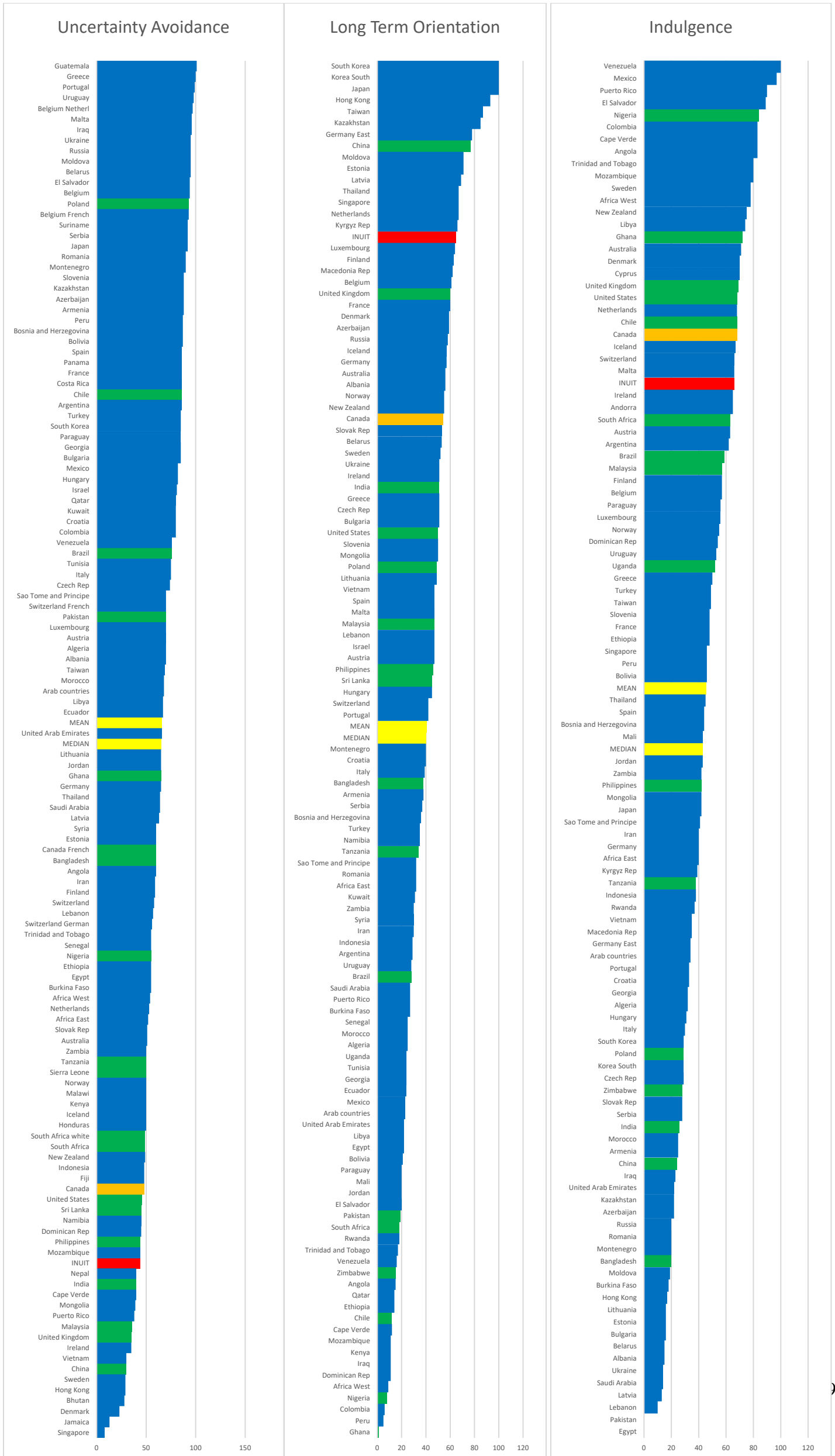
Note:

All values should be interpreted with a wide margin of error, as discussed throughout the dissertation.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE



MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE



MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Additional Statistical Analysis

As described in the method chapter and above, statistical analysis should only be conducted with an understanding of the limitations due to the reverse ecological fallacy. Correlation at the individual level is not equal to its corresponding ecological level correlation (Robinson, 1950), for the Hofstede model. The data analysis conducted in this research was completed at the individual level. The following subsections look at: Hotelling's T^2 (MANOVA) using post hoc independent one-tailed t -tests on each dimension; Cohen's d to show effect size; Cronbach's alpha for the question items; and two-tailed t -tests on each individual question to see if there are significant differences between the two groups (Inuk/non-Inuk) at the individual question level. Two-tailed t -tests were used because the directional difference at the individual question item could have been in either direction at the individual question level. Response style bias, DIF, and measurement invariance are then reported on,

Hotelling's T^2

Running a Hotelling's T^2 test the following statistics were obtained: $F(6, 121) = 4.204, p < .001$; Wilks' $\Lambda = .827$; partial $\eta^2 = .173$.

$F(6, 121) = 4.204$ shows the result of an F -test. The first number (6) is the degrees of freedom for the numerator, and the second number (121) is the degrees of freedom for the denominator. The value 4.204 is the calculated F -statistic. For this F statistic, $p < .001$. This indicates the statistical significance level associated with the F -statistic. In this case, it means that the probability (p -value) of obtaining an F -statistic as extreme as 4.204, given that the null hypothesis is true (i.e., there is no effect), is less

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

than 0.001. This is a very small p -value, indicating strong evidence against the null hypothesis. Therefore, there is a significant difference between each group (Inuk/non-Inuk).

Wilks' $A = .827$ is a measure of the proportion of variance in the dependent variables that is not explained by the independent variables. In this case it shows that 82.7% of the variance in the dependent variables is not explained by the independent variables. Additionally, partial $\eta^2 = .173$, which is a measure of effect size. It represents the proportion of total variance attributable to a particular factor while controlling for other factors in the model. In this case, approximately 17.3% of the variance in the dependent variable can be attributed to the independent variable, controlling for other factors in the analysis.

Because there was a significant difference between the two groups, independent one-tailed t tests were completed for each dimension individually. One-tailed t -tests could be used because the direction of difference was predicted before the data was collected and analysed with Hotelling's T^2 . The results of the one-tailed t -tests are shown in Table 13.

As can be seen in Table 13, Levene's Test of equal variances is met for each dimension, as significance, p value is >0.05 for all dimensions (the significance, as shown in the second data column, varies from .079 to 0.94). Equal variances can therefore be assumed for each dimension based on the Levene's test. This potentially affects which lines of data is used from Table 13.

As can also be seen from Table 13, only the dimensions of power distance and masculinity meet the $p < 0.05$ threshold for their one-sided t tests, i.e., are significantly

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

different between the two groups (Inuk/non-Inuk). These results, although not conventional, are discussed in Chapter 6.

Table 13

Independent One-tailed T-tests

		Levene's Test		Significance		Mean Difference
		<i>F</i>	Sig.	One-Sided <i>p</i>	Two-Sided <i>p</i>	
PDI	Equal variances assumed	3.145	.079	<.001	<.001	-31.48
	Equal variances not assumed			<.001	<.001	-31.48
IDV	Equal variances assumed	.004	.949	.148	.295	-10.94
	Equal variances not assumed			.148	.295	-10.94
MAS	Equal variances assumed	2.467	.119	.004	.009	-26.25
	Equal variances not assumed			.004	.009	-26.25
UAI	Equal variances assumed	.093	.761	.357	.714	-4.30
	Equal variances not assumed			.357	.714	-4.30
LTO	Equal variances assumed	1.542	.217	.123	.246	-11.02
	Equal variances not assumed			.123	.246	-11.02
IVR	Equal variances assumed	.432	.512	.420	.839	-1.64
	Equal variances not assumed			.420	.839	-1.64

Note:

PDI = Power Distance; IDV = Individualism; MAS = Masculinity; UAI = Uncertainty Avoidance; LTO = Long Term Orientation; IVR = Indulgence.

Cohen's d

Using SPSS, Cohen's *d* was determined for each of the six Hofstede dimensions. Cohen's *d* is a measure of effect size and is an example of an a priori power analysis as defined by Lakens (2022), though it was completed retrospectively in this case. Values

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

range from zero to ten, zero being a small effect size, requiring a larger sample size, and ten being a large effect size, requiring a smaller sample size. A value of 0.5 is considered a moderate effect size, which could have been used a priori as one estimate of desirable sample size, as described in Chapter 4. The Cohen's d values for each Hofstede dimension based on the collected data are shown in Table 14 and are discussed in Chapter 6.

Table 14

Cohen d Values

Dimension	Cohen's d	Interpretation (Effect size)	Ideal Sample Size (Inuk/non-Inuk)
PDI	0.6	Moderate	45
IDV	0.2	Small	394
MAS	0.5	Moderate	64
UAI	0.1	Small	1,571
LTO	0.2	Small	394
IVR	0.1	Small	1,571

Note:

PDI = Power Distance; IDV = Individualism; MAS = Masculinity; UAI = Uncertainty Avoidance; LTO = Long Term Orientation; IVR = Indulgence.

Cronbach's alpha

Cronbach's alphas for the four questions making up each dimension are shown in Table 16. Cronbach's alpha is a statistic used to assess the internal consistency or

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

reliability of a set of scale or test items. It measures the extent to which items within a scale or test correlate with each other, indicating how well the items are measuring the same underlying construct. In the context of research, Cronbach's alpha is often used to evaluate the reliability of survey questionnaires or scales designed to measure constructs such as attitudes, beliefs, or behaviors. A high Cronbach's alpha value (typically above 0.70) indicates that the items in the scale are closely related and consistently measure the intended construct, suggesting good internal consistency reliability.

However, in psychology, this can be significantly lower (Minkov, 2013, p. 187). Taber (2018) summarizes the wide range of cutoffs used to interpret Cronbach's alpha values in the literature. These cutoffs are rule-of-thumb numbers, not based on a broad sample of empirical data (Woehr, Loignon, Schmidt, Loughry, & Ohland, 2015). For the current research, the following cutoff values were used. Values above 0.6 (but below 0.7) are considered questionable, whilst values above 0.5 (but below 0.6) are considered poor, and values below 0.5 are considered unacceptable.

In Table 16, Cronbach's Alphas are calculated for all responses (i.e., Inuit, southern Canadian, less recent immigrants), for Inuit-only responses, and for southern Canadian-only responses. The results are discussed in the next chapter. Although these results appear to be concerning, they are explained in the next chapter, where Hofstede (2001, p. 463) and de Mooij (2013) are cited to explain why this test of reliability is not appropriate in this circumstance due to the reverse ecological fallacy.

In summary, the 4-item scales for all six dimensions demonstrated unacceptable internal consistency across all groups ($\alpha < 0.5$), except for: IDV with Inuit (poor); MAS with non-Inuit (poor), with Inuit and combined (questionable); and UAI non/Inuit

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

and combined (negative indicating item-level contradictions). The MAS dimension showed the strongest (though still weak) reliability across groups at the individual level. Alpha values were .596 (non-Inuit), .644 (Inuit), and .614 (combined).

Five of the six cultural constructs yielded valid (positive) Cronbach's alpha coefficients for both groups. These were analyzed using the simplified Feldt test. UAI with negative alpha values was excluded due to measurement unreliability. The results are summarized in Table 15. PDI, IDV, and IVR showed statistically significant difference in reliability between groups.

Table 15

Cronbach's Alpha Coefficients Between Inuit and Non-Inuit Groups (Simplified Feldt Test)

Dimension	α (Inuit)	α (non-Inuit)	F-ratio	p-value
PDI	.315	.043	9.308	<.001
IDV	.513	.288	2.368	<.001
MAS	.644	.596	1.115	.406
LTO	.272	.233	1.119	.393
IVR	.185	.034	5.865	<.001

Note:

UAI = Uncertainty Avoidance; LTO = Long Term Orientation; IVR = Indulgence.

Aggregation Analysis

ICC values supported the cultural-level aggregation of most dimensions. ICC(1) values ranged from 0.03 to 0.20, with individualism (ICC(1) = .20) and power distance (ICC(1) = .12) indicating meaningful between-group variance. ICC(2) values exceeded

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

.85 for most dimensions, confirming the reliability of group means. However, it should be noted that these cutoffs are rule-of-thumb numbers that are not based on a broad sample of empirical data (Woehr, Loignon, Schmidt, Loughry, & Ohland, 2015), similar to those cutoffs used in interpreting Cronbach’s alphas. Indulgence was lower than this cutoff, and long-term was unusually large and negative.

Welch’s *t*-tests revealed statistically significant group differences on several Hofstede dimensions, as follows. Inuit respondents reported significantly lower on the individualism items ($M = 3.03$) than non-Inuit participants ($M = 3.31$), $t(df) = -7.73$, $p < .001$, Hedges’ $g = -0.713$. Inuit participants scored lower on power distance ($M = 3.18$) compared to non-Inuit ($M = 3.41$), $t(df) = -5.70$, $p < .001$, Hedges’ $g = -0.527$. Inuit participants reported slightly lower masculinity ($M = 2.86$) than non-Inuit ($M = 2.97$), $t(df) = -2.82$, $p = .005$, Hedges’ $g = -0.261$. Inuit participants reported higher uncertainty avoidance ($M = 2.85$) than non-Inuit ($M = 2.63$), $t(df) = 5.01$, $p < .001$, Hedges’ $g = 0.464$.

Two dimensions did not show statistically significant differences. These were long-term orientation: $t = 0.23$, $p = .822$, Hedges’ $g = 0.021$, and indulgence: $t = -1.29$, $p = .198$, Hedges’ $g = -0.119$.

Table 16

Cronbach’s Alpha and Inter-Item Correlations

Dimension	Group	<i>A</i>	ICC(1)	IIC(2)
PDI	Non-Inuit	.043		
	Inuit	.315		
	Combined	.240	0.12	0.969

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

IDV	Non-Inuit	.288		
	Inuit	.513		
	Combined	.371	<i>0.20</i>	<i>0.983</i>
MAS	Non-Inuit	.596		
	Inuit	.644		
	Combined	.614	<i>0.05</i>	<i>0.874</i>
UAI	Non-Inuit	-.129		
	Inuit	.065		
	Combined	-.300	<i>0.08</i>	<i>0.936</i>
LTO	Non-Inuit	.233		
	Inuit	.272		
	Combined	.260	<i>0.03</i>	<i>-9.885</i>
IVR	Non-Inuit	.034		
	Inuit	.185		
	Combined	.109	<i>0.06</i>	<i>0.687</i>

Note:

PDI = Power Distance; IDV = Individualism; MAS = Masculinity; UAI = Uncertainty

Avoidance; LTO = Long Term Orientation; IVR = Indulgence; IIC = Interitem

Correlation.

Inuk ($n = 222$); Southern Canada ($n = 244$); All responses ($n = 466$).

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

Analysis of individual question responses

When two-tailed *t*-tests are carried out on individual question responses, and utilising a permissive *p* value of 0.05, only eight question responses were found to be significantly different between the two groups (Inuit/non-Inuit) out of the 24 Likert-style questions on the questionnaire. Table 17 shows the results of the test for all questions, with those eight questions bolded as opposed to those in italics. Table 18 shows more details on the specific questions for which there were significant differences between the scoring of the two groups which are discussed in the next chapter.

Table 17

Significance of Differences in Question Responses

Q #	Are you Inuk?	<i>N</i>	Mean	Std. Deviation	Std. Error Mean	Effect of being Inuk.	Two-Sided <i>p</i>
1	No	64	1.48	0.734	0.092	-0.297	0.038
	Yes	64	1.78	0.863	0.108	-0.297	0.038
2	No	64	1.45	0.688	0.086	-0.359	0.008
	Yes	64	1.81	0.814	0.102	-0.359	0.008
3	No	64	2.03	0.854	0.107	-0.344	0.022
	Yes	64	2.38	0.826	0.103	-0.344	0.022
4	No	64	1.41	0.729	0.091	-0.281	0.044
	Yes	64	1.69	0.833	0.104	-0.281	0.044
<i>5</i>	<i>No</i>	<i>64</i>	<i>2</i>	<i>0.891</i>	<i>0.111</i>	<i>0.031</i>	<i>0.846</i>
	<i>Yes</i>	<i>64</i>	<i>1.97</i>	<i>0.925</i>	<i>0.116</i>	<i>0.031</i>	<i>0.846</i>
<i>6</i>	<i>No</i>	<i>64</i>	<i>2.11</i>	<i>0.737</i>	<i>0.092</i>	<i>0.078</i>	<i>0.571</i>
	<i>Yes</i>	<i>64</i>	<i>2.03</i>	<i>0.816</i>	<i>0.102</i>	<i>0.078</i>	<i>0.571</i>
<i>7</i>	<i>No</i>	<i>64</i>	<i>2.36</i>	<i>0.804</i>	<i>0.101</i>	<i>0.016</i>	<i>0.922</i>
	<i>Yes</i>	<i>64</i>	<i>2.34</i>	<i>0.996</i>	<i>0.124</i>	<i>0.016</i>	<i>0.922</i>
8	No	64	2.31	0.889	0.111	0.344	0.029

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

	Yes	64	1.97	0.872	0.109	0.344	0.029
9	No	64	3.13	1.076	0.135	0.375	0.058
	Yes	64	2.75	1.141	0.143	0.375	0.058
10	No	64	2.36	0.843	0.105	-0.031	0.855
	Yes	64	2.39	1.078	0.135	-0.031	0.855
11	No	64	1.95	0.785	0.098	-0.141	0.349
	Yes	64	2.09	0.904	0.113	-0.141	0.349
12	No	64	2.94	0.732	0.091	0.063	0.663
	Yes	64	2.88	0.882	0.11	0.063	0.663
13	No	64	2.11	0.799	0.1	-0.281	0.053
	Yes	64	2.39	0.828	0.104	-0.281	0.053
14	No	64	2.69	0.753	0.094	-0.094	0.569
	Yes	64	2.78	1.076	0.134	-0.094	0.569
15	No	64	2.44	0.941	0.118	-0.469	0.003
	Yes	64	2.91	0.83	0.104	-0.469	0.003
16	No	64	2.23	0.684	0.086	0.141	0.213
	Yes	64	2.09	0.583	0.073	0.141	0.213
17	No	64	2.84	0.695	0.087	-0.078	0.563
	Yes	64	2.92	0.822	0.103	-0.078	0.563
18	No	64	2.39	0.866	0.108	-0.078	0.616
	Yes	64	2.47	0.89	0.111	-0.078	0.616
19	No	64	1.78	1.031	0.129	-0.297	0.118
	Yes	64	2.08	1.103	0.138	-0.297	0.118
20	No	64	3.41	1.003	0.125	0.594	0.001
	Yes	64	2.81	1.022	0.128	0.594	0.001
21	No	64	1.83	0.767	0.096	-0.281	0.047
	Yes	64	2.11	0.819	0.102	-0.281	0.047
22	No	64	2.13	0.766	0.096	-0.156	0.281
	Yes	64	2.28	0.863	0.108	-0.156	0.281
23	No	64	2.38	1	0.125	-0.141	0.44

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

	<i>Yes</i>	<i>64</i>	<i>2.52</i>	<i>1.054</i>	<i>0.132</i>	<i>-0.141</i>	<i>0.44</i>
24	<i>No</i>	<i>64</i>	<i>2.7</i>	<i>0.849</i>	<i>0.106</i>	<i>0.172</i>	<i>0.346</i>
	<i>Yes</i>	<i>64</i>	<i>2.53</i>	<i>1.181</i>	<i>0.148</i>	<i>0.172</i>	<i>0.346</i>

Note:

Bolded text are those questions showing significant differences in responses, those in italics showed non-significant differences.

Table 18

Questions That Displayed Significant Differences in Responses

Question #	Question	Effect
1	How important is it to have sufficient time for your personal or home life	Less important for Inuit, Decreases individualism
2	How important is it to have a boss (direct superior) you can respect	Less important for Inuit Decreases power distance
3	How important is it to get recognition for good performance	Less important for Inuit Decreases masculinity
4	How important is it to have security of employment	Less important for Inuit Increase individualism
8	How important is it to live in a desirable area	More important for Inuit Decreases masculinity
15	How often do you feel nervous or tense?	Less often for Inuit Decreases uncertainty avoidance
20	How often, in your experience, are subordinates afraid to contradict their boss (or students or their teacher?)	Less often for Inuit (Reverse Coded)

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

21	One can be a good manager without having a precise answer to every question that a subordinate may raise about his or her work	Decreases power distance Less strongly agreed by Inuit Increases uncertainty avoidance
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Response Style Biases

To assess potential response biases between the two groups (Inuit/Non-Inuit), five response style indices were calculated: Extreme Response Style (ERS), Midpoint Response Style (MRS), Mild Response Style (MLRS). Independent-samples *t*-tests were conducted to compare Inuit and non-Inuit participants on each index.

As shown in Table 19, the mean ERS was slightly lower among Inuit participants ($M = 0.24, SD = 0.18$) than non-Inuit participants ($M = 0.25, SD = 0.13$), but this difference was not statistically significant, $t(126) = -0.49, p = 0.629$. The corresponding Cohen's *d* was -0.086 , indicating a negligible effect size.

The mean MRS was slightly higher among Inuit participants ($M = 0.29, SD = 0.18$) than non-Inuit participants ($M = 0.28, SD = 0.10$), but this difference was not statistically significant, $t(126) = 0.24, p = 0.809$. The corresponding Cohen's *d* was 0.043 , indicating a negligible effect size.

The mean MLRS was slightly higher among Inuit participants ($M = 0.76, SD = 0.18$) than non-Inuit participants ($M = 0.74, SD = 0.13$), but this difference was not statistically significant, $t(126) = 0.484, p = 0.629$. The corresponding Cohen's *d* was 0.086 , indicating a negligible effect size.

For ARS and DARS, there were no statistically significant differences between Inuit and non-Inuit respondents on either response style index. For ARS, Inuit

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

respondents exhibited a slightly lower mean (i.e., greater agreement), but the difference did not reach statistical significance, $t(df) = 1.04, p = .301, d = 0.18$. Likewise, there was no significant difference in response extremity as measured by DARS, $t(df) = -0.44, p = .661, d = -0.08$.

Taken together, these results indicate that both groups responded similarly in terms of ERS, MRS, MLRS, ARS, and DARS, with minimal differences that were both statistically and practically meaningless.

Table 19

Response Style Biases

Response Style	Group	Mean (SD)	t(126)	p	Cohen's d	95%CI (mean diff)
ERS	Inuit	0.24(0.18)	-0.49	0.629	-0.086	[0.43, 0.26]
	Non-Inuit	0.25(0.13)				
MRS	Inuit	0.29(0.18)	0.24	0.809	0.043	[0.30, 0.39]
	Non-Inuit	0.28(0.10)				
MLRS	Inuit	0.76(0.18)	0.484	0.629	0.086	[0.26, 0.43]
	Non-Inuit	0.74(0.13)				
ARS	Inuit	0.32 (0.20)	-0.73	0.466	-0.13	[-0.07, 0.03]
	Non-Inuit	0.34 (0.19)				
DARS	Inuit	0.31 (0.20)	0.70	0.486	0.12	[-0.03, 0.05]
	Non-Inuit	0.30 (0.18)				

Note:

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

ERS = Extreme Response Style; MRS = Midpoint Response Style; MLRS = Mild Response Style; ARS = Acquiescence Response Style; DARS = Directional Response Style. M = Mean, SD = Standard Deviation, t = Welch's t -statistic, p = two-tailed significance, d = Cohen's d .

Differential Item Functioning

The results of the two DIF tests are shown in Table 20. LTO did not show any DIF from either method, while UAI showed no DIF convergence, though significant DIF was flagged by the GMH method. IDV and PDI showed convergence on one item, though the GMH procedure flagged a second. IVR had two items converge, though in this case, the LR picked up a third. The worst performing was MAS, with three items converging for DIF.

Table 20

DIF Summary

Construct	DIF Items (GMH)	DIF Items (LR)	Convergence
IDV	Q9, Q6R	Q9	Q9
PDI	Q20, Q7	Q20	Q20
MAS	Q5, Q3R, Q10R	Q5, Q3R, Q10R	Q5, Q3R, Q10R
UAI	Q15R	None	None
LTO	None	None	None
IVR	Q17, Q11R	Q17, Q12, Q11R	Q17, Q11R

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Note:

PDI = Power Distance; IDV = Individualism; MAS = Masculinity; UAI = Uncertainty Avoidance; LTO = Long Term Orientation; IVR = Indulgence.

DIF = Differential Item Functioning; GMH = Generalised Mantel-Haenszel; LR = Logistic Regression

Measurement invariance

Table 21 presents the fit indices for each construct. Only PDI and LTO achieved metric invariance, indicating equivalent factor loadings across groups. IDV achieved excellent configural invariance only, suggesting the same factor structure but differing loadings. MAS, UAI, and IVR showed poor or inadmissible fit at the configural stage onward. No construct achieved full scalar invariance, and partial scalar attempts did not yield an acceptable fit for any construct.

Table 21

Measurement Invariance

(next page)

Note:

PDI = Power Distance; IDV = Individualism; MAS = Masculinity; UAI = Uncertainty Avoidance; LTO = Long Term Orientation; IVR = Indulgence.

“Inadmissible” refers to models producing improper solutions, such as negative error variances or non-positive definite covariance matrices.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

Construct	Best Level Achieved	Configural Fit	Metric Fit	Scalar Fit	Partial Scalar Fit	Overall Conclusion
PDI	Metric	Mixed	Good	Very Poor	Very Poor	Loadings comparable; mean comparisons not supported
IDV	Configural	Excellent	Poor	Poor/ Inadmissible	–	Same structure only; no reliable comparisons
MAS	None	Poor	Poor	Poor	Poor	No equivalence
UAI	None	Poor	Poor	Very Poor	Very Poor	No equivalence; reverse-coded item issues
LTO	Metric	Acceptable	Good	Poor	Poor	Loadings comparable; mean comparisons not supported
IVR	None	Inadmissible	Inadmissible	Inadmissible	Inadmissible	No interpretable invariance

Chapter Summary

This chapter analysed and presented the results from the study. First, the response rates and origin of the respondents were detailed. The six Hofstede dimensions were then calculated utilising the method detailed in Chapter 4, recognising potential methodological issues.

Following these calculations, the relative Hofstede dimension values for Inuit culture were shown for each dimension. These anchored values were illustrated

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

graphically to allow potential comparisons of Inuit culture with the existing embedded cultures in the Hofstede framework, recognising potential inaccuracies of both existing and calculated scores. These embedded values for Inuit culture will allow culturally relevant business recommendations to be made for the GN, as discussed in the next chapter.

Although not conventional, due to the reverse ecological fallacy, additional statistical analysis was completed: Hotelling's T^2 (MANOVA) were completed to show any significant differences between the two groups (Inuk/non-Inuk), followed by post hoc independent one-tailed t -tests to show any significant differences at the individual dimension level. Cronbach's alpha was calculated for each dimension to show whether there was a correlation between the four items that make up each dimension at the individual level. An additional analysis at the individual question level was also conducted using two-tailed t -tests to show any significant differences between the two groups at this level of analysis.

The indices for ERS, MRS, MLRS, ARS, and DARS were calculated to explore differences in response style biases between the two groups, showing no significant differences. Finally, DIF and measurement invariance were also explored, recognising limitations due to inadequate sample sizes and the ecological fallacy.

The results of these analyses were detailed and will be discussed in the next chapter.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Chapter 6 – Discussion

Chapter Introduction

This chapter discusses the results of the study. The first section discusses the data collection phase followed by a discussion on the demographic differences in the unmatched samples ($n = 222, 244$). Next, the boundary conditions of the Hofstede model in the Nunavut context is discussed based on the match between a priori predictions for each dimension and the measured values from the matched samples. The additional statistics carried out on the differences between the two groups are then discussed. This includes a reflection on the lack of response biases found and the potential presence of differential item functioning (DIF) and measurement invariance. The differences between the non-Inuk Canadian sample and previous values found for southern Canada are then explored.

Then, the implications of the calculated dimensional values, recognising methodological limitations, of Inuit culture are discussed in relation to the business of the Government of Nunavut (GN). This is the huge “so what” of the research and is discussed over two sections. Following, attention is turned to how GN human resource research could be improved in the future, and further research recommendations are made. This chapter concludes with a chapter summary.

Data Collection Phase

The data collection phase consisted of a staged distribution, which allowed for some minor tweaks in the data collection methodology as the distribution progressed. For example, it was intended to distribute as many as possible of the surveys in hard copy, as it was believed that this would result in the highest response rates. Indeed, as

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

mentioned in the results chapter, the response rate from the distribution of hard copies of the survey instrument resulted in the greatest response rate (67% compared to 24% overall). However, this method proved very inefficient. Delivery and pick up depended on whether the employee was available, i.e., not in a closed-door meeting, not on duty travel, or not otherwise available. There are also limited GN staff within Iqaluit where this distribution method was possible. The GN has a decentralised structure with both headquarter offices and regional offices distributed among the ten “decentralised” communities (larger communities, typically with populations above 1,000 containing a GN office building housing staff from several departments) and Iqaluit, the capital of Nunavut. Also, there are GN staff in thirteen smaller communities. For these GN employees, only electronic distribution, using SurveyMonkey links or PDFs, was possible.

Although distributing the survey instrument in hard copy revealed a receptive population, yielding many kind words of encouragement, interest, and best wishes in the research, the researcher was also reticent about using the method due to disturbing people when they work. The electronic delivery method was deemed less intrusive and was the dominant form of distribution as the survey distribution continued. Table 6 in the methodology chapter describes how the survey instrument was distributed among the different departments.

Having a staged distribution strategy (i.e., one office at a time), also allowed some other minor tweaks as the survey proceeded, based on feedback from both the GN employees solicited and the department heads who I sought permission to distribute from. For example, it was Kyle Seeley, Deputy Minister of Community and Government

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Services, who suggested that his department distribute the survey internally via his department's communications division; an option that other departments then showed interest in.

Having a space on the questionnaire for respondents to provide comments also proved useful, as discussed below. As well as receiving some positive feedback and encouragement, some comments led to improvements in the survey instrument. For example, one respondent mentioned that nurses should be considered as "professionals" rather than "vocationally trained" (Q28). This might reflect a difference in perception of nurses in Europe, where the survey instrument was created. In North America, nurses have professional status. This could have offended potential respondents who were nurses though, in the end, this group of GN employees were not included in the survey as permission was not obtained from the Department of Health within the time limit of the research.

In hindsight, this learning could have been achieved more effectively by having focus groups evaluate the questionnaire before its distribution, as previously discussed. This could potentially have revealed more issues with the questionnaire that needed to be adjusted to the Nunavut context, both for the Inuit and non-Inuit populations.

The researcher was grateful for the kind words of encouragement and assistance from all the department heads who allowed him to distribute the survey among their staff. All department heads approached were very receptive, though the researcher learned that a personal visit rather than an email was required to obtain a response. Unfortunately, two departments (Nunavut Arctic College and the Department of Health) became non-responsive, likely due to competing priorities. Although considered very

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

unlikely by the researcher, this non-responsiveness could also have been due to the departments' desire to distance themselves from the research. A dropout analysis was not completed, unfortunately, and the officials are no longer available.

This highlighted a risk in surveying the GN employee population. Ethics approval from both Athabasca University and the Nunavut Research Institute had been obtained, the latter requiring referral to the GN. Support for the research had also been obtained from the researcher's department head at the very initial stages of the research. This support was augmented from both the Deputy Heads of Human Resources and the Department of Executive and Intergovernmental Affairs. However, the researcher felt it was also necessary to obtain support from the other department heads before distribution. Of course, this added a level of risk, as those department heads could have potentially declined, and indeed, two departments became non-responsive as mentioned above.

The GN employee population is unique, with a target rate of 85% Inuit. Human resource research that is conducted in the unique context of Nunavut should be encouraged. This research should be increasingly conducted by Inuit scholars who bring their unique cultural lenses to the research questions asked and the methodologies used. The GN is very supportive of GN employees, and more generally, Nunavummiut, academic pursuits (due to the IQ principle of Pilimmaksarniq - development of skills through practice, effort, and action). To further encourage and support human resource research within the GN, it is recommended that the GN consider a simplified procedure where the GN vets proposed research through the Deputy Minister Committee. This should occur early in the research proposal process. Furthermore, to allow efficiencies

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

and clarity to GN employee respondents, any survey instrument should be distributed through the GN wide internal communications. This would help reassure the GN employee population of the legitimacy of the survey request, thereby increasing response rates.

That said, the researcher was very happy with the survey response rate (24%) from the GN employee population, as well as the support from department heads. As each department's permission was obtained and completed, the list of approvals at the bottom of the email grew. One policy director expressed concern about whether GN employees could respond to a survey on work time, including the use of a cash draw, but a referral to the Justice Department resulted in a positive opinion, which was also added to the email message as a further approval.

Response rates

Ali, Ciftci, Nanu, Cobanoglu, and Ryu (2020) found that response rates to email-based distributions of online questionnaires ($n = 219$) had a mean response rate of 30% with a standard deviation of 23.95. A standard deviation of 23.95% is considerable, suggesting wide variability in typical response rates to this method of distribution. When the overall response rate in this study (24%) is compared to this data, the z -score of -0.25 is within ± 0.5 , well within one standard deviation of the average. This means that the response rates in this study are not statistically unusual. When looking at the response rates of the Inuit group (19.7%) and the non-Inuit group (29.6%) separately, the z -scores are still not statistically unusual. However, the Inuit group z -score (-0.43) is closer to the cut-off, the non-Inuit group having a score of -0.02. The closeness to zero shows that the non-Inuit response rate was highly typical of this method of distribution.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

However, the response rates indicate a pronounced difference between Inuit (19.7%) and non-Inuit (29.6%) employees, with statistical analysis confirming this difference as highly significant ($p < .001$). Lower Inuit participation could stem from multiple factors, including culturally distinct perceptions of research. As discussed in the next section, there were also demographic differences between the two groups, which may have also affected response rates. Examples could include age, education level, and level within the organisation.

Ali et al (2020) found that the drop and collect methods of paper questionnaires ($n = 199$) resulted in a mean response rate of 65.57% and a standard deviation of 21.55. When the response rate for this method in the current study (67%) is compared to this data, the z-score of 0.066 shows that the response rate was highly typical of this method of distribution.

Comments Section

The additional question was an open-ended comment section. This was completed by 24% of the respondents. However, after removing the written “none” comments, this rate drops to 18%. After classifying the comments into nine classes and further collapsing those into four sentiments, allowing the Chi-square test of independence to occur, no significant difference in the distribution of open-ended comment sentiment was found between the Inuit and non-Inuit groups. This suggests that participants from both cultural groups reacted to the survey in similar affective and evaluative ways.

Turning to the “other” comments received on the survey, each will be commented on.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Inuit comments:

“Multiple choice should have comment options, so you can learn more about what is really happening.” This is important as it shows an interest in the topic and points out a weakness of a primarily quantitative study.

“I strongly believe all workplaces and organizations should solely run off the Inuit Qaujimagatuqangit.” This highlights the importance of cultural relevance in the workspace.

“Balance in work and personal life is important to do an efficient job.” This suggests low masculinity and importance of life/work balance.

“I thought this would be more culturally oriented.” This suggests that the invitational letter might have been clearer. Again, this could have been explored more and may have been picked up on with focus groups.

“When respected in the office, it makes life a whole lot happier at home.” This may indicate low masculinity.

Non-Inuit comments:

“Balance of work and life is critically important.” This, coupled with desires for a 4-day work week, suggests a lower masculinity score.

“I believe commitment to one employer is important.” May suggest a higher uncertainty avoidance score and could be a potential item for another survey instrument.

“Nurses are professionals, not vocational.” This pointed out a weakness in the methodology. A focus group for both groups (Inuit/non-Inuit) could have reviewed similar issues with the wording of specific items.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Although open-ended response data are inherently limited by non-response and voluntary bias, their strengths lie in allowing some insight beyond the scale responses. However, this could have been improved by having more open-ended and guided questions. For example, questions could have been asked about the agreement of certain statements, such as “Inuit show lower power distance in the workplace compared to non-Inuit”. However, during the proposal stage, it was decided to keep the survey short to encourage completion.

Additionally, no dropout analysis on non-respondents was conducted. Surveying a random sample of non-respondents may have revealed further insights by considering the views of the two populations on why they did not respond, similarly to what was conducted by Fenton-O’Creevy (1996, as cited in Baruch, 1999).

Demographics of Inuit and non-Inuit groups.

Significant demographic differences were found between Inuit and non-Inuit participants. Inuit participants were more likely to be female and to work in vocational or non-professional roles, while non-Inuit individuals were more represented in senior and supervisory positions. This pattern likely reflects systemic barriers to advancement for Inuit individuals.

Education differences were particularly pronounced, with non-Inuit participants reporting substantially higher levels of formal education. This aligns with longstanding disparities in educational access in northern and Indigenous communities. Although age differences were not statistically significant, a slight trend was observed toward younger Inuit participants.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Although the difference was slight, Inuit participants reported significantly longer average length of service with the GN compared to non-Inuit participants. The lower length of service among non-Inuit may reflect a transient section of the non-Inuit workforce, where some may come on term contracts. However, many non-Inuit have also grown up in Nunavut or have come on a longer-term basis. The longer average service length among Inuit may reflect stronger community roots, limited external mobility, or longer-term career trajectories within GN. However, given the small effect size ($d = 0.22$), the practical impact of this difference may be limited and should be interpreted cautiously.

These demographic differences underscore the importance of considering structural and historical factors in organizational analysis within the GN. Matching of the two samples based on demographics, as defined and discussed in Chapter 4, removes the effects of these confounding variables on the dimension scores.

Exploring the Boundary Conditions of the Hofstede Model with the Values Measured for Inuit Culture

Table 22 summarises the a priori predictions of each of the six Hofstede dimensions for Inuit culture (from Table 3 in Chapter 3) compared to the anchored values found in this research. Each Hofstede dimension for Inuit culture was estimated a priori as very low (<21), low (21-35), moderately low (36-45), medium (46-55), moderately high (56-65), high (66-80), and very high (>80) based on the researcher's interpretation of stated Inuit Societal Values, Inuit Qaujimajatuqangit (IQ) Principles, and Maligarjuaq Laws as well as the limited literature and the researcher's ethnocentric perception, recognising his English/Canadian vantage point.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

In addition, this a priori estimation was applied to the expected comparison with southern Canadian culture. These predictions and actual comparisons found are summarised in Table 23. In summary, when comparisons were made, Inuit culture was found to be 11-31 points lower on a dimension than predicted if it was anticipated to be lower. Predictions of a moderately lower value were only 2 points below, while those of a moderately higher value were 2-11 points above the actual measurements.

Table 22

Comparison of Measured Hofstede Dimensions to A Priori Predictions

Hofstede Dimension	A priori prediction	Measured value
Power Distance	LOW (21-35)	8 (VERY LOW)
<i>Individualism</i>	<i>LOW (21-35)</i>	<i>61 (MODERATELY HIGH)</i>
Masculinity	LOW (21-35)	26 (LOW)
Uncertainty Avoidance	MODERATELY LOW (36-45)	44 (MODERATELY LOW)
Long Term Orientation	MODERATELY HIGH (56-65)	65 (MODERATELY HIGH)
<i>Indulgence</i>	<i>MODERATELY LOW (36-45)</i>	<i>66 (HIGH)</i>

Note:

Bolded text shows those dimensions for which the measured values are congruent with a priori predictions. Italicized text shows those that are not.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

Table 23

Inuit Culture Hofstede Value Predictions Compared to Canadian Values

Dimension	Inuit culture value prediction	Actual difference
compared to Canadian culture		
Power Distance	lower	31 points lower
Individualism	lower	11 points lower
Masculinity	lower	26 points lower
Uncertainty Avoidance	moderately lower	4 points lower
Long Term Orientation	moderately higher	11 points higher
Indulgence	moderately lower	2 points lower

The hypothesis was that if the values measured in this research were valid, they should reflect both these forms of a priori estimates. As can be seen from Table 22, there were varying levels of success of the a priori predictions when considering location in the existing Hofstede framework (high, medium, low, etc.), depending on the dimension analysed. From Table 23, the predictions regarding position relative to Canadian culture were more successful. These comparisons are now discussed, despite the limitations and possible biases of the research, as extensively discussed in this dissertation, including in the next section, where additional statistics are considered.

Power distance

There was a high conviction, based on strong evidence from multiple indicators, that power distance for Inuit would be low. This was indeed the case, though Inuit culture was found to be even lower than predicted (8). In fact, Inuit culture was found to

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

have the lowest anchored value for power distance in the current matrix. Inuit culture was found to be lower than southern Canadian culture (39), as predicted.

This dimension is incorporated into the revised Minkov-Hofstede model as a form of the individualism dimension (Minkov, 2025). However, due to the significant difference between Inuit/southern Canadian samples on this dimension, the differentiation from individualism may be helpful in the Nunavut context.

It should also be noted that a single item, Q9, was flagged for possible DIF with this construct, and the measurement invariance highlighted potential issues, as discussed below.

Individualism

There was a high a priori conviction that individualism for Inuit would be low. Individualism was actually found to be moderately high (61), though lower than for southern Canada, 72, as predicted. This was inline with Hofstede's prediction (G.J. Hofstede, personal communication, June 01, 2022), who predicted high individualism of Indigenous cultures due to the historical small group structure. There could be two reasons for the mismatch. Firstly, the prediction was based partly on the researcher's own perception, from where he stood. Both English and southern Canadian culture are still higher than Inuit culture on this dimension, which appeared more group-oriented. The second reason is that the researcher now knows that group-oriented cultures tend to be less welcoming to outsiders than individualistic cultures. He had at the time of his proposal writing, thought it was the opposite. Certain IQ principles, therefore, affirm the model regarding this dimension. For example, Tunnganarniq (fostering good spirit by

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

being open, welcoming, and inclusive) would in fact suggest a more individualistic culture.

Considering the above, the researcher does not consider that the differences between the a priori estimate and measured value to reflect poorly on the Hofstede model for this dimension. The reasons for the mismatch could be due to errors made when completing the a priori estimates.

It should be noted that a form of this dimension survives in the more universal modified Minkov-Hofstede model. It should also be noted that the construct in this study had a single item, Q20, flagged for DIF, and the measurement invariance analysis highlighted potential issues, as discussed below.

Masculinity

There was a high conviction that masculinity for Inuit would be low. This was indeed the case, with Inuit having a low value (26) which appears to be affirmative of the model, at least regarding this dimension. Inuit culture had a lower value on this dimension compared to southern Canada (52), as predicted.

It should be noted that this dimension is removed from the more universal modified Minkov-Hofstede model, similarly to the uncertainty dimension, discussed next. However, this dimension, due to the significant difference between the two samples, may still be relevant for the Nunavut context.

It should also be noted that this was the worst-performing dimension regarding DIF, with three items flagged. Measurement invariance also highlighted potential issues, as discussed below.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Uncertainty avoidance

There was a low conviction, due to the presence of conflicting indicators, that uncertainty avoidance for Inuit would be moderately low. This was indeed the case with Inuit having a moderately low value (44) which appears to be affirmative of the model, at least regarding this dimension. Inuit culture had a lower value on this dimension compared to southern Canada (48), as predicted. It should be noted that a value of 44 on this one dimension is still lower than 115 out of 130 countries already in the Hofstede matrix. So, most of these countries could consider Inuit culture to be lower on this dimension.

McSweeney (2002) noted how the uncertainty avoidance dimension has not been shown to be relevant to all national cultures, and Minkov believes that the dimension should be scrapped altogether as is an artefact of the original Hofstede dataset focussed on a private sector organisation, i.e., it is not a universal dimension of national/societal culture (Minkov, 2025). From this research, however, it appears that this dimension may be relevant for Inuit culture.

It should be noted that no DIF convergence was flagged for this construct, though measurement invariance analysis highlighted potential issues, as discussed below.

Long-term orientation

There was a low conviction that long-term orientation for Inuit would be moderately high. This was indeed the case, Inuit having a moderately high value (65) which appears to be affirmative of the model, at least regarding this dimension. The value was also higher than for southern Canadian culture (54), as predicted.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Redpath and Nielsen (1997) concluded that the long-term/short-term dimension is not particularly useful for understanding the cultural values of Aboriginal organisations or societies in North America. However, this appears not to be the case for Inuit culture. This dimension, or rather a form of it, survives in the modified Minkov-Hofstede model.

This was the best performing construct regarding DIF, with no items being flagged by either method (GMH/LR). However, measurement invariance analysis highlighted potential issues, as discussed below.

Indulgence

There was a low conviction that indulgence for Inuit would be moderately low. This was actually not the case. Inuit culture was found to have a relatively high indulgence score (66) and an indulgence score similar to southern Canada's (68). The a priori prediction was that Inuit culture would have been moderately lower than for Canadian culture. The difference was in the predicted direction, but it was very small and probably not noticeably different for many external observers. The mismatch regarding the relative value in the framework (i.e., moderately low compared to high) could, of course, be from the researcher's error through misinterpretation of the Inuit Societal Values, Inuit Qaujimagajatuqangit (IQ) Principles and/or Maligarjuaq Laws. This dimension was dropped from the modified Minkov-Hofstede model.

It should be noted that two items were flagged for DIF due to the convergence of the findings from the two tests (GMH/LR). Also, measurement invariance analysis highlighted potential issues, as discussed below.

In summary, the Hofstede model was shown to be potentially valid for use with

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Inuit culture, expanding its application boundary, recognising that both the model and research methods have several limitations, as discussed earlier in this dissertation. Four out of six of the dimensions (power distance, masculinity, uncertainty avoidance, and long-term orientation) matched well. One dimension (individualism) mismatched, which could be the result of a poor a priori interpretation. The indulgence dimension was the weak link. Again, this mismatch could have been due to researcher error. When comparing predictions to southern Canadian culture (e.g., higher, lower, etc.), the results showed greater success, with all six predictions being in the correct direction.

It would be interesting to have other people, especially Inuit, but also people from other cultures who have interacted with Inuit, reflect on these measured values, rather than relying solely on the person who conducted this research. This would be a suggestion for future research.

Additional Statistics

As explained in the methodology chapter, the additional statistical analyses in this section are not usually done on this type of data. However, these were completed and detailed in Chapter 5. Reliability of the statistics are limited due to both the ecological fallacy and/or restrictive sample sizes, however, they do highlight potential issues.

Hotelling's T^2

Hotelling's T^2 test showed a significant difference between the two groups' combined means of the six dimensions. Though needing to be interpreted with care, the data shows a significant difference between the Inuit and southern Canadian cultures when these cultures are measured utilising the Hofstede model.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

As the difference was significant for the Hotelling's T^2 test, post hoc progression to independent, one-tailed t -tests for each dimension occurred, the results of which are shown in Table 13 in Chapter 5. Again, interpreting with caution, these tests showed significant differences only for the power distance and masculinity dimensions. This suggests that southern Canadians are more likely to notice differences with Inuit culture on these two dimensions, even though they have been either included in the modified individualism dimension (in the case of power distance) or removed from the more universal modified Minkov-Hofstede model (in the case of masculinity). Differences between the two cultures on the other four dimensions (individualism, uncertainty avoidance, long-term orientation, and indulgence) would be less apparent. Based on p -values, shown in Table 13, the differences between the two cultures would be less noticeable for the uncertainty avoidance and indulgence dimensions.

Again, it must be stressed that these tests are not conventionally completed on data sets such as these. Also, non-significant differences between certain dimensions, do not mean that there are non-significant differences between either Inuit or southern Canada when compared with other cultures around the world.

Cohen's d

Regarding Cohen's d for each of the six dimensions, as shown in Table 14 in Chapter 5, the effect size, at the individual (not cultural) level, was found to be small for individualism, uncertainty avoidance, long-term orientation, and indulgence; whilst power distance and masculinity dimensions had moderate effect size. At the individual level of analysis, only the power distance and masculinity dimensions appeared to meet the minimal sample size (45 and 64, respectively).

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Cronbach's alpha

Cronbach's alpha was calculated for each dimension and the corresponding four-question items for both the Inuit and non-Inuit (excluding first-generation immigrants to Canada) samples. The full samples ($n = 222$, $n = 244$, respectively) were used without matching to increase the sample size, though this does cause potential impacts from demographic differences.

The internal consistency results raise important concerns about the psychometric performance of Hofstede's six cultural value dimensions at the individual level of analysis. UAI yielded negative Cronbach's alpha values, suggesting that the items within these scales may not be measuring a cohesive underlying construct at the individual level in this population. In the non-Inuit sample, where cultural alignment with Hofstede's original European context might be expected, alpha values were actually lower than the Inuit group.

The MAS dimension showed the highest internal consistency at the individual level for all three groups, with alphas ranging from 0.596 to 0.644, which is still below acceptable levels. The rest were below .5 (except IDV for Inuit) which are classified as unacceptable.

The low or negative inter-item correlations across all the constructs may be due to the ecological fallacy. Other contributing reasons could be from the low number of items (4) per construct. Pallant (2020, p. 106) notes that constructs based on fewer than 10 items can sometimes be challenging to get decent alpha values; they can be "quite small." Additionally, Minkov (2013, p. 187) notes how Cronbach's alpha values are often lower in psychology-type studies, requiring lower cutoff values.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

However, again, the reverse ecological fallacy applies. Hofstede (2001, p. 463) states explicitly that for replications on only a few cultures, reliability cannot be checked in the usual way using Cronbach's alpha. He states that thesis committees often ask for proof of reliability, forgetting that cultures are being compared with the model, not individuals. "PhD candidates may have some trouble explaining this to thesis committee members who are not accustomed to ecological-level research." (Hofstede, 2001, p. 463). This is especially the case for psychologists from individualistic countries who are often tempted to confuse cultures with individuals (2001, p. 463). This is further clarified by de Mooij (2013), who explains that there would tend to be more individuals scoring high, or low, on certain items for each dimension, but these will likely not be the same individuals, i.e., there is good correlation at the national level, but not at the individual level, which the low Cronbach alpha scores effectively illustrate.

Other authors also explain this paradox. For example, Matsumoto and Juang (2023, p. 40) explain how findings from ecological-level studies are not necessarily applicable to individuals. They reference Hofstede's culture-level individualism dimension as an example, which is bipolar, meaning it consists of a single dimension with extremes on either end of the scale. However, they explain that individual-level studies of the very same dimension have repeatedly shown that it is unipolar. In other words, individuals can exhibit both individualistic and collectivist tendencies. This may become apparent when reliability is taken into account.

Hofstede (2001, p. 463) further explains that the best way to prove the reliability of the dimension scores is their validity in explaining external phenomena, which was to some degree achieved in this study by utilizing Inuit knowledge (Inuit Societal Values,

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Inuit Qaujimajatuqangit Principles, and Maligarjuaq Laws). He states that “if validity is proven, reliability follows” (p. 463).

Additionally, small numbers of items for each scale (dimension), fewer than 10, would result in low values (Pallant, 2020, p. 6) for the VSM, which has only four items per dimension. A mean interitem correlation of 0.2 to 0.4 may yield better results (Pallant, 2020, p. 6). Additionally, although many studies on single or limited cultures have been conducted, with sometimes concerning low values, which the reverse ecological fallacy can explain, other studies across multiple countries have also yielded low reliability coefficients. For example, Gerlach and Eriksson (2021) specifically examined the VSM 2013 across 57 countries and concluded that this version demonstrated poor internal consistency compared to earlier versions. Cronbach’s alphas were also calculated by Taras, Steel, and Stackhouse (2023) for a large international sample ($N = 12,462$). Their results were as low as 0.18 and averaged 0.43. In their research, individualism and long-term orientation approached 0.70. Taras et al (2023) considered the VSM instrument to have several psychometric deficiencies when analysed at the individual level. However, the researchers also noted several times that Hofstede had stressed that the VSM 2013 is for constructs at the group level, not the individual level.

Testing the equality of reliability coefficients. Using the simplified Feldt test recommended by van de Vijver and Leung (2021, p. 65), internal consistency estimates were compared across the two groups for those dimensions that had positive Cronbach alpha values. The analysis revealed statistically significant differences in reliability for PDI, IDV and IVR.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

The absence of significant differences across MAS and LTO dimensions, may reflect functional equivalence in how these dimensions are understood across cultural contexts. However, the test results should be interpreted cautiously. It is essential to note that the Hofstede scale is designed for use at the cultural level, not the individual level. So, reliability measures across individuals are not appropriate.

Aggregation analysis

Because the VSM2013 is designed to measure culture-level constructs, not individual personality traits, individual-level reliability indicators (Cronbach's alpha) were interpreted with extreme caution. Instead, intraclass correlation coefficients [ICC(1) and ICC(2)] were computed to assess the legitimacy of aggregating individual responses to the group (cultural) level.

The results supported the validity of group-level analysis for most of the six Hofstede dimensions. ICC(1) values, which reflect the proportion of variance attributable to group membership, ranged from .03 to .20, with Individualism (ICC(1) = .20) and Power Distance (ICC(1) = .12) exceeding conventional thresholds for meaningful group differentiation (Bliese, 2000). These values indicate that a substantial portion of the variance in these scales is explained by participants' cultural affiliation (Inuit vs. non-Inuit), rather than individual-level noise.

In parallel, ICC(2) values, which reflect the reliability of aggregated group means, were very high for all dimensions except long-term orientation. For instance, individualism (ICC(2) = .983) and power distance (ICC(2) = .969) both exceeded the standard 0.70 benchmark, providing strong statistical justification for the use of group means in subsequent analyses. These findings align with theoretical expectations that

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

cultural constructs such as collectivism or hierarchical preferences are more stable and interpretable at the collective level.

Conversely, long-term orientation displayed both a negative ICC(1) and an anomalously large negative ICC(2), indicating a lack of consistent within-group agreement and no stable between-group signal. This could indicate cultural irrelevance, misinterpretation of items, or conceptual mismatch in the Nunavut context, particularly for Inuit participants, whose cultural traditions may not align with the time-focused behavioral framing embedded in long-term orientation items.

The ICC results validate the aggregation of individual item scores into group-level constructs for most dimensions and reinforce the importance of conducting culture-level, rather than individual-level, analysis when using the VSM2013. They also demonstrate the danger of concluding based solely on individual-level statistics, which can obscure the cultural construct the instrument is designed to detect. Importantly, these findings support the hypothesis that cultural value systems differ meaningfully between Inuit and non-Inuit respondents, especially in the domains of individualism and power distance.

While ICC values supported aggregation, some limitations remain. The VSM2013 was not adapted explicitly for Indigenous contexts, and several items may lack cultural resonance or clarity. Future research should consider adapting or developing emic measures through qualitative engagement with Inuit communities. Moreover, advanced techniques such as multilevel CFA, if sufficient sample sizes are obtained, could further clarify the structure of cultural constructs while explicitly modeling within- and between-group variance.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Individual question responses

Additional analysis was also completed at the individual question level, again recognising the reverse ecological fallacy. As was shown in Table 17 and 18, only eight questions were found to be answered significantly differently between the two groups when two-tailed *t*-tests are carried out and a permissive *p*-value of 0.05 is used.

Interestingly, each dimension was represented by two questions that differed significantly, except for indulgence and long-term orientation. The questions that were answered significantly different for each group varied in the direction expected, except for question 1 (How important is it to have sufficient time for your personal or homelife) and question 21 (One can be a good manager without having a precise answer to every question that a subordinate may raise about his or her work).

Response style biases

Although no statistically significant differences were found between Inuit and non-Inuit participants in terms of the response styles investigated, the inclusion of these analyses adds important methodological rigor. Specifically, indices for Extreme Response Style (ERS), Midpoint Response Style (MRS), and Mild Response Style (MLRS) revealed minimal and negligible differences across groups, with Cohen's *d* values ranging from -0.086 to 0.043 . These findings suggest that both groups responded similarly to the Likert-type questionnaire format and that response style bias is unlikely to have meaningfully influenced the observed scale scores or group comparisons.

The absence of response style differences is encouraging, given concerns in cross-cultural research that cultural norms may influence scale usage (e.g., preference for extreme responses or avoidance of extremes). The negligible differences in the

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

current study suggest that the instrument functioned equally well across cultural groups, at least in terms of basic response tendencies. This strengthens the validity of any subsequent comparisons between Inuit and non-Inuit respondents on substantive scales.

Nevertheless, future research should continue to monitor response styles when working with culturally diverse samples, particularly when survey instruments rely heavily on Likert-type scales. Including multiple reverse-keyed items, anchoring vignettes, or response style correction methods (e.g., mean-centering) may further enhance measurement validity in Inuit contexts.

Future research with Inuit using Likert scales to distinguish between other populations should reverse-code half the questions for each construct to help reduce the effects of acquiescence biases. This would also allow the calculation of net acquiescence response indexes to determine if this response bias is occurring to a significant degree and has a practical effect.

Differential item functioning

This study investigated item-level measurement equivalence of the six Hofstede cultural dimensions in the VSM 2013 across Inuit and non-Inuit respondents using both Mantel-Haenszel (MH) and logistic regression (LR) analyses for differential item functioning (DIF). While the constructs are designed to capture group-level cultural traits, individual item responses can still be influenced by culturally specific interpretations, response styles, or language nuances (though only six non-English versions were kept in the matched samples), necessitating DIF analysis to determine construct validity.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

The DIF results varied across constructs, with MAS showing the highest number of DIF items (three) and LTO showing none. The degree of convergence between MH and LR methods enhances the robustness of specific DIF findings while calling for caution in cases where the methods diverged.

The results need to be interpreted with caution, however. Collapsing Likert scales into dichotomous categories, while statistically necessary, may have reduced sensitivity and obscured nuanced response patterns. Although the Hofstede model is group-oriented, DIF methods operate at the item/individual level, introducing a level mismatch. However, item-level bias can still undermine group-level comparisons. The small sample sizes also increase the risk of both Type I errors (falsely flagged DIF) and Type II errors (failing to detect real DIF). The LR method is more conservative, so it is less likely to result in Type I errors, while GMH can yield either outcome.

In summary, the MAS and IVR constructs appeared to be the most susceptible to DIF. While removing suspect items may be an option for educational achievement tests or developing new scales, it is not an option when using established scales, where removal of items means that results cannot be compared with other studies using the scale (Pallant, 2020, p. 106), such as the other 130 cultures already in the Hofstede framework.

Measurement invariance

The multigroup confirmatory factor analysis (mgCFA) results suggest that only PDI and LTO achieved metric invariance, allowing for valid comparisons of associations involving these constructs across Inuit and non-Inuit respondents, but not scalar invariance. IDV achieved only configural invariance, while MAS, UAI, and IVR

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

did not demonstrate acceptable fit at the configural stage, suggesting substantial differences in how these items function between the groups.

These results must be interpreted in light of the level of analysis. Hofstede's dimensions are defined at the culture level, but the present invariance testing was conducted at the individual response level. This means that the results assess whether individuals in each group respond to the items similarly, not whether the constructs themselves are comparable as aggregated cultural indices. Using individual-level analyses to make conclusions about culture-level constructs risks an atomistic fallacy, or the reverse ecological fallacy (inferring group-level comparability from within-group item functioning).

Nevertheless, individual-level measurement invariance testing is valuable here for identifying potential item-level biases that could distort aggregated scores. For example, in all the constructs, certain items that receive high weight in the VSM2013 formula may show non-invariance, meaning that observed score differences may partially reflect measurement bias rather than pure cultural differences. Given that weighted formulas can amplify these effects, caution is warranted when interpreting Inuit/non-Inuit differences in the Hofstede index values.

The small sample size ($n = 64$ per group) further limits the stability of the mgCFA estimates and may have contributed to the failure to achieve scalar invariance for most constructs. Thus, observed differences in the weighted Hofstede scores, while reported for comparability with the 130-nation matrix, should be interpreted alongside these measurement caveats.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

Differences Between Measured Non-Inuk, Canadian-Born Sample Values and Those from Previous Studies.

Table 24 shows the comparisons between the measured Canadian-born (non-Inuk) dimension values and those measured for Canadian-born respondents in past studies. An attempt is then made to explain why the values could have been different. Although there were no demographic data published for the studies, the type of organisation and worker type were considered as to what may have been the causes. For this comparison, only those values that are greater than 10 points apart will be considered significantly different.

Table 24

Comparisons Between Measured Southern Canadian Hofstede Values and Other Published Results

Dimension		PDI	IDV	MAS	UAI	LTO	IVR
DBA Study	Boyle (2023)	48	43	-4	-46	-22	53
IBM Employees	Hofstede (1970s)	39	72	52	48	54	68
Anglo-Canadian Federal Government Managers	Punnett (1991)	29	62	37	27	N/A	N/A
Franco-Canadian Federal Government Managers	Punnett (1991)	39	62	37	27	N/A	N/A

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

Fast food restaurant managers	Punnett and Whitane (1990)	92	41	80	0	N/A	N/A
Economics and Business Admin. Students and graduates	Nasierowski and Mikula (1998)	37	49	53	-1	N/A	N/A

Note:

PDI = Power Distance; IDV = Individualism; MAS = Masculinity; UAI = Uncertainty Avoidance; LTO = Long Term Orientation; IVR = Indulgence.

Power distance

This dimension (48) was higher than those found within the federal government managers (29 and 39) measured by Punnett (1991). This could be due to lower-level positions having a higher power distance, whereas managers tend to rank lower in power distance (Hofstede, Hofstede, & Minkov, 2010, p. 65). The GN sample contained respondents from throughout the hierarchy, whilst Punnett (1991) focused on managers.

Fast food restaurant managers studied by Punnett and Whitane (1990), however, had a much higher (92) value, which is likely due to the nature of the business. Fast food restaurants would have lower-skilled labor that needs to be managed in a control-like manner, and lower-skilled occupations tend to show higher power distance acceptance (Hofstede, Hofstede, & Minkov, 2010, p. 65).

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Nasierowski and Mikula (1998), meanwhile, studied business students who had a low (37) power distance value, which is reflective of the effect of higher education as less educated persons hold more authoritarian values than more educated persons (Hofstede, Hofstede, & Minkov, 2010, p. 65). There was just a nine-point difference with the Hofstede 1970's value (39), which was considered non-significant.

Individualism

This dimension (43) was less than those found by Punnett (1991) for federal managers (62). It is unclear which independent variables are causing this difference. Punnett and Whitane (1990) found that fast food restaurant managers had a value of 41, similar to the GN sample. Whilst Hofstede's 1970's data found IBM employees to have a much higher value of 72. It is therefore difficult to make the case that employees in the private sector tend to be more individualistic, although this has been shown to be the case (Maczulskij & Viinikainen, 2021).

Masculinity

The measured value of this dimension for southern Canada is lower (-4) than that found in all the other studies (37-80). This could be due to organisational acculturation effects affecting the non-Inuit present within the GN. Inuit Societal Values, IQ Principles, and Maligarjuaq Laws all promote a more feminine (caring) societal culture. As the IQ principles function as guiding principles for the GN staff, this could have

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

resulted in an organisational effect on the dimension's value for southern Canadians within the GN.

Uncertainty avoidance

This dimension (-46) is much lower than that measured in the other studies (-1 to 48). One reason could be that the majority of the Canadian-born (non-Inuk) sample are immigrants from the south. It is possible that working in Nunavut self-selects for people who are not averse to uncertainty, taking a risk on moving north.

Long term orientation

This dimension was only measured by this doctoral research and Hofstede's (1970's) IBM study. Long-term orientation (-22) was much lower than the value found by Hofstede (54). Although the reasons are unclear, one possibility is due to the focus of the GN on keeping Inuit culture alive within the organisation, i.e., it could be organisational effects.

Indulgence

This dimension (53) was not measured by the other researchers, though it does show up on the Hofstede Insights website (68). It is therefore not clear why the difference occurred. One possibility is that GN employees tend to be more restrained due to the high cost of living in the north.

Implications of the Inuit Hofstede Dimension Scores for the GN

The introduction chapter (Chapter 1) discussed five application areas in which the Inuit Hofstede values could provide insights into and thus be useful for the GN and Nunavut more generally. These five areas were: (1) employee orientation/intercultural training; (2) culturally sensitive organisational design; (3) culturally sensitive policy

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

development; (4) intercultural communications – including negotiation and marketing; and (5) acting as a cultural baseline. These areas are now expanded on, based on the results.

Employee orientation/Intercultural training

The Hofstede model has been extensively used around the world to train and orient employees to new cultures when they take on assignments abroad (Treven, 2003). Now that the Hofstede dimension values for Inuit culture are believed to be known and the model shown to be potentially useful for the Nunavut context, that is the boundary condition of the model was tested, this model could be used within the GN and other Nunavut organisations, with some qualitative evidence that the model might be relevant to Nunavut. Using the model to discuss differences between the cultures present within the GN could provide insights to individuals as they try to adjust to Inuit and other cultures within the organisation.

The GN has numerous cultural orientation courses/programs. The Hofstede model could be increasingly used in these courses as the actual values for Inuit culture are now known. This would add to the likelihood that new employees will fit into the Inuit culture, which is very important to the GN as it will help prevent negative interactions from cultural differences. The significance of the Inuit Hofstede values to new employees from different cultures is included in the next section (“Implications of the Hofstede Dimension Values for Individual Departments within the Government of Nunavut”), where each dimension and the measured value’s possible implications are considered in turn.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

The above being said, there are numerous concerns with the model, and criticisms have been mounting in recent years, as has been discussed in other parts of this dissertation. Longer term, the GN may wish to explore the use of alternate models in their culture general courses. However, it is essential to recognize that some criticisms of the Hofstede model also apply to other cultural dimension models, including the use of Likert scales, the assumption of homogeneous culture at the country level, and the imposition of a Western etic perspective.

Further research is warranted on the continued use of the Hofstede model or alternative models in intercultural training within the GN. Continued use should be accompanied by warnings about the model's limitations, applicability, and significant variance between individuals, which can be attributed to other factors such as class membership, age, and personality. Some relatively simple operational research could be conducted on the model(s) based on feedback from students learning about the model and its use. Alternatively, more rigorous research could be conducted on the Hofstede model or other models in the Nunavut context, if it results in benefits to the Inuit, and ideally by an Inuk scholar to bring their unique cultural perspectives to the research question. Such research should include a combined emic-etic approach (as discussed by Cheung et al, 2011).

Culturally sensitive organisational design

Chapter 1 explored how the dimensions of uncertainty avoidance and power distance impact a society's institutions, including rules, laws, and organizations. Inuit culture, which scores low to moderately low on uncertainty avoidance (44) and very low on power distance (8), fits into the adhocracy cluster (Hofstede, Hofstede, & Minkov,

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

2010, p. 314). An adhocracy emphasizes individual initiative and self-organization, relying on mutual adjustment and support (Mintzberg, 1993). Other cultures within this typology include southern Canada. While the uncertainty avoidance scores for southern Canada and Inuit culture are relatively similar (48 and 44, respectively), there is a notable difference in power distance (39 for southern Canada compared to 8 for Inuit culture). The very low power distance in Inuit culture suggests a preference for a decentralized organizational structure. This is reflected in the structure of the GN, which operates with three regional centers and has both headquarters and regional offices distributed across ten decentralized communities and Iqaluit, the capital.

Employees from countries in different organizational clusters might find this structure unfamiliar. The clusters, named after Mintzberg's (1993) five organizational configurations—adhocracy, simple structure, professional bureaucracy, full bureaucracy, and divisionalized form—offer a straightforward model that may help first-generation immigrants understand the GN's organizational structure better and identify cultural differences that may need adjustment.

Culturally sensitive policy development

As discussed in Chapter 1, culture affects the policies we create, and cultural differences and their impacts need to be considered by policy drafters. Due to the breadth of the potential usefulness of knowing the Inuit Hofstede dimension values to policy development across multiple departments, this discussion is deferred to the next section (“Implications of the Hofstede Dimension Values for Individual Departments within the Government of Nunavut”), which discusses each dimension in turn, across the various parts of the GN.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Intercultural negotiation and marketing

The six Hofstede dimensions affect intercultural communication, including negotiation and marketing, in addition to intercultural communications in the workspace. Knowing the values for Inuit culture, and comparisons with cultures interacting with them, can therefore provide useful insights.

Negotiation. Several GN departments are involved with intercultural negotiation, including the Department of Executive and Intergovernmental Affairs and the Department of Economic Development and Transportation. Knowledge of the effects of the Hofstede dimension scores on intercultural communication could therefore be useful to the GN.

Each dimension could be considered separately for its individual influence on the topic of negotiation and marketing. However, a simplified model has been developed by Huib Wursten (2019) to reduce this complexity. In this simplified model, Wursten (2019) creates a set of seven country clusters. Each cluster is based on the relative ranges of each of the Hofstede dimensions. Country members within each cluster tend to have similar attitudes toward negotiation and marketing. He called these clusters of countries “mental images”. Coene and Jacobs (2017) extended this model to help provide insights into these seven clusters with a focus on negotiation. Knowing where two specific countries lie can highlight similarities and differences in negotiation styles. As Inuit communicate and negotiate with many countries/cultures around the world and will increasingly do so as discussed in Chapter 1, knowing which clusters Inuit and other countries/cultures belong to can provide insights for Inuit/Nunavut to help increase the chances of successful interaction.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Table 25, based on Coene and Jacobs (2017), shows the seven clusters and which value range (low, high, etc.) that each of the six dimensions score on, except reciprocators, which are based on just the first four dimensions. As can be seen in this table, Inuit culture matched (bold font) on all the dimensions for “Connected”, whilst only matching on certain dimensions for the other clusters.

Table 26, based on Coene and Jacobs (2017), shows which countries are represented by each of the seven clusters. Interestingly, southern Canada is classified as belonging to the competitive cluster, along with other Anglophone countries, whilst Inuit culture was found to be more similar to the countries of Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Netherlands, Norway, and Sweden. The similarity with these largely northern European countries could partly be due to the presence of significant Indigenous populations in some of these countries. For example, the Sami in northern parts of Norway, Sweden, and Finland, and the Finnish Romani/Kaale group. Finland

Table 25

Dimension Ranges for Coene and Jacobs (2017) Mindset Clusters Compared to Inuit Hofstede Values

Mindset	PDI	IDV	MAS	UAI	LTO	IVR
<i>Competitor</i>	Low	High	<i>High</i>	Low-Medium	<i>Low-Medium</i>	High
<i>Organiser</i>	Low	High	<i>Medium to High</i>	<i>High</i>	<i>High</i>	<i>Low to medium</i>

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

CONNECT	LOW	HIGH	VERY	MEDIU	LOW TO	MEDIU
ED			LOW	M	MEDIUM	M TO
					HIGH	HIGH
Inuit	8	61	26	44	65	66
<i>Diplomat</i>	Low	High	<i>Medium</i>	<i>High</i>	High	<i>Low to medium</i>
<i>Reciprocator</i>	<i>High</i>	<i>Low</i>	<i>Medium</i>	<i>High</i>	N/A	N/A
<i>Marathonian</i>	<i>High</i>	<i>Low to medium</i>	<i>Medium to high</i>	Low	Medium to high	<i>Low to medium</i>
<i>Craftsman</i>	<i>Medium</i>	<i>Medium</i>	<i>High</i>	<i>High</i>	High	<i>Medium</i>

Note:

PDI = Power Distance; IDV = Individualism; MAS = Masculinity; UAI = Uncertainty Avoidance; LTO = Long Term Orientation; IVR = Indulgence.

Bold Text = Inuit culture matched; *Italicized Text* = Inuit culture did not match.

also has the Skolt and Inari Sami. Denmark, too, has a large Inuit population, making up approximately 89 % of the population in Greenland. Iceland does not have Indigenous groups in the sense of the preceding, having a population that settled in the 9th and 10th centuries. These populations were probably small, group-based, similar to the Inuit, though perhaps to a lesser extent. The preceding logic does not apply to the Netherlands, Latvia, and Lithuania, which do not have Indigenous peoples in the sense used in North America. An alternative cause could be due to longitudinal and latitudinal effects on

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

dimensions and hence similarities with these Arctic nations. Minkov and Kaasa (2022) demonstrated a relationship between latitude and longitude and cultural dimensions.

The similarity of Inuit culture to other Arctic nations, when considering the Coene and Jacobs (2017) model, is useful to know because Inuit increasingly interact with these other Arctic Nations. With these nations, similar negotiation styles will be seen as natural for Inuit. In fact, relatively greater differences can be expected to be experienced when negotiating with organisations/individuals from southern Canada.

In Table 26, it is shown, with bold and italicized text, those countries that were represented within the GN sample. Of course, there may be other nationalities within the GN, either now or in the future. Of interest is that most of the seven clusters have representation within the GN sample, all except “Organisers” and “Craftsman”, two of the seven country clusters proposed by Coene and Jacobs (2017). The “Craftsman” culture cluster consists of one unique country, Japan, whilst the “Organiser” cluster consists of Germanic countries and Israel. Knowing where a first-generation immigrant’s culture lies in this model, and differences with Inuit location (connected), or other cultures interacted with, can provide insights for employees when interacting with different cultures, and vice versa.

Table 26

Example Countries in Coene and Jacobs (2017) Mindset Clusters

Mindset	Example Countries
Competitor	Australia, <i>Canada</i> , Ireland, <i>South Africa</i> , <i>UK</i> , <i>USA</i>
Organiser	Austria, Czech Republic, Germany, Hungary, Israel, Luxembourg, Switzerland (German).

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

Connected	Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Netherlands, Norway, Sweden, and <u>INUIT</u>
Diplomat	Belgium, France, Italy (North), Malta, Switzerland (Fr. an It.), Spain, and <i>Poland</i> .
Reciprocator	<i>East Africa, West Africa, Middle East</i> , Albania, Angola, Argentina, <i>Bangladesh, Brazil</i> , Bulgaria, Burkina Faso, Cape Verde, <i>Chili</i> , Colombia, Costa Rica, Croatia, Ecuador, Egypt, El Salvador, Ethiopia, <i>Ghana</i> , Greece, Guatemala, Honduras, Iran, Iraq, Jordan, Kenya, Kuwait, Libya, Lebanon, Malawi, Mexico, Morocco, Mozambique, <i>Nigeria, Pakistan</i> , Panama, Peru, Portugal, Romania, Russia, Saudi Arabia, Senegal, Serbia, <i>Sierra Leone</i> , Slovakia, Slovenia, South Korea, Suriname, Syria, Taiwan, <i>Tanzania</i> , Thailand, Trinidad, Turkey, UAE, Uruguay, Venezuela, Zambia.
Marathonian	Bhutan, <i>China</i> , Dominican Republic, Fiji, Hong Kong, <i>India</i> , Indonesia, Jamaica, <i>Malaysia</i> , Namibia, Nepal, <i>Philippines</i> , Singapore, <i>Sri Lanka</i> , Vietnam.
Craftsman	Japan

Note:

Bold text (non-italicized) = Similar negotiation styles to Inuit; ***Italicized bold text*** = countries represented by GN employees within the sample.

Outside of the GN, all seven clusters have representation from countries that Inuit may interact with in negotiations or with marketing efforts. This includes in both

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

the organiser and craftsman clusters. For example, both Japan and Germany are tourist markets for Destination Nunavut, the territory's destination marketing organisation (Government of Nunavut, 2020).

As can be seen, this model could be used to provide Inuit negotiators with insights into how their approach to negotiation differs, or is similar to, other nations with whom they interact. Having these insights could improve negotiation outcomes (Coene & Jacobs, 2017).

Additionally, as Inuit score high on the indulgence dimension (66) they would tend to be positive, friendly, and have high optimism (Hofstede, Hofstede, & Minkov, 2010, p. 291). These are qualities to which the researcher can anecdotally attest. However, regarding interacting with other cultures, such as in intercultural negotiation, Inuit may need to be sensitive that other cultures may be more restrained and lack this positive outlook. In some restrained cultures, such as Russia, smiling can be considered as suspect (Chudnovskaya, & O'Hara, 2022) or harassing/flirtatious in Germany (Taras, Steel, & Kirkman, 2011).

Marketing. Marieke de Mooij (for example, de Mooij, 2021) has looked extensively at how the Hofstede dimensions affect consumer behaviour, advertising, and marketing topics across cultures. Most aspects of consumer behaviour are culture bound (de Mooij & Hofstede, 2011). Advertising and marketing are important to the Department of Economic Development partially because the department contains Destination Nunavut, effectively GN's destination marketing organisation which promotes the territory to key markets around the globe. The department also partakes in federal-provincial-territorial trade missions to foreign countries to increase international

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

trade. It would be beneficial if trade/marketing representatives from Nunavut, including Inuit, understand cultural differences and how the culture of the consumer should impact marketing and advertising strategies.

De Mooij (2010) discusses how companies, especially in individualistic cultures, which both Canada and Inuit culture are, tend to adopt a global brand rather than adopting a cultural segmentation strategy based on culture specifics of the consumer culture targeted. This decreases the effectiveness of marketing and advertising budgets. Of relevance to the Department of Economic Development and Transportation is that Destination Nunavut also has a single global brand, while Nunavut's top markets for tourism products are across a variety of cultures as diverse as Japan, Mexico, and Germany. The Hofstede model could be used to help custom-make marketing, branding, and advertising strategies for specific markets (de Mooij & Hofstede, 2011).

The department is also responsible for promoting economic development, so knowledge of how Inuit culture impacts the economy through culture-specific consumer behaviour is also very useful. For example, de Mooij (2011) states that in large power distance cultures, one's social status must be clear so that others can show proper respect. Therefore, goods are bought as status symbols. Inuit culture, however, appears to have extremely low power distance (8), so it would follow that such luxury goods may have a smaller market in Nunavut.

Like Coene and Jacobs (2017), de Mooij examines the effects of different Hofstede dimension combinations on, in this case, marketing practices. However, de Mooij's analysis primarily focuses on combinations involving only two dimensions at a time, which she terms maps. This section explores some of these impacts, offering

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

insights into marketing strategies targeted at Inuit consumers. Understanding other cultures also enables Inuit marketers to tailor their strategies to resonate with those diverse audiences. It is important to note that correlations observed at the ecological level (e.g., national or societal) may not apply universally; nevertheless, they offer valuable perspectives for further analysis.

One of de Mooij's maps (2020, p. 102) evaluates how combinations of power distance and uncertainty avoidance affect brand personality. Brand personality is described by Aaker (1997, p. 347) as "the set of human characteristics associated with a brand." De Mooij (2010, p. 6) cautions that contemporary branding theories, which originated in the individualistic cultures of the United States and the United Kingdom, may not be applicable to more collectivist cultures. However, given that Inuit culture appears to exhibit high individualism (61), the concept of brand identity should remain relevant. Inuit culture's low power distance (8) and low uncertainty avoidance (44) suggest that effective branding for Inuit consumers may involve brands that project innovative and distinctive personalities. This contrasts with the friendly brand personalities that are typically favored in cultures with higher uncertainty avoidance, and the prestigious brands that are more popular in cultures with higher power distance.

De Mooij (2010) also examines purchasing motives for luxury brands and other products using maps of multiple Hofstede dimensions. For instance, de Mooij (2010, p. 108) analyzes how masculinity and uncertainty avoidance influence car-buying motives. In Inuit culture, which appears to be characterized by low masculinity (26) and low uncertainty avoidance (44), consumers could tend to be primarily motivated by factors such as safety, functionality, and value. This contrasts with cultures that exhibit higher

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

levels of uncertainty avoidance, where motives often include design, style, and fashion; cultures with higher masculinity, where status, power, and size tend to be key motivators; and cultures that score high in both masculinity and uncertainty avoidance, where speed and technology are likely more influential in purchase decisions.

In her analysis of luxury brand purchasing motives, de Mooij (2020, p. 107) examines the effects of individualism and masculinity, along with a third dimension of power distance. According to her map, Inuit culture—characterized by high individualism (61), low masculinity (26), and low power distance (8)—would tend to prefer luxury brands that emphasize uniqueness, modest status, and practical benefits. This contrasts with cultures that are more collectivist (group-oriented), high in power distance, and high in masculinity, which are generally motivated by luxury brands that signify conformity, group enhancement, and social status. Typically, more masculine and high-power distance cultures are drawn to products that project power, social status, and success (de Mooij, 2010, p. 238).

Another important concept in marketing is locus of control, which Rotter (1966) defines as either internal or external. An internal locus of control implies that outcomes, such as product purchases, are influenced by one's own actions, while an external locus of control suggests that decisions are shaped by external factors. De Mooij (2010, p. 115) explores how power distance and uncertainty avoidance affect locus of control. In Inuit culture, which appears to be characterized by low power distance (8) and low uncertainty avoidance (44), there is likely a prevailing belief in an internal locus of control. This belief emphasizes personal responsibility and the expectation that people will follow through on their commitments, rather than relying on external factors. This

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

perspective influences behavior intention models and decision-making theories, which are crucial for understanding marketing strategies (de Mooij, 2010, p. 114).

Finally, de Mooij (2010, p. 172) examines how power distance and uncertainty avoidance influence preferred advertising styles. She identifies key elements of advertising styles, including appeal (such as motives), communication style (direct or indirect), basic advertising form (e.g., entertainment or testimonial), and execution (e.g., clothing worn by actors). For Inuit culture, which appears to be characterized by very low power distance (8) and low uncertainty avoidance (44), the most effective advertising approach would likely feature a direct and explicit communication style, with humor as a central element of the advertising form.

Acting as a cultural baseline

This does not need much more discussion. There may or may not be interest in remeasuring Inuit Hofstede values over time. The longer the time that passes, the more that change is likely, and thus could be interesting/useful.

Implications of the Hofstede Dimension Values for Individual Departments within the Government of Nunavut

This section gives examples of ways in which knowledge of each of the six Hofstede dimensions could be useful in a GN (Nunavut) context, recognizing the potential limitations of the model. Each subsection starts with a brief definition of the dimension based on the measured Inuit values, followed by an explanation of what the value could mean for the workplace. Examples of possible uses/insights for various departments/professionals within the GN are discussed.

It should again be noted that Hofstede's dimensions are relative. So, a GN

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

employee from another, non-Canadian culture, would need to assess possible differences based on relativity to that specific employee's cultural dimension. This is the strength of the Hofstede framework in that relative values have been calculated from many country-level cultures around the world – there are currently 130 documented country-level cultures within the Hofstede framework, available for viewing on the Hofstede-Insights website (www.hofstede-insights.com).

The insights discussed in this section are based on research findings into differences in aspects - such as general norms, family, school, health care, workplace, state, and ideas, language, personality, and behaviours - that appear to vary along each of the six Hofstede dimensions as found by Hofstede, Hofstede, and Minkov (2010) and others. It should be stressed that these generalities may not all apply to Inuit culture (some cultures do not follow the norm for those cultures that have similar scores on individual dimensions), and that there is a lot of variation within any culture (i.e., the research measured averages and there is a bell curve of responses for each dimension). This variability among individuals was shown by the unconventional statistical tests carried out and reported on in Chapter 5.

Power distance

Hofstede, Hofstede, and Minkov (2010, p. 61) define power distance as “the extent to which the less powerful members of institutions and organisations within a country expect and accept that power is distributed unequally”. The results chapter showed that Inuit culture appeared to be very low on power distance (8), while southern Canada has a value of 39. Indeed, Inuit are currently the lowest-scoring culture on this dimension within the Hofstede matrix of 130 cultures.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Department of Human Resources. Given that Inuit culture appears to be characterized by very low power distance (8), it is important for other cultures to recognize that this implies a need to minimize workplace inequalities and handle social relationships with sensitivity. It is crucial to ensure that individuals in positions of power are interdependent with those in less powerful roles, and that those with less power feel emotionally comfortable with this interdependence (Hofstede, Hofstede, & Minkov, 2010, p. 72). This understanding is particularly valuable for human resource professionals, including supervisors and managers.

Also of note is that any hierarchy in organisations in low power distance cultures tend to be present for convenience rather than existential inequality, decentralised structures are popular (an organisational structure adopted by the GN), and there tend to be fewer supervisory personnel (Hofstede, Hofstede, & Minkov, 2010, p. 76). Salary ranges between the top and bottom levels should be reduced, which is generally the case within the GN as a public sector organisation. That being said, recently (May, 2024) the GN increased salaries for all staff by 9%, with higher-level positions obtaining an extra 2% increase to encourage staff to take on more responsibilities and move up in the organisation.

In low power distance cultures, managers rely on their own experience and subordinates instead of relying on superiors and formal rules. In fact, subordinates expect to be consulted rather than told what to do, so the ideal boss is a “resourceful democrat” rather than a “benevolent autocrat” or “good father” (Hofstede, Hofstede, & Minkov, 2010, p. 73). As already noted, less educated people tend to hold more authoritarian values than more educated persons (Hofstede, Hofstede, & Minkov, 2010,

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

p. 72). This may be of relevance due to the currently young age of the GN Inuit population.

For low power distance cultures, which appears to be the case for Inuit, privileges and status symbols should not be present or minimised, and manual work should be held in the same status as office work (Hofstede, Hofstede, & Minkov, 2010, p. 76). Both are generally seen within the GN. For example, David Kunuk (D Kunuk, personal communication, October 12, 2023) noted how a federal/provincial/territorial meeting consisting of deputy ministers, assistant deputy ministers, and directors from across the country showed greater power distance in how the groups were separated into separate dining rooms. This should not happen, and it is unlikely to occur in Nunavut.

Department of Family Services. This department should be aware that parents in low power distance cultures tend to treat children more as equals, and vice versa (Hofstede, Hofstede, and Minkov, 2010, p. 72). Older children, therefore, likely need to be involved more with interactions with the family unit.

Department of Economic Development. Çelikkol, Kitapçı, and Döven (2019) found that power distance had an insignificantly small impact on economic development. However, Mitchell, Smith, Seawright, and Morse (2000) argue that high power distance would tend to hinder economic development because members lower in the hierarchy would lack the autonomy and resources to positively influence entrepreneurial attitudes, abilities, aspirations, and thus success. As Inuit culture appears to have an extremely low power distance (8), this could have a positive impact on the economic outlook for Nunavut.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Department of Education, School Operations, and Nunavut Arctic College.

Teachers and educators coming to Nunavut need to realise that in low power distance cultures there is a tendency for: students to treat teachers more as equals with more initiatives expected from students; teachers are believed to be experts who transfer impersonal truths; and quality of learning depends on two-way communication and excellence of students (Hofstede, 2002). These tendencies should be borne in mind by teachers from different cultures, especially for teachers from very high power distant cultures.

Department of Health. Doctors coming to Nunavut should be aware that patients tend to treat doctors more as equals and actively supply information in low power distance cultures (Hofstede, Hofstede, & Minkov, 2010, p. 72). Meeuwesen, van den Brink-Muinen and Hofstede (2009) showed that physician consultations in low power cultures tended to be longer due to this relaxation of roles. This is added to by the role of low uncertainty avoidance score (44), which would tend to increase the importance of rapport building, and high individualism, which tends to increase the amount of sharing of psychosocial information (Meeuwesen, van den Brink-Muinen & Hofstede, 2009).

Department of Justice. Regarding the law, it is noteworthy that in low power distance cultures, the use of power should be legitimate and follow criteria of good and evil. All should have equal rights while power is based on formal position, expertise, and ability to give rewards rather than based on tradition or family, charisma, or ability to use force (Hofstede, Hofstede, & Minkov, 2010, p. 83).

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Nunavut Legislative Assembly. In low power distance cultures, there tends to be more dialogue in politics with a strong center and weak left/right wings (Hofstede, Hofstede, & Minkov, 2010, p. 83). In fact, the Nunavut Legislative Assembly is based on a consensus-forming, non-party system, i.e., each member of the legislative assembly is elected on a personal rather than a party basis (Government of Nunavut, 2021).

Individualism

Hofstede, Hofstede, and Minkov (2010, p. 92) define individualistic cultures as “societies in which the ties between individuals are loose: everyone is expected to look after him or herself and his or her immediate family.” Conversely, collectivism refers to “societies in which people from birth onward are integrated into strong, cohesive in-groups, which throughout people’s lifetime continue to protect them in exchange for unquestioning loyalty” (Hofstede, Hofstede, & Minkov, 2010, p. 92). In this research, Inuit culture appeared to be relatively low on individualism (61) compared to southern Canada (72). Overall, however, Inuit culture appeared to be moderately high on this dimension. Therefore, depending on the other cultures present within the GN, Inuit culture may be deemed either more or less individualistic depending on where that specific culture stands on the spectrum. The following subsections consider Inuit cultural values to be moderately higher than most cultures from around the world on this dimension.

Department of Human Resources. New human resource professionals in Nunavut who come from more group-oriented cultures should note that individualistic societies tend not to have the issue of nepotism or favoring of in-groups. Value standards are the same (universalism) rather than differing between in-groups and out-groups

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

(exclusionism) (Hofstede, Hofstede, & Minkov, 2010, p. 113). Also, for individualistic cultures, occupational mobility tends to be higher than in more collectivist societies (Hofstede, Hofstede, & Minkov, 2010, p. 124). This is also being encouraged for Inuit in Nunavut through affirmative action, with significant resources being allocated to increasing Inuit representation throughout government in all departments and occupations.

Employees are more likely to speak their minds in individualistic cultures, whereas in collectivistic societies harmony is considered beneficial and there is a tendency to avoid direct confrontation (Hofstede, Hofstede, & Minkov, 2010, p. 113). Employees may tend to be less introverted, so involvement in discussions is natural, and recognition should focus on the individual. However, as Inuit appear to be only moderately high on this dimension, some group recognition may also be desirable. Recognition at the group level is also more conducive of feminine culture (see next subsection). Generally, managers need to focus on managing individuals rather than groups (Hofstede, Hofstede, & Minkov, 2010, p. 124).

Department of Family Services. Social workers need to be aware that individualistic cultures are less likely to view disabilities as a source of shame, with an emphasis on integrating into normal life as much as possible (Hofstede, Hofstede, & Minkov, 2010, p. 117), and adult children are more likely to desire not to live with parents (Hofstede, Hofstede, & Minkov, 2010, p. 113). However, in Nunavut this is difficult to achieve due to a severe lack of housing, high rents, and low incomes (Nunavut Roundtable for Poverty Reduction, 2012). As Inuit culture is believed to be more collectivistic compared to southern Canada, resources are more likely to be shared

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

with relatives (Hofstede, Hofstede, & Minkov, 2010, p. 113), which is very true in the traditional food sharing Inuit culture; but also, potentially an issue for income earners and Elders who are obligated to share what little they receive.

Departments of Education and Nunavut Arctic College. It is important to note that in individualistic cultures, students tend to be more likely to voice their opinions in class even without group endorsement. In these cultures, the goal of education tends to be viewed as learning how to learn rather than simply acquiring skills, and qualifications are often seen as enhancing personal or economic value rather than serving as credentials for achieving higher status (Manikutty, Anuradha, & Hansen, 2007). Additionally, Berger (2011) states that individualistic cultures are more likely to focus on learning for personal development, self-satisfaction, and enhancement of self-esteem rather than to do things and use knowledge for the benefit of the community or earning a livelihood.

In individualistic cultures, according to Hofstede (1986), the teacher is seen less as a power position; the teacher relies less on a purely transmission mode of transferring knowledge; and questioning the teacher and therefore questioning teachers' wisdom or debating with the teacher is more acceptable than in a collectivist culture. Therefore, class discussions are for debate and not just for clarification. (Signorini, Wiesemes, & Murphy, 2009).

Department of Economic Development. Economic Developers need to understand that individualistic cultures, such as that found for Inuit, albeit only moderately high (61), tend to believe that the government should not have a dominant role in the economic system and that companies in these societies tend to be owned by

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

individual investors rather than families or collectives (Hofstede, Hofstede, & Minkov, 2010, p. 130). Imported economic theories from Europe and North America are more likely to be applicable to individualistic rather than collectivistic cultures (Hofstede, Hofstede, & Minkov, 2010, p. 130), which means that many economic theories from the south should be applicable to Nunavut. For example, Adam Smith's (1776) "invisible hand" relies on the concept that the economy is driven by many individual actors. Another example is Maslow's Hierarchy of Needs (Maslow, 1954). The ultimate stage for motivation being self-actualisation, a very individualistic concept.

Çelikkol, Kitapçı, and Döven (2019) found that individualism increased economic development. The findings suggest that collectivist cultures may prioritize group harmony over individual success, potentially fostering more cooperative economic structures. However, this emphasis on collective goals could also dampen individual initiative and innovation, leading to slower economic growth and development. Hayton and Cacciotti (2013), however, found that high individualism was not always positively associated with economic development, being contingent on the stage of economic development.

Overall, Inuit's apparently, relatively higher score of individualism, coupled with other favorable dimension scores (low power distance, low masculinity, high long-term orientation, high indulgence, and low uncertainty avoidance), should bode well for Nunavut.

Department of Justice. The Justice Department should be mindful that in individualistic cultures, individual interests tend to prevail over collectivist interests and that there is a tendency to believe that laws and rights should not differ by groups. At the

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

same time, individual freedom ideologies prevail over ideologies of equality (Hofstede, Hofstede, & Minkov, 2010, p. 130). As the values of this dimension appear to be both high for Inuit (61) and southern Canadian culture (72), the language in laws should be similar to those in other territories/provinces in Canada.

Department of Health. High individualism tends to increase the amount of sharing of psychosocial information (Meeuwesen, van den Brink-Muinen & Hofstede, 2009). This, in combination with the effects of apparently being a low power culture and a low uncertainty avoidance culture (discussed in the relevant subsections) means that medical consultations could take longer than those that medical professionals are accustomed to if their cultures score on opposite poles.

Masculinity

Hofstede, Hofstede, and Minkov (2010, p. 140) define a masculine society as one in which “emotional gender roles are clearly distinct: men are supposed to be assertive, tough, and focused on material success, whereas women are supposed to be modest, tender, and concerned with the quality of life” whereas a feminine society is one in which: “emotional gender roles overlap: both men and women are supposed to be modest, tender, and concerned with the quality of life.” Inuit culture appeared to be very low on masculinity, i.e., it appeared to be a feminine (caring) culture (26). This was much lower than southern Canada (52).

Department of Human Resources. For human resource professionals it should be noted that feminine cultures tend to place greater importance on relationships and quality of life rather than challenges, earnings, recognition, and advancement (Hofstede, Hofstede, & Minkov, 2010, p. 155), Modesty is also important (for both genders) which

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

may show up in interview performance for Inuit. If the interview panel has representation from cultures that are more masculine (aggressive) then those panel members may tend to give marks more generously to those candidates who talk up their education and experience.

Hofstede, Hofstede, and Minkov (2010, p. 170) summarise that management tends to be by intuition and consensus in feminine (caring) cultures rather than aggressive/decisive, which is more the norm in more masculine cultures. Additionally, resolution of conflicts is by compromise and negotiation as opposed to power differentials, and humanization of work is achieved by contact and cooperation rather than job content enrichment. When it comes to rewards and recognition, these are based on equality rather than equity, and there should be a greater focus on group rather than individual rewards. This tends to balance the apparently modestly high individualism of Inuit culture, which would pull Inuit toward preferring more individualistic rewards. Again, a mixture of group and individual recognition may be prudent.

Employees tend to prefer work-life balance in feminine (caring) cultures, working in order to live rather than vice-versa, with a greater desire for more leisure time than more pay (Hofstede, Hofstede, & Minkov, 2010, p. 170). The greater emphasis on leisure time may suggest that current human resource discussions on a modified, four-day week may be of more interest to the GN Inuit population than for Canada as a whole, which showed up in a couple of comments received on the survey.

More generally, newcomers to Nunavut should know that feminine (caring) cultures tend to be more inclusive with greater tolerance to differences, including diversity (Hofstede, Hofstede, & Minkov, 2010, p. 180). This has certainly been the

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

anecdotal experience of the researcher for Inuit culture.

Department of Education and Nunavut Arctic College. Educators should note that in feminine cultures, the average student tends to be the norm, and weak (rather than excellent) students tend to be praised to encourage inclusion (Hofstede, 1986). Also, there may be jealousy of those who try to excel (tall poppy syndrome), while failing school is considered a minor incident (Hofstede, 1986). A teacher in a feminine culture tends to praise and support weak students and is not likely to create open competition conditions in the classroom or show failure as a calamity (Signorini, Wiesemes, & Murphy, 2009). Children are socialised to be non-aggressive, and friendliness in teachers is appreciated. Students tend to underrate their own performance (Hofstede, Hofstede, & Minkov, 2010, p. 165), like that found for employees in high feminine cultures, mentioned previously.

In feminine (caring) cultures, children/youth may be more motivated by reading fiction rather than non-fiction and may be more inclined to use the internet for socialising rather than research. Both genders tend to study the same subjects, and job choice is based on intrinsic interest rather than career opportunities or perceived gender roles (Hofstede, Hofstede, & Minkov, 2010, p. 165). This bodes well for gender equality in more career areas, including professional jobs, a goal of the GN and other Nunavut organisations.

Department of Economic Development. It is noteworthy that feminine cultures may excel in competitive agriculture (Hofstede, Hofstede, & Minkov, 2010, p. 170) (in a Nunavut context – fisheries, hunting, and gathering) and service industries, which bodes well for tourism which has great potential in Nunavut (Travel Nunavut, 2023). This

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

contrasts with competitive manufacturing and bulk chemistry, both of which have barriers due to the economics of remoteness in Nunavut, anyway.

A feminine (caring) culture is likely to have more women in leadership positions and higher rates of female entrepreneurship (Hofstede, 1980). Both tendencies would tend to increase economic development in feminine cultures, which Inuit culture appeared to be. The increased role of women in the economy can be seen to be the case in Nunavut if one considers the distribution by gender for applications to GN's economic development program funds. Number of applications by gender is approximately 50:50. Female business ownership in Ontario, as a proxy comparison, is at just 19%. (Government of Ontario, 2024).

Despite the above findings, other authors have made arguments that both high and low masculinity have a positive impact on economic development. For example, Hayton and Cacciotti (2013) hypothesized that the ideal entrepreneur would be from a high masculine culture, being independent, strong, ambitious, and competitive. Some possibilities for why low masculinity could be conducive to economic development include the greater role of females in the workforce and the greater focus on quality, tenderness, and care in customer relations (Çelikkol et al., 2019).

Overall, Çelikkol, et al. (2019) found that masculinity decreased economic development, so Inuit's apparently relatively low score on this dimension, coupled with other apparently favorable dimension scores (low power distance, moderately high individualism, low uncertainty avoidance, high long-term orientation, and high indulgence), should bode well for Nunavut.

Department of Environment. Alongside the Department of Economic

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Development, the Department of Environment should recognize that feminine (caring) cultures often prioritize environmental preservation and social concerns over solely economic considerations (Hofstede, Hofstede, & Minkov, 2010, p. 180). This perspective is evident in various studies and programs aimed at safeguarding the environment and Inuit cultural values. GN employees from other cultures should be aware of these cultural differences when recommending land use and economic decisions.

Department of Family Services. The Department of Family Services should note that feminine (caring) cultures tend to support the needy, being welfare societies (Hofstede, Hofstede, & Minkov, 2010, p. 180). This is significant because Nunavut has a very high unemployment rate and homelessness rate compared to the rest of Canada (Nunavut Roundtable for Poverty Reduction, 2012).

Nunavut Legislative Assembly. It is of note that in feminine (caring) cultures, more voters tend to place themselves left of center, politics are based on coalitions with polite political manners, with many women are elected to political positions (Hofstede, Hofstede, & Minkov, 2010, p. 180). This certainly is true in Nunavut. Additionally, conflicts should be resolved by negotiation and compromise. In Nunavut, the idea of consensus formation, such as in the Legislative Assembly, is dominant (Government of Nunavut, 2021).

Department of Health. Meeuwesen, van den Brink-Muinen, and Hofstede (2009) found that high femininity cultures tended to increase the amount of sharing of psychosocial information. This could increase the length of medical consultations. If this

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

is the case for Inuit culture, then medical professionals from more masculine countries may need to adjust their expectations of how many patients can be seen in a day.

Uncertainty avoidance

Hofstede, Hofstede, and Minkov (2010, p. 191) define uncertainty avoidance as “the extent to which the members of a culture feel threatened by ambiguous or unknown situations of life.” Inuit culture appeared to be moderately low on uncertainty avoidance (44) and only slightly lower than southern Canada (46). However, as detailed before, although the score was classified as moderate using the range of Hofstede dimension values decided upon for this research, the fact is that most cultures already embedded in the Hofstede framework appeared to have higher uncertainty avoidance than Inuit. Just 15 cultures had a lower value compared with 115 that were higher. So, most cultures could tend to find Inuit to be low on this dimension.

As the difference between southern Canada and Inuit culture appeared to be small (2 points), it may be difficult to ascertain differences between these two cultures. However, there will, of course, be greater differences between Inuit and other national cultures, as they interact both within the GN and across international borders.

Department of Human Resources. For human resource professionals it is noteworthy that weak uncertainty avoiding cultures tend to: change employer more often; desire less rules than necessary; work hard only when needed; consider time for orientation rather than ownership (i.e., time is not money); have a tolerance for ambiguity and even chaos; and believe in generalists and common sense (Hofstede, Hofstede, & Minkov, 2010, p. 217). People tend to be more motivated by achievement rather than security, and top managers tend to be more concerned with strategy rather

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

than daily operations (Hofstede, Hofstede, & Minkov, 2010, p. 217). Also, there tends to be a focus on decision process rather than decision content and intrapreneurs are relatively free from rules.

More generally, newcomers to Nunavut should know that weak uncertainty-avoiding cultures tend to be more tolerant of ethnic differences and positive or neutral to newcomers. (Hofstede, Hofstede, and Minkov, 2010, p. 231). There is a low risk of intergroup conflict, religion is not imposed on others, and nobody should be persecuted for their beliefs (Hofstede, Hofstede, & Minkov, 2010, p. 231). Low uncertainty-avoiding cultures tend to believe that what is different is considered curious, rather than dangerous. This is shown in the openness of Inuit generally to newcomers and to tourists, which has been anecdotally observed by the researcher and is reflective of the IQ Principle Tunnganarniq: Fostering good spirits by being open, welcoming, and inclusive.

Department of Economic Development. For economic developers, it is noteworthy that weak uncertainty avoiding cultures tend to have fewer self-employed people and are better at invention than implementation. There are also generally more risk appetite in investments (Hofstede, Hofstede, & Minkov, 2010, p. 217). In relation to business and commerce, shopping may be based more on convenience rather than purity/cleanliness, there may be a greater acceptance of used/second hand markets and do-it-yourself tasks, a speedier acceptance of new technologies and appeal of humour in advertising as opposed to appeal of expertise (de Mooij & Hofstede, 2011).

Çelikkol et al. (2019) hypothesized that low uncertainty avoidance would increase economic development. The reasons given were that low uncertainty avoiding

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

cultures would be more comfortable taking entrepreneurial risk whilst lots of regulation in high uncertainty avoiding cultures would be inhibitive of business development.

Interestingly, these authors found little impact of this dimension on economic development, but they admit that their sample size was small (countries, $n = 10$).

Additionally, Hayton and Cacciotti (2013) found that low uncertainty avoidance did not always have a positive association with increased entrepreneurial activity.

Hancioğlu, Doğan, and Sirkintioğlu Yıldırım (2014), however, found that a lower level of uncertainty avoidance did result in higher levels of entrepreneurial activity. Generally, Graafland and de Jong (2022) concluded that lower levels of uncertainty avoidance increase the beneficial effects of economic freedom on economic development.

Inuit's apparently low uncertainty avoidance (44) could therefore encourage economic development. This is compounded with Inuit's apparent low power distance, high individualism, low masculinity, longer-term orientation, and higher indulgence, which also increases the likelihood of favorable economic development, as discussed in the relevant subsections.

Department of Justice. From Hofstede, Hofstede, and Minkov (2010, p. 223), it is noteworthy that weak uncertainty avoidance cultures tend to believe in fewer and more general laws, including unwritten rules, and if laws cannot be respected, they should be changed. Citizens tend to be interested in politics, get involved with voluntary associations and movements, are capable in their interactions with authorities and believe protest is acceptable (Hofstede, Hofstede, & Minkov, 2010, p. 223). However, they also tend to trust politicians, civil servants, and the legal system and outside observers perceive less corruption (Hofstede, Hofstede, & Minkov, 2010, p. 223). There

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

tends to be greater liberalism (as opposed to conservatism, law, and order) and tolerance even of extreme ideas (Hofstede, Hofstede, & Minkov, 2010, p. 223). This has generally been the researcher's anecdotal observation of Inuit culture in Nunavut.

Department of Health. It is noteworthy that cultures that are more accepting of uncertainty may experience mental health benefits such as reduced stress, lower anxiety, and generally higher levels of happiness. However, the suppression of aggression and emotions could potentially negate these advantages, as indicated by a higher incidence of heart attacks (Hofstede, Hofstede, & Minkov, 2010, p. 208).

People tend to be happier with their health in low uncertainty-avoiding cultures and are more content seeing nurses rather than doctors in many cases (Hofstede, Hofstede, & Minkov, 2010, p. 208). This bodes well for Nunavut, where there is a greater reliance on nurses. In many communities, doctors only visit periodically.

Department of Education and Nunavut Arctic College. It is noteworthy that in such weak uncertainty avoiding societies students tend to be comfortable with open-ended learning situations and enjoy good discussions, rather than requiring structured learning situations and being concerned with the “right” answers (Hofstede, 1986; Manikutty, Anuradha, & Hansen, 2007; Prowse & Goddard, 2010). Students may also tend to be more interested in fantasy literature rather than literature dealing with rules and truth (Hofstede, Hofstede, & Minkov, 2010, p. 208). This compounds the effects of Inuit apparently being a feminine culture on interest in fiction rather than non-fiction, mentioned previously.

In low uncertainty avoiding cultures it is fine for teachers to say “I don’t know” as opposed to having all the answers (Hofstede, 1986). That is to say, a student may be

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

more accepting of a teacher saying they do not know the answer to a question in a low uncertainty avoidance culture than in a high uncertainty avoidance one (Hofstede, 1980). This can lead into open-ended learning situations and good discussions, which, as stated above, students from feminine cultures (which Inuit culture appears to be) also tend to be more comfortable with. Students are less likely to avoid any academic confrontation with teachers, so controversial discussion topics are acceptable as some chaos is acceptable (Manikutty, Anuradha, & Hansen, 2007; Prowse & Goddard, 2010).

In low uncertainty avoiding cultures, during teacher-parent interactions, teachers should engage parents in the process rather than merely informing them, and there is generally less formality in interactions between teachers and both parents and students (Hofstede, Hofstede, & Minkov, 2010, p. 208). At higher levels of education, it should be noted that there is a tendency toward relativism and empiricism rather than grand theories, and academic disagreement is respected (Hofstede, Hofstede, & Minkov, 2010, p. 208). (Although there is currently no university in Nunavut, there are degree granting programs - such as in law, teaching, and nursing - that are run in partnership between Nunavut Arctic Colleges and southern institutions).

Long-term orientation

Hofstede, Hofstede, and Minkov (2010, p. 239) define long-term orientation as “the fostering of virtues oriented to future rewards – in particular performance and thrift”, whilst short term orientation is “the fostering of virtues related to the past and present – in particular, respect for tradition, preservation of “face” and fulfilling social obligations”. Inuit culture appeared to be moderately high (65) on this dimension, whereas Canada scored a more average 54.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Department of Economic Development and Department of Family Services.

Differences along this dimension could be especially relevant for the Department of Economic Development and the Department of Family Services. Long-term oriented societies tend to experience less social pressure toward spending, with a higher savings quota and more money for investment (Hofstede, 1980). Increased saving, investment, and hard work associated with long term-oriented cultures may result in greater economic growth (Minkov & Blagoev, 2009). However, it should be noted that this can be difficult in Nunavut due to the high cost of living and demands from family (Nunavut Roundtable for Poverty Reduction, 2012).

In long-term oriented societies, investors/businesses tend to have less of a desire for a quick return on investment with the “bottom line” and this year’s profits being the focus for companies in short-term oriented cultures (Hofstede, Hofstede, & Minkov, 2010, p. 251). When economic freedom is present, as it is in Nunavut, good economic growth may occur due to this long-term orientation (Graafland and de Jong, 2022). Also, real estate rather than mutual funds tends to be the preferred investments (Hofstede, Hofstede, & Minkov, 2010, p. 275). However, in Nunavut the real estate market is highly restrictive in the capital, Iqaluit, and practically non-existent in some of the Hamlets (Nunavut Roundtable for Poverty Reduction, 2012). Therefore, there are less opportunity to invest in local real estate assets.

Department of Human Resources. For human resource practitioners, it should be noted that in long-term oriented cultures managers and workers tend to: share the same aspirations; have work values that include learning, honesty, adaptiveness, accountability, and self-discipline; and invest in lifelong personal networks (Hofstede,

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Hofstede, & Minkov, 2010, p. 251). To the last point, Inuit culture is one that has a deep connection to family and community (Inuit Tapiriit Kanatami, 2007).

It should be noted that long-term oriented cultures tend not to place an importance on leisure time (Hofstede, Hofstede, & Minkov, 2010, p. 251), but this is balanced by Inuit culture appearing to have a lower masculinity score, as discussed above, and high indulgence score, discussed below. Also, long term-oriented cultures tend to believe that wide social and economic differences are undesirable (Hofstede, Hofstede, & Minkov, 2010, p. 251), which is compounded by Inuit's apparently extremely low power distance score, also detailed above.

Department of Education and Nunavut Arctic College. (Hofstede, Hofstede, & Minkov, 2010, p. 251) summarize that long-term oriented cultures tend to: prefer not to have others care for preschool children; have a concern with virtue rather than truth; do not have universal guidelines of good and evil; believe that there can be different truths (i.e., there can be multiple interpretations of reality); prioritize common sense over abstract reality; believe disagreement can hurt; and be synthetic rather than analytical in thinking (i.e. rather than breaking things down for clarity, synthetic thinking builds them up to create new understandings).

In long-term oriented cultures students tend to: attribute success and failure to effort, rather than luck; have stronger math and science skills; and have a talent for applied, concrete sciences rather than theoretical, abstract sciences (Hofstede, Hofstede, & Minkov, 2010, p. 275). Additionally, Manikutty, Anuradha, and Hansen (2007) hypothesized that learning would be deep, rather than surface for long term-oriented cultures. Deep learning is both relating ideas (holistic) and using evidence, i.e., a

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

versatile approach to learning. Although not all long-term oriented cultures will display these characteristics, and there will be variation among students, this information could provide a lens for teachers from short-term oriented cultures to use to help identify any cultural differences.

Signorini et al. (2009) found that long-term oriented teachers, particularly those in higher education, tended to reward students for motivational purposes, while short-term oriented teachers give rewards just for making students happy. As Inuit were found to be relatively more long term oriented than many other cultures, using rewards for motivational purposes would likely be the best practice.

In all the cases above, the effects would be somewhat muted as Inuit are only moderately high on this dimension, as measured by this research. However, the above should be noted, especially by teaching staff from short-term oriented cultures.

Indulgence

Hofstede, Hofstede, and Minkov (2010, p. 281) define indulgence as a “tendency to allow relatively free gratification of basic and natural human desires related to enjoying life and having fun”, whilst restraint reflects a “conviction that such gratification needs to be curbed and regulated by strict norms.” Inuit culture appeared to be similar to southern Canada as a whole on the indulgence dimension (66 and 68, respectively). This is the most recent addition of the six dimensions and therefore is less well researched. However, the following comments can be made.

Department of Human Resources. Cultures scoring high on the indulgence dimension, such as appears to be the case for Inuit, tend to have a higher regard for leisure time and friends, and work may not be the most important aspects of their lives

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

(Hofstede, Hofstede, & Minkov, 2010, p. 291). This impact is compounded by Inuit culture appearing to be a more feminine (caring) culture and is moderated by the effects of an apparent long-term orientation on these attributes, as discussed above.

Leaders, managers, and human resource practitioners in Nunavut should take work-life balance into account when assigning work, as there may be a generally lower inclination to work overtime. Additionally, the department and the Nunavut Employees Union should consider this emphasis on work-life balance during union contract negotiations, particularly regarding leave types, amounts, and work hours. For many Inuit employees, these factors may hold more significance than monetary compensation. The Government of Nunavut appears to be catering to this preference by offering a generous annual leave program, including additional leave for special events, discretionary days, and cultural days.

Department of Executive and Intergovernmental Affairs. As Inuit appear to score high on the indulgence dimension (66), they could tend to be positive, friendly, and have high optimism (Hofstede, Hofstede, & Minkov, 2010, p. 291). These are qualities to which the researcher can anecdotally attest. However, regarding interacting with other cultures, such as in intercultural negotiation, Inuit may need to be sensitive that other cultures may be more restrained and lack this positive outlook. In some restrained cultures, such as Russia, smiling can be considered suspect (Chudnovskaya, & O'Hara, 2022) or harassing/flirtatious in Germany (Taras, Steel, & Kirkman, 2011), as mentioned earlier.

Department of Health. It is noteworthy that indulgent cultures often have higher birth rates, lower death rates from cardiovascular disease, and have positive

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

impacts from involvement in sports and positive life outlooks. They may, however, be more likely to suffer from obesity and diabetes due to indulgence with soda pop (Hofstede, Hofstede, & Minkov, 2010, p. 291) and presumably other junk food. Hoe, Özkan, Tekeş, and Üzümcüoğlu (2019) also found that individualism and uncertainty avoidance were positively associated with obesity, and long-term orientation was negatively associated with obesity. As Inuit appeared to score high on individualism, this could tend to compound this effect, but the apparently lower uncertainty avoidance and long-term orientation could be moderating factors. Another complicating factor are cultural effects on body perception. Historically, before colonisation, a larger person was a sign of a great hunter, so they were more desirable (L. Mackenzie, personal communication, September 3, 2024).

Department of Family Services and the Department of Economic

Development. It is important to know that indulgent cultures tend not to prioritise thrift (Hofstede, 2011), and thrift is associated with greater economic growth (Minkov & Blagoaev, 2009). However, please note that long-term oriented cultures, which Inuit culture appeared to be relatively high on, do tend to prioritise thrift (Hofstede, Hofstede, & Minkov, 2010, p. 243), so this is balanced.

Although this focus on thrift in restrained cultures may increase saving rates, the reduced spending may have a negative impact on the economy. For example, Çelikkol et al. (2019) found that indulgence increased entrepreneurship and economic development. Overall, the apparently relatively high indulgence of Inuit culture is considered a positive for the economic outlook of Nunavut, compounding the effects of the other dimensions (low power distance, moderately high individualism, low masculinity, low

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

uncertainty avoidance, and high long-term orientation), as discussed in the relevant subsections.

Recommendations to the GN Regarding Human Resource Research

Conducting this research was a learning experience in many ways. Firstly, to the researcher's knowledge, this was the first time that student-led GN-wide quantitative research utilising a questionnaire has been conducted. There was no prior protocol that had been established. As discussed in the methodology, following approvals from the Athabasca University Ethics Review Board and Nunavut Research Institute, approval was obtained first from the Department of Human Resources and Executive and Intergovernmental Affairs to contact employees directly. This was followed by obtaining approvals from each department/agency head. This was somewhat risky, in hindsight, as the research could have run into approval issues at later stages. And indeed, approvals were not obtained from Health and Nunavut Arctic College within the time frame of the research.

The overwhelming support from the various department/agency heads reflect the IQ Principle of *Pilimmaksarniq/Pijariuqsarniq*: Development of skills through observation, mentoring, practice, and effort. The researcher was also met with kindness and encouraging words from both decision makers and respondents, reflective of *Tunnganarniq*: Fostering good spirits by being open, welcoming, and inclusive. He found that his time within the GN also allowed him to be known by many of the decision makers, which probably worked in his favour.

However, it would be beneficial for the GN, in the researcher's opinion, to have a formalised policy of student research within the GN. This would remove some of the

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

uncertainty that he faced. For example, all research proposals could be evaluated by the Deputy Minister Committee, with a final decision allowing the distribution of surveys directly to GN employees by the communications division of the Department of Human Resources.

This formal policy should assist future GN/student researchers. It is assumed, and hoped, that such employee-centric research will increase over time, recognising the uniqueness of the GN employee population. Having employees (or non-employee students) conduct research within the GN employee population would provide the GN with important human resource insights, as it is believed that the current research has provided. Furthermore, this would enable/encourage future GN employees (or Nunavummiut) who are pursuing postgraduate degrees to conduct their research projects within the GN. The number of Nunavummiut (and, more importantly, Inuit) researchers will increase over time. Inuit researchers will also bring their unique cultural lens to what research questions are asked and how the research is conducted.

Future Research Recommendations

One of the conclusions from this research was that the Hofstede model could continue to be used as an additional tool in culture-general training for GN employees, recognising both the uniqueness of Inuit culture and the diversity of origin of the non-Inuit employees within the organisation. However, it needs to be acknowledged that the model has many weaknesses. This includes the possibility of considerable inaccuracy in the scores obtained, as well as those already in the Hofstede framework.

The usefulness of the model conceptually within the GN could be further explored by delivering a short presentation on the Hofstede dimensions found for Inuit

MEASURING AND USING THE HOFSTEDÉ DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

to GN employees enrolled in one of the organisation's cultural courses. The presentation could explain the Hofstede model in the Nunavut context to the trainees, along with its application and limitations. Feedback from the participants could then be obtained to provide qualitative data on the perceived accuracy and relevance of the Hofstede model to the Nunavut context.

The Inuit Hofstede values could be explained in relation to Inuit Societal Values, IQ Principles, and Maligarjuaq Laws to bring attention to cultural differences. Examples of the Hofstede values for different cultures present in the training program could help develop discussion and critical evaluation of the model.

This critical evaluation, from several different cultures and viewpoints, especially, and importantly, from Inuit themselves, would further explore whether the model can continue to be used in future culture training programs. Or not. This might be a good qualitative study for a future GN employee enrolled in a postgraduate research degree. It would be all the better if that student were Inuk, both to bring their unique cultural lens to the research question and to use their far superior knowledge and understanding of Inuit Societal Values, IQ Principles, and Maligarjuaq Laws.

The content validity of the instrument in Inuit culture could also be explored by creating content validity indexes following a method utilized by Taras, Steel, and Stackhouse (2023). In this method, experts are presented with a definition of the dimension and rate each item.

There are many other directions that future research could take following this study. Further quantitative research could be conducted for Inuit. This doctoral research focused on Inuit within the GN, to allow a matched sample with non-Inuit southern

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Canadians (also GN employees). However, Inuit are a circumpolar group. Although there is likely to be less variation within the Inuit groups compared to the differences between Inuit and other First Nations groups and other cultures, it could be interesting for Inuit to investigate differences. Differences between Inuit in Nunavut, Northwest Territories (Inuvialuit), Northern Quebec (Nunavimmiut), Alaska (Iñupiat /Yup'ik), Greenland (Kalaallit, Kalaallisut, Tunumiit, and Inughuit), and Russia (also Iñupiat /Yup'ik) could be explored.

There could be business benefits of awareness of any differences as this circumpolar group increasingly interacts on a global scale; and negotiation is one business topic that is affected by cultural differences, as discussed before.

Inuit are concerned with cultural retention. Although cultural values as measured by Hofstede dimensions are considered relatively stable by some (such as Sondergaard, 2024), longitudinal studies could reveal any cultural drift or acculturation of southern values. This research would need to be well planned, as cultural change may occur over decades. Alternatively, a repeat study like this current research could be conducted, using the results of this study as a baseline. A study focusing more on generational differences may also reveal any past changes in cultural values. Knowledge of cultural drift would have business implications to the topics mentioned throughout this dissertation, such as culturally relevant human resource management, client service, organisational design, and policy development.

Future cultural quantitative studies for Inuit could also utilise alternative scales such as Schwartz, GLOBE, or Minkov-Hofstede, or look at adding dimensions to the Hofstede scale to be more relevant to Inuit culture in an emic study, as discussed by

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Cheung et al (2011). This goal may be achieved by a qualitative study that reflects on the results of this current study by Inuit themselves, and their unique cultural lens, to consider whether there may be additional dimensions. This idea is like how an additional dimension (long-term orientation) was added by the involvement of Asian scientists, (Chinese Culture Connection, 1987). The addition of other dimensions may improve the scale's ability to distinguish between cultures, further improving the uses for human resource management and client services.

As discussed by Cheung et al. (2011), emic studies, such as those employing a lexicological approach, could be conducted on contemporary Inuit culture. In the lexicological approach, cultural dimensions can be identified from the bottom up, examining the words and adjectives used by the Inuit themselves to describe cultural differences. This contrasts with having a top-down imposed etic by using Western-formed models, which have often been based on WEIRD (Western, Educated, Industrialised, Rich and Democratic) and/or student sample populations (Henrich, Heine, & Norenzayan, 2010a).

This doctoral research, which focused on Inuit within the GN, could lead to interest in applying the Hofstede, or other scale, to other First Nations groups around the world. The research has shown that the scale could be used in a Nunavut context to help orient newcomers to Inuit cultural effects on the workplace, including leadership and management aspects, recognising its many limitations. This can help organisational design and management cater to Inuit cultural preferences, thus helping recruitment and retention of Inuit, a goal of the GN. Improving the representation of Indigenous peoples in government is also a business goal in the Northwest Territories (Government of

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Northwest Territories, 2018) and in countries such as Australia (Australian Government, 2018) and New Zealand (Government of New Zealand, 2018). These governments may therefore also find it beneficial to measure the Hofstede (or other scale) dimension values for their respective Indigenous peoples.

Chapter Summary

This chapter has discussed the research findings, including the “so what” of the research, i.e., its usefulness to the business of the GN, including newcomers to Nunavut and other cultures who interact with Inuit/Nunavut. Generally, the Hofstede model appears to be weakly validated for the Nunavut context and might be of continued use as a tool in orienting new non-Inuit employees to the uniqueness of the GN’s work force, recognizing its limitations. These limitations are substantial, including the issue of the accuracy of the scores found in this study and already present within the Hofstede framework, and possible effects from DIF and measurement invariance. However, these analyses are subject to sample size limitations and the ecological fallacy.

The uses of knowing each of the six Hofstede dimensional values for Inuit culture were discussed along with some precautions against relying too heavily on them, as there is a lot of variation within each culture and mounting concerns with the model. The chapter also discussed future research considerations both within Nunavut and globally with other Indigenous groups.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Chapter 7 - Conclusion

This dissertation has described the doctoral research that investigated differences in cultural values between Inuit and other cultures. The choice of using the Hofstede scale for this purpose was discussed and defended in Chapter 2, recognising its limitations and the concerns that many authors have with the model. Using the Hofstede scale was believed to be most suitable for this purpose at the time due to its relative simplicity, robustness (though questioned), wide (though questioned) validation, and the fact that scores have already been determined, and are widely available, for many countries (130) throughout the world. However, as this dissertation has extensively discussed, the Hofstede model has been the subject of numerous concerns and criticisms, particularly regarding methodological limitations. These include issues unique to Hofstede's framework as well as broader critiques applicable to the dimensional paradigm, especially concerning the conceptualization and measurement of cultural dimensions.

With the emergence of a modified Hofstede–Minkov model that purports to reduce cultural variation to two truly universal dimensions, the continued reliance on the original Hofstede framework may be increasingly subject to scrutiny. Nevertheless, the author maintains that the Hofstede model retains practical value for culture-general training within the Government of Nunavut (GN), provided its limitations and criticisms are explicitly acknowledged. When employed critically, the model can serve as a valuable tool to provoke reflection on cultural similarities and differences. However, it is essential to acknowledge the inherent limitations of any abstract and simplified representation of complex social realities.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

After explaining why Inuit societal values are important to the GN in Chapter 3, that chapter then explored Inuit culture as described by emic (by Inuit themselves) subjective descriptions in Inuit Societal Values, Inuit Qaujimagatuqangit (IQ) Principles, and Maligarjuaq Laws to predict expected Hofstede score ranges of Inuit culture. Further, these predicted score ranges were compared to those predicted in the limited literature for First Nations (recognising the diversity of Indigenous cultures), as well as the author's subjective, etic, anecdotal evaluation, where possible. This analysis was used to predict the expected score ranges of the Hofstede dimension values and direction of differences with those values believed to be known for southern Canada, which helped to explore the Hofstede model's boundary conditions in a subnational, Indigenous (Inuit) context.

The methodology was then described in Chapter 4 to explain how these Hofstede dimensions for Inuit culture were measured and anchored into the existing Hofstede framework. Anchoring the data allowed the Inuit culture to be comparable along the scale's six dimensions to those of the 130 country cultures currently in the framework, acknowledging that there may be some discrepancies with the actual scores and ordering due to time-related changes and methodological issues. Also, the accuracy of the scores found in the present study could be challenged, depending on which method is used to calculate minimum sample sizes.

This chapter also covered some additional statistical tests completed, even though this triggered the reverse ecological fallacy, which is when it is incorrectly assumed that the characteristics observed at the group level also apply at the individual level. In this dissertation, it was argued that culture has been measured at the societal

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

level, not at the individual level, which deals with personality. It was also noted that this distinction is not universally accepted within the cross-cultural psychology field.

However, the VSM2013 is not intended for use at the individual level, despite many researchers disregarding this reality. It is not an isomorphic instrument.

Chapter 5 presented the study's results, which were then discussed in Chapter 6. This chapter described how the knowledge found in this research could be applied to improve intercultural relationships both within Nunavut organisations as well as externally, including across borders. This knowledge was also used in considering culturally relevant organisational design and policy creation.

Throughout the dissertation, attention has been drawn to the methodological weakness of both the Hofstede model and that followed in this research. Some limitations could have been addressed using focus groups to evaluate content and constructs, for example. Also, the benefit of conducting further emic studies was stressed.

Ten Key Findings from the Research

Key findings from the research that the GN may want to consider are the following:

1. This research revealed the diversity of cultures within the GN, due to the international makeup of its employees. Due to this diversity of cultures within the GN, culture-general training as well as culture-specific training within the organization are helpful. This research concluded that the Hofstede model may still be of use to culture-general training, if its limitations and criticisms are acknowledged, including the potential inaccuracy of scores. However, the field

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

of comparative culturology and related disciplines, including cross-cultural psychology, continues to evolve with alternate models emerging. One benefit of using the Hofstede model is that the dimension scores for Inuit culture are now believed to be known, recognising the limitations of the methodology used to obtain them.

2. Inuit culture, as measured by this research, appears to have a very low power distance (8) value. Cultures from around the world, including southern Canada, should be made aware of this potential difference because power distance affects not only supervisor-employee interactions but also employee-client interactions. These potential differences can be highlighted in cultural orientation courses and through the GN mentorship program. This research concluded that this dimension was relevant to understanding Inuit culture, even though newer models combine this dimension with the individualism dimension.
3. Inuit culture appears to be very feminine (caring) (26), especially compared to southern Canadian culture, which is reportedly relatively more masculine (competitive) (52). This should be borne in mind during any human resource-related discussions, including, for example, the emphasis on working together rather than competing, and the emphasis on the desire for work-life balance affecting topics such as the desire for flex time and modified work weeks (four-day work week). It should be noted that this dimension has been dropped from more universal models, although it appears to be relevant in the Nunavut context.
4. Inuit culture appears to be moderately high on the individualism scale (61), but lower when compared to southern Canada (72). It appears that rewards and

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

recognition should therefore place more emphasis on the group rather than individual achievements relative to southern Canadian culture. Perhaps a mix of individual and group recognition would be appropriate. This dimension is retained in more parsimonious models, although alternative scales for the dimension may be more reliable and valid.

5. Uncertainty avoidance appeared to be moderate for Inuit (44) and appears similar to that for southern Canada (48). As Inuit culture appears not to be particularly accepting of uncertainty, the GN should continue to offer the Inuit Internship program, Career Broadening Program, Associate Deputy Minister Program, and the Mentorship Program to reduce some of the uncertainty that some Inuit may experience when they take on new roles and responsibilities. However, it must also be remembered that there is much variability among individuals, so these programs will not be necessary in all cases. It should be noted that this dimension has been dropped from more universal models; however, it may have utility in the Nunavut context, as it is part of secondary business-related models, such as organisational structure, negotiation, and marketing.
6. Indulgence for Inuit appears to be quite high (66) and appears to be similar to southern Canadians (68). This again suggests that life-work balance is generally important to Inuit and should be borne in mind in developing work schedules and during union negotiations. It should be noted that this dimension has been dropped or combined with the long-term orientation in more universal, evolving models.

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

7. Regarding all the Hofstede dimensions discussed, managers, leaders, and employees need to realise that there is a large variability between individuals within the Inuit population and the southern Canadian population (and all cultures). Care must be taken not to assume that everyone within a culture has similar values. Attention to individual preferences must be anticipated and catered to. For example, a person may be more individualistic, even if they are from a country that is group-oriented at the culture level. There is a bell curve of values for each culture, and there can be overlaps among cultures, especially for those that are within 10 points of each other (and arguably higher) on any one dimension. Additionally, cultural effects are determined on multiple different levels, such as social class, age, and profession, which will affect individuals differently. I.e., there is a low proportion of the variance between individuals that can be explained by societal culture alone.
8. The GN's current Inuit employees are significantly different demographically from the non-Inuit employees within the organisation. These demographic differences (such as age, education level, and level in organisation) confound the effect of societal culture on the calculated values and should also be considered by management and leaders. For example, younger employees may tend to score higher on uncertainty avoidance, all other variables being equal.
9. The uniqueness of the GN population makes it desirable to have GN employee-specific research, as much of the business literature is based on research by European and North American scholars focusing on so-called WEIRD (Western, Educated, Industrialised, Rich, Democratic) sample populations. This GN-

MEASURING AND USING THE HOFSTEDÉ DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

specific research should be increasingly conducted by Inuit scholars, who will bring their unique cultural lenses to the questions asked and methodologies used. To encourage this Nunavut-specific research and to encourage GN employees to conduct such research, the GN should consider making a policy/procedure where research proposals involving GN employees are approved once at the Deputy Minister Committee level. This approval should occur in the initial stages of the research and would be subject to approval by the university ethics review board and the Nunavut Research Institute. Any questionnaires required for distribution should then be disseminated through GN-wide communications to increase response rates. Future research that utilises a survey questionnaire or focuses on culture can learn from the limitations and critiques of the current research. Iterative emic research is recommended.

10. The Huib Wursten's 6 + 1 cluster model was discussed in Chapter 6. This model groups the world's cultures into seven classifications based on similarities of scores on four or more dimensions. The Huib Wursten model can be used to compare similarities and differences in negotiation style between different cultures based on this grouping. Inuit culture in this model is classified as "connected" whilst southern Canada is considered as "competitor". This affects negotiation perceptions between Inuit and southern Canada. Additionally, Inuit increasingly find themselves interacting with other nations that are in the other clusters of this model. The Huib Wursten model can provide insights into these differences and improve negotiation outcomes. Interestingly, Scandinavian countries are classified as "connected" in this model (they are considered similar

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

to Inuit using this model). Due to location, Inuit are increasingly interacting with these Arctic Nations, so recognising these similarities before engaging in negotiations could allow the negotiations to be more efficient and effective.

In summary, the doctoral research detailed in this dissertation allowed for the Hofstede Model to be boundary-tested for use in cross-cultural training within the GN, acknowledging the mounting criticisms of the model. The boundary conditions test was achieved using emic Inuit Societal Values, IQ Principles, and Maligarjuaq Laws to predict the range of values for each dimension, before measuring, in an imposed etic approach, each dimension using a survey instrument, the VSM2013. The relative values measured for each dimension were then discussed with regard to possible business implications for the GN, which included training, organisational design, policy development, and negotiation. Proposed future research that could address some of the limitations and delimitations of the current research was also noted.

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MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

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MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

Appendix 1: AU Research Ethics Board: Certificate of Ethical Approval



CERTIFICATION OF ETHICAL APPROVAL

The Athabasca University Research Ethics Board (REB) has reviewed and approved the research project noted below. The REB is constituted and operates in accordance with the current version of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS2) and Athabasca University Policy and Procedures.

Ethics File No.: 24898

Principal Investigator:

Mr. David Boyle, Graduate Student
Faculty of Business\Doctor of Business Administration (DBA)

Supervisor/Project Team:

Dr. Alex Kondra (Supervisor)

Project Title:

Measuring and Using the Hofstede Dimensions of Inuit (Nunavut) Culture

Effective Date: July 31, 2022

Expiry Date: July 30, 2023

Restrictions:

Any modification/amendment to the approved research must be submitted to the AUREB for approval prior to proceeding.

Any adverse event or incidental findings must be reported to the AUREB as soon as possible, for review.

Ethical approval is valid *for a period of one year*. An annual request for renewal must be submitted and approved by the above expiry date if a project is ongoing beyond one year.

An Ethics Final Report must be submitted when the research is complete (*i.e. all participant contact and data collection is concluded, no follow-up with participants is anticipated and findings have been made available/provided to participants (if applicable)*) or the research is terminated.

Approved by:

Date: July 31, 2022

Weiming Liu, Chair
Faculty of Business, Departmental Ethics Review Committee

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

E-mail rebsec@athabascau.ca
Telephone: 780.213.2033

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

Appendix 2: Nunavut Research Institute Scientific Research Licence

Nunavut Research Institute / ᓄᓇᓂᓴᓴ ᓂᓄᓴᓴᓴ ᓄᓇᓂᓴᓴᓴ

Box 1729, Iqaluit, NU X0A 0H0 phone: (867) 979-7279 fax: (867) 979-7109 e-mail: mosha.cote@arcticcollege.ca

SCIENTIFIC RESEARCH LICENSE

LICENSE NUMBER 05 001 23N-M

ISSUED TO: David Samuel Boyle
Athabasca University
PO Box 513
Pond Inlet, Nunavut
X0A 0S0 Canada

TEAM MEMBERS: A. Kondra

TITLE: Measuring and Using the Hofstede Dimension of Inuit (Nunavut) Culture

OBJECTIVES OF RESEARCH:

The proposed research questions are: "Is the Hofstede National Culture Scale applicable to a subnational, indigenous (Inuit) culture?" and "What are the Hofstede Dimension Scores for Inuit (Nunavut) culture and How Are They Useful?". The research objectives are to see if the Hofstede model, typically used at the national/country level to provide insights of differences between country level cultures, is useful at the societal level to provide insights between Inuit workplace preferences and other countries in the Hofstede framework which has data for 104 cultures. All Government of Nunavut employees will be solicited to take part in the research, once approvals are obtained from direct supervisors/directors.

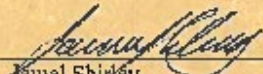
DATA COLLECTION IN NU:

DATES: January 1, 2023 to December 31, 2023

LOCATION: All Nunavut Communities

Scientific Research License 05 001 23N-M expires on December 31, 2023

Issued at Iqaluit, NU on November 01, 2022


Jamal Shirey
Science Advisor



MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT
(NUNAVUT) CULTURE

Appendix 3: GN Employee Letter and Email

Ullaakkut NAME,

I was wondering if you would consider helping me with a research project that I am completing through the University of Athabasca. The attached Invitation to Participate (in all four official languages) provides an overview of the research being conducted, why it is useful for Nunavut and the **cash draw** for participants. **Please note that Teresa Hughes, Deputy Minister has approved this research project**, along with additional approvals at the end of this email.

The research consists of a short questionnaire that takes 5-8 minutes to complete. The questions deal mainly with preferred workplace practices and the results will hopefully allow another tool to assist in orienting new arrivals to Nunavut.

Please find below links to the questionnaire (in all four languages). Please note that if preferred I can drop off or email a hard copy (also available in all four languages). Please note that the survey is totally **voluntary**.

I realise that you are busy but if you could find time to complete the short questionnaire that would be awesome. **If you can complete the survey, please send me an email so that I can enter you into the cash draw.** The cash draw consists of four chances to win: **\$500, \$350, \$100, and \$50.**

Please note that the survey closure date has been extended to **August 18, 2023**. But if you need more time, please let me know.

Thanks again for your time in considering this request.

Dave Boyle,

1 (867) 982-2917

[Please give me a call if you have any questions]

ENGLISH: <https://www.surveymonkey.com/r/CXSCYJP>

INUKTITUT: <https://www.surveymonkey.com/r/K58GQ2H>

INUINNAQTUN: <https://www.surveymonkey.com/r/W7TD6RM>

FRENCH: <https://www.surveymonkey.com/r/WKB2RRS>

This research is being conducted under **Nunavut Research Institute Licence # 05 001 23N-M**. It has **ethical approval from Athabasca University, File #24898**.

The research has also been **approved at the Deputy Minister level by the Department of Human Resources, Executive and Intergovernmental Affairs, Justice, and Community and Government Services**.

The completion of the survey by GN employees, and entry into the cash draw, has been positively reviewed by the **Legal and Constitutional Law Division**. **The survey does not violate the GN's Code of Values and Ethics or the Acceptable Internet Use Policy.**

MEASURING AND USING THE HOFSTEDE DIMENSION SCORES OF INUIT (NUNAVUT) CULTURE

INVITATION TO PARTICIPATE

Measuring and using the Hofstede Dimension Scores of Inuit (Nunavut) Culture

June 12, 2022

Principal Investigator (Researcher):
Mr. David S. Boyle
1-(867) 982-2917
dboyle2@athabasca.edu

Supervisor:
Dr. Alex Kondra,
1-(780)-675-6807
alexk@athabascau.ca

My name is David Boyle, and I am a Doctor of Business Administration student at Athabasca University. As a requirement to complete my degree, I am conducting a research project about how Inuit culture differs from other cultures along six dimensions, or measures, which will allow uses such as in cultural orientation, intercultural communication, and improved service delivery to an Inuit majority. I am conducting this project under the supervision of Dr. Alex Kondra.

I invite you to participate in this project because the study needs participation from willing Government of Nunavut (GN) employees who are either Inuk or non-Inuk.

The purpose of this research project is to allow Inuit culture to be compared quantitatively to other cultures around the world which should allow newcomers to Nunavut to understand differences and similarities with their own cultures. This knowledge will allow improved service delivery to an Inuit majority population both within the GN and outside.

Your participation in this project would involve the completion of a hard copy or online survey, which will take 5-10 minutes of your time. You may complete the survey at any time convenient to you between now and September 30th, 2023. The survey consists of thirty-two short questions, most using a Likert scale (i.e., a choice of five options).

All information you provide during the study will be anonymous. Any identifying data will be removed. The data will be kept on secure servers.

The research should benefit you as a Government of Nunavut employee, as it aims to allow insights into cultural differences allowing for improved intercultural communication between GN employees and with clients. I do not anticipate you will face any risks as a result of participating in this research. There will be a draw for participants with a chance to win \$500, \$300, \$150 and \$50.

Thank you for considering this invitation. If you have any questions or would like more information, please contact me, (the principal investigator) by e-mail at dboyle2@athabasca.edu or at 1-(867) 982-2917 or my supervisor by alexk@athabascau.ca or 1-(780)-675-6807.

Thank you.

David S. Boyle

This project has been reviewed by the Athabasca University Research Ethics Board. Should you have any comments or concerns about your treatment as a participant, the research, or ethical review processes, please contact the Research Ethics Officer by e-mail at rebsec@athabascau.ca or by telephone at 780.213.2033.

