A theory of virtual culture formation

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Above all, this work is the constant reminder of God's unending love for me and the promise of His spirit, I am never alone – He walks with me at all times.

ABSTRACT

This research focused on the formation of organisational culture in virtual work teams that exist within the context of a virtual organisation. The concept of organisational culture has been studied since the late 1970s in traditional work contexts. Several studies have subsequently been carried out on the factors influencing and the processes involved in the formation of culture within the context of traditional brick and mortar workplaces. This study focused on the formation of culture in virtual organisations, which have become commonplace in the 21st century and whose key characteristics are technological enablement as well as geographic and spatial distribution. A sensitising literature review was presented to locate the study within the current discourse of organisational culture, process theory and virtual work teams within virtual organisations. A constructivist grounded theory study was carried out to investigate the phenomenon of culture formation in virtual organisations using respondents who were at the time working as part of a virtual team within a virtual organisation. Data from 18 interviewed participants and five sets of archival records were collected and analysed theoretically. The results of the study were integrated with extant literature to find that organisational culture within virtual contexts developed through managing the core theme of virtuality and by dealing with virtuality while maintaining organisational effectiveness and managing interpersonal relationships. The findings from this research are expected to inform stakeholders so that they may better anticipate, facilitate and respond to organisational culture development within a virtual organisation context.

KEY TERMS

The key terms used within the study are: *culture formation, organisational culture, organizational culture, virtual organisation, virtual organization, virtual teams, virtuality, process theory, dynamic evolution, grounded theory.*

DECLARATION

I, Margaret Zvobgo Chitondo, declare that this research thesis is my own work except as indicated in the references and acknowledgements. It is submitted in fulfilment of the requirements for the degree of Doctor of Philosophy at the University of the Witwatersrand's School of Business Administration, Johannesburg, South Africa. It has not been submitted before for any degree or examination in this or any other university.

Name: MARGARET ZVOBGO CHITONDO **Signature:** Margaret Chitondo

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Student No. 2029735

Signed at: Parktown, Johannesburg

On the 20th day of August 2021

TABLE OF CONTENTS

ACKNOWLEDGEMENTS II

ABSTRACT………… III

KEY TERMS. III

DECLARATION IV

LIST OF APPENDICES X

LIST OF TABLES XI

LIST OF FIGURES XII

LIST OF ABBREVIATIONS & ACRONYMS XIV

DEFINITIONS OF TERMS XV

CHAPTER 1. INTRODUCTION 1

1.1 PURPOSE OF THE STUDY 1
1.2 CONTEXT OF THE STUDY 1
1.3 RESEARCH PROBLEM 2
1.4 RESEARCH OBJECTIVES 4
1.5 RESEARCH QUESTION 4
1.6 SIGNIFICANCE OF THE STUDY 5
1.7 DELIMITATIONS OF THE STUDY 7
1.8 DEFINITION OF ORGANISATIONAL CULTURE 8
1.9 ASSUMPTIONS 14
1.10 CONCLUSION 15

CHAPTER 2. SENSITISING LITERATURE REVIEW 16

2.1 THE ROLE OF A LITERATURE REVIEW IN GROUNDED THEORY STUDIES 16
2.2 INTRODUCTION: WHAT IS CULTURE? 17
2.3 ORGANISATIONAL CULTURE 20
2.3.1 Organisational culture in a traditional organisation and team context ……….20

2.3.2 Organisational culture in a virtual context 22
2.4 PROCESS THEORY 24
2.4.1 Dynamic evolution 24
2.5 ORGANISATIONAL CULTURE FORMATION 28
2.5.1 Organisational culture formation in traditional organisations and teams 28
2.5.2 Organisational culture formation in virtual organisations and virtual teams 28
2.6 CONCLUSION 31

CHAPTER 3. RESEARCH METHODOLOGY 33

3.1 INTRODUCTION 33
3.2 RESEARCH APPROACH 36
3.3 RESEARCH DESIGN 37
3.4 POPULATION AND SAMPLE 39
3.4.1 Characteristics of virtual organisations (VOs) 39
3.5 DATA TYPES 43
3.5.1 Memos 44
3.5.2 Pilot interview 45
3.5.3 Interviews 45
3.5.4 Archival data 47
3.6 DATA COLLECTION METHODS: INTERVIEWS 49
3.6.1 Sample 49
3.6.2 Sampling criteria and method 52
3.6.3 The research instrument 54
3.6.4 Procedure for data collection 55
3.6.5 Data analysis and interpretation 56
3.7 DATA COLLECTION METHODS: ARCHIVAL DATA 57
3.7.1 Sample 57
3.7.2 Sampling criteria and method 58
3.7.3 Research instrument 59
3.7.4 Procedure for data collection 59

3.7.5 Data analysis and interpretation 60
3.8 LIMITATIONS OF THE STUDY 60
3.9 VALIDITY AND RELIABILITY 61
3.9.1 Transferability 62
3.9.2 Credibility 63
3.9.3 Dependability 63
3.10 DEMOGRAPHIC PROFILE OF RESPONDENTS 64
3.11 CONCLUSION 64

CHAPTER 4. ANALYSIS AND PRESENTATION OF THE FINDINGS........66

4.1 INTRODUCTION 66
4.2 INITIAL CODING 69
4.2.1 Generating questions 70
4.2.2 Generating initial codes 72
4.2.3 The role of non-verbal cues 76
4.3 INTERMEDIATE CODING 78
4.3.1 Gerund ‘categories’ 79
4.3.2 Archival data 81
4.4 MAIN DATA THEMES: CULTURE FORMATION 82
4.4.1 Theme 1: Organisational effectiveness: institutional context of culture formation 83
4.4.1.1 Sub-theme 1: Effective work processes: institutional processes of culture formation within virtual organisations 84
4.4.1.2 Sub-theme 2: Conducive work environment: learning processes in virtual teams 93
4.4.2 Theme 2: Dealing with virtuality: ambiguity, uncertainty and creativity 99
4.4.3 Theme 3: Managing interpersonal relationships 109
4.4.3.1 Sub-theme 1: Work relationships 109
4.4.3.2 Sub-theme 2: Personal relationships 111

4.5 CORE THEME AND THEORY-BUILDING 116
4.6 PRESENTATION OF RESULTS: CLOSING 116

CHAPTER 5. INTEGRATING EXISTING LITERATURE AND STUDY FINDINGS…………………………………………………………………...118

5.1 INTRODUCTION 118
5.2 EXPLAINING THE FINDINGS 123
5.2.1 Culture formation in organisations 123
5.3 FACTORS INFLUENCING CULTURE FORMATION IN VIRTUAL ORGANISATIONS……………………………………………………..…………..126
5.3.1 Virtuality 126
5.3.1.1 Temporal distribution 127
5.3.1.2 Spatial distribution 127
5.3.1.3 Technology 127
5.3.2 Institutionalisation 131
5.4 CULTURE FORMATION: TAKING THINGS 'FOR GRANTED' AND NESTING IN A VIRTUAL ORGANISATION 132
5.4.1 Group formation: work relationships 133
5.4.2 Group formation: organisational culture within teams.................. 137
5.4.3 Effective work processes: institutional context of culture formation within the virtual team.. 139
5.4.4 Conducive work environment: learning from 'the other side', the learning process in virtual teams 140
5.4.5 Dealing with virtuality: ambiguity and uncertainty spurn creativity………………………………………………………………………..143
5.5 CULTURE EXPRESSION THROUGH A DYNAMIC LENS 145
5.5.1 The macro-environment 146
5.5.2 National culture 148
5.5.3 The organisation.. 153
5.5.4 The team and leadership 154
5.5.5 Followership 156
5.5.6 Interpersonal relationships 157
5.6 INTEGRATING THEORY AND FINDINGS FROM CURRENT STUDY.................. 159

CHAPTER 6. CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH 165

6.1 INTRODUCTION 165
6.2 SUMMARY OF FINDINGS 165
6.3 THEORETICAL CONTRIBUTION 166
6.4 DEVELOPMENTS IN VIRTUAL WORK 167
6.4.1 The Covid-19 pandemic 168
6.5 SUGGESTIONS FOR FUTURE RESEARCH AND CONCLUSION 170

REFERENCES 172

LIST OF APPENDICES

APPENDIX A INTERVIEW GUIDE……………………………………………….192

APPENDIX B COMPANY/ORGANISATION PERMISSION LETTER……….193

APPENDIX C PARTICIPANT INFORMATION SHEET………………………..195

APPENDIX D PARTICIPANT CONSENT FORM………………………………197

APPENDIX E ARCHIVAL DATA CHECK-LIST…...……………………………198

APPENDIX F INITIAL CODES……………………………………………………199

APPENDIX G A DETAILED REPRESENTATION OF THE PROCESS OF ABSTRACTION OF THE CORE THEME FROM 96 INVIVO CODE PROPERTIES AND INITIAL CODE DESCRIPTIONS USING A SELECTION OF ILLUSTRATIVE DATA……………..…………………………………………200

APPENDIX H PROCESS OF MANUAL SORTING OF CODES ON A TABLE……………………………………………………………………………......275

LIST OF TABLES

CHAPTER 1

TABLE 1: EVOLUTION OF THEORIES AND MODELS OF ORGANISATIONAL CULTURE……………………………………………………………………………………9

CHAPTER 4

TABLE 2: A LIST OF NUMBERS OF THE INITIAL CODES TO DEMONSTRATE DATA SATURATION………………………………………………………………………………70
TABLE 3: A LIST OF INTERMEDIATE AND GERUND CODES …………………………….....80
TABLE 4: THE LIST OF GERUND CODES FROM WHICH CORRESPONDING MAIN DATA THEMES AND SUB-CATEGORIES WERE DERIVED……………………………………….…...82

CHAPTER 5

TABLE 5: STAGES OF GROUP EVOLUTION……………………………………………………137
TABLE 6: DEVELOPMENT TRAJECTORY OF A VIRTUAL GROUP………………………139

CHAPTER 6

TABLE 7: THEORETICAL CONTRIBUTION OF THE CURRENT STUDY…………….………166

LIST OF FIGURES

CHAPTER 1

FIGURE 1: A REPRESENTATION OF *VIRTUALITY*……………………………………………3

CHAPTER 2

FIGURE 2: THE DYNAMIC OF TOP-DOWN-BOTTOM-UP PROCESSES ACROSS LEVELS OF CULTURE……………………………………………………………..…………………25

FIGURE 3: THE LEVELS OF CULTURE WITHIN ORGANISATIONS AND OCCUPATIONS AND THEIR INTERACTION………………………………………………………………….26

FIGURE 4: CONCEPTUAL MODEL CONSTRUCTED FOR THE PURPOSES OF THE CURRENT STUDY…………………………………………………………….…………………32

CHAPTER 3

FIGURE 5: A DIAGRAMMATIC REPRESENTATION OF THE DATA COLLECTION AND ANALYSIS METHODS USED IN THE CURRENT STUDY ………………………………..……48

FIGURE 6: SALDAÑA'S (2015) CODE TO THEORY QUALITATIVE ENQUIRY MODEL AS ADAPTED FOR APPLICATION IN THE CURRENT STUDY……………………………………67

FIGURE 7: THE DATA COLLECTION AND ANALYSIS PROCESS USED IN THE CURRENT STUDY……………………………………………………………………………..69

CHAPTER 4

FIGURE 8: THEMATIC MAP DEVELOPED DURING THE PRESENT STUDY SHOWING MAIN DATA THEMES AND SUB-CATEGORIES OF DATA………………………………………116

CHAPTER 5

FIGURE 9: LOCATION OF THE CURRENT GROUNDED THEORY STUDY IN RESEARCH……………………………………………………………………………120

FIGURE 10: ANTECEDENTS OF TEAM VIRTUALITY……………………………………129

FIGURE 11: THE PROCESS OF CULTURE FORMATION SUMMARISED AS IT HAPPENS IN THE MACRO-ENVIRONMENT…………………………………………...…………...147

FIGURE 12: THE META-INSTITUTIONAL FIELD OF A VIRTUAL ORGANISATION…………………………………………………………………..…...152
FIGURE 13: CULTURE DEVELOPMENT IN VIRTUAL ORGANISATIONS AND VIRTUAL TEAMS…………………………………………………………………………..….164

LIST OF ABBREVIATIONS & ACRONYMS

Abbreviation	Meaning
App	Application
FDI	Foreign direct investment
GIF	Graphics interchange format
GLOBE	Global Leadership and Organisational Behaviour Effectiveness
GT	Grounded theory
MNE(s)	Multinational enterprise(s)
MNO(s)	Multinational organisation(s)
VE(s)	Virtual enterprise(s)
VO(s)	Virtual organisation(s)
VT(s)	Virtual team(s)

DEFINITIONS OF TERMS

Term	Definition
Emoji	*Any of various small images, symbols, or icons used in text fields in electronic communication (as in text messages, e-mail, and social media) to express the emotional attitude of the writer, convey information succinctly, communicate a message playfully without using words, etc.* (Merriam-Webster Online Dictionary, 2020)
Emoticon	*A group of keyboard characters [such as :-)] that typically represents a facial expression or suggests an attitude or emotion that is used especially in computerised communications (such as email)* (Merriam-Webster Online Dictionary, 2020)
Virtuality	*The foundational characteristic of virtual organisations as given for the purposes of the present study, defined as a function of temporal distribution, spatial distribution and technology dependence* (Kozlowski & Bell, 2013)

CHAPTER 1. INTRODUCTION

1.1 Purpose of the study

The research was a grounded theory study of culture formation, from a process perspective, within a virtual team. The results of this study are used to make recommendations to guide and advance the understanding of stakeholders of virtual organisations in the process involved in organisational culture formation as well as the mechanisms through which that culture gives expression. This allows for better anticipation, facilitation, and response to organisational culture within a virtual team context.

1.2 Context of the study

The typical multinational enterprise or organisation (MNE or MNO) is found in a multiplicity of geographical locations, having transferred identity and capabilities over borders in order to remain competitive and effectively manage globally and culturally diverse workforces (Narula & Verbeke, 2015; Rugman & Verbeke, 2017). These organisations deploy business strategies that combine the benefits of ownership, internalisation as well as location-specific advantages of foreign direct investment (Narula & Verbeke, 2015; Rugman & Verbeke, 2017) in order to operate effectively across multiple geographical territories.

Organisations have been transforming over time and the effects of technology and globalisation have enabled firms to operate in a rather geographically borderless fashion in the form of virtual organisations (Newton, 2017). On the other hand, it may be argued that because of these borderless qualities, virtual organisations (VOs) do not require execution strategies to transfer core competencies and capabilities across different geographical locations in order to operate effectively and maintain competitive advantage through overcoming ‘Liability of Foreignness’, a concept coined by Zaheer (1995), and denoting the cost of doing business associated with an entity gaining access and acceptance in a foreign host country. This cost is not an economic one, but is an institutional burden, placed upon the

multinational enterprise as it seeks to gain legitimacy in the foreign market. Later Zaheer and Mosakowski (1997) added a dynamic dimension to the concept of Liability of Foreignness, recognising that the legitimacy enjoyed by the enterprise may improve or weaken at any one time, dependent on factors associated with its access and acceptance. Thereafter Hutzschenreuter, Kleindienst, and Lange (2014) also incorporated the dimension of psychic distance to emphasise the structurally-driven, rather than market-driven, nature of the concept. More recently, the concept has been further extended to include the fact that it is exacerbated by cultural as well as emerging market factors (He, Khan, Lew, & Fallon, 2019). Given the complexity of transferring foreign direct investment (FDI) into new, foreign markets, this study presented an opportunity to investigate whether factors affecting traditional global multinationals, such as Liability of Foreignness, would impact the virtual organisation.

Virtual teams (VTs) are a distinct organisational form, grounded in technology and delivering on organisational objectives through a spatially (geographically different) and temporally (time different) distributed organisational structure (Kozlowski & Bell, 2013; Maynard, Gilson, Young, & Vartiainen, 2017). In this study, virtual organisations (VOs) were conceptualised as geographically and temporally dispersed organisations whose employees seldom meet and therefore rely on technological tools in order to engage with their work, and to interact with one another on a day to day basis (Gilson, Maynard, Jones Young, Vartiainen, & Hakonen, 2015; Maynard et al., 2017). Similarly, in the context of this study, virtual teams were conceptualised as work teams delivering their work through the use of technology within a virtual organisation context.

1.3 Research problem

Organisational culture has been widely studied within traditional hierarchical organisations in which team members are co-located within the same geographical space; factors influencing organisational culture formation, as well as how the process occurs have been described in traditional brick and mortar organisations (Martins, Gilson, & Maynard, 2004). However, there has been limited research on

organisational processes within virtual organisations, where team members are in different geographical locations and time zones and rely largely on technological solutions to engage with their work, as well as with one another (Bell & Kozlowski, 2002; Gilson, Maynard, & Bergiel, 2013; Gilson et al., 2015; Kozlowski & Bell, 2013; Maynard et al., 2017). There is a distinct absence of literature on the culture formation process within VOs and VTs. The impact of the distinguishing characteristics of virtual organisations that result in work teams operating in a dispersed fashion – temporal distribution, spatial distribution and technology enablement (Kozlowski & Bell, 2013) – more commonly known as "virtuality" (Kirkman, Gibson, & Kim, 2012) – were therefore the basis of investigation in this current research. Figure 1 conceptualises virtuality, the foundational characteristic of virtual organisations as a function of temporal distribution, spatial distribution and technology dependence (Kozlowski & Bell, 2013).

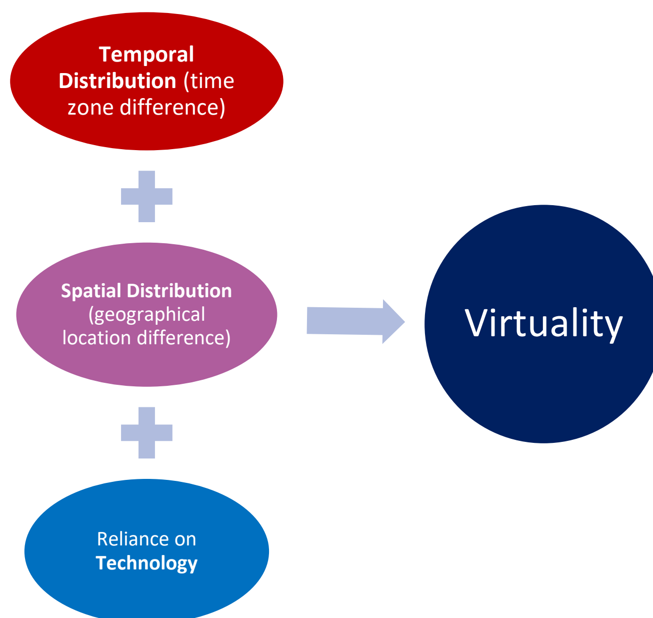


Figure 1: A representation of *virtuality* – the key characteristic of virtual organisations – constructed for the present study, as conceptualised by Kozlowski and Bell (2013)

1.4 Research objectives

The present research described the concept of organisational culture (also commonly referred to as 'corporate culture') formation, within virtual teams of a virtual organisation, through concept definition and development, followed by an evaluation of culture formation in the virtual work context. Literature describes the various factors that influence the culture formation process within work teams and organisations, and studies are beginning to show that organisational culture expression exists even in virtual organisations and virtual teams (Plavin-Masterman, 2015). However, the literature neither explains how culture forms within virtual teams nor the mechanisms through which such culture is expressed within the virtual work contexts, therefore, it may not be clear for a newcomer entering a virtual work team how they can best learn the organisational culture, so that in understanding it, they are able to perform effectively within the context. Similarly, managers may be unclear as to how they can ensure that their work teams leverage the work culture in order to operate effectively whilst also maximising cohesion and performance and minimising team conflict. Process research, as described by Langley, Smallman, Tsoukas, and Van de Ven (2013), which focuses on the examination of questions of "how organisational phenomena emerge, change and unfold over time" (Langley & Tsoukas, 2010, p. 1) was used in this study to examine the formation of organisational culture in virtual teams – in order to explain *how* organisational culture is formed.

1.5 Research question

The following question was put forward to answer the general area of investigation of the study:

How does culture form within virtual teams operating within virtual organisations?

In order to gain insights into this process, two specific questions exploring organisational culture as a phenomenon in the context of technology, temporal distribution and spatial distribution (the defining characteristics of VOs and VTs

according to (Kozlowski & Bell, 2013) were investigated, using a grounded theory study. *In order to answer these two substantive questions, the study utilised 3 methodological approaches: 3 lenses of interpretivism for fully appreciating the researcher and participant lenses; Gerund 'categories' instead of Gerund codes for facilitating analysis of large amounts of data; and a thematic analysis approach that emphasised psychological processes and interpretations together with digital artifacts and symbols*.

The core area of investigation was captured in the following questions:

i. *A theory of virtual culture formation: how does virtuality (technology, temporal distribution and spatial distribution) influence culture formation within virtual teams in virtual organisations?*

ii. *How do stakeholders effectively manage organisational culture within the virtual team and virtual organisation?*

1.6 Significance of the study

The virtual organisation is a common feature of the 21st century – at the onset of the millennium, it was reported that an estimated quarter of a billion people were already online globally. Back in 2003, some 8.4 million employees in the United States were part of some kind of virtual work group (Ahuja & Galvin, 2003) and by 2007, a study by the Gartner group found that more than half of all professional employees (60%), were part of a virtual work team (Kanawattanachai & Yoo, 2007). This number has been seen to be steadily growing in multinational enterprises and a more recent study found that 85% of respondents from over 1000 businesses were part of a virtual work team (Dulebohn & Hoch, 2017). Most recently, between March and June 2020, millions of workers globally were forced to work from their homes as a result of the novel corona virus (Covid-19), having been declared a public health emergency of international concern (otherwise known as a 'global pandemic') by the World Health Organisation (WHO) on 11 March 2020. As a consequence, many countries were forced to impose strict lockdown regulations

on their economically active global populations, and millions of workers around the world were compelled to work virtually – and even while apparently temporary, the Covid-19 situation has forced organisations to rethink the office working environment and whether they ought to be allowing more employees to work remotely, more frequently and consistently. For example, at the height of the first wave of global lockdown in April 2020 in the United States, an all-time high of 62% of the workforce worked remotely full time, according to Gallup (2020).

As the virtual workplace becomes more commonplace, an increasing number of businesses are deploying increased virtual management models in order to maximise profits at a lower cost (Bergiel, Bergiel, & Balsmeier, 2008; Gibson & Cohen, 2003; Harvey, Novicevic, & Garrison, 2004). However, virtual organisations do not need to export their capabilities over national boundaries as they are in effect, "boundaryless" (Newton, 2017) on account of technology. Therefore, within the context of this study, it was not clear how a factor such as national culture, for instance (Hofstede, 2010; Minkov & Hofstede, 2012; Mockaitis, Rose, & Zettinig, 2012), would impact the formation of organisational culture within virtual organisations and teams.

Given this lack of clarity, an understanding of virtual organisations and the various defining features of their lifecycle could be expected to increase the organisational and economic success of virtual organisations in society. Several themes have emerged over the years from studying virtual organisations (VOs) and virtual teams (VTs) such as communication styles, trust, disadvantages, advantages and leadership styles (Bell & Kozlowski, 2002; Gilson et al., 2015; Harvey et al., 2004; Kozlowski & Bell, 2013; Maynard et al., 2017; Mukherjee, Hanlon, Kedia, & Srivastava, 2012a; Mukherjee, Lahiri, Mukherjee, & Billing, 2012b). Culture formation in the traditional hierarchical organisation has been well documented in literature (Schein, 1984; Schein et al., 2015) and a deeper understanding of organisational culture in VOs was expected to increase the understanding of how virtual teams could develop and grow their capabilities over time.

1.7 Delimitations of the study

Organisational culture is defined as "an amalgam of historically derived meanings that include values, conventions, artefacts, norms, discursive practises, power-relations, and institutional habitus"…as described in Schein et al. (2015, p. 125), and the present study evaluated what influenced this process within the context of virtuality. Focusing this study on the process and not organisational culture itself meant that while the *factors* influencing the cultural formation process were at times discussed in order to illustrate expression of certain aspects of this process, this did not form a central tenet or objective of the study. Therefore, theories of organisational culture which have evolved over the years, based on the level of cultural analysis on which they are focused (Erez & Gati, 2004; Pettigrew, 1997)**,** were not described or elaborated upon. Chapter 2 (the sensitising literature review) did not dwell upon these theories in order to minimise contamination of thinking and assumptions as far as possible for the grounded theory study. Instead, literature on existing theories of organisational culture were used later on to enhance theoretical sensitivity during data analysis as they became a source for theoretical codes (Glaser & Strauss, 2017).

Beugelsdijk, Kostova, and Roth (2017) argued that it was difficult for an organisational field (in the neo-institutional sense) to develop in a context of insufficient spatial, language, cultural and organisational interactions, hence the restriction on structuration and field formation, which signify the emergence of shared patterns and meanings. That is to say, they hypothesised that restrictions in physical and social interactions would prohibit the formation and understanding of those shared patterns of behaviour that determine the appreciation of a common cultural context. This would mean that organisational culture could not possibly exist in a virtual work context because the environment lacked the mechanisms to enable and physically demonstrate this. However, Plavin-Masterman (2015)'s study demonstrated that walls were indeed just walls and while artefacts, rituals and symbols might differ, shared meaning could be construed outside a traditional organisational context, thus challenging the requirement for face to face interaction

and co-location of team members as antecedents to the formation of organisational culture. As the present research used a constructivist approach, reliance was placed on the research participants' subjective descriptions of their experiences of culture formation within their virtual work teams, as well as the researcher's subjective interpretation of what the participants described as part of this process. This meant that the resultant description of the culture formation process was, in essence, a co-created theoretical perspective as developed by the interviewer and respondents together (Charmaz, 2017a), and then also as presented in the archival data records.

Grounded research enquiry was deployed to theorise the process of culture formation and resultant shared meaning located within a virtual organisation and virtual team within a complex (Liu, Adair, Tjosvold, & Poliakova, 2018) and dynamic (Erez & Gati, 2004) evolutionary context. Hofstede (1983)'s cultural dimensions theory (despite being quite seminal and having informed the formation of organisational culture theory over the years) did not inform this study. Because the GLOBE (Global Leadership and Organisational Behaviour Effectiveness project) studies of national cultures (House, Javidan, Hanges, & Dorfman, 2002) were conducted within a traditional brick and mortar context, it could not be assumed that those findings were transferable to the virtual organisation or virtual team context. By theorising how individuals experienced culture formation processes within a virtual team context, specifically, the study provided a unique context of study, expected to inform, more closely, organisational approaches, decisions and directions within VOs and VTs.

1.8 Definition of organisational culture

Culture was first studied within a British organisational context by Elliot Jacques (Elliot, 1951) and has been described as the learned behaviour that defines human beings as a species (Keesing, 1974). Anthropologically, theories of culture have been presented as ideational, or schools of thought, such as Goodenough (1999)'s framework, or as adaptive, such as the system presented by Alland (2008). Culture as an ideational concept describes culture as cognitive, structural or symbolic,

while adaptive systems take an evolutionary perspective, where culture is a collection of socially constructed ideas that facilitate and determine adaptation approaches through deploying mechanisms similar to those of natural selection (Keesing, 1974). Organisational culture as a term, developed from that of culture and entered the field of study in the late 1970s (Pettigrew, 1979). Since then, organisational culture has been studied extensively to the point of paradigm wars, resulting in disinterest in the concept within organisation studies since the 1990s, yet, paradoxically has been a fast growing concept of interest in other fields, such as "strategy-as-practise"; the "signature processes" behind "strategic capabilities",…" materiality and artefacts in science and technology studies; … consumer cultures in marketing; and … corporate branding", according to Costas and Kunda in Schein et al. (2015, p. 118). Table 1 below, illustrates the evolution of organisational culture as concept, over the years.

Table 1: Evolution of theories and models of organisational culture

Year	Author	Definition and focus of model / theory
1951	Elliott	Referred to culture as a concept existing within organisations in his book, The changing culture of a factory.
1979	Pettigrew	Referred to the concept of *organisational culture.*
1976	Handy	Described organisational culture as having 4 components*: power, role, task and person.*
1980	Hofstede	Formulated the cultural dimensions theory: this described 6 national cultural dimensions that determined the dominant overall culture within an organisation. These national culture dimensions were originally 4 (and later 6) and were: *power distance; uncertainty avoidance; individualism vs collectivism; masculinity vs. femininity; long vs. short-term orientation indulgence vs. restraint.*
1982	Deal & Kennedy	Described organisational culture as the rites and rituals of corporate life, or how things are done. They developed a model which described 4 different organisational cultures based on the time it took for feedback to be given, the reward system and the risk appetite of the organisation. These 4 types of organisational culture are: *process culture; bet-the-company culture; work-hard-play hard culture and the tough-guy-macho culture.*
1985	Famholtz, Das & Tsui	These scholars proposed an integrative model of organisational culture based on 4 different control strategies that organisations had at their disposal for ensuring desired organisational outcomes: *planning; measurement; feedback; and evaluation/reward.*

Year	Author	Definition and focus of model / theory
1987	Cooke & Lafferty	These authors developed a quantitative inventory evaluating 12 behaviours that are clustered into 3 main cultures in organisations: *constructive, passive/defensive and aggressive/defensive.* The behaviour of employees within the workplace was determined by their desire to act in a way that guaranteed their continued stable employment and future growth within the organisation.
1988	Johnson	Described organisational culture as a concept that included a web of elements that subsequently influenced it, including: *paradigm, control systems, organisational and power structures, symbols, rituals, routines, myths and stories.*
1990	Denison	Described and evaluated organisational culture using 4 dimensions: *mission; involvement; adaptability; and consistency.*
1991	O'Reilly, Chatman & Caldwell	These scholars developed the organisational cultural profile tool that evaluates organisational culture on 8 value-defined categories: *stability; innovation; respect for people; supportiveness; attention to detail; team orientation; outcome orientation; and aggressiveness.*
1992	Schein	Described organisational culture firstly, as something that formed as a response to external adaptation and internal integration pressures. Secondly, he described 3 levels of culture within organisations: *artefacts, values and tacit assumptions* and lastly, described the formation of culture as a function of several factors, including: *the history and ownership of the organisation; the external environment; the type of industry; the size and nature of the workforce; and the types of technological platforms used in the specific work environment.*
1993	Westbrook	Offered a conceptual characterisation of organisational culture that included: language, artefacts and patterns of behaviour
1994	Harris	Proposed a shared schemata theory which proposed that for any person to feel like a member of the organisation, that person must possess schemata at the following levels: *concept; event; self; person; and organisation.*
1999	Cameron & Quinn	These scholars developed an organisational culture assessment instrument based on the competing values framework (CVF) and described 4 distinct culture types: *hierarchy culture; market culture; clan culture; and adhocracy culture.*
2001	Reigle	Developed an instrument for measuring the mechanic or organic extent of an organisation's culture based on these 5 elements of: *language; tangible artefacts and symbols; patterns of behaviour; espoused values;* and *beliefs and underlying assumptions.*
2003	McGuire	Developed an entrepreneurial organisational Culture (EOC) assessment of shared values, beliefs and norms within the organisation that evaluated elements such as: *attending to basics; hands-on management; ethical behaviour; empowerment of staff; innovation orientation; change adaptability; freedom to fail and learn; personal accountability; and future-orientation.*

Year	Author	Definition and focus of model / theory
2004	Amelinckx, & Wilemon	Built on the understanding of organisational culture as a concept embedded in national culture and included the following defining characteristics: *values and beliefs, artefacts, symbols and practises, organisational language, tradition, myths, rituals* and *stories.*
2004	Erez & Gati	Developed a dynamic multilevel model of organisational culture, which involved the interplay of the various levels in a top-down (through globalisation) and bottom-up (from the individual) fashion.
2001 & 2011	Flamholtz	Like McGuire (2003), identified a descriptive model of organisational culture meant to drive positive financial results. The model consisted of five dimensions of organisational culture: *process excellence; innovation and change orientation; treatment of customers; employee treatment; and performance standards/accountability.*
2015	Schein et al (2015)	Defines organisational culture as *an amalgam of historically derived meanings that include values, conventions, artefacts, norms, discursive practises, power-relations, and institutional habitus, which together constitute daily social realities for individual people*

As shown in Table 1, the concept of culture within organisations, since inception in 1951, consists of several dimensions, including: collective sentiment or emotion; behavioural or expressive qualities; and descriptive or trait characteristics. In the early years, descriptive and trait theories were dominant in the conceptualisation of organisational culture. During this time, Hofstede put forward his cultural dimensions theory that attributed variance in organisational culture largely to initially four, and then later, six dimensions of national culture (Hofstede, 1985). In addition, descriptors such as *work-hard, play-hard* (Deal & Kennedy, 1983); passive/defensive (Cooke & Lafferty, 1989); *adaptability/consistency* (Denison, 1990); *attention to detail* and *respect for people* (O'Reilly III, Chatman, & Caldwell, 1991) were commonly used to describe organisational culture. The reference to trait characteristics of organisational culture has persisted, especially within team contexts and researchers such as Miron, Erez, and Naveh (2004); (Schein, 2010); have expressed organisational team cultures in terms such as: *innovative; attention to detail; outcome-orientated;* and *risk-taking*.

The second conceptualisation of organisational culture is that it progressively evolves as a common response to situations and changes, such as external adaptation and internal integration pressures (DiMaggio & Powell, 2012; Schein, 2004; Schein, 2010). In presenting organisational culture in this manner, as a coping response, one suggests that organisational culture must go through a pressure test to receive validation and manifest itself physically. However, organisational culture has also been studied by researchers such as Alvesson (2015) to take the concept further to explain its role, not only as an output or response, but as an input variable in organisational relationships. It is also described as an essential ingredient to organisational success across the employee/employee, employee/manager and employee/customer relationships found within organisations. This is to say that the alignment of strategy and action is achieved through alignment in organisational culture, which is credited for driving co-ordinated action by getting people to do what is expected as being right – across industries, occupations and organisations.

It therefore comes as no surprise that the most enduring and final conceptualisation of organisational culture is that of collective sentiment or ideological orientation – common language, artefacts and enduring patterns of behaviour (Harris, 1994; Reigle, 2001; Schein et al., 2015; Westbrook, 1993; Zakaria, Amelinckx, & Wilemon, 2004). This would also explain why the most recent theorisations of organisational culture have notably framed organisational culture as evolving from organisations as some representation of society, or *societies writ small* (Silverman, 1971). This infers that organisational culture is a concept that is rooted in the broader concept of culture itself, that sociologically, it is a representation of social systems consisting of socialisation processes, including norms and structures that give rise to certain values, beliefs, stories, rituals and ceremonies within the little defined society or organisation (Allaire & Firsirotu, 1984, pp. 193-194). It also means that instead of organisational culture existing only as a response to various pressures, it is, in this sense, mind-set, that not only endures across situations, but also adapts organically as the situation or landscape changes, thus recognising the dynamic evolution of organisational culture, as given in the present study.

The resultant varied definitions of organisational culture are indicative of its conceptual complexity – definitions encompass several factors that are difficult to explain, yet quite easy to identify through distinguishing qualities. The evolution from Westbrook (1993)'s definition of organisational culture, which included factors such as language, artefacts and patterns of behaviour, was systematically refined over the years until Reigle (2001, pp. 3-4) offered an integrated definition to include five elements of organisational culture that are useful for study in highly technological environments: language; tangible artefacts and symbols; patterns of behaviour; rites, rituals and behavioural norms; espoused values; and beliefs and underlying assumptions. A fundamental characteristic of most modern definitions in literature is the concept of shared meaning which results in commonly accepted norms amongst the organisation's members, and is aptly captured in Zakaria et al. (2004)'s description of organisational culture as 'the way things are done'. For the current study, Conolly's recent definition in Schein et al. (2015, p. 125) as "an amalgam of historically derived meanings that include values, conventions, artefacts, norms, discursive practises, power-relations, and institutional habitus, which together constitute daily social realities for individual people" was used to define organisational culture within the complex context of virtuality.

Insofar as the process of organisational culture formation, Erez and Gati (2004)'s dynamic and multi-level perspective of culture was used to conceptualise the process lens through which organisational culture forms. Erez and Gati (2004)'s model as well as Schein (2010)'s definitions thus go beyond the concept of shared meaning, as sharing meaning may help us understand the context of an organisation "well enough to live in it …", but this does not necessarily help us know *how* an organisation's "culture arose, *how* it came to be what it is, or *how* it could be changed if organisational survival were at stake" (author's emphasis in italics) Schein (1984, p. 3). More recently, Schein et al. (2015), differentiated cultural change from cultural evolution, stating that organisational culture is such a complex and nuanced concept that it can only evolve (rather than change) over time. This is to say that what changes fundamentally with time are the elements of cultural expression, and changes in the technological environment were cited as a novel

context, providing an opportunity for alternative cultural expression (Schein et al., 2015). Such conceptualisation was central to the core concern of investigation in the present research which sought to understand virtual teams operating within virtual organisations in a context of virtuality.

Schein et al. (2015) stated that it was increasingly clear that in order to retain organisational culture as a meaningful construct in sociological and organisational psychology studies, both the multi-level complexities and dynamic qualities of the concept needed to be guarded. That is to say that, a better appreciation of organisational culture as a concept could only be achieved through investigation at different levels of enquiry, and also through a recognition that the properties of these levels were ever changing in response to various factors. Weber and Dacin (2011) had previously also challenged the conceptualisation of culture as inward-focused, arguing that it was an externally-focused concept, while Schein (2015) proposed that in order to understand the varied and dynamic elements of organisational culture, three key levels of analysis – artefacts, espoused values and shared tacit assumptions, all required investigation. Schein et al. (2015, p. 112) added that the most significant future shifts in the field of organisational culture would be influenced by technology as individuals acquired new generation skills sets. This would result in the creation of new occupations, whose evolving basic assumptions could be quite different from what current occupational cultures revealed. The conceptualisation of organisational culture, as both multi-level and dynamic, thus provided an ideal lens for the study of the formation of organisational culture within virtual organisation settings, in which the use of technology was key, and in which new technological occupations and skills were evolving by the day.

1.9 Assumptions

Having noted the peculiarities of virtual organisations, the assumption that was adopted in the study was that participants were familiar enough with the virtual organisation context and would be able to evaluate in-depth, the processes concerned with cultural formation within the virtual work team. This expertise would have been acquired from having worked within the virtual work context for at least

one year prior to participation in the current study, and therefore provided rich data for analysis and meaningful insights.

The field of organisational development (encompassing organisational culture) has been widely studied but scholars differ in their view of organisational change as either a “thing” or a “process” (Langley et al., 2013). Process theory allows description of the formation of organisational culture as a process, using concepts widely borrowed from anthropology and sociology, and researchers such as Tsoukas (2005), and Poole, Van de Ven, Dooley, and Holmes (2000), facilitate the enhanced understanding of organisations by describing dynamic processes that allow for ongoing change and flux through temporal order and sequence, revealing a historical narrative. The dynamic evolution perspective which formed the lens of the present study, incorporates the effects of several factors in explanations which include “critical events and turning points, contextual influence, formative patterns” (Van de Ven & Poole, 2005, p. 1384), all of which provide direction as well as sequencing of the events.

1.10 Conclusion

This introductory chapter presented the key concepts and tenets of the study. The purpose and boundary of the research were also explained to define the context of the area of investigation. The research objectives provided the foundations for defining the key terms and then presentation of key concepts for the study – multi level organisational culture, virtuality and process theory. In the following chapter, these key concepts are elaborated upon further.

CHAPTER 2. SENSITISING LITERATURE REVIEW

2.1 The role of a literature review in grounded theory studies

The role of a literature review for grounded theory studies has been the subject of much debate over the years. Classic grounded theorists have acknowledged the need for engagement with literature only when it is outside the immediate area of study in order to avoid contamination of data and findings, as well as to serve for constraining data later on during analysis (Glaser, 2016). Glaser, in Glaser and Strauss (2014) and Glaser (1998) mentions a number of factors that he believes makes an upfront literature review problematic. Firstly, the researcher may be distracted by irrelevant concepts that may impact her ability to focus on concepts within the bounded area under investigation, which may subsequently result in the development of a secondary research problem that does not have relevance in the primary area of study. Secondly, the researcher may become embued in speculation around concepts and their relationships, or may become awed by key authors and thus fail to amplify emergent theory. Finally, insofar as grounded theory is concerned, the researcher does not actually know what literature is relevant for her particular study at the beginning of the study as she is focused on investigating a novel area.

Despite the above, however, a literature review is encouraged after sorting of data and writing up findings, at which point the literature is then woven into the emerging theory and is used as data for constant comparison with existing theory (Charmaz, 2017a). Therefore, while discouraging literature reviews upfront, grounded theorists encourage the use of literature to enhance theoretical sensitivity during data analysis, and as sources for theoretical codes (Charmaz, 2017b; Glaser, 1978). During this study therefore, this Chapter was utilised to present a brief high-level literature review to serve the purpose of sensitising a reader to detail around key concepts that were introduced in Chapter 1. This approach was intended to enable a reader to get an appreciation of the context within which the study had

taken place, including related concepts and the location of emergent theory i.e. the relevance and contribution of the study in relation to existing theory.

The richness of grounded theory comes from its ability to integrate subjective experiences obtained through varied interpretive frames of life experience and interests (Charmaz, 2017a). In addition, the particular grounded theory approach used during this study – constructivist grounded theory – places most of its focus on the phenomenon or process under study rather than the method of study in and of itself (Charmaz, 2005). The focus of the study was therefore on establishing the contextual relevance, utilising the power of the human instrument and the power of developing theory to explain data, instead of using data to confirm theory (Lincoln, Lynham, & Guba, 2018). In this instance, the relevance of the peculiar context of virtuality was important for theorising the process of culture formation under investigation. This approach was consistent with the constructionist approach in recognising the co-creation of theory between the researcher and participants, and in the case of this particuar study also included data from archival company information as well. It also meant that theory generated would be grounded in the data rather than in preconceived ideas of the area under study, thus there was no theoretical framework to guide the research, and instead, a sensitising literature review (summarised later in this chapter in the form of a conceptual model) served the purpose of elaborating the understanding of key concepts as recommended by (Glaser & Strauss, 2017), thereby locating the current study in the discourse of research.

2.2 Introduction: what is culture?

Culture is something that exists in every group; we can appreciate this because after a while all group members possess it, so much so that it is taken for granted (Erez & Gati, 2004; Schein, 2010, 2015; Schein et al., 2015). Because culture develops over time, it strengthens in certain ways and eventually becomes a source of acceptance that is an unconscious factor in reference groups. This view of cultural formation in small groups and later into larger groups or subgroups has been termed the dynamic evolution of culture (Schein et al., 2015, p. 112).

Because “complex evolutionary systems work on the basis of ongoing, continuous internal processes of exploration, experimentation and innovation at their underlying levels” (Allen, 2015, p. 265), a group’s culture forms from a shared history of past experiences and responses to these complex experiences (Pettigrew, 1979; Schein, 2010, 2015).

The term “culture” refers anthropologically to the customs and rituals developed by societies over their history and applies to organisations and occupations (Schein, 2004; Schein, 2010, 2015). Social learning theory (Bandura, 1977; Bandura, 2018) explains how individuals pass on behaviour to one another and create persistent variations within populations of people, which are not due to genetic variations or their physical environment (Boyd, Richerson, & Henrich, 2011). The ability to acquire novel behaviours through observational learning and social transmission (and not as in imitation such as how young animals learn from their parents) is viewed as an essential ingredient of cumulative adaptive change (Boyd & Richerson, 2005; Boyd et al., 2011; Whiten & Ham, 1992). It is this learning, by acquisition, adapting and changing, that forms the basis of social learning and thus culture formation and evolution.

The concept of culture gives man meaning to everyday tasks and objectives. Schein et al. (2015), Hofstede (2010), and Pettigrew (1979) have all cited culture as the distinguishing factor between humans and other animals. The reason for this is because humans can demonstrate a capacity to invent and communicate reasons for behaviour, which other animals do not (Boyd et al., 2011). Cultural expression therefore becomes meaningful as it is communicated through mediums such as language, ideologies, beliefs, rituals and myths amongst humans. Schein (2010) integrated these previous ideas in his model of culture expression in organisations and occupations, comprising three levels – basic assumptions at the internalised level, values at a higher and more visible level, and artefacts and creations at the most visible level of expression. At these varying levels of expression, symbols provide anthropological meaning to objects, acts, relationships and linguistic forms responsible for eliciting emotions and causing

people to act in a certain way and in certain situations (Pettigrew, 1979; Schein et al., 2015). Within an organisational context, culture then becomes a confluence of derived meanings, values, artefacts, norms, practises, power-relations, and institutional habitus, which collectively define the social reality and experiences of actors (Schein et al., 2015). Therefore, within a virtual organisation context, the definition of what an artefact would look like, and the meanings attached to it by its virtual team members would constitute an expression of what the reality of working in the virtual work context means to its various actors. Beyond the definition and expression through artefacts, an important question to ask then became 'from what institutional habitus could various meanings be derived?'

The psychologically advanced adaptive capacity to learn social behaviours and pass them from one generation to the next has allowed human beings to develop complex institutions and powerful technology that enable exploitation of numerous habitats and gives man the ability to far outlive other species, despite having only hunting and gathering capabilities (Boyd et al., 2011). Cognitive scientists have described the cultural learning processes in the brain as a result of cell addition through strengthening cognition and neurological firing which takes place as described by Schein et al. (2015). Stable learning is then achieved as the environment within which networked firing occurs is repeated and similar stimuli responses are produced i.e. repetition results in long-term memory creation through a process of "priming" which leads to more meaningful associations with the environment (Hagmann et al., 2010). Within organisations, institutionalisation has also been described as the process through which components of formal structure become widely accepted and are seen as appropriate and necessary to legitimise organisations (Tolbert & Zucker, 1999), and allow organisations to maintain advantage over time. In this sense, institutionalisation can be viewed as the collective adaptive capacity that the organisation has acquired as a function of repeated and stable learning patterns, which could also be applied to processes such as culture formation.

2.3 Organisational culture

"I think culture is a property of a group of some sort, reflecting the shared learning that the members have experienced in their efforts to survive, grow, and remain internally integrated. Culture thus always has shared components that deal with managing the external environment and other components that deal with the rules and norms of how to get along inside the group. One of the commonest mistakes in recent usage is to link culture only to the inside "how we get along" components (Schein et al., 2015, p. 106).

As already described, culture was first studied within a British organisational context by Elliot (1951) and the concept of organisational culture as a term entered the field of study in the late 1970s (Pettigrew, 1979). Since then, organisational culture has been studied extensively, to the point of paradigm wars, resulting in a general declining interest of the concept within organisation studies since the 1990s. Paradoxically, however, organisational culture has been a fast growing concept of interest in other fields, such as "strategy-as-practise"; the "signature processes" behind "strategic capabilities", … "materiality and artefacts in science and technology studies; … consumer cultures in marketing; and … corporate branding" (Schein et al., 2015, p. 118). In all of these recent approaches, it can be seen that while the concept of organisational culture has itself been around for a long while, its continued resurgence is associated with a curiosity as to how organisational culture interacts with newly discovered dimensions of organisations, and what the impact of resultant outcomes is on the overall organisation – it's processes, its systems and its enduring characteristics.

2.3.1 *Organisational culture in a traditional organisation and team context*

Schein (1984, p. 3) described organisational culture as "the pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problems of external adaptation and internal integration, and that have worked well enough to be considered valid, and, therefore, to be taught to new members as the correct way to perceive, think and feel in relation to those

problems", and more briefly (Schein, 1999, p. 48) describes it as "the learned, shared, and tacit assumptions such as values, beliefs, and assumptions" within the organisation or firm. Organisational culture is embedded in the national cultures in which an organisation operates (Hofstede, 2010) and has a strong effect on management systems and is credited as the tool for interpreting organisational behaviour and life within processes of adaptation, change and decline (Allaire & Firsirotu, 1984). The dynamism of culture is brought to life through the cultural dynamic model (Hatch, 1993), which built upon models such as Schein (1984) and Allaire and Firsirotu (1984) in order to incorporate the symbolic qualities and process elements of organisational culture. By focusing on the dynamism of organisational culture, Hatch (1993) not only illuminated the expression of organisational culture beyond artefacts, but also introduced an objective/subjective perspective of culture which signified organisational cultural activity that was punctuated by reflexive subjectivity. This lens was useful in the current study which was embedded in a process ontology and required an objective and systematic perspective, while at the same time using a bottom-up grounded theory approach, requiring subjective, interpretivist data collection and interpretation.

Organisational culture is also used to describe the kind of work environment in which things get done (Zakaria, Amelinckx, & Wilemon, 2012) and is manifested through things such as vocabulary, building design, beliefs of power distribution and privileges, rituals and myths (Pettigrew, 1979; Schein, 2004; Schein, 2015). More so, in the case of rituals, it is not so much as the ritual itself, but the message the ritual communicates, and how that influences future behaviour – the process of learning – that is significant in the process of cultural formation and change. This means that how an organisation was structured and its resultant internal systems were influenced directly by internal forces as a result of coordination and control which emanates from a combination of power, leadership and socialisation (Tolbert & Zucker, 1999). Later, Schein et al. (2015) insisted that it was only in recognising organisational culture as a multilevel concept that studying it's various qualities would make sense – that is to say, organisational culture should be conceptualised beyond just the inside of the organisation to involve all stakeholders, including

those outside the organisation. Therefore, while the concept of organisational culture has been used widely in literature, its complexity is evident in the multifaceted, multidimensional and multiple stakeholder characteristics it possesses. Additionally, these qualities of organisational culture were established and have been theorised within the traditional work context and it could not be assumed that they would hold true within a virtual work environment. Some understanding of the virtual work context was useful for providing a basis for understanding what aspects of organisational culture would be applicable in that work environment.

2.3.2 *Organisational culture in a virtual context*

The "virtual" concept was borne out of the telecommunications sector and was initially likened to social and organisational concepts like "virtual team" (Powell, Piccoli, & Ives, 2004). Kirkman et al. (2012) described dimensions of team virtuality (or simply virtuality, as referred to in the current study), as the extent of use of virtual tools like videoconferencing and email for delivering on team tasks, the synchronicity of team member interactions and, finally, the informational value of virtual tools (i.e. the extent to which use of such digital work tools resemble exchanges that would otherwise occur without the use of these tools). More recently, concepts such as "virtual memory", "virtual circuit" and "virtual reality" have been used to describe, largely, computer systems and networks (DiMaggio & Powell, 2012). Virtual reality is a closely-related modern-day term conceptualised on opposite ends of augmented reality (often manipulated together to achieve differing forms of mixed reality) across digital platforms of computing across social networking and in artificial intelligence (Bastug, Bennis, Médard, & Debbah, 2017). The rate of technological change and resultant evolution of virtuality in the digital age would suggest that dimensions of virtuality are themselves changing and would therefore influence our understanding of cultural formation in virtual organisations.

Several themes have emerged over the years from studying virtual organisations and virtual teams and include: improvements in research design from laboratory

to real life field settings, team inputs (Gilson et al., 2015; Maynard et al., 2017), the concept of virtuality (Kirkman et al., 2012; Krumm, Kanthak, Hartmann, & Hertel, 2016), the use of technology (Bergiel et al., 2008; Martins et al., 2004; Mukherjee et al., 2012a) globalisation (Braun & Warner, 2002; Carr, 2006; Hao, Li, Peng, Peng, & Torelli, 2016), leadership and followership (Charlier, Stewart, Greco, & Reeves, 2016; Huang, Kahai, & Jestice, 2010; Strang, 2011), mediators and moderators on virtual team performance (Schweitzer & Duxbury, 2010; van der Kleij, Maarten Schraagen, Werkhoven, & De Dreu, 2009) trust relationships within VTs (Brahm & Kunze, 2012), performance outcomes as well as ways in which to improve the success of VOs (Gilson et al., 2015). While these studies have been extensive within traditional organisational settings, the subject of culture formation within virtual organisations and virtual team contexts is distinctly sparse within the literature.

The phenomenon of organisational culture formation within a virtual organisation in which physical interaction of team members is largely absent, may be expected to differ and be more complex from the culture formation process in which team members are co-located and physical expression of the process is more evident (Langley et al., 2013; Van Oorschot, Akkermans, Sengupta, & Van Wassenhove, 2013). Just because expression of shared meaning does not take a similar form to that of a traditional organisation's artefacts, symbols, patterns of behaviour, rites and rituals (Schein, 2015; Zakaria et al., 2012), does not mean that it is absent, but rather that this expression is different from the traditional expression owing to the distinctly different virtual context. Organisational culture has moreover been found to exist in technological environments, such as in virtual organisations and virtual teams, and despite that the context is different to what we are accustomed to in the co-located context, expression of shared meaning has been shown to exist (Plavin-Masterman, 2015).

2.4 Process theory

With its Darwinian roots (Darwin, 1968, 2004) process theory allows for an appreciation of organisational and management phenomena beyond the generalisation that variance alone might explain. Because time forms a central part of the phenomena under investigation; "variance theorising generates know-that type of knowledge, process theorising produces know-how knowledge" (Langley et al., 2013, p. 4) as it reveals the unravelling of a process over time. Representations of most organisational processes in the past were drawn from life cycle metaphors as well as teleological models that established step-by-step guides and a broader set of process theories; of late, there has been a trend to encourage inclusion of both dialectical and evolutionary process models (Van de Ven & Poole, 2005) in order to reflect the centrality of tensions, paradoxes and dialectics involved in driving change patterns. More recently, there has been an emphasis on the value of conceptualising the formation of culture through a temporal process and dynamic lens (Schein et al., 2015). Cultural formation is aptly summarised by Schein et al. (2015, p. 119) as emerging from life within organisations (internal), while entangled with the outside world (external), and being both "embedded in practises distributed among employees (at the bottom) and influenced by managerial actions (at the top)".

2.4.1 *Dynamic evolution*

"… reality is too complex for us to grasp it all using one level of analysis." Schein et al. (2015, p. 138).

Process theory was welcomed as an alternative to neoclassical approaches that restricted organisational changes to given social structures (Radzicki, 1990) and was in the early years conceptualised as an ontological approach that was useful for understanding organisational behaviour (Pettigrew, 1997) as a series of activities that constituted a process, with nature itself being, in fact, a process (Pettigrew, 1979; Whitehead, 1929). Several years later, Erez and Gati (2004) developed a multilevel model of culture, which provided a description of dynamic

and changing processes that drove cultural formation and change by integrating four factors into cultural formation – the global business environment, multilevel formation of culture with lower levels being nested at higher levels, the dynamism of top-down and bottom-up processes, and cultural expression presence at both the implicit and explicit levels. Since then, process theory ontology has been used to further express the uncertainty of organisational culture, with properties at interplay at the various levels of culture described as “dynamic and often uncertain” (Gilson et al., 2015, p. 1328). These descriptions provided us with a context for understanding the conceptualisation of the work context and for bringing to the fore the various elements at interplay in the virtual organisation and virtual team, thereby providing a context of study of culture formation within a digital work context (Maynard et al., 2017).

Figure 2: The dynamic of top-down-bottom-up processes across levels of culture (Erez & Gati, 2004, p. 588).

From a process perspective, Erez and Gati (2004)'s model (shown in Figure 2 above), built upon traditional models of organisational culture (such as Schein's 1984 theory, in Figure 3 below), and described the mechanisms through which culture is transmitted from higher to lower levels in a top-down approach, as well as vice versa in a bottom-up approach. Thus, Figure 2 illustrates the processes involved in influencing culture across different levels, beyond just the type of cultural expression that exists at each level.

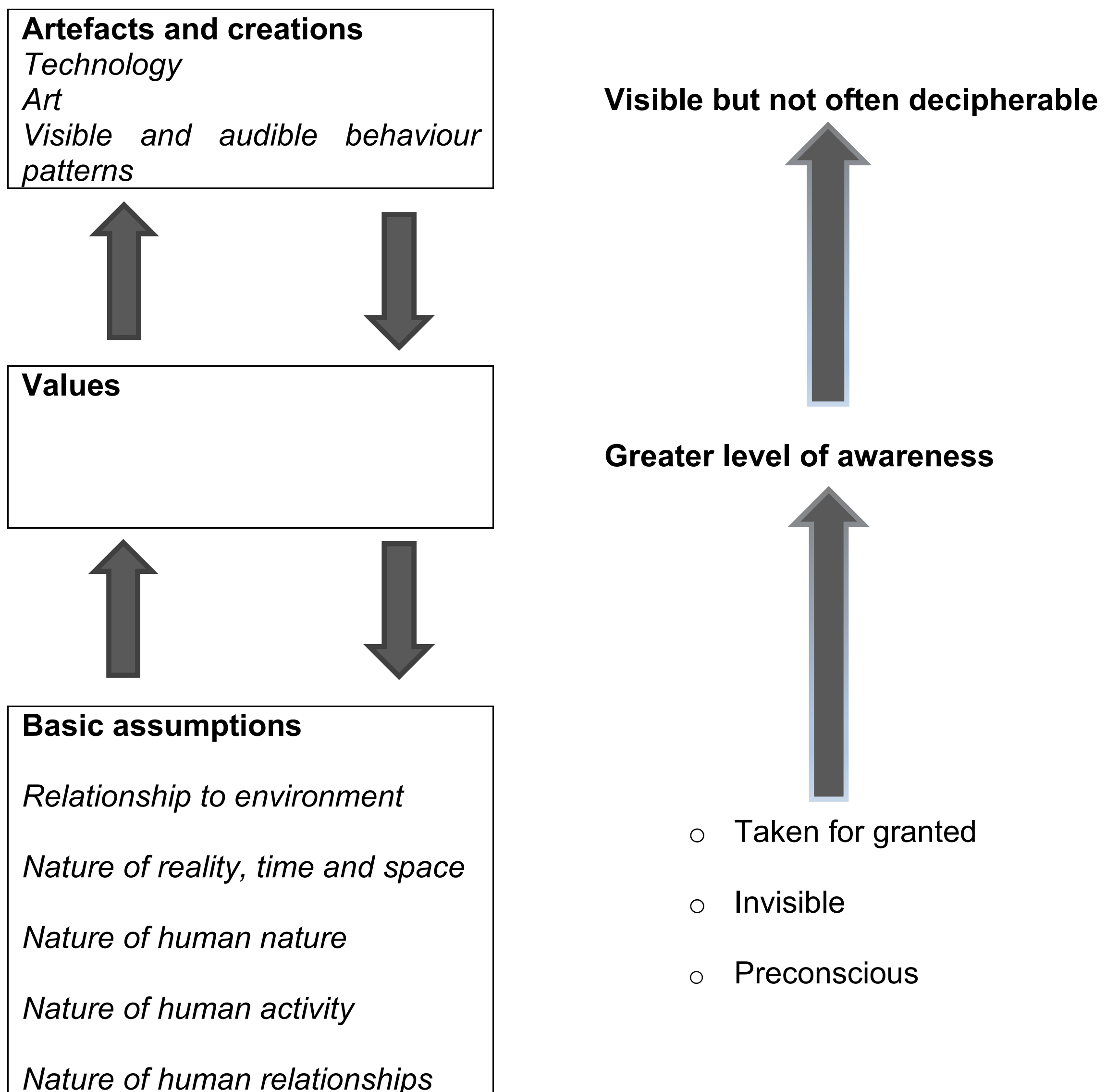


Figure 3: The levels of culture within organisations and occupations and their interaction (Schein, 1984, 2010)

Thus, the Erez and Gati (2004) model went beyond a description of cultural formation or change only as a result of the socio-political context and ecological systems (Segall, Dasen, Berry, & Poortinga, 2000; Triandis, 2006), and also proposed that globalisation affected the behavioural changes of members from various cultures at the macro level of culture, whilst simultaneously enabling individual changes in behaviour to influence organisational culture through a bottom-up process (Erez & Gati, 2004). This model, did not, however, explain *how* such behavioural changes are achieved, which is what the present research sought to establish, using dynamism, a lens of understanding how culture formation came about (Schein et al., 2015).

A dynamic and temporal conceptualisation of organisational culture meant that ongoing changes in both the internal and external actors of the organisation would provide sources for continuous co-creation and change in the formation of culture over time, Schein et al. (2015). This is aligned to process theory ontology that explains that all that is in existence only exists in relation to other things as a function of time and space (White et al., 2013). This also implied that the focus of research ought not to be only on how organisations adapt to their environments, but on how different organisational stakeholders relate to one another, and in so doing, interact with the organisation – that is to say that stakeholders both within and external to the organisation were viewed as integral players and influenced its evolution. In this sense, organisational culture as a notion was viewed as something that was in a state of “becoming, always constructed in time through interwoven internal and external relationships”, rather than something that has been achieved, according to Schultz in Schein et al. (2015, p. 123). This is to say, therefore, that all levels of the individual, the group and humanity were seen as important in advancing the general theory of how culture is formed in virtual organisations and virtual teams, thus highlighting the benefit of studying organisational culture through a dynamic evolutionary lens.

2.5 Organisational culture formation

2.5.1 *Organisational culture formation in traditional organisations and teams*

The extant literature has described how mimetic, coercive and normative isomorphic forces influence the structure and dynamic aspects of culture so that certain qualities become taken for granted or “nested” within the traditional organisation over time (DiMaggio & Powell, 2012), and results in “the shared learning that the members have experienced in their efforts to survive, grow and remain internally integrated” (Schein et al., 2015, p. 106). Using an institutional theory lens, the development of group cohesion occurs via problem solving, as a learned solution to how an organisation relates to its environment and deals with internal affairs, reducing uncertainty and confusion and thereby creating stability (DiMaggio & Powell, 2012; Schein, 2004; Schein, 2010). It was therefore through the group developing solutions to problems that it experienced learning and growth by navigating critical incidents and experiences. The concept of group learning later developed into cumulative cultural evolution for the group over time (Schein, 2010, 2015; Schein et al., 2015). Thus group identity was strengthened through the development of interpersonal strength achieved through dynamics of identity, common goals, methods of influence, as well as how aggression and intimacy are managed, collectively, leading to group behaviours that ensured that sustainable organisational culture arose (Schein, 2015).

2.5.2 *Organisational culture formation in virtual organisations and virtual teams*

The emergence of the virtual organisation, and, subsequently, the virtual team has been conceptualised somewhat differently from that of the traditional organisation and team; as a random rather than systematic phenomena that was not methodically planned, but borne out of the emergence of enabling technological platforms (Bergiel et al., 2008, p. 99) and driven from within (Katzy & Schuh in Parida, Johansson, and Bergström (2009). Indeed, Snyder (2003) even found that

many organisations formed virtual teams with little or no understanding of the unique implications of such a decision. It may be argued that, indeed, the consequences of forming any type of team (virtual or otherwise) is impossible to predict – however, the results of studies within traditional and co-located work teams allow for predictions of expected behaviour. On the other hand, there is no current road map or description of what influences how the virtual organisational form ensures successful culture formation, and this author was only able to find an arbitrary reference to what organisational culture in VOs and VTs *might look* like. Cascio (2000) described a successful virtual organisation team culture as one where managers were open to remote working arrangements, are results-oriented rather than structured and controlling, and are effective communicators.

In her study, Plavin-Masterman (2015) found that employees in a small virtual company identified together with one another through shared language and communication norms that relied on computer-mediated communication shaping their interactions in their virtual world. However, it was expected that the unique influences of a distributed organisational structure (temporal and spatial) as well as technology mediation would inform how organisational culture is learned and, therefore, shaped in the VO context. Similarly, it was also expected that this study would illuminate how organisational culture not only arose, but how it could also be sustained within the virtual context.

Studies of the socialisation process in organisations have provided insights into how group members acquire the necessary technical and social skills that allow them to gain knowledge for execution of tasks as well as knowledge of group norms and expectations (Ahuja & Galvin, 2003). Because socialisation is a form of learning that focuses on shared experiences and therefore tacit learning of mental models and technical skills, understanding how it happens in virtual groups provides insight into how team members develop a sense of belonging in the group; understanding socialisation and relationship-building in VTs also assists us in the understanding of the process of cultural formation in these teams. Therefore, the present study intended to investigate *both* the process elements and interpersonal

components for organisational culture formation in virtual organisations and virtual work teams.

Socialisation in VTs has been demonstrated as a more difficult process than in a traditional context due to its informal and ambiguous nature (Finholt, Sproull, & Kiesler, 1990; Morrison, 1993). Ahuja and Galvin (2003) found that communication of performance expectations needed to be explicit in virtual contexts as socialisation of members was not possible via observation since observation was limited. It was therefore important that regulative and normative information was also shared verbally so that a better understanding of norms and social expectations is obtained. Consequently, if social learning is a complicated process in VOs, it may be expected that the formation of organisational culture in VTs will also be complicated on account of the fact that learning, which is integral to cultural transmission within VO environment (Ahuja & Galvin, 2003; Boyd, Richerson, & Henrich, 2013; Schein, 2015; Van Oorschot et al., 2013) is a complex phenomenon.

Plavin-Masterman (2015)'s study recently focused on the explicit re-conceptualisation of where an organisation's culture resides. Historically, organisational culture has been conceptualised as anchored in "a firm's artefacts, symbols, shared norms, beliefs and behavioural expectations in a physical location, in a proximate space" (Plavin-Masterman, 2015, p. 43). The historical assumption that organisational culture could be maintained through a link to the physical space or location of an enterprise (Allaire & Firsirotu, 1984; Hatch, 1993; Whyte & Holmberg, 1956) is no longer sufficient, therefore, in our understanding of organisational culture, because it does not take into account organisational forms that do not have a physical space (Plavin-Masterman, 2015, p. 43) or physical boundaries of social learning, such as VOs. The present study was therefore expected to advance understanding of where the organisational culture of virtual organisations was anchored; and what in this context norms, artefacts and symbols would look like.

2.6 Conclusion

A presentation of extant theory and the general review of literature described in this chapter provided an overview of the concept of organisational culture, the nature and properties of virtuality, and the dynamic evolutionary perspective of culture. This provided a sensitising introduction to the key concepts that informed and located the current research study. Through understanding how research has evolved in these three key areas over time one is able to locate the significance of the current study in the prevailing discourse. The fundamental characteristics of virtual teams in terms of how they are constituted and how they function introduced the complexities of the virtual organisational form and how culture might form within the VT context. However, in conducting grounded theory research, existing theories on culture formation processes in traditional organisations are discounted, while at the same time recognising the topical discourses of virtuality and dynamic evolution in organisations and teams and how this might impact organisational culture.

A synthesis of high-level literature, as well as the broad research question for enquiry in the current study that follows, led to the development of the conceptual model presented in Figure 4 below, illustrating that the baseline concept of virtuality comprises technology applied within the context of spatial and temporal distribution. These factors influence the dynamic multilevel interactions of culture formation represented by the concentric circles, which in turn drive the process of organisational culture expression in virtual environments.

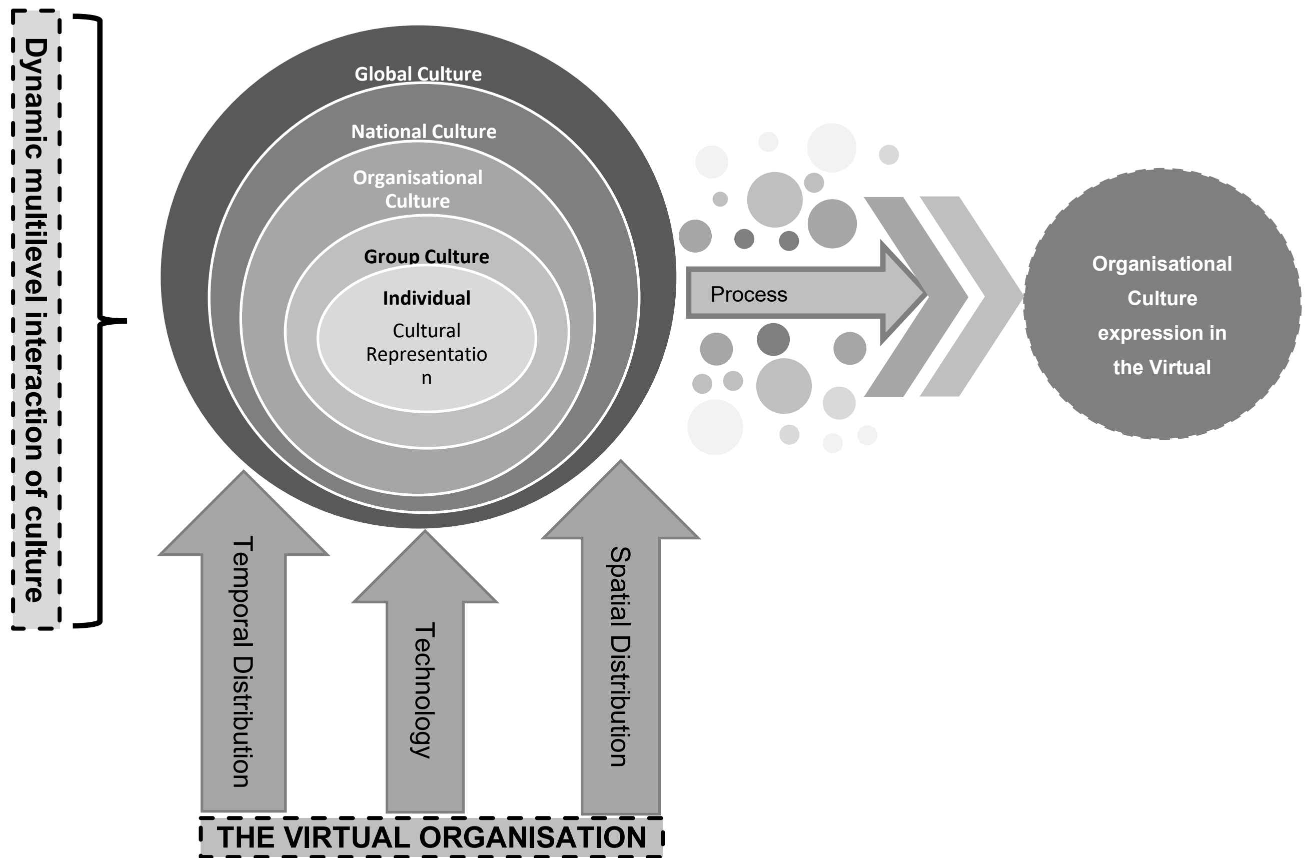


Figure 4: Conceptual model constructed for the purposes of the current study: the formation of organisational culture within virtual teams in a virtual organisation.

The Research Question was stated as: ***How does culture form within virtual teams operating within virtual organisations?***

In order to investigate the core concern of the research and to gain in-depth insights into the process of cultural formation within virtual organisations, the following sub-areas were put forward for investigation within the study:

- *i.* *A theory of virtual culture formation: how does virtuality (technology, temporal distribution and spatial distribution) influence culture formation within virtual teams in virtual organisations?*
- *ii.* *How do stakeholders effectively manage organisational culture within the virtual team and virtual organisation?*

CHAPTER 3. RESEARCH METHODOLOGY

3.1 Introduction

There is evidence of growing use of qualitative methods in studying various phenomena in international business. The benefits of qualitative research have been described as allowing for understanding the "complex plurality of contexts – institutional, organisational and so on, bought about by globalisation" (Birkinshaw, Brannen, & Tung, 2011, p. 573). Grounded theory (GT) is useful for providing a broad explanation or novel theory of understanding a process, patterns or relationships, and is particularly useful when current theories of explanation are inadequate or non-existent for providing explanations or predictions (Glaser & Strauss, 1967; Shepherd & Suddaby, 2017). Application of grounded theory principles is systematically flexible, so certain principles apply in all cases of grounded theory methodology, and those principles allow for flexible, discretionary decision-making about next steps at each point in the research process. However, with this is created a need to describe and adhere to rigorous methods of research that ensure quality data and credible results which are the basis of credible theorising (Apramian, Cristancho, Watling, & Lingard, 2017). The common characteristics of grounded theory enquiry are: purposive; followed by theoretical sampling; analysis using constant comparison; memoing; theoretical saturation; and theory grounded in the data rather than in literature (Carmichael & Cunningham, 2020). Applying Glaser (1998, p. 8)'s dictum, "all is data", grounded theory enquiry has in its axiological approach, the need to carefully capture all subjective perspectives in describing participant experiences. This adds to the richness that saturates categories and theoretical constructs as well as enables the emergence of new and varied perspectives of how employees experience culture formation within a VO and VT, without simply assuming that there is commonality with traditional organisations.

Grounded theory as a research approach was first used by Glaser and Strauss in the mid-1960s and led to their publication, *The Discovery of Grounded Theory*

(Glaser & Strauss, 1967). Later, Glaser and Strauss would take separate paths as Strauss teamed up with Corbin to offer more operationalism and more prescription in GT (grounded theory), describing specific procedures and methods (Strauss & Corbin, 1990). According to Strauss and Corbin (1990) there are three distinct coding levels or processes: general (open) coding, which results from initial constant comparative analysis; axial coding, which is a result of clustering of codes into categories; and selective coding, which results in explanations of relationships between codes. Glaser (1992) responded to Strauss and Corbin's prescriptive approach by reinforcing and elaborating on his original emergent approach, and the term 'classic grounded theory' emerged. Since then, Glaser has offered several publications (Glaser, 1998, 2011, 2016) in which he has sought to strengthen and clarify the principles and purpose of his original classic grounded theory or what has become known as Glaserian, or traditional grounded GT. Glaser himself maintained an unwavering conviction that his original model was the one and only true form of grounded theory methodology and in his author guidelines requests that only the term *classical grounded theory (CGT)* be used (Glaser, 2016). Glaser's approach has an epistemological view of conceptualisation, rather than description, with a primary focus on abstraction of concepts to theorising from both quantitative and qualitative data (Glaser, 2011; Holton & Walsh, 2016).

Although grounded theory has a quantitative history and is associated with different epistemological paradigms (Glaser, 2003; Locke, 2001), it has been increasingly used in qualitative approaches of enquiry (Charmaz, 2014; Denzin & Lincoln, 2011). Charmaz (2017a) locates GT within the social constructivist research paradigm and proposes four general strategies to grounded theory research approach: simultaneous data collection and analysis, constant comparative methods; the development of emergent concepts; and employment of an abductive logic. This method of GT sets flexible analytic guidelines that enable focus on simultaneous data collection and theory building with conceptual development (Charmaz, 2005), allowing emergence of explanatory theory of the social process (Starks & Brown Trinidad, 2007). A key difference between Charmaz' and Glaser's

approaches is that the former acknowleges the role that prior knowledge and preconceptions on a subject have in the research (Charmaz, 2017b), while Glaserian grounded theory suggests that one needs to ‘bracket out’ the influence of previous knowledge in order to conduct a credible grounded theory study (Glaser, 1992, 2016). Because the history and personal experience of this researcher in a virtual work context was acknowledged upfront, the approach that was seen as appropriate and adopted for the present study was most closely aligned to Charmaz’s GT approach, otherwise known as Charmazian grounded theory.

A grounded theory study is particularly useful where very little or no literature exists in the area of investigation, since the primary aim of grounded theory is to develop a broad and general understanding of phenomenon (Butler, Copnell, & Hall, 2018). While both GT and phenomenological studies allow a better understanding of phenomena, GT provides a broad (heterogenous) theoretical explanation of the phenomena, rather than a common (homogenous) lived experience resulting from a phenomenological study (Creswell & Poth, 2017; Gallagher, 2012), that is to say, GT aggregates all versions of experiences, without averaging out these experiences into a ‘common’ story, but rather allows each experience to retain its individual coloured thread in a woven narrative of ‘several’ experiences (Charmaz, 2017a); this multitude of different experiences enables the categories to become saturated, that is to say, all the possible properties of the category are extracted from the data (Conlon, Timonen, Elliott-O’Dare, O’Keeffe, & Foley, 2020). This also means that the current GT study considered all the experiences, including those that held unique and dissimilar narratives, and those on the periphery were integrated into the collective narrative rather than discarded as outliers or deviant cases, as would be the case in a quantative study (Charmaz & Keller, 2016). In addition, qualitative interviews were viewed as insufficient alone for providing the richness of explanation necessary for theorising that GT could provide, as the former would have merely provided a description of the phenomena instead of explanations of relationships between concepts as the Charmazian GT approach did (Conlon et al., 2020). In fact, according to Apramian et al. (2017), Charmaz

focused her methodology on the process of theorising or ongoing argument, and so rather than defining a theory as the end game of research, per se, the methodology provides a basis for ongoing dialogue around the phenomenon under investigation. This may have suggested a longitudinal study as the appropriate research design to study the emergence of organisational culture as a social phenomenon due to evolving cognitive changes over time (Gehman et al., 2017). However, participants in this study had joined their employer at different times of the organisational lifecycle and therefore were at various points of acculturation within the virtual organisation and virtual team. Therefore, while a cross section of data under these circumstances was to be similar historically or temporally, it was dissimilar, relatively, as each participant's experience varied in terms of how long they had been within their virtual work team and organisation. Each participant's recollection of his or her experience within the organisation would need to be relied upon in order to provide details of insights through inductive and retroductive theory building (Birkinshaw et al., 2011; Conlon et al., 2020) and to highlight the effect of the virtual work context upon them at that specific moment in time.

3.2 Research approach

This study was undertaken within a social constructivist ontological philosophy which captures individual perspectives, understanding the world in which people live and work, and giving subjective meaning to individual experiences (Charmaz, 2014, 2017a). This approach, whose constructivist roots were founded in the Chicago school's grounded theory approach (Charmaz, 2005), also had an interpretive epistemology of research developed from cognitive perspectives of human behaviour, where learning was said to occur through filters created by social factors like language, awareness and shared meaning (Klein & Myers, 1999). Social constructivism indicates that the meanings of situations are created as the individual interacts within a social setting with others through past experiences and through the impact of social or cultural norms, which results in information that can be interpreted abductively, through the interpretive lens of the researcher (Charmaz, 2017a; Denzin & Lincoln, 2011). Moreover, by integrating the

interpretation of the researcher with the subjective experiences of the participants within the specific context of virtuality, the data was co-constructed by the researcher and the participants together, resulting in a co-created reality – the constructivist ontology (Charmaz, 2014, 2017a; Flick, 2018b).

The goal of constructivist research may be described as seeking to understand the meanings people attribute to situations, based on numerous contextual realities at play, and of which are largely subjective (Butler et al., 2018; Charmaz, 2017a). It was vital, therefore, that an account of what a participant said, as well as any changes in facial expressions, speech or mood, in this type of enquiry was kept, and during in-depth interviews (Onwuegbuzie & Byers, 2014; Onwuegbuzie & Collins, 2007). As the primary research instrument, the researcher's role in the GT study was to construct reality by interpreting data and clearly communicating the participants' realities, in order to conduct meaningful research (Charmaz, 2014). This is not to say that the researcher was completely uninformed, "a dope or a dummy", but that she had to try to ensure, as far as possible, that her existing knowledge of the area under study did not interfere with the research process (Gehman et al., 2017, p. 8). Therefore, in addition to the interviews that also considered non-verbal cues and expressions, data from various company strategy, policy and operations documents were also gathered in order to understand the context, including digital artefacts, to adequately interpret all information shared by participants.

3.3 Research design

The study took the form of a grounded theory (GT) enquiry. There are three main types of GT research described in literature, as mentioned above: the classic grounded theory approach (Glaser, 1978, 2016); the structured or systematic approach, advocated by Strauss and Corbin (1990); and the social constructivist or interpretive grounded theory approach, presented by Charmaz (2014). The perspective used in the present study was aligned to the constructivist approach described by (Charmaz, 2014, 2017a), which focuses on the meanings that participants ascribed to the area under study. This was achieved through

establishing theoretical insights of the cultural formation process from participants who offered differing personal perspectives through descriptions of their feelings, thoughts, values, experiences and viewpoints of the virtual work context. Following this, additional abductive meanings and retroductive explanations were also assigned from the sequential analysis of archival data obtained in the five sets of archival data presented for the research. The meaning assigned to data was co-created and reality constructed in three distinct ways: firstly, from the explanation of the participants' perspectives and the interpretation of these explanations during data collection and analysis (including to a large extent, non-verbal expressions and reflexive insights drawn from memos); secondly, data was co-created through the participants' interpretation and resultant selection of documents and communications from their respective organisations, which they passed on for analysis; and lastly, data was co-created as the researcher interpreted and drew conclusions from these documents and communications presented to her from participants, including her reflexive insights from personal memos around the data. These perspectives served to strengthen, via triangulation, the insights drawn from the study from a methodological perspective, creating three different perspectives of the core concern under investigation. In this case, the integration of data collection instruments during this GT study meant that archival data was an addition to interview data (not serving to validate or strengthen it, but rather broaden its interpretive scope) with the resultant benefit of increased variety of data for analysis.

Within the framework of grounded enquiry, no specific hypotheses were put forward for testing, and there was a general research question defining the main concern of the research study (Rugman, 1996a; Rugman, 1996b) and sub-questions were also generated around the phenomena under investigation. The purpose of grounded enquiry was to conceptualise and theorise about issues, beginning with nothing and then ending up appreciating something that one may never have imagined, by demonstrating certain phenomenon to be plausible (Sacks & Schegloff, 1995), or accounting for the phenomena (Birkinshaw et al., 2011). Therefore, the processes shaping organisational culture within the VO and

within the VT were under investigation, and while organisational theory, process theory and the virtual team inside the VO were used to locate the study, what these processes entailed was neither known nor assumed in this research.

3.4 Population and sample

The population for the study consisted of individuals of all genders, working in different countries, as part of a virtual team within a virtual organisation, whose business operations were geographically and temporally dispersed. The sample was selected from potential participants who, at the time of the study, had worked in a virtual organisation for one year or more, and were part of a virtual technical or functional team with two or more members within that organisation. This criterion was critical for ensuring that retroductive insights around the virtual context could be attributed to emergent data. As a grounded theory enquiry, theoretical sampling for was used to ensure that information obtained from respondents was as relevant to the emerging theory to answer the research question as possible, and, as such, experience and knowledge of the context was critical (Carmichael & Cunningham, 2017; Rossman & Rallis, 2003). This theoretically selected sample represented the 'best possible minds' of understanding for offering explanations for the phenomenon under study. All respondents were first required to meet the sampling frame criteria of being individuals who had first-hand working experience in a virtual organisation setting, and who were virtual team members not geographically situated within a subsidiary office where they might have experienced regular physical, or face to face contact with other team members. Section 3.4.1 below elaborates on the defining characteristics of the population of virtual organisations from which interviewees were drawn.

3.4.1 *Characteristics of virtual organisations (VOs)*

Despite the varying classifications, the extant literature describes some core characteristics of virtual organisations, including spatial distance and communication, temporal distribution, boundary spanning, and specific team member roles, which are all influenced by technology enablement (Kirkman et al.,

2012; Maynard et al., 2017), and contingent upon how members of VTs interact with their work and with each other. On the other hand, the traditional multinational organisation deploys business strategies from theories of the multinational enterprise (Casson, 2013; Rugman, 2013; Rugman & Verbeke, 2003), such as Transactional Cost Economics (TCE) theory (Williamson, 1979, 2010) as well as Dunning's Eclectic Model (Dunning, 2012; Dunning & McQueen, 1981), that combines the benefits of ownership, internalisation as well as location-specific advantages of foreign direct investment (Narula & Verbeke, 2015; Rugman, 2013; Rugman & Verbeke, 2003), in order to operate effectively across multiple territories. This means that while both globally operating VOs and MNEs can be found in a multiplicity of geographical locations, the former derive their advantages from technology rather than geography on account of being boundaryless (Newton, 2017), whilst MNEs rely on transferring their identity, capabilities and strategic advantages over physical country borders in order to remain competitive and effectively manage their diverse workforces (Narula & Verbeke, 2015; Rugman, 2013).

As described, VTs are a distinct team form, grounded in technology, and delivering on organisational objectives through a distributed team structure. Lipnack and Stamps (2013) conceptualise virtual teams as individuals who interact interdependently on organised concrete tasks, despite implementing abstract actions in order to complete the task (Mowshowitz, 1997). Virtual work environments are therefore groups of people working interdependently and with limited (if any) face-to face contact across space, time, and organisational boundaries, using technology but maintaining a shared purpose in order to perform specific, predetermined or planned goals (Dulebohn & Hoch, 2017).

The opposite of virtual teams are what are commonly referred to as traditional teams (otherwise known as “face-to-face” teams) who work closely together in terms of physical proximity and coordinate their work through face to face interaction (Krumm et al., 2016). Virtuality is, however, viewed as multidimensional in nature; (and even though it has up until this point in this

literature overview been presented as the exact opposite in meaning of face-to-face), it is conceptualised as existing on a continuum (Kirkman et al., 2012; Martins et al., 2004), with virtuality's two most consistently defining dimensions being geographic and temporal distribution, and technology use or reliance (Dulebohn & Hoch, 2017; Maynard et al., 2017).

Whereas members of traditional, hierarchical organisations are proximally close, those of virtual organisations are separated geographically and often temporally (Kozlowski & Bell, 2013), work interdependently, have limited face to face contact with each other, and rely on electronic communication for the fulfilment of work goals and objectives (Dulebohn & Hoch, 2017). Physical distances between members may vary from one organisation to the next, although this is not as important as the impact that virtuality has on the way that team members interact with one another (Bell & Kozlowski, 2002, p. 22). Communication mechanisms such as internet-based calling (Skype, Viber etc.), video conferencing (such as Zoom, Microsoft Teams, etc.), email and other mediating technologies like groupware and project management software that support e-collaboration are more common and are central to the organisation of and member interaction within virtual teams (Maynard et al., 2017). In traditional organisations on the other hand, these methods are intended only to supplement the primary contact method of face to face interaction (Kozlowski & Bell, 2013).

The reliance on technology enables virtual teams to operate across boundaries, distributed by both space and time (spatial and temporal distribution respectively): that is, team members can be in different geographical locations, as well as different time zones (Bell & Kozlowski, 2002; Martins et al., 2004). Members of virtual organisations, though not co-located, achieve temporal binding through technological mechanisms in which work is synchronised real time (Lippert & Dulewicz, 2018), compared to, say, email, which is asynchronous and creates greater temporal distribution or distance. Some researchers have argued that the need to work in distributed form or real time is determined by the complexity of the task and resultant workflow, that is to say that the greater the interdependencies

or complexity of the tasks, the higher the perceived need for collaboration and real-time communication (Kirkman et al., 2012). While interdepency and complexity of tasks may influence the need for synchronimity, it may also be argued that the time available to complete tasks as well as the flexibility of working hours within the virtual work context would also influence whether real-time collaboration and communication actually takes place.

In addition to crossing boundaries of space and time (as described above), virtual organisations can also span functional and cultural boundaries, thus allowing team members in virtual organisations to be more flexible and adaptive in nature (Gilson et al., 2015). This would mean that with such flexibility, virtual team members could be recruited from various locations, without the constraints of geographical location or time zone, and could also comprise a cross-section of member modality from employees, experts, consultants, partners, customers (Bell & Kozlowski, 2002) and even volunteers. Even though most virtual organisations operate across functional and cultural boundaries (Dulebohn & Hoch, 2017), simple tasks do not require complex procedures and linkages with team members and institute limited consequences of individual-upon-team performance, while, on the other hand, advanced tasks require less permeable internal and external links, more complex operating procedures, and a stable team of members (Bell & Kozlowski, 2002). In this way virtual organisations and virtual teams in them may appear to operate in rather similar organisational contexts as traditional organisations and work teams. The virtual work teams, in such cases, benefit from this stability and more continuous lifecycle, and, in turn, are beneficial to the enterprise when tasks are complex and collaboration and integration of the team is critical.

On the other hand, some virtual teams are temporarily created only to solve a particular problem (Gibson & Cohen, 2003) or to fulfil a specific purpose without the intention of continuity within specific organisations. Such organisations follow a particular life cycle and comprise a dynamic team membership whose composition changes continuously, based on members coming into and leaving the team, affecting the total team time spent together, as well as common team

experiences (Cummings & Haas, 2012). The virtual work context, therefore, allows for more dynamic and varied member roles and relationships in its work teams at different times of the organisation's life cycle (Cummings & Haas, 2012; Gilson et al., 2015). The workings of the various virtual teams relies on the diversity of skills available from the pool of workers available at a particular time, and also on the nature of the task on hand (Maynard et al., 2017). For this study, the focus of investigation was within the concept of a stable virtual team in a virtual organisation, who, except for its reliance on technology, had its team members otherwise working interdependently on organised and concrete tasks, with limited face-to face contact, across space, time, and organisational boundaries, using technology and maintaining a shared purpose in order to perform specific, predetermined or planned goals (Dulebohn & Hoch, 2017).

3.5 Data types

The aim of grounded enquiry is not to prove or disprove anything, but rather to establish what is important or meaningful to respondents, and this emerges through direct interaction with the researcher (Apramian et al., 2017; Charmaz & Keller, 2016). Interpretivists believe that the social world is best understood through engagement with the social world, as well as participation within it (Locke, 2001). Grounded theory methods using this philosophical lens thus involve simultaneous data gathering and data analysis as the two processes need to be iterative to fulfil theoretical sampling requirements. Therefore it was important to ensure continued focus on both at any point in time during research (Charmaz, 2005, 2017a). Because the researcher had an inherent interest in the area of study and there is an ongoing tension between the interpretivist interest in subjective first-hand experiences of participants and the creation of an external account of those experiences, there was a need for the continuous recording of responsible interpretations (Denzin & Lincoln, 2011; Locke, 2001). Three types of data were collected and analysed during the study and included: numerous analytical memos (the researcher's written and voice notes); 18 interview recordings (later

transcribed into interview scripts) and, lastly; five archival data records (printed company documentation).

In obtaining responses to grounded enquiry, the multiplicity of perspectives and truths must be acknowledged (Strauss & Corbin, 1994) so that the range of “theoretically sensitising concepts” are attended to as human interaction is analysed (MacDonald, 2001). Triangulation is therefore recommended and was used in this study, firstly to seek divergence and data richness, and then to allow two or more sources of data to converge and result in more credible data (Denzin & Lincoln, 2011). Utilising multiple data types enabled richer data analysis that was more reflective of the context under study than would otherwise have been the case. This would subsequently enable the research question within the study to be answered within the interpretive, constructivist paradigm of grounded theory (Charmaz, 2014; Lowenberg, 1993; Strauss & Corbin, 1994) or through what Locke (2001, p. 13) referred to as a “wholly interpretive” lens. This interpretive, constructivist process occurred as the actor’s perspective, others’ perspectives and the researcher’s perspective all become integrated into *an* interpretation of reality, which was nevertheless an amalgam of various versions of subjective reality, representing the points of view of all those who experienced it (Butler et al., 2018; Locke, 2001). Triangulation therefore made it possible to infer that replication of the study under similar conditions in a different context would possible; this is not to say that various data will yield similar results, but means that data is similarly credible, despite differing approaches (Flick, 2018b; Tracy, 2010).

3.5.1 *Memos*

Detailed handwritten and audio memos were maintained throughout the study to capture the personal reflections of the researcher and ensure that while these memos formed the context of what was seen and heard, these personal interpretations could also be clearly distinguished from the participants’ actual descriptions. This was an important ongoing methodological consideration during grounded theory studies, given that what one sees and hears depends on one’s interpretive frame, history and interests (Charmaz, 2017b; Flick, 2018a), all of

which were then considered and continuously integrated into emerging data at the various stages.

3.5.2 *Pilot interview*

A pilot involving one participant was held at the beginning of the study to identify and address any limitations or weaknesses in the interview design through revisions (Kvale, 2007) prior to launching the full study. In particular, the pilot served the design purpose of facilitating culturally sensitive understanding of key constructs through questioning, in order to enable substantial responses from respondents for facilitating the emergence of codes, categories, themes and eventual saturation of theoretical constructs (Corbin & Strauss, 2018; Turner III, 2010). The pilot was conducted with a participant who satisfied the purposive sampling frame of the core concern of the study. This ensured that refinements and revisions that were made to data collection techniques and questions thereafter improved in a way that was relevant and applicable to the main study (Rossman & Rallis, 2003; Turner III, 2010) as well as being relevant to the emerging theoretical constructs.

3.5.3 *Interviews*

The objectives of grounded theory enquiry lend themselves to an open-ended approach, involving asking general questions for broad participant responses, consequently forming the basis of constructing meaning out of situations that are forged in discussions or interactions with participants (Birkinshaw et al., 2011; Jeong, 2009), all the while revising the questions in alignment with the emerging theory. A recommended approach for interviews (Price, 2002) was used during the study, which was a laddered-style of questions which began with action questions to settle the interviewee into the meeting, followed by knowledge questions, and then philosophical questions around feelings, values and beliefs, yielding deeper and richer responses. By deploying this laddered approach, questions were tweaked to gather the richest and most meaningful data possible to add to add to the emerging theoretical constructs relating to the phenomenon

under study (Charmaz, 2017b). There are certain aspects of the open-ended question design to which attention was also drawn, while the study was underway, to obtain as rich data as possible. This included: giving the respondents freedom to answer questions in their own words, avoiding biased or leading questions, asking one question at a time, and wording the questions in a clear and culturally appropriate manner (McNamara, 2009). Data collection was also facilitated in the present study by assembling questions in ways that minimised general misunderstanding, then preparing follow-up questions that probed essential elements of a response to ensure that optimal data was elicited through each question (Price, 2002). This approach was designed so that the required depth of data was achieved, since insufficient data can lead to difficulties in category saturation as a result of limited depth and thickness (Butler et al., 2018; Turner III, 2010).

It was important to ensure that participants were settled and engaged during the interview process, therefore particular attention was paid to achieve this outcome. Prior contact was made with participants (before meeting for the actual interview) followed by priming of these individuals beforehand around the objectives of the research. These actions also served the purpose of building trust and ensuring that there was a clear understanding of research intentions, so that data obtained from respondents could be viewed as more credible (Rossman & Rallis, 2003). All interviews were conducted in person and travel to the respective countries was undertaken, and face to face interviews in corporate or hotel meeting rooms allowed for personally meaningful interview engagements with participants. Turner III (2010) agreed with McNamara (2009)'s consolidated strategic recommendations in obtaining engagement and meaningful feedback during the interview process. These recommendations which were closely adopted during interviews included: asking one question at a time; remaining as neutral as possible when responding to participant reactions; encouraging responses with occasional nods and affirmation; not rushing to jot down notes when a specific point was made; providing logical transitions between questions; occasional verification of functionality of recorder; and remaining in control of the interview. In addition to adhering to the

aforementioned guidelines, attention was paid in particular, to the length of recording and phone battery in order to ensure an acceptable file size for electronic transfer, as well as for guaranteeing recording functionality respectively.

3.5.4 *Archival data*

Archival data records were obtained from willing participants following the face-to-face interview where available, and the participant was able to share them. These company records were analysed for initial codes and integrated with the data from the interviews and memos to form an all-encompassing set of intermediate codes, then combined into categories which were then phrased as Gerund 'categories'. The Gerund categories were then sorted into three main themes and then a final core theme. Gerund categories were obtained after grouping the initial form of in vivo (in-text) codes with the archival data codes into categories, which were then phrased as Gerunds to be presented as action verbs, with a process orientation or meaning to the description (Charmaz & Keller, 2016). Gerunds are verbs, used as nouns by adding the suffix "ing", in a way that denotes a sense of action, process or sentiment (Carmichael & Cunningham, 2017). This allows retroductive insights into the participants' experiences and sentiments of the theorised phenomenon. During this study, the term Gerund 'category' was used to denote that the conversion to Gerunds was done *following* intermediate coding and initial categorisation. The visualised process of data collection and analysis is summarised in the flowchart in Figure 5 below and begins with separate streams of initial codes emerging from interview data, archival codes, physical observations of participants, and reflexive memos. Codes were combined into intermediate categories prior to conversion into Gerund 'categories' (as opposed to the usual Gerund codes). This enabled easier manual handling of the extensive data from the interviews and archival documents, prior to providing an integrated explanation of the results and theorising how culture was formed in virtual organisations and virtual teams. The final core theme answered the main concern of the study by aggregating the main themes of data, during the process of theorising.

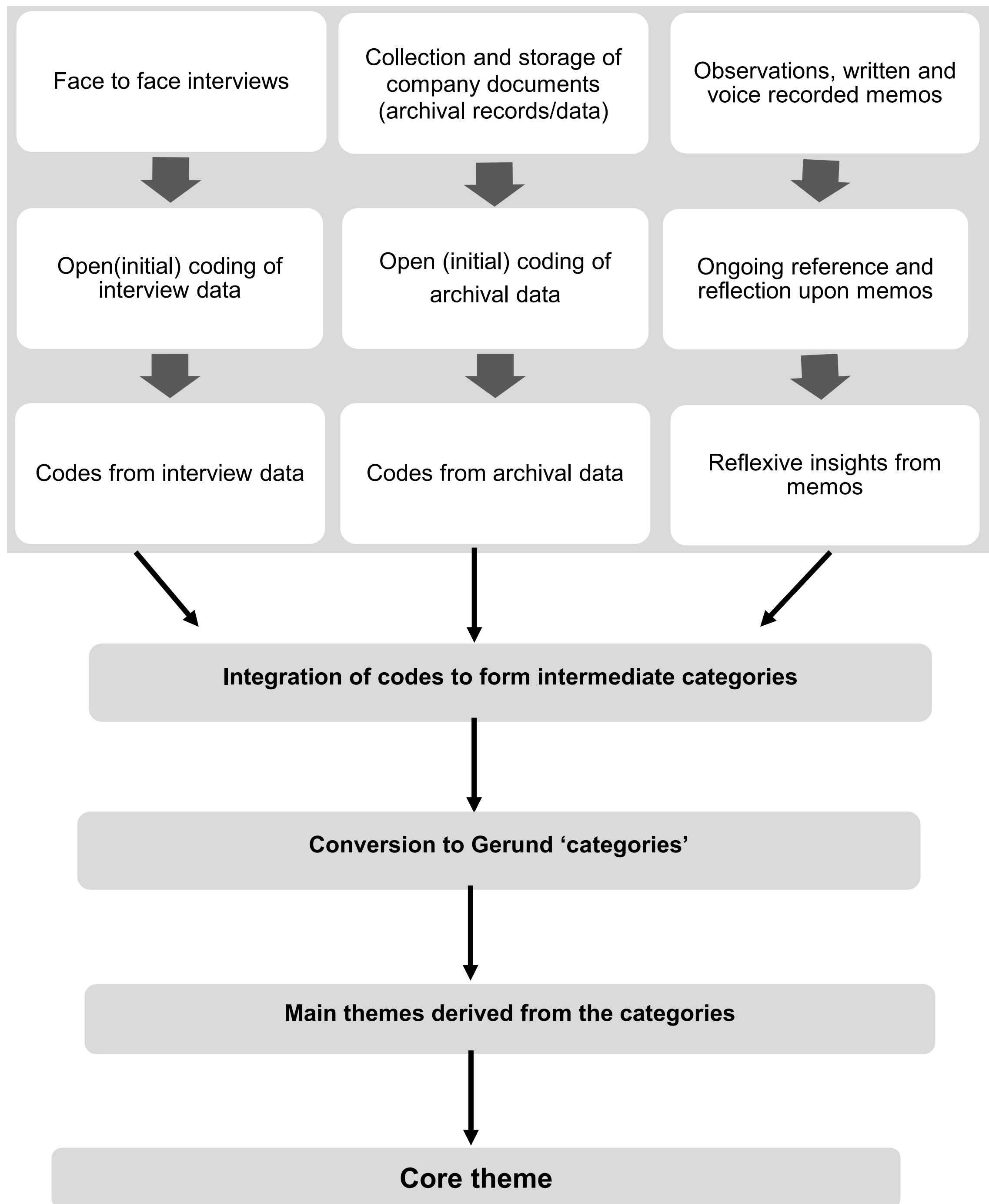


Figure 5: A diagrammatic representation of the data collection and analysis methods used in the current study

3.6 Data collection methods: Interviews

3.6.1 *Sample*

Participants were established based on a need to fulfil the sample frame requirements, based on participants' assumed knowledge of the subject matter under investigation, and with no regard to geographical location of respondents. This meant seeking out the 'best possible minds' with experience working in the VO and VT context, who would be able to provide rich insights into the phenomenon under investigation (Rudestam & Newton, 2014). There was therefore no predetermined list of interview participants, and what was instead considered during sampling was that participants were currently working as part of a virtual team in a virtual organisation with geographically dispersed operations and had been part of their virtual team for at least one year. Following purposive sampling of the first participant, subsequent participants were selected specifically to fulfil requirements for theoretical sampling, that is, to saturate constructs that had been identified in previous interviews (Conlon et al., 2020), drawn from the population described above. Despite collecting data from different countries with disparate culture, sample variation as described by Butler et al. (2018), was not expected to have any influence on the data collected from respondents. This theoretical sampling decision was important as the impact of national culture and idenity on the data was neither known nor assumed, but is an important factor to note, given that sampling decisions have been shown to have a significant impact on how various data categories emerge during analysis (Butler et al., 2018; Flick, 2018b).

Kozlowski and Bell (2013) argued that it wasn't enough to simply include virtual teams as a category of an organisation, for while work tasks and goals might be similar to traditional forms of work, these teams of workers were neither physically proximal nor organised to accomplish their work objectives in a way that typically resembled that of traditional organisations, even though virtual teams were organised, in most cases, to accomplish similar outcomes as conventional teams. The team members of virtual teams had two distinguishing characteristics that they

possessed and on account of which they are distinctly different from team members from the traditional organisation, that is, distribution (spatial and temporal distance) and communication type (Kozlowski & Bell, 2013). Another dimension that is often included to distinguish between traditional and virtual teams is that of cultural distance, which when applied specifically broadens the concept of VTs to that of “Global Virtual Teams” for the purposes of denoting multi-country operations (Carter, Seely, Dagosta, DeChurch, & Zaccaro, 2015; Dulebohn & Hoch, 2017). This distinction between global virtual teams and VTs was not made in the present study as it was not assumed that national culture would have either a moderating or a mediating impact on culture formation in VOs and VTs.

It was not possible to know upfront the number of participants one needed to include in the interview stage of GT study (Morse, 2000). Ritchie, Lewis, and Elam (2003, p. 84) specified a total of seven factors that influenced the potential size of a sample in a qualitative study, which were stated as, “heterogeneity of the population; the number of selection criteria; the extent to which ‘nesting’ of criteria is needed; groups of special interest requiring intensive study; multiple samples within one study; types of data collection and the budget and resources available”. In addition, for a grounded theory study, the sample size is determined by the number of respondents required to achieve theoretical saturation (Flick, 2018b; Mason, 2010). In the current research, respondents had at least one year first-hand working experience as part of a virtual team in a virtual organisation with their current employer and were not geographically situated within a subsidiary office where they would have physical contact with other team members.

The respondents for interviews was determined by theoretical sampling; the first participant was purposively selected from a member of a virtual team within a virtual organisation and thereafter participants were selected with the objective of fulfilling particular theoretical constructs of data (Conlon et al., 2020). Charmaz (2014) stated that theoretical saturation occurred when no further insights were available to allow further descriptions, dimension or context of data. Such theoretical saturation could not be pursued by theoretical sampling, instead it would

be achieved through the pursuit of saturation of a particular theoretical construct emerging from the data (Conlon et al., 2020). Thus, the aim of the grounded theory study was to obtain the best possible explanation rather than merely a sufficient spread of codes, categories or themes from the data to represent all dimensions of the phenomenon under investigation (Saunders et al., 2018).

The number of participants required to achieve saturation differs from study to study, and Morse (2000) conceptualised *saturation* as a function of three main factors: the scope of the research study (the broader the questions asked, the longer it will take to reach saturation); the topic under study (data for more difficult topics is harder to obtain from participants); and the quality of data obtained from the study design, dependent on level of analysis. It was expected that good quality data could be obtained for abductive and retroductive analysis as participants were very familiar with the context under investigation, and because multilevel data (exploring the different levels of culture) would be sought out during interviews.

As a constructivist grounded theory, theoretical sampling began following the second interview when tentative data categories were starting to emerge, and this continued until "the point at which no new properties of the categories are gleaned when new data is added, and the categories are robust enough to encompass the variations present in the study" (Butler et al., 2018, p. 2). Saturation of the area of concern or construct, that is, culture development in virtual teams, was achieved during data analysis when participants' responses began providing a common explanation (a core theme) for how the incoming or emerging information was connected (O'Reilly & Parker, 2013). It is important to state that such a 'common explanation' for a GT study does not refer to a similar explanation, as indeed GT pays particular attention to individual nuances in data and even so, in outliers. Instead, such a 'common explanation' refers to commonality found within the general factors that were mentioned, despite such factors being uniquely detailed by the interviewees (Charmaz, 2017b). Following the initial common explanations, theoretical saturation then occurred when data collection no longer produced any further patterns or relationships between codes and categories, while theoretical

saturation was ultimately achieved when incoming data was compared to existing data using constant comparative data analysis, and yet yielded no further common explanations from the data (Butler et al., 2018; Flick, 2018a).

3.6.2 *Sampling criteria and method*

The sampling criteria for a study should be established beforehand so that participants are appropriately selected (Guest, Bunce, & Johnson, 2006) In this grounded theory study the first respondent was selected purposively for the pilot, and thereafter theoretical sampling was adopted to select participants from the second one onwards, as insights began to emerge from the data. Theoretical sampling was used for the study in order to establish abductive and retroductive insights by collecting, coding and analysing data in a simultaneous way (Butler et al., 2018; Charmaz, 2017a). Abductive reasoning involves attributing causes or antecedents to emergent data, whilst retroductive reasoning allows one to gain insights into the broader context or conditions, in this case, that of virtuality, within which data is being collected (Conlon et al., 2020). According to the constructivist approach (Charmaz, 2014, 2017a), theoretical sampling allows for further exploration of concepts developed from prior data analysis (Charmaz, 2014; Gehman et al., 2017; Strauss & Corbin, 1990) and by focusing on sorting data into categories, one is able to inductively integrate categories into the emerging theoretical themes (Butler et al., 2018; Charmaz, 2017a).

In order to ensure the best possible data, it was necessary to vary theoretical sampling approaches during data collection. Butler et al. (2018) suggested that one could achieve sample variation through collection of data from different sites, adding new interview questions and also refining participants based upon specific characteristics during the research process. Such sampling decisions were important because they would determine how various data categories emerged and, ultimately, how theory was developed (Birks & Mills, 2015; Butler et al., 2018). During the current study, participants were, in some cases, revisited for the purposes of further exploring themes that had been asked earlier to obtain deeper insights, including through additional probing questions, for further analysis.

Participants were invited to the study using the most direct and feasible method, in person, or by email as the researcher established.

As mentioned above, during the interview stage, the first respondent was purposively selected and thereafter the interview transcript was analysed for initial insights around common concepts from the responses provided. Thereafter, the second respondent was identified, based on their work context and tenure in a virtual team based within a virtual organisation context and in line with theoretical insights obtained from analysis of the first interview. These processes continued in a circular and iterative fashion, moving from generation of initial and in vivo codes, until emergent theoretical categories were saturated in accordance with the interpretive paradigm of grounded theory, where the best possible interpretation of participant responses was used to construct codes (Charmaz, 2017a). Ultimately, the number of main themes generated from the data indicated the breadth of information obtained from respondents, whilst theoretical constructs were indicative of the depth of information generated.

During this interview phase, the process of data collection by theoretical sampling and subsequent analysis allowed for the generation of initial codes. This was achieved from interview records through the generation of intermediate categories and by reflexive consideration of memos, rather than though a linear or sequential process. Primary data was obtained as participants were asked open-ended questions from the interview guide (Appendix A) using guidelines as set out by Saldaña (2015). The use of open-ended questions ensured that questions were unstructured enough for new codes and data categories to emerge. As questions were answered by each interviewee, information gathered also enabled certain concepts and new categories of information to emerge (Charmaz, 2017a). Questions presented to the first participant followed the interview guide that had been developed quite closely, but as the interviews progressed, subsequent participants were asked modified questions that were relevant to obtaining more relevant and richer data in line with emerging theoretical constructs. This was consistent with grounded theory convention in which questions and approaches to

obtaining data are modified in order to best answer the research question (Flick, 2018a). Following purposive selection of the first respondent, data gathered from responses of subsequent interviewees was recorded into either existing or new codes, and the development of intermediate categories based on emerging relationships between related codes was ongoing. Reliance was placed on the researcher's professional network to access the first respondent at a pre-planned face-to-face professional multi-organisation meeting, in which she was in attendance. The first respondent agreed to meet whilst at the said meeting and, thereafter, the second respondent was selected, based on their knowledge of the area under investigation and the ability to add insights to the findings of the first respondent, which resulted in the emergence of common initial codes, which would eventually emerge as data categories and theoretical constructs (Charmaz, 2017a). Each interview took place over a period of one to two hours and the study progressed following the first interview, with incoming data from subsequent interviews being compared to existing data for both commonality and differences (Butler et al., 2018).

3.6.3 *The research instrument*

The primary research instrument in grounded theory studies is the researcher herself as she has a significant influence on all aspects of the research process (Charmaz, 2014, 2017a). The interpretive convention of interviewing recognises if not celebrates the role of the interviewer, thus it is important to ensure as far as possible, that rapport and trust are established between the interviewer and interviewees (through adequate priming of the study purpose), in order to obtain information that is both intimate as well as revealing to the study (Roulston, 2010, p. 217). Therefore, prior to meeting up face to face with respondents, a telephonic call was set up for discussion around the background and objectives of the research and an opportunity afforded to respondents to ask questions and obtain clarity around the research purpose and process. Obtaining trust and establishing rapport are necessary in order to ensure that the interview process elicits rich and thick data from respondents that would create both resonance and transferability

and thus engage with a reader's emotions, creatively, and generate stories from data presented (Tracy, 2010). Being comfortable also means that participants are at ease handing over or sharing electronically the company documents that they presented.

Following the generation of initial codes from interview data, these were integrated into one set of intermediate and Gerund categories from which main data themes were later identified. While research has demonstrated the benefits of Gerund codes, initial codes were converted into intermediate codes and only thereafter into Gerunds as Gerund categories, since there were two data sets – that from interviews and the other from archival data. The two sets of data were aggregated and analysed for common theoretical constructs before intermediate categories emerged, to ensure that a manageable amount of sorted data was handled at that stage. Thereafter, and while continuing to go backwards and forwards between the two sources of data and applying the subjective interpretation of the researcher to the data during coding, the categories gradually became saturated, and the main themes emerged until *they* were saturated. The iterative process of continuously and reflexively using the constant comparative method to compare emerging data to existing data, construct categories and generate memos yielded the main and then core themes of the study (Charmaz, 2014; Locke, 2001).

3.6.4 *Procedure for data collection*

Potential respondents received invitations to participate in the interviews telephonically. Once an affirmative response was received, the interviewer proceeded to seek permission from the human resources director of employer organisations, where this was required, via an initial phone call, and then an official follow up request letter (Appendix B) sent via email. Thereafter, participants were contacted directly to participate in the study via email, or in person (see Appendix C). In most of the instances, however, official permission was not required, as participants could participate freely, as long as they did not make any statements attributable to their organisation and the results did not contain company identifiable information. An initial telephonic call with participants, as described

above, was facilitated for the purposes of creating trust and rapport with participants, allowing clarification of any issues of concern, including clear communication of objectives of the study and clarifying ethical considerations, like use of data and confidentiality. Arrangements were then made to meet face to face with participants at various points in the study, in order to receive formal personal written consent for participation (Appendix D) and to conduct interviews over a period of seven months. Travel was undertaken to various countries during the period December 2018 until June 2019 to conduct face to face interviews with all respondents.

The participant pool of individuals working in a virtual team for at least one year as part of a virtual organisation was gradually and selectively approached and interviewed, as theoretical constructs emerged. Participants were selected for interview and added onto the participant pool based on the categories of data that were emerging, rather than in a set fashion or from a pre-determined compilation. The first interview was conducted using an interview guide of laddered, open-ended questions. Thereafter, questions were modified as needed, to best fulfil emergent categories with codes during this first part of the study (see Appendix A).

3.6.5 *Data analysis and interpretation*

Interview recordings were downloaded from the phone and digital recorder and transcribed continuously and systematically as interviews progressed. Transcribed scripts and personal memos were also continuously analysed, deploying constant comparative methods and theoretical *memoing* (Butler et al., 2018; Charmaz, 2017a) as well as abductive analysis (Braud, 2011; Charmaz, 2017a). Memoing is an ongoing activity that involves the taking down of notes in journal form, from the early stages of research planning to interpretive reflections during data collection and coding, to reflect an integral part of the thinking (and therefore interpretation), developing over time. This meant one capturing insofar as the research was concerned, the "subject, intensity, coherence and theoretical content" (Birks & Mills, 2015, p. 11) of data, while emerging perspectives were being clarified, following the codifying of this data (Gall, Gall, & Borg, 2014).

Memoing therefore allowed the careful reflection upon data, while simultaneously practising reflexivity on insights as a way of further strengthening and triangulating data for increased credibility.

Various leading software packages, such as Nvivo, Provalis, MAXQDA and Atlas.ti, are often used to evaluate text intensive (qualitative) data in research. It was originally planned that Atlas.ti would be used for the cognitive analysis of rich data from interviews and archival documents. However, after the study commenced, the interviewing process, together with the concurrent reflection upon memos, allowed for the ongoing identification of codes through words and descriptions, by manual sorting and analysis of data, to immediately provide deep insights. A visual illustration of the manual sorting process of data is shown in Appendix H on page 243. Data analysis progressed manually throughout the study on a table surface, with 93 cumulative new codes being identified, following the decision to opt out of using analysis software. All collected interview data was protected on multiple devices – a personal laptop, an external hard drive and a cloud-based account, all with security password protection and encryption for protection against theft, physical damage as well as for ensuring confidentiality.

3.7 Data collection methods: archival data

3.7.1 *Sample*

The sample of cases for archival data analysis in the study was drawn from the same individuals who participated in the first part of the study – the interviews. Following completion of the interview, participants were asked whether they had strategy, policy or operations documentation that was related to formation of organisational culture within their organisation and work team. These original documents were received as printed documents or forwarded via electronic mail for subsequent analysis. Despite the documents being received immediately, or soon after completion of interviews, these were not studied or analysed until analysis of interview data had yielded intermediate codes and tentative categories (as already described and shown in Figure 5 above). This step was taken to ensure

that interview data and archival data remained as two distinct and independent data sets, allowing any similarities to be attributed later to triangulation, rather than merging of data types. The archival data was locked away and not accessed, and in fact, was 'bracketed' out, as it were, so as to not contaminate the emerging data from interviews prior to intermediate data analysis. Altogether, five sets of archival company data were collected during the study.

3.7.2 *Sampling criteria and method*

Secondary sources of archival documentation were obtained from participants at the time of their face-to-face interview, where available, or afterwards via email. Following the completion of the interview process, respondents were asked for widely shared and public company documents and artefacts, in print form, in the medium and context that these artefacts were received by the participants from their employer. For example, strategy documents received included the cover email as well as the strategy documents embedded in the same email, just as they were received by a respondent. In two of the cases, participants forwarded all their data as email contents, including attached documentation, following conclusion of the interview, instead of bringing the printed documents to the interview session. By sharing both the email contents as well as attachments, this facilitated the analysis of both the type of communication that was used to share company documents (the context of communication), as well as the actual documentation itself. In the other three archival data sets, some of the data was shared following conclusion of the interview, and the remainder was forwarded electronically at the conclusion of the interview. In all five cases, respondents selected the archival documents themselves, based on the researcher's description of the types of documents requested for data analysis per Appendix E.

All available archival records were collected, labelled and photocopied prior to being retained in safe physical storage in the form of a lockable fireproof trunk, while the copies were kept separately, also in a lockable fireproof cabinet in a different location. After completing the first and second stages of data analysis from the interviews (initial coding and tentative initial categories), the archival data

was retrieved and analysed in series, and independently of interview data. This meant that when archival data was retrieved for analysis, documents and artefacts received from the first participant were analysed first and then compared to those retrieved from subsequent participants, in a sequential manner, checking for commonality as well as divergent or outlying content through comparative analysis (Butler et al., 2018; Charmaz, 2017a).

This process of analysing archival data records included temporally embedded information considering the impact that technology has on temporal ordering of events (Wright & Zammuto, 2013). Since the objective of GT research studies is to obtain as much rich data as possible from various sources, a wide range of virtual organisation team symbols were studied, such as emails, types of documents shared, types of meetings held, how such meetings were held, celebrations and modes of sharing information, as well as key organisational announcements.

3.7.3 *Research instrument*

The researcher was once again the primary research instrument responsible for collecting data from participants and had been authorised to release participant documents on strategy, policy and operations of their organisations, for purposes of the study. The archival documents were therefore secondary data sources and contained records relevant to the core area of concern in the study.

3.7.4 *Procedure for data collection*

Archival data was printed and electronically recorded information retrieved from study participants was collected (using the guide in Appendix D) and then analysed via constant comparative analysis (Butler et al., 2018; Charmaz, 2017a). From this process, a few initial codes emerged across documents, and information from the five organisations and these were subsequently integrated into the categories emerging from the interview data. Documents were revisited two or three times to ensure that no text had been omitted during analysis. Fulfilment of codes was often obtained in various parts of the same document or other documents from the same

organisation. Altogether three new data categories emerged from the archival documentation and information which mainly served to complement already existing codes and to build upon the categories that had begun to emerge from the interview data. As descriptions of relationships between codes emerged, explanations and labels of intermediate categories were developed from the archival data to the point where no further properties or relationships between codes were available.

3.7.5 *Data analysis and interpretation*

Archival documentation that was obtained underwent analysis, and insights were developed continuously through comparative analysis of data cases and theoretical *memoing* (Butler et al., 2018; Charmaz, 2017a), as well as through induction (Braud, 2011) and abduction (Charmaz, 2017a). While these documents served the purpose of highlighting the credibility of the data sources by adding richness to the existing interview data, they did not seek to obtain similarity (or what in quantitative research is referred to as reliability), in the data. Open (initial) coding formed the first step of data analysis from which words and groups of words were identified and placed into specific categories (Birks & Mills, 2015). New constructs and inferences were then developed from certain relationships, and new theoretical insights emerged through an iterative process of constant comparison (Doz, 2011). Following initial coding, intermediate categories were once again converted to Gerund categories by adding “ing” to the end of the categories to denote action verbs. The interplay of old interview data and new archival data was recursive, and new conceptual insights were made to what had already emerged from the interview data, while, at the same time, creating new theoretical insights (Doz, 2011), as new connections, descriptions and explanations were attributed to different data.

3.8 Limitations of the study

The study of culture formation was carried out within virtual teams of virtual organisations in a context where no current theory existed to provide an

explanation for this process, and where existing models of culture formation had been developed for different contexts, and these conditions informed this grounded theory study. Several criteria have been offered as necessary for ensuring good qualitative enquiry, and these standards were applied in this GT study as well. Scholars like Tracy (2010) and Gioia (2012) created some parsimony to these standards by offering the following evaluation criteria: establishing a worthy topic for enquiry, ensuring rigor of methodological approach, creating sincerity and resonance with participants in order to obtain meaningful data, demonstrating coherence of emerging themes to significant theoretical contribution, and conducting research in an ethical and respectful manner. To successfully complete the GT study so that data could be relied upon as credible for informing decisions and actions within the VO and VT context, it was important for the researcher to adhere to the aforementioned guidelines for developing trust with participants, as well as those for ensuring a sound research design.

3.9 Validity and reliability

Reliability and validity are terms often used to test and demonstrate the rigour of quantitative data. Methodological rigour is, however, just as important in qualitative research studies as it is in quantitative studies because the central goal of all research is “to find plausible and credible outcome explanations” (Morse, Barrett, Mayan, Olson, & Spiers, 2002). The qualitative equivalents of internal and external validity, reliability and objectivity in qualitative studies have been described as credibility and transferability, dependability and confirmability, respectively (Lincoln & Guba, 1986). The present study concerned itself less with the conventional approaches typical of the scientific paradigm and more with rigour, as conceptualised in this naturalistic sense, focusing on trustworthiness of data and authenticity (Lincoln & Guba, 2016). This approach was consistent with naturalistic enquiry that subscribes to ‘multiple truths’ as it were, that several different realities are socially constructed from the various perspectives of those who experience them, and form a divergent truth, which is nonetheless interrelated and develops within a consistent context (Lincoln et al., 2018). Through developing a naturalistic

orientation, the interviewer placed equal weighting on divergent views and did not seek to merge or generalise the perspectives of respondents. In fact, due attention was paid to recurring issues as issues that emerged on the periphery of emergent data in order to develop inclusive explanations and relationships across diverse realities experienced.

During the study, it was necessary to focus on sample quality and relevance of the respondents in relation to the subject under investigation, as these impacted on the thickness and richness of data; good quality data allowed for deep description, discussion and reflexivity (Anderson, 2017). Therefore, in order to ensure that credible content was obtained, participants were selected from respondents deemed as the best sources of data ('experts', so to speak) of the virtual organisation and team. Respondents were thus deeply knowledgeable of the subject matter under investigation and provided meaningful data for theorising within their expertly engaged work context.

3.9.1 *Transferability*

During grounded theory enquiry, the methodology used must be credible enough that another researcher, under similar circumstances, will be able to replicate the study. Certain methodological strategies for demonstrating rigour and ensuring transferability as well as testability in qualitative studies have been suggested, including: audit trails, member checks during coding, confirmation of results and peer debriefing to establish structural corroboration and data adequacy (Lincoln et al., 2018; Lincoln & Guba, 2016). This grounded theory research and its findings can be considered trustworthy and authentic because an audit trail of both the data content and the manual process of analysing of data was maintained, as advocated by Lincoln and Guba (2016) and illustrated in Appendix G and Appendix H (on pages 195 and 245 respectively). Quality of data was achieved through adherence to ethically sound standards and practices, such as respect for participant confidentiality, as well as triangulation, as already explained above and this allowed for theoretical inferences at the conclusion of the study that demonstrated theoretical contribution (Anderson, 2017).

3.9.2 *Credibility*

It was not enough to establish trustworthiness post-hoc (at the end of the study), so the process of verification of data began at the commencement of the grounded theory study, in order that one did not run the risk of having voluminous data that was otherwise unreliable and lacking in rigour (Morse, 2015). The interview questions asked of respondents had to focus on answering the research question and sub-questions; the area of concern itself, although general, sought out clear responses, and attention was paid not only to methodological issues, but to emergent theoretical issues during the study, in order to answer the research questions under investigation as closely as possible (Gioia, 2012). This also meant that when probing answers and formulating follow up questions, depth of response was intentionally sought out to add to the richness of data in a manner that went beyond data volume and, instead, enhanced both data thickness and data quality.

3.9.3 *Dependability*

The quality and rigour of the research is also determined by the characteristics of the person conducting research (Lincoln et al., 2018). Therefore, the interviewer had to be responsible, adaptable and professional, synthesising information quickly enough to ascertain what to probe for in order to clarify answers, and also to understand how to summarise her findings (Lincoln & Guba, 2016). In doing this she reflected on previously collected data and compared it to what more recent participants were describing. It was also important for her to remain aware of and sensitive to her own views of how culture forms in VTs, since she was a member of such a work community; her personal interests were thus disclosed upfront, given that factors such as “historical, political and social influences on the experiences of people” affect one’s world view and therefore disclosures to respondents prior to data collection in the study (Higginbottom & Serrant-Green, 2005, pp. 678-679). This also meant that special attention needed to be paid to what was written down in her memos as well as how data was interpreted, continuously acknowledging the filter through which emerging data was being viewed and interpreted. Disclosure of one’s own position as a member of a virtual

team in a virtual organisation was therefore shared in the formulation of the study, as well as upfront to the participants. At all times, participants were asked to verbally acknowledge a clear understanding and give full consent to their role in the study, how their information would be used, and how their responses would be guaranteed complete confidentiality.

3.10 Demographic profile of respondents

As a grounded theory study, personal demographic information of participants was not considered and the age, race, ethnicity, nationality and gender of participants was determined solely by the purposive sample frame, ie participants needed to be working as part of a virtual organisation with little or no physical contact with team members and had been part of a virtual organisation and have performed on a virtual team for at least one year in their current employer organisation. Although no filters to demographics were applied, the final composition of participants was broadly representative of normal distribution in age, race and ethnicity, including 10 women and 7 men, with one participant not making any reference to their gender in discussions. All participants were operating at varying levels of management within their respective organisations, from middle to executive management.

3.11 Conclusion

This chapter explained the plans made for conducting the study, considering the epistemological, ontological and axiological assumptions of grounded theory, as well as the research question that needed to be answered. It explained how the research population was defined and how the appropriate theoretical sample was selected; how methodological rigour was achieved through the instruments and procedures that were deployed, and how credibility of data was achieved. The potential limitations of grounded theory were acknowledged and addressed through approaches for achieving transferability, testability, dependability, credibility and confirmability in the present study. Through managing these methodological issues, it became possible to facilitate the development of a “substantive, explanatory” model that was grounded in “relevant empirical data”

obtained from the research (Hutchison, Johnston, & Breckon, 2010). This meant that the results could be used to answer the broad area of research concern and sub-questions presented, as well as provide a general theoretical explanation for the core concern of the study – the process of culture formation in virtual teams within virtual organisations.

CHAPTER 4. ANALYSIS AND PRESENTATION OF THE FINDINGS

4.1 Introduction

“Coding is analysis” (Huberman & Miles, 1994, p. 56)

Data for the research was obtained during the study using Charmaz’ constructivist approach (Charmaz, 2017a) and the core concern of study was investigating cultural formation in virtual teams of virtual organisations. In answering the investigated area of concern, the findings of the study were that:

i. *Virtuality defined the context within which culture formation within virtual teams and virtual organisations occurs. The concept of virtuality was however found to extend beyond technology enablement, temporal distribution and spatial distribution, to include digital access and digital engagement; and*

ii. *A theory of virtual culture formation: culture formation within virtual teams occurs as stakeholders manage virtuality, which involves maintaining effective work processes and a conducive work environment whilst simultaneously managing interpersonal relationships in and out of the work environment.*

Data collected during the study was the participants’ interpretation of what they observed, responded to, and learned during that process. It was apparent during data collection that organisational culture expression was something the respondents conceptualised in the virtual organisation and the virtual work setting. While artefacts, rituals and symbols differed from the traditional work context, shared meaning could be construed in the virtual work space (Plavin-Masterman, 2015). Over the course of the current study, data collected pointed to the existence of novel rituals and symbols expressed with various technology, through visual and audio expression, despite these differing from the forms of cultural expression

accustomed to in traditional organisations in the form of easily distinguishable physical objects. These rituals and symbols encapsulated the expression of culture in the virtual work setting and led to the psychological conceptualisation of ‘how we do things around here’ – that is to say, an understanding of the processes and expressions of organisational culture.

Saldaña (2015)’s code to theory qualitative enquiry model illustrates the process of data analysis and presentation of results from which the core concern of the study was answered, as presented in figure 6 below:

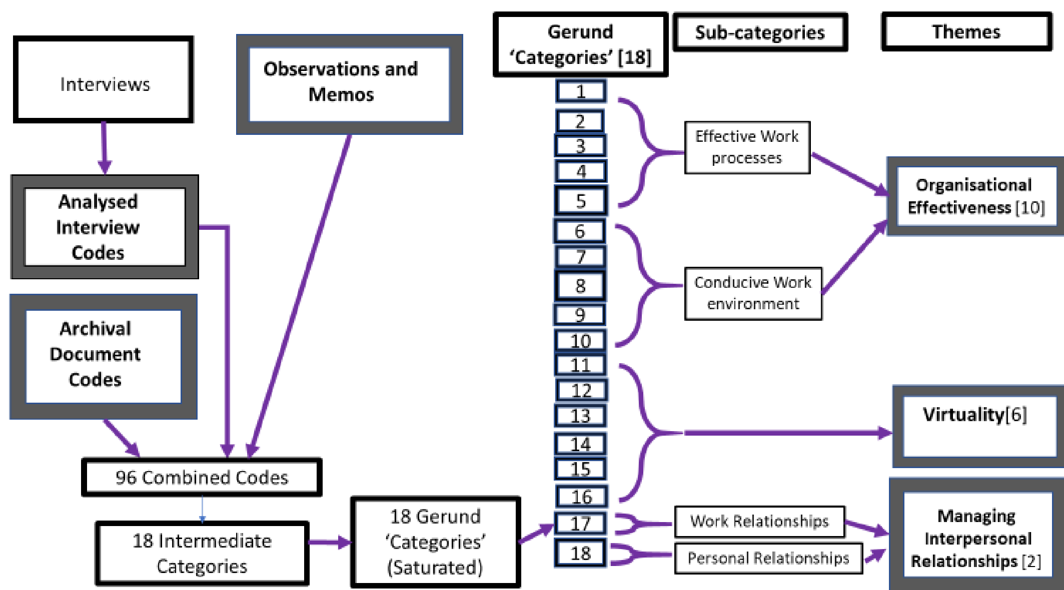


Figure 6: Saldaña (2015)’s code to theory qualitative enquiry model as adapted for application in the current study

Figure 6 illustrates how the three sources of data codes were obtained from interview data with participant observations, archival data, and insights from written and audio memos. Once the 96 combined initial codes were finalised, they were grouped into 18 intermediate categories from which Gerund “categories” were formed. Although the literature (Charmaz, 2017b) refers to converting codes into Gerunds, in this study, the *categories* were converted to Gerunds because it was at this point that the actions and processes identified by Charmaz and Keller (2016)

emerged rather than at code level. Gerund categories were then grouped into sub-categories from the emergent constructs. Once all the categories were saturated, there were three resultant main themes: organisational effectiveness; virtuality; and managing interpersonal relationships.

Participants were asked general questions intended to elicit their broad responses formed through construction of meaning out of situations that they had experienced within their respective organisations, which in turn informed the ongoing interactions with participants, in line with grounded theory enquiry approaches (Charmaz, 2017a). This was applicable to both face-to-face interactions with participants, and for the analysis of available archival data.

It is important to emphasise that grounded theory enquiry lends itself to a circular, iterative process as already mentioned in Chapter 3. Therefore, while the results in this chapter are presented in what may appear to be a linear or sequential process, data collection and analysis took place in what might be described as 'a dance' in two respects. The first part of the dance was that the researcher moved from data collection to analysis based on the dominant interest assigned to incoming data, on one hand, and, all the while, constantly comparing incoming data to existing data, on the other hand. Secondly, this iterative process impacted the coding of data in that all codes in the data had to be extracted before they could be clustered into categories. Thereafter, intermediate categories were saturated through making connections and explanations across them to become themes. Lastly, constructs were saturated theoretically as the connection, and explanations of main themes become a common or core story that theorised around the core concern. A summary of the steps taken in data collection and analysis is given in Figure 7 below. The circular, iterative flow of the data analysis process is denoted by the bi-directional arrows at each of the 4 stages. In the final analysis, the constructs that were theoretically saturated provided the common explanation of the data, which was that culture formed as virtuality was managed.

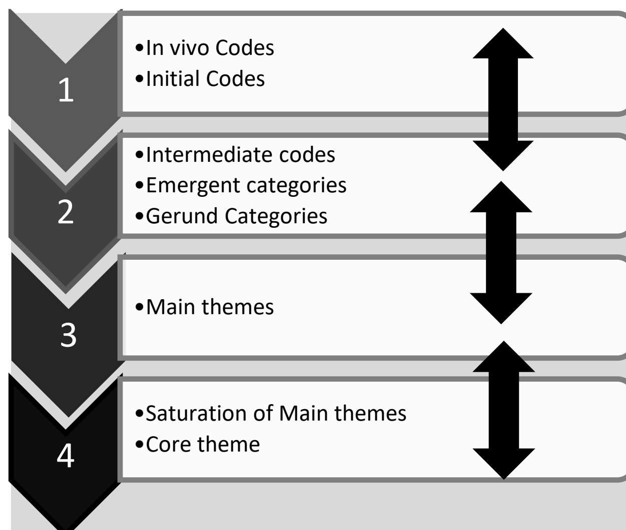


Figure 7: The data collection and analysis process used in the current study

4.2 Initial Coding

Initial codes were obtained from data collected from 18 face to face interviews and five sets of archival data, giving a total of 23 cases for data analysis. Initial codes are "first impression" codes obtained from an open-ended process (Saldaña, 2015). The progression of cumulative code development to the point of saturation where no new codes were generated despite additional interviews having taken place is provided in Table 2 below. Detailed descriptions of initial codes are provided in Appendix G. In her research, Plavin-Masterman (2015) found that organisational culture exists in virtual organisations and teams. However, she did not explain how such culture forms or, more specifically, the processes or mechanisms that result in organisational culture forming in virtual organisations and virtual teams. As described in Chapter 2, dynamic evolution approaches refer to multicultural influences upon the organisation's macro-level of culture formation (Schein et al., 2015) and the current study also investigated the influence of the various actors in this process. In accordance with process ontology, co-creation of culture occurred as a function of interaction of these multiple actors within the organisations where respondents were working, over time (White et al., 2013). Respondent data was obtained from individuals working in virtual work contexts in a total of seven countries in Europe, North and South America and Africa.

Table 2: A list of numbers of the initial codes to demonstrate data saturation

Respondent Number	NEW Codes Allocated	TOTAL Cumulative Codes
Interview Data Analysis		
1 (Pilot)	16	16
2	10	26
3	17	43
4	9	52
5	7	59
6	9	68
7	5	73
8	4	77
9	3	80
10	0	80
11	5	85
12	3	88
13	4	92
14	1	93
15	0	93
16	0	93
17	0	93
18	0	93
Archival Data Analysis		
19	1	94
20	2	96
21	0	96
22	0	96
23	0	96

4.2.1 *Generating questions*

Only during the initial interview were scripted questions closely followed for questioning the respondent. Questions were then adjusted for appropriateness in subsequent interviews for content as well as in relation to establishing an appropriate flow of questions. For instance, there was a realisation that the question, “Can you tell me about your organisation?” was too broad to ensure a relevant response and needed to be more specific to elicit, for instance, a response

confirming the distribution of business operations. Therefore, in the following interview this question was refined to, “How are you organised or structured as an organisation?” and in subsequent interviews refined even further to focus on adding to previously identified codes, as well to establish data categories that were emerging following reflection.

Respondent 2, when asked the question “Can you tell me about your organisation?” provided a detailed evaluation pertaining to the business’ historic organic growth, which provided a context to current operations. However, this information did not provide insights into the mechanisms or players involved in culture formation taking place within the organisation. It was important, therefore, to then probe this aspect further with the respondent in order to achieve specificity of answer, while at the same time attempting to maintain the flow of the conversation during the interview and not restrict oneself to pre-determined interview questions. For example, question 5 of the interview guide read, “How would you describe the organisational culture within your organisation?” However, in order to maintain the flow of the conversation at the time of asking, this was rephrased as a request for the respondent to, “Please explain some of the key things you would describe about your organisation’s culture. How would you describe that? What are the dynamics like and what does that look like?”

By varying the way that questions were asked, it was possible to maintain the ongoing interaction with the respondent as conversational, rather than as a formal question and answer type session, thereby deepening the quality of descriptions provided by respondents through maintaining an essential emotional and informal connection. The need to balance the emotional connection with respondents and obtain rich responses, that answered the core area of interest of the study, was a priority that required an intentional balancing act to be maintained throughout the study and across all the respondents.

In addition to this, the deliberate substitution of terms was used to encourage open and honest conversation so that respondents did not feel restricted or encumbered in an attempt to be technically correct in their responses regarding knowledge of

the subject area of organisational culture. What was more important was the detail around the processes in organisations – the mechanisms, the expression, and the actors of organisational culture, rather than the conceptualisation of organisational culture or virtuality. Therefore, instead of asking respondents Question 6 as, “What does being part of a virtual team involve?” (a content question), this was substituted this with “How do you… (name) connect with the office on a day-to-day basis yet not being in the office here in … (country)” (a process question, which allowed the respondent to provide their own subjective evaluations without the need to be functionally or technically accurate in their explanations). Therefore, as one moved between the questions and respondents, one had to balance the open-ended nature of questions with the specificity required for ensuring deep and thick data that elicited additional and relevant data for the purpose of saturating categories and constructs. This resulted in theoretically-aligned questions being generated for the second and each subsequent interview, in line with flexible questioning approaches that enable detailed descriptions and explanations.

4.2.2 *Generating initial codes*

The first interview generated 16 new codes that highlighted activities that are common in the virtual work context, particularly around *meetings and communication patterns.* From the second interview, the objective was to establish loose relationships between codes from the original interview and subsequent ones as they emerged. Initial codes were grounded in data and drawn from verbatim words, phrases or sentences that the respondents say (Corbin & Strauss, 2018), and are therefore provisional, as respondents might say similar things in various ways (i.e. mean different things). For this reason, it was also important to identify in vivo codes specifically, as these are drawn from words that the respondents say to refer to a specific concept in their own but personally meaningful way (Saldaña, 2015).

In vivo codes were numbered in their chronological order of discovery and captured in an Excel file. Following the discovery of in vivo codes, the latter were converted to initial descriptions or statements of what was interpreted from the in vivo codes.

Thereafter, incoming initial codes were placed within the Excel file, closest to those existing initial codes that most closely resembled them based on similarity in word descriptions, as a first attempt at clustering codes. These first-level groupings were also colour-coded to aid the manual sorting process. Later these initial code descriptions were sorted into alpha order as a final check for eliminating duplications in descriptions. One duplicated code was discovered during this last alpha sorting process and the list was updated accordingly.

Dealing with large amounts of initial codes meant that it was critical to move backwards and forwards between the initial script and second script to begin understanding some of the connections. Clarke, Braun, and Hayfield (2015) proposed a six-step process of thematic analysis, commencing with a thorough familiarisation of the data, while also identifying interest areas in the data and culminating in isolation of specific data themes. This process was carried out by moving between existent and incoming data codes through the reflexive process of constant comparison (Birks & Mills, 2015), as well as comparison with research memos, as recommended by Charmaz (2017a). Through this process, it was possible to begin co-creating data with participants from the second to the third interview and onward, as incoming data was compared to what had already been captured.

The purpose of the reflexive process during constructivist grounded theory research is constantly reminding oneself of one's own prejudices, while simultaneously ensuring future questions are guided by that which is emerging from the data rather than what one might have had at the beginning of the study (Charmaz & Keller, 2016). Having an initial set of codes obtained from comparing data of the first two interviews provided a basis for probing information from related categories that emerged in the third and subsequent interviews. At the same time, the third interview provided an opportunity to start focusing the research scope further, which was insightful as initial codes related to *using technology* and *virtuality* started emerging from the data, resulting in 17 initial codes from the third interview.

Following this third interview, it was possible to begin focusing on the various activity points in the virtual team's work cycle from where participants start forming relationships, and this allowed the categorisation of codes to begin, especially those relating to technological platforms in a context where face to face contact was absent or minimal. The third participant explained the reliance on digital platforms for communication, co-ordination and work delivery in the virtual organisation. This aspect of the work environment was important for defining the context of the research and distinguishing this centrality of technology in virtual organisations clearly from that of regular technology use in traditional organisations, thus reinforcing the research boundary clearly.

Factors influencing culture formation in traditional organisations, such as those explained by seminal authors like Schein et al. (2015) were discussed earlier to locate the context of the current study within the field of organisational culture. During the research process, however, such reference was limited to the description of certain aspects of the culture formation process in virtual organisations and work teams; the factors influencing cultural formation in traditional organisational contexts were not key to theorising about the core concern of the research, which focused on *processes within the virtual work environment*. During the fifth interview, for example, the respondent described the lack of effectiveness of work tools in her virtual work context; these tools had been developed in the US and were presented to communities for which the application ('app') content was too far removed from the cultural context to have a positive impact. The issue of focus for investigation was the perceived efficacy of the app under use rather than the cultural appropriateness of the tool itself. The research interest was in establishing the process involved to generate interest in the app in question to increase its uptake across the organisation.

Unlike Glaser, whose position was that bracketing out preconceived ideas was possible, Charmaz' interpretivist approach gives that prior knowledge of the research area, as well as the context, inextricably influence the research and cannot be entirely discounted (Charmaz, 2017a). As the ontological approach

adopted during the study was aligned to Charmaz' interpretivist perspective, there was an ongoing awareness of how, as someone who had worked in a virtual work context, this would influence and inform the manner in which the research was being conducted (Charmaz, 2017a). A distinct advantage of this interpretivist framing was the ability to obtain and accurately locate rich and meaningful data through the best possible perspectives by the players most intimately familiar with the phenomenon under investigation (Charmaz, 2017b). A key criticism of the interpretivist perspective has been that the researcher's role is seen as subjective, since interpretations and belief system influence the meaning given to the collected data (Charmaz, 2017a; Rudestam & Newton, 2014). It is, however, through this same 'subjective lens' that theory development best occurred as interpretation, and co-creation of theory happened between reflexive views and what emerged as data from respondents. Thus, the assumptions that were eventually carried into the resultant theoretical framework arose from the world view or reality, as it was interpreted (Clarke et al., 2015); the final outcome of the research was a product of both the research lens as well as the data findings. In this study, there were three research lenses of data interpretation: firstly, that of the researcher upon the participants; secondly, that of the participants' evaluation as they selected relevant archival data for analysis and lastly; the lens of the researcher upon the archival data.

The interpretivist perspective used during the study also recognises that different approaches can be deployed in order to draw out different aspects of the same issue (Hammersley, 2018). During this study, respondents were often met at restaurants or coffee shops and following the first three interviews, memos were written down as soon as possible after returning to the office, hotel or home. This proved to be quite demanding on account of physical tiredness following an engaging two-hour interview. From the fourth interview, therefore, instead of waiting to write down reflections later in the day or evening, digitally recorded voice memos were immediately created following the interview, sometimes while driving home in a car, using Bluetooth connection between the vehicle and recording mobile phone.

Capturing immediate reflections and creating memos immediately following the interview helped in being more reflexive once the process of comparing incoming data with previous data commenced, because it was easier to recount and recall several more details immediately following interviews. It also meant that it was not necessary to start writing down detailed memos after a long interview at night, such as following the interviews conducted in Los Angeles and Dakar, where interviews had gone on beyond midnight. Utilising this flexibility in approach, it was possible to recall that the Senegal respondent had spoken extensively about trust being foundational to the process of culture formation, and had a detailed voice note not been captured to remind of this and to reflect upon thereafter, some key insights may have been missed from the early morning discussion. These initial descriptions were critical because they formed the basis of resultant, initial, or in vivo codes. As already described above, these initial codes were derived directly from the text in the data (Corbin & Strauss, 2018) and being able to immediately recall or reflect upon the non-verbal cues associated with in vivo codes allowed for deeper reflexivity, and this would not have been possible several hours later, especially following a night of sleep. This additional step of data validation strengthened the rigour of what Saldaña (2015) described as the transitional process by which raw data became extensive data and, finally, interpretation.

4.2.3 *The role of non-verbal cues*

Onwuegbuzie and Byers (2014) noted the scarcity of literature referencing the use of non-verbal data, attributing this to a lack of guidance on how such data ought to be treated. The value of non-verbal data has been demonstrated from both a qualitative and methodological perspective for enhancing the quality of research studies. Denham and Onwuegbuzie (2013) described 5 purposes that non-verbal data served in research: corroboration of speech (triangulate); capture underlying messages (complement); discover non-verbal behaviours that contradict verbal communication (initiation); broaden the scope of understanding (expansion); and create new directions based on insight (development). In addition to these benefits, (Nelson, Onwuegbuzie, Wines, & Frels, 2013) also described the value of

non-verbal communication specifically for achieving saturation in three ways for multiple interviews, with one participant (within and across interview data saturation) as well as across multiple participants (across participant saturation).

Recognising that data from interviews did not capture *all* the data that can be collected from interpersonal interactions, and that most human communication is non-verbal (Mehrabian, 2008), the current study also collected and analysed non-verbal cues from participants, recorded in written and audio memos during and immediately following the interviews. In order to capture the various dimensions of participant thoughts (McNeill, 1992) developed a classification scheme of five different gesture types which the observer can analyse from her privileged position of being closest to the interviewee. During the present study, metaphoric gestures (such as Respondent 6 rubbing her fingers together to denote the lack of physical materiality), were observed and noted with reference to their specific cultural meanings. Ekman in (Donato, Bartlett, Hager, Ekman, & Sejnowski, 1999; Ekman, 1999) presented a neo-cultural model of 15 common facial expressions across cultures for the following emotions: amusement; anger; contempt; contentment; disgust; embarrassment; excitement; fear; guilt; pride in achievement; relief; sadness or distress; satisfaction; sensory pleasure; and shame. Using an interpretivist ontology, several of these emotions were evaluated within the context of the narrative provided by participants in order to establish their explanation and relevance within the virtual context. Onwuegbuzie and Byers (2014) since provided a detailed 13 step framework to guide reporting of non-verbal data occurring in three stages of research – conceptualisation, planning and interpretation. Their framework assisted in rationalising the use of non-verbal data based on the answers that were sought during the present study, as well as consideration of other methodological issues, like sampling frame and interpretation of data. Non-verbal data was obtained from both the non-verbal cues of participants, as well as from archival data from the various organisations within which participants worked.

4.3 Intermediate coding

It had been initially planned that software would be used to analyse data. However, the value of manual analysis was illuminated when data sorting commenced upon a dining room table. The initial code descriptors that had been colour-coded in the Excel file, that had been created earlier, were printed and physically laid out on the table for physical sorting. This manual sorting was viewed as more meaningful and preferable to the use of software because it followed the visual clustering of codes on a laptop screen. From this, the different categories in the data began to emerge, based on descriptions. The manual, yet systematic sorting of data allowed more intuition to be applied during the process of categorising the data, since these categories had been established personally. This categorisation was a subjective process in and of itself and involved descriptive codes being used to summarise the main topic (Saldaña, 2018). Therefore, for example, when analysing the data from the third interview, it was noted that the respondent had mentioned that she was uncomfortable with the job interview she attended having been held in a hotel meeting room by an all-male panel. When analysing the data, the interpretation of this experience was that it had been less about the physical vulnerability that the female participant felt at that venue, or even the psychological discomfort of the constitution of the panel, instead, this was interpreted as being primarily about the credibility frustration that arose from the absence of a physical office space to associate the company and its representatives with, thereby making it difficult for the respondent to accept the legitimacy of the enterprise. Another researcher may have categorised their data differently; for instance, they may have interpreted this as an inappropriate recruitment or cultural practice.

These differences in reflections upon similar data as a result of individual or subjective treatment of data, during a grounded theory study, gives rise to the differences in resultant interpretations and categorisation of data (Braun & Clarke, 2013). The methodological rigour of this categorisation of data during the current grounded study was achieved through firstly, acknowledging the researcher's theoretical sensitivity to the broad area under study (McGhee, Marland, & Atkinson,

2007) and, secondly, taking the researcher's lens into account during analysis of data, and subsequent insights drawn thereon. Personal knowledge of the broad area under study meant that one could not completely ignore what one knew, but at the same time one had to make a conscious effort to ensure that one analysed incoming data and memos critically and reflexively. This balancing approach would later make it possible to compare findings to existing theory on organisational culture development in the context of virtuality.

4.3.1 *Gerund 'categories'*

As codes were generated, they were placed into an Excel file in alpha-order. This resulted in an anecdotal clustering of initial codes, serving as a form of preliminary sorting method into familiar groups, simply from the way these codes had been named. Charmaz (2017a) recommends immediate conversion of initial codes to Gerund codes at this early stage. During this study, however, initial coding was followed immediately by intermediate coding, to allow the aggregation of interview and archival data, first, prior to conversion to Gerunds – therefore, instead of Gerund codes these were essentially Gerund categories. The manual interaction with first-hand data made it possible to visually appreciate the thick data and ensure that its richness was preserved for analysis prior to development of intermediate codes and then Gerund categories. The process of categorising using Gerunds therefore became not only invaluable for the purposes of converting verbs to processes, but it was also useful as a quality assurance process for establishing whether once converted to Gerunds, words retained similar meanings and remained sensibly categorised. Other researchers have also preferred this sequential coding approach, moving from descriptive codes, in the first instance, and then to Gerund codes at an intermediate stage in order to preserve richness of data and results (Carmichael & Cunningham, 2017; Saldaña, 2015). In the current study, the variation was that Gerunds were established after aggregating interview and archival data, *following* the intermediate coding process and not in parallel, in order to facilitate a streamlined approach to categorisation of data.

Using Charmaz' constructivist lens, the resultant 17 intermediate data categories were converted into Gerunds codes for further analysis. There was no attempt at this stage to cluster codes based on similar attributes, as advocated by Strauss and Corbin (1994)'s rigorous operationalisation of the coding process. This decision was taken to ensure that the urge to make "premature conceptual leaps before sufficient analysis was done" was avoided (Carmichael & Cunningham, 2017 p.66). The detailed process of converting in vivo (initial) descriptive codes into intermediate codes, then grouping these before evolving into Gerund categories and then into core themes, which was done by comparing incoming data with existing codes and saturation of data constructs, was illustrated in detail in Appendix G (page 195).

Table 3: A list of Intermediate and Gerund 'categories'

#	Name of Intermediate category	Intermediate Gerund 'category'
1	Consider national identity	Considering national identity
2	Balance work and personal wellbeing	Balancing work and personal wellbeing
3	Work performance	Performing at work
4	Learning and reward	Learning and rewarding
5	A positive and/or beneficial work environment	Experiencing the work environment as positive or beneficial
6	Take time to build interpersonal relationships and trust	Investing in interpersonal relationships and building trust
7	The importance of using non-conventional communication	Communicating via non-conventional mechanisms
8	Digital discipline and etiquette	Exercising digital discipline and etiquette
9	Formal communication	Communicating formally
10	Informal communication	Communicating informally
11	Importance of dealing with the virtuality	Dealing with virtuality
12	How to conduct meetings	Conducting meetings
13	How to execute work strategically	Executing strategically

#	Name of Intermediate category	Intermediate Gerund ‘category’
14	Frustration in the virtual work environment	Dealing with frustration
15	Team dynamics and work effectiveness	Ensuring cordial team dynamics and work effectiveness
16	Face to face interaction	Interacting face to face
17	Influencing teams	Influencing teams
18	Reliance on technology	Relying on technology

4.3.2 *Archival data*

The approach of analysing data for hierarchical insights was derived from phenomenological grounded theory that focuses on data analysis (Jeong, 2009). Archival data was analysed so that the researcher could get a sum of combined perspectives of respondents, aggregated into increasing complex conceptual themes, from the face-to-face interview, and supplemented with relevant documentation. This additional methodological step of obtaining archival data was not to validate the interview data, but rather to triangulate the data for the purposes of strengthening its interpretation through the combination of multiple perspectives of participants and various information sources as the researcher developed data insights. This meant adopting a relativist ontological approach, through recognising that a single phenomenon could have multiple explanations instead of a single truth or explanation as with positivism (Braud, 2002; Braud, 2011). Further to the 93 initial (in vivo) codes obtained from interviews, three additional data codes were obtained from analysis of archival data. Insights from archival data served to enrich the descriptive qualities of existing codes of data from interviews. The process of obtaining insights from archival data was done during conversion of initial codes to intermediate codes, then grouping the codes into categories, then Gerund categories, and finally during linking of categories to establish the main themes.

For example, in the first case of archival data, copies of policies were disseminated to staff via email, which added to the intermediate code of *communicating formally*. Even though the disseminated policies were also housed on an intranet site of the

company, formally sending these policies to an all-staff email address was meant to denote a formal notification to all employees and management in the company. This would mean that staff would not be able to use the excuse that they had not visited the intranet site to read the policies, while, on the other hand, the company would also be in a position to rely on the date of dissemination as the official date of communicating a policy with its staff members. In this respect, it could be seen that this action supported cordial employee relations between the staff and the organisation, Gerund-categorised as *ensuring cordial team dynamics and work effectiveness*, a sub-category of one of the main themes – *maintaining organisational effectiveness*. The triangulation of interview and archival data thus strengthened the development and culmination of a story that answered theoretical questions beyond simple descriptions to explanations and relationships (Charmaz, 2005, 2017a).

4.4 Main themes: Culture formation

A detailed listing of initial data codes is listed in Appendix G (page 195). From the emergent data categories (in Table 3 above) intermediate data codes arose. Table 4 below, shows the main data themes abstracted following Gerund 'coding'.

Table 4: The list of Gerund 'categories' from which corresponding sub-categories and main themes were derived

Initial/ In Vivo Codes	Intermediate / Gerund Codes	Sub-categories	Name of Main Theme	#
Initial Codes as per Appendix G			**Organisational effectiveness**	**1**
	Performing Learning and rewarding Conducting meetings Executing strategically Ensuring cordial team dynamics and work effectiveness	Effective work processes		1.1

Initial/ In Vivo Codes	Intermediate / Gerund Codes	Sub-categories	Name of Main Theme	#
	Considering national identity Communicating informally Communicating formally Interacting face to face Influencing teams	Conducive work environment		1.2
			Dealing with virtuality	**2**
	Experiencing the virtual workplace as beneficial or positive Communicating via non-conventional mechanisms Exercising digital discipline and etiquette Dealing with virtuality Getting frustrated in the virtual work environment Relying on technology			
			Managing interpersonal relationships	**3**
	Investing in interpersonal relationships and building trust	Work Relationships		3.1
	Balancing work and personal wellbeing	Personal Relationships		3.2

4.4.1 *Theme 1: Organisational effectiveness: institutional context of culture formation*

This theme included intermediate codes from data categories related to team management and effectiveness, seen as critical for ensuring strategic execution. These intermediate codes comprised two categories of data: firstly, related to the implementation of *effective work processes* – performing, learning and rewarding, conducting meetings, executing strategically, and cordial team dynamics and effectiveness. The second sub-category of data was around a *conducive work*

environment and included data about *considering national identity*, communicating informally, communicating formally, interacting face to face and influencing teams.

4.4.1.1 Effective work processes: institutional processes of culture formation within virtual organisations

Respondents evaluated the need for effective work processes within their virtual work environment. For example, Respondent 1 felt it would be possible to deliver well on work if subsidiary country offices understood the strategic direction intimately. She also felt that she was in a privileged position, being the CEO of her organisation, and therefore able to determine the strategic direction. In several instances she felt that her company could rely on existing work alliances to represent the broader interests of the body of organisations in their network. She therefore expressed her sense that moving into the future, she had a bigger role to play in terms of leading the way on strategic implementation and evaluation.

> *"Our Board meets quarterly and our end or beginning of year meeting is a face to face all day meeting where we determine the strategy, we check it and that we're on the right track, we look at the grants that are in and we're applying for. When things come up on a day to day basis it's my role to check that it aligns with strategy and I report in to the board quarterly about the grants I've written, applied for, which have come through. I have to do a lot of justification if I veer off strategy."*

In some instances, the mission and the vision were more clearly articulated, with common purpose and expectation of the employees, through an understanding created through communication and responses. This was the case even though this might have taken time to evolve, over some years. One respondent, a senior member of a global company, remarked:

> *" ... yes, there's a shared mission and vision but how we do that and execute on it and what we're being held accountable for is now out there and similar and there's been a mandate for what this strategy is going to be. I feel like the language in even the way people describe things and work has changed*

over the last couple of years. That's just observing that from working with different leaders and projects and programmes. There seems to be a change in the undercurrent."

Even when the strategy was clear, it was sometimes in the operationalisation of these strategic elements in order to measure progress and accountability that there was sometimes a struggle. That is to say, the strategy was clear but there was no strategic alignment reflected in the day to day work objectives and expected work performance outcomes. One of the respondents explained how the strategy was taking a long time to gain momentum, yet at the same time in her evaluation acknowledged that there were strategic shifts that were happening as a result of cultural shifts within the organisation. These descriptions of incremental shifts in how work was planned and translated tactically at the operational level led to the emergence of the category, *executing strategically*.

"I think we're all fighting for the same cause but doing it in probably some very different ways. It's like the Titanic, it's so hard to move and to turn it, just because it's so massive, but I feel like in having some exposure to different regional and country offices, head office, I don't know if there would be one description for the organisational culture. I think the strategy's helped, I have felt like there has been just kind of in the undertones of what people say and how they say it, the language, I feel like it's being used, I feel like there's a lot more similarity in direction. So I do feel like since the strategy's come along, that's shifted."

In contrast to these situations where the level of strategic alignment was appreciated, some respondents expressed frustration borne out of a lack of this clear sense of alignment. Respondent 6, for example expressed both frustration in understanding the clear direction, as well as a struggle in execution; she explained about having to work out what the strategy was so that she could deliver effectively on her work while carrying out her leadership responsibilities for achieving strategic alignment:

"I think this is where the gap is, a person like me who is in leadership, it's one of the things that I've seen as a gap, because what I've seen is that we're too ... in fact, I did ask that question during the review with the team, to say, you know, every week we have these meetings, we have a series of activities and interventions and things that we're doing but where does it all converge?

In my memos I noted how this particular respondent had thrown her hands up in the air in frustration as she described the lack of strategy. Charmaz (2005) explained that during a grounded study, ignoring silence limits the theory that can be developed, as silence signifies value because it often reflects an inability to express one's thoughts and feelings. That in itself is significant in the context of investigating experiences and feelings and why one would feel silenced in the context of expressing one's experiences within a work context. The respondent's sense of constraint may well have been what Charmaz described, that "silence is part of language, meaning *and* action" (Charmaz, 2005, p. 26), and this was illuminated by the respondent's expressive body language, even the absence of verbalisation of her frustration. It was felt, in this instance, that it was important to explore the meaning of the silence, not by attempting to fill it with explanations, but rather slowing down the conversation, and this was achieved by physically leaning in towards the respondent to signify the time and space for further explanation.

The difficulty of trying to sense-check the strategy and then going beyond this to quantify further operational outcomes and measurements for respondents and their teams was expressed in how the respondents had to manage theirs and their team's work:

"Although we have a consolidated plan, how are we also checking ourselves to see whether we're really getting to the strategic objectives that we've set? …Our strategy is too far, in my view, to be honest, and at our level it becomes very difficult to see that. Okay, reviewing a…document for Uganda - how will that help to meet our strategy for 2030? It's a bit too far, it's just an output… "

In my memo taken during this interview, I noted the repeated rubbing of the respondent's fingers together when she referred to the missing strategic piece. I sensed that she wanted something she could physically see or feel. She explained that she was used to strategy meetings where gallery walks were done and ideas placed on the wall, and attendees walked around the room during working sessions. In such situations attendees were able to get vital information from walking about as well as make connections between the displayed results and strategic objectives for the period. She reported being familiar with a different experiential style of management, focused on strategic outcomes and contrasted this to the different approach she was experiencing in her current context – something that clearly made her somewhat anxious.

> *"So I kind of feel, to be honest, that the strategic piece is missing because we're very much in the operations of things, and that's what is done…so I think our leader is very good at managing us and following through but bringing that strategic nature of things and connecting everything and saying, this is where we're going is completely missing, in my view, and maybe that's a gap when you have certain strengths, as a leader, that are ... at some point I feel like we're micro managed but in a good way that brings all of us together and understand each other and so on"*

Other respondents explained their craving for strategic direction and alignment rather than the current situation, in which supervisors were watching over them at every turn, and micro-managing. According to respondent 13, this not only made her feel uncomfortable, but it also made her feel as if this did not allow her to grow professionally, benefiting only her supervisor's own career plans and aspirations.

> *"Also it feels to me that she wants to have a hand in everything. If you have a team call on Wednesday, the next two weeks you're talking about the same thing, you report on the team call, you're repeating it in that catch up and then in between the week you're still Skyping each other on the same things that you're talking about. So it kind of feels that the leader also has*

selfish interests to learn, so that when they articulate to the next level, they feel confident. So they want to really get into it as much as they can."

Another area that the respondents felt unclear about was the area of reward mechanisms. Archival data contained information about the year-end performance review, including an explanation on how the performance rating awarded linked to the reward assigned in the form of linked merit increase. Despite this communication, however, respondents in the virtual work environment felt that they did not have clear visibility of how reward mechanisms actually worked (that is, the principles applied in determining the final annual salary increase). There was a strong sense that reward was something that their organisations were secretive about, and, with a distributed workforce, these organisations did not feel any pressure to be transparent around this type of issue. Employees felt that they would never get the opportunity to confront executives about lack of transparency in reward mechanisms because their situation was quite unlike face to face contexts in which employees get the opportunity to enquire in person around such issues through town halls or focus group discussions with members of their management. There was therefore a clear sense that the lack of physical face to face interaction reduced the level of accountability that management would ordinarily experience when confronted face to face about sensitive issues such as pay, by staff.

Respondent 5 had earlier remarked that she knew that employees in her company neither asked nor expected to receive performance related bonuses because there was no such expectation. Performance recognition, which formed part of the *learning and rewarding* intermediate Gerund category, could only really be done for operating subsidiary units in the various countries and not at headquarter level:

"…So we are always laughing and saying 'the performance is maybe more measured on what's happening in the country offices and their success' and 'are they getting good performance ratings?' and 'do they do the work?', because if you are not in the core budget, it's not here nor there. Whether

you do a brilliant job or not, I don't think you really get the reward and recognition".

In questioning her more deeply about this, Respondent 5 explained that it was visibly easy to see when a company was doing well in a conventional company setting – the company buys new furniture, new TV screens and new laptops for its staff. When you are dispersed, it is not easy to see whether the company is making money or not, so one never quite has true visibility or a true sense of the financial state of the enterprise and should not therefore be surprised if one were informed that their job was at risk of potential layoff.

In contrast to these descriptions of uncertainty, some other archival data contained shared email communication to the entire staff body around a new strategic direction. This communication meticulously spelled out the strategic priorities to virtual work teams across the company. A step-by-step explanation of the strategic plan, as well as a complete toolkit to be used by managers for cascading the information down to lower levels in the organisation was shared as follows:

Explanation	*The tools are set up as on-line documents that walk participants through the key points of the strategy most relevant to their type of entity and capture their conclusions.* *Each leader (including yourself) will receive a 1-page guidance document as an ordinary email attachment, and a link to the appropriate online tool.*
Support	*Please let me know if you have any concerns or suggestions.*
Documents	*The guidance documents are attached for your reference together with a proposed mailing list…*

Involvement	*President and CEO begins dissemination on the strategy by discussing it with the most senior leaders, who, in turn, hold discussions with their direct reports, and so on.*
Participative Process	*Staff members and teams are asked to reflect on specific questions for the purposes of internalising the new strategy – what they would start, stop and keep doing.*

An interesting observation made from analysing this archival data was that when email was utilised in formal staff-wide communications, the email title in itself was used not only to advise of the subject matter, but also served the purpose of positively couching the message. For instance, instead of announcing a leadership appointment as a "change" it was described as a "leadership transition", denoting an organised, and perhaps even deliberately planned gradual change that was being appropriately managed to ensure continuity and minimise disruption. Similarly, the farewell message of the outgoing president and CEO was framed as "goodbye to all staff" in the subject line of the staff email – giving a positive sense of completed service and well wishes to the organisation. In communicating for the first time in his new role, the new president and CEO mentions that it is his first day in office and reinforces the strategy as something of "relentless focus", immediately sharing his new areas of strategic priority, including changes and reinforcements, as well as announcing a new and diverse executive leadership team. This seemingly reassured the staff of leadership continuity, strategic direction and renewed business confidence. In these instances, the choice of language used in communications served to fulfil the sub-category of *effective work processes*, falling under the main theme of *maintaining organisational effectiveness* while also communicating a clear message of needed business transformation and reinvigoration.

Another respondent had earlier explained her positive feelings towards positive changes that had been effected by her new president and CEO – she affirmed this

by mentioning that her role was integral to supporting subsidiary country offices to perform well, in alignment with strategy, and focusing on specific work outcomes:

> *"For example, the two weekly meetings, one on one ... it would be about, okay, where are we on the work, what are we working on, what is strategic about this work, how can we push it forward, who should we be talking to, how can we strengthen this document for reviewing a document, for example. So it's about delivering on what we have planned and looking at where we are on that plan"*

Such commitment to strategy was not limited to individual accountability for performance or even strategic alignment. Another respondent extended this concept further, to a commitment in the company's success brought about through a sense of responsibility. She explained how this sense of responsibility was strongly established, and demonstrated this by enrolling in further studies for the purpose of supporting strategy delivery:

> *"I realised it a long time ago and I said to my boss, 'that is a big issue for our organisation because we operate in all of these areas, we don't have occupational health and safety in place.' And then I went and I studied. I did an international diploma in safety management, because I saw that gap and I realised, 'okay, that will be my responsibility, I am going to study this and get the qualification to do this…"*

Similarly, in addition to taking up studies, Respondent 7 also described how she augmented the direction set in strategic documents with additional approaches in order to execute her responsibilities. She specifically made mention of the role that she felt mentorship played in the learning process within the virtual organisation; she was fortunate to have a mentor within the company. This was invaluable for her as this helped her to manoeuvre around the organisational politics. She recognised that although she was highly qualified and experienced at her work and that her manager also acknowledged this, she also needed guidance, for example,

in knowing when certain things could get done and when she needed to let things go:

> *"I'm a subject expert in what I was appointed to do and there was very little that other people could guide me on... you know, because of my background and working in a hospital and all of that, hospital management and so on, and product development, that was my key ... and my knowledge, my experience, and Z is the first one who is really there to guide me. I can ask her, what do you think about this and she will come out with a great, wonderful solution, which I respect, appreciate, because there's knowledge. Also she has experience in the organisation for a long time, she knows the politics, she knows how to approach certain subjects, people, way to do this, do that, she gives me a lot of guidance on the culture and how the organisation operates. Being from the outside, working in the organisation is difficult and then for me, coming in as an outside person working from home, a virtual…so I never picked up on those cultural organisational issues ....".*

In making the connection between these different codes in my memos, the data category that began to emerge was a sense of vested interest in ensuring the success of strategic direction set in the VO. There was a feeling amongst respondents that the lack of certainty, as well as a lack of a clear understanding of what success looked like created a greater negative impact on them in their virtual work environment. At the same time, it was not always easy for them to observe idiosyncrasies of the organisations, and therefore guidance from an insider was useful for newcomers into the virtual work environment.

The sense of a lack of clarity also filtered through how learning feedback was evaluated, that learning was viewed as occurring 'after-the-fact' (for example, some days following a virtual Skype or Webex meeting) instead of during the actual meeting. Respondent 17 described a specific incident when this occurred, following a team meeting:

"So, you see, one thing I discovered is that the cultures are very different. The African and the British cultures, even if they colonised us, are far apart. So the colleagues in the team crack jokes that are very dry and maybe I'm dumb, I don't get it, but they're dry jokes and it's a British thing. So one day at a dinner I said, guys, I think you British, your jokes are really dry and then one of my African colleagues ... did this to me (wink), said, you don't say that, that's not ... but I said, but I was just expressing my opinion, she said, you just don't say that. So I think the cultures are totally different and so you have to really understand those differences before you crack a joke, whether virtually or not, I think. So I have to discern quite a lot in working virtually with these different cultures"

I recall making a note in my memos when Respondent 17 signalled that the culture was one of *"asking for forgiveness rather than permission"* because there was never a way of knowing beforehand what might be misconstrued. These misunderstandings were felt to be on account of different cultural identities that were brought into the work context. Unlike in traditional work contexts, these were especially nuanced because there was an absence of the usual visual cues for interpretation, resulting in the emergence of *considering national identity* as an intermediate Gerund category.

Initial and in vivo data codes were extracted from the direct words of participants spoken, the meanings they assigned to certain terms, and what was contained in the text of archival data. The emergent categories of data fell under the sub-category of *effective work processes* which theorised around: *performing, learning and reward, conducting meetings, executing strategically* and *cordial team dynamics and work processes*.

4.4.1.2 Conducive work environment: learning processes in virtual teams

Feedback formed part of the learning loop for both receiving constructive and positive feedback. In the same manner that one could be reprimanded, as mentioned above, in the case of receiving feedback, communication networks were

also useful for expressing praise, reward and affirming behaviours for team members. Therefore, effective communication in various situations was viewed as essential for *creating a conducive work environment*. For instance, some archival data contained an illustration of virtual coaching provided to a staff member by their team manager, and when she tried to insist on receiving answers to two work related questions, her manager advised her to focus only on securing times in diaries for the time being as the necessary answers to questions would follow at a later date. In this particular instance, the manager was indicating to her direct report that it was not appropriate to attempt to receive responses to these particular questions at that time on email. It would be a better use of time to try and get time in diaries, for this purpose, so that the matter could be addressed on a one on one basis instead of in the wider group.

Similarly, Respondent 5 also expressed her boss's positive feedback to her and her virtual team members when appreciating some work they had done in support of a subsidiary office:

> *"…So this year the US office actually sent an email and he said it's something that he doesn't often do, and that's reporting on individual countries…but he really sang the praises for Angola, 'They did such a brilliant job and it's really one of the best reports'. Then you feel, okay, so we do play a role and we are seen to make a contribution. So if you've worked with a country office and they get the recognition, then you do know that you're on the right path"*

From this it could be concluded that feedback mechanisms were viewed as rather similar across different situations within the virtual team – whether being to reinforce certain positive behaviours – or, curb and reprimand what was viewed as undesirable.

A particularly unique type of feedback was related to problem-solving and subsequent creation of business solutions within the operation of a specific cultural context. While the virtual team context provided similar on-the-job learning and

feedback experiences for employees, this was different for customer experience, which was contextually nuanced. The creation of a conducive work environment was influenced by considerations of the national cultural context of operation, as illustrated when Respondent 5 remarked that:

> *"Suppliers from the first world come with brilliant solutions but thank you but it's not going to work…No, it's not going to work, number one, and number two, to be dead honest, the average person in Malawi, Zambia, whatever, don't want to listen to your American solutions…no, no, no, that's a big one…Thank you, but no thank you."*

This description indicated that there was a strong sense that the product had to be adapted for the local context in both design and content. It would thus be important for the company's strategy to include a component of customisation or localisation if it was operating globally. It was a disadvantage for a product to be viewed as being applicable only to a customer base in America in terms of both the company's reputation as well as how employees responded to the product. Consideration of national identity and cultural norms was viewed as integral for both ensuring that an organisation created a conducive work environment for functioning effectively, as well as defining the way the virtual organisation 'did things'. Therefore, while national identity was not attributed as an important factor to how members of the virtual work team operated, it was seen as a key factor insofar as effective product delivery or customer experience were concerned.

Respondents also shared the situations in which they felt different communication approaches would yield optimal business results. In particular, the low response rate to emails created a culture in which email communication was viewed as unnecessary, at best, and brought negativity into the work environment. Email was viewed as a tool primarily for communicating formal business messages, many of which carried negative content. Respondents evaluated that the preferred mode of communication was informal because informal mechanisms were less threatening and created a more positive impact on recipients than formal did. Respondent 13 explained how, for this reason, her distributed team members not

only deployed informal communication, but actually preferred to utilise informal social platforms to communicate with one another:

> *"So, for instance, let's say from DRC and…so when people's English is not that good…I think in an email that the reception is, you've got to have the best spelling that you can, whereas here, I sometimes really have to read a message a couple of times to understand what is this guy saying, but they don't mind, they communicate and that's what I wanted, I don't want good, perfect language and spelling because for the person in the DRC, English is maybe language number five, I cannot expect good English, but in email format you can see that it's well written, they maybe did a spell check, but here, it's fast and it's got a couple of smileys and working for us."*

It was felt, therefore, that non-formal communication platforms provided non-first language English speakers an opportunity to express themselves and be heard without having to pay too much attention to grammatical correctness of the English language. However, it was also felt, in some instances, that not all work processes could be effectively achieved through the use of informal communication channels as some types of work were best delivered formally. Respondent 14 said that an example of this was performance management, and therefore made the following comments on the difficulty of her trying to formally conduct performance evaluations from informal content, at the close of the performance year:

> *"You cannot at the end of the year ask me what did everybody do, and I just go back on the WhatsApp trail, so certain things are not communicated. It's not as if everybody communicates everything. I would in an MMR (monthly management report) see things that I didn't see on WhatsApp. It has happened so many times, when somebody would say a certain country office is not doing maybe…(type of work), NNCH, it doesn't come through the…reporting, I will go, I'm convinced I've seen a photo, let me go back and ... Now, that's a big challenge, how do you find anything because it's just totally ... you can't sort it, you can't ... but because it's your own phone it's, 'Let me just think…oh, no, here it is, look, they're under this tree, they're*

doing it, it's definitely happening'. The big problem is, it's not easy to find, you cannot put this into a real report. So this cannot replace an MMR. I think some people think it is but it really can't, you need better formal reporting with [indiscernible] accounting.'"

Therefore, not only for such formal processes as performance management, but also other work evaluations that require documentation and records, a formal process was evaluated as better off for respondents. This was later described by Respondent 18 as follows:

"…you know, so I have high standards and even for myself, but with other people as well and that's what I like about my manager. We have the same ... we see a lot of things in the same way, to respond, to do ... The way that we do our work, it's very structured, I clearly follow my ... when you do your annual performance review and you work out your key indicators and all of that, so what I've done was to design like a mind map and then when I give feedback on a weekly basis or whatever, what's happening, etc. so it's good for me for the record, at least I can go back and say, well on that day we discussed that and that, because there it is. So I would send that to her before we have a meeting so that she knows what the agenda of the meeting is and if there's anything that she wants to add or whatever. So we have a written record of all of that, we have what we need to discuss…".

While virtual meetings needed to be clear and formal, the rare face to face meetings were described as an opportunity for putting faces to names and building relationships that were important for being able to get work done. I noted in my memos that some respondents communicated strongly that they felt that until there was an initial face to face connection, there would be no personal connection, and that the physical contact was actually antecedent to the emotional connection, and therefore any interpersonal relationship between them and others of the virtual work group:

> *"this is an opportunity, even if you meet someone once at least…I think the work really flows in e-format. The face to face to be honest I would say, the majority is 'How's the children? How are you doing?' It's more personal than work related"* (Respondent 3)

> *"There needs to be more focus on telling stories, as emotion is often not clear when there is no face-to-face interaction"* (Respondent 1)

While the face-to-face contact and the emotional connections were viewed as the ideal situation, respondents felt that face to face meetings could also place undue pressure on team members, particularly when the contact was intense and long, as it was viewed as important for one to remain visibly attentive and interested in the conversation during face to face interactions, whereas that kind of pressure was non-existent when meeting virtually.

Respondent 6 described her experience in this regard, and in particular, just how unpleasant such an experience had been for her:

> *"Then when you're working in a virtual team and you have an opportunity to meet face to face, there is pressure to compensate, to have several unnecessary meetings, they're unnecessary to me, I tell you, to be honest, because, one, we have Wednesday meetings, two, we have every two weeks catch ups, we have the Google documents, where everything is there, you know who's doing what at what time and so on."*

I got the sense, from my memos, that Respondent 6's discontinuous phrases and statements were a reflection of her frustration about her lack of understanding of the demands of her work colleagues, and that she felt that the frequency of meeting interactions were excessive and did not yield much professional or relational value.

A visibly irritated Respondent 5 had also earlier described the unpleasantness of feeling suffocated by the opportunity to meet face to face with her boss. She explained that what she had hoped would be a pleasant face to face interaction

turned out to be a highly pressurised couple of days that left her regretting having travelled to the meeting.

> *"So when you have a physical meeting, it's not necessary to have it after dinner, they are travelling, you have to meet. I had to raise that. I said, I'm taking a 16 hour flight and I can't come up in the morning, I've another meeting, because I have to prepare to leave for a 16 hour flight. So they want to compensate to meet for meetings for the sake of meeting. On the day of travel they want to meet. So I can't ... that's ... "*

The respondent's evaluation of the situation clearly highlighted the pressures that the long travel for the rare face to face meeting created, and the unrealistic expectations placed upon her just after arrival from the ordeal of a long flight, as well as just before departure to return home.

4.4.2 *Theme 2: Dealing with virtuality: ambiguity, uncertainty and creativity*

The second main theme was centred around the concept of virtuality and how virtuality underpins the virtual work environment. Respondents described the concept of virtuality as being central to many processes in the organisational context. In particular, the centrality of virtuality was described in both work coordination mechanisms and people management. Technology was evaluated by respondents as useful, from simple work processes, such as voting, to more complex ones, such as coordination and influence of distributed work teams. Some respondents viewed the role of technology, such as email, to be a positive factor given that it enabled the distribution of large amounts of information to a wide audience and within a short space of time.

The use of email and digital etiquette were viewed as commonplace and also integral to success in a virtual work environment. Respondents evaluated the virtual work context in terms of reliance on technology for communication, digital etiquette and discipline. They also theorised about the challenging or negative effects, as well as the positive aspects of working in a virtual work context. An

additional characteristic of virtual culture introduced within this study was that of communicating via non-conventional or informal means for work related purposes. Respondent 7 spoke about the existence of an unclear feedback environment when he explained the context within which feedback occurred. He evaluated the opportunities available for giving and receiving feedback in written form, as well as having to decipher how a person felt from words and verbal tone, relying on digital artefacts alone, without the benefit of physical non-verbal cues:

> *"You can feedback either by writing it, by putting in an emoji or by just meet and you speak. When you speak, through the tone of your voice, someone can feel if you're happy or not, other than what you say, and that's also, when we touch into context, depending on cultural differences, because now the world is becoming global…So that's now another dynamic that will get into that global team, where maybe the verbal only is not enough, depending on which side you are. I think the tone of the voice, from my perspective, is universal. When someone is happy, I can't explain the science behind that, but you can feel it in the vibration of the voice. If someone is angry, when they speak … sometimes … and that's where now the issue of not seeing face to face, sometimes stress, when someone is stressed, they can sound like they're angry whereas they are just stressed."*

In addition to the ambiguity of the context, the virtual workplace was also presented as distracting, with the potential to impact one's productivity and interpersonal behaviour negatively. Accordingly, Respondent 8 summarised the need for digital discipline in the virtual work environment as follows:

> *"in order to operate effectively, you have to have digital discipline"*

> *"Team members say and do things on email that they wouldn't say face to face"*

> *"One needs to be "digitally disciplined" so that they can be productive and distribute their work tasks appropriately"*

Respondent 8 mentioned that he felt that digital discipline not only served the purpose of enhancing productivity and work efficiency, but that it also impacted team trust. Emanating from the issue of digital discipline and concomitant responsibility to the team emerged the issue of team trust. Respondent 8 referenced team trust by explaining the critical ingredients of the virtual work context that impacted on relationships:

> *"There are some people who can be trusted to use their time wisely, and those who cannot"*
>
> *"You can have whatever you want on your screen because nobody is seeing that. Team members pretend that there is poor connection so that they don't participate meaningfully in meetings and do other things for example, make lunch ... feed the dog"*

Respondent 9 later also explained the centrality of digital discipline, theorising that it was a difficult virtue to achieve and that even the best staff struggled to achieve it, not necessarily because of a lack of commitment, but due to the extraordinary will power that it demanded.

> *"I think it takes some digital discipline which I still haven't perfected, so I don't necessarily have any advice on that, I'd probably love the advice. I think to be efficient virtually you have to have discipline in your space, whatever that looks like, so whether it's your digital space, physical space…you have to have your space, you have to be digitally organised, you have to be able to cut work off and shut the door, you have a physical space for work, and I'm kind of the pot calling the kettle black because I don't really have an office but it's really conducive right now, but I think that makes a huge difference, from a productivity standpoint, not necessarily a relational and cultural one, I think that can be tough for people who are naturally motivated in that way, like me. If you have any sort of ADD, I don't have it but I do get distracted often…then you have to make yourself disciplined."*

The virtual work context was described as being email-centric as well as reliant upon internet calling platforms and applications. Respondent 1 explained that:

"Because our people are often so far away, not everyone is in Johannesburg, people are all around South Africa, into quite rural areas where it's more difficult to communicate as well as into Africa, we do a lot of our communicating via email and Skype"

Not only was the reliance on email and digital tools extensive, but also described as an expectation in a virtual work environment. Respondent 11 added the following explanation about the type of communication tools used for work delivery, and how this suited her personal needs, as an employee:

"So I kind of think that this should just be the future for most organisations because ... and especially if you have clear deliverables, your clarity of what you need to be doing, it just works perfectly. When I come to the office I become ... not dissonant, I don't know what they call it ... "

From a management perspective, however, the virtual work environment was perceived as an additional level of responsibility in various ways. Respondent 11 explained how she had experienced this difficulty in the context of leading a cross-functional assignment in a matrixed multinational corporation:

"Team members are not obliged to respond to requests…because you don't have direct line responsibilities. You have to learn to communicate because you are not their boss. You are not going to get away with giving directions or instructions – I want don't get anything…you cannot keep pushing people when they are choosing to ignore you"

I noted in my memos that Respondent 11's descriptions reflected that she was:

"clearly frustrated by a situation which she felt would not have existed had she been co-located with the team members of the project. She was much more senior than all her colleagues, except for one, but felt that the team

members felt no shame in interacting with her in a disrespectful manner because they didn't have to deal with her face to face".

In this particular situation, the respondent decided that the solution would be to send work requests through the direct supervisors of the functionally matrixed project team members. Respondent 16 explained that he felt that success in this type of situation would be highly dependent on the attitude and subsequent response of the direct supervisor:

"I had the situation where the person was actually refusing my technical guidance and that person actually later on, I came to know, with the executive director, who is my other matrix manager, expressing to the executive director that they know better...that conflict which ended up ruining the relationship we had of working… with the executive director, which led the person to make some mistakes which led to the person leaving the role. I have other cases where people improve, okay, this is not working and then I would discuss with the executive director about how we work together in helping this person…then we agreed and we monitored that together and we see some changes. I have both cases of poor performance or even attitude, and through that reporting, where I go to manage."

While several positive factors were raised around the need to rely on technology, several difficulties related to technology use were also mentioned. A key advantage of the virtual work environment, as repeated by participants, was that it provided flexible working options that were unavailable in the traditional work context. Respondent 6 commented on those positive aspects of the virtual working environment that allowed for flexible working arrangements:

"So for me, I think one thing I've really appreciated about virtual work is that it has helped me with my work-life balance because I'm able to have time with my kids. For example, if I know that in the morning on a Thursday at 3pm they have to go to swimming, I don't have to hire somebody to take them, I can work the whole morning, put all my meetings in the morning or

do some technical work in the morning, at three o'clock I take them to swimming and come back at five and maybe just check emails and tomorrow I resume, I can break at four and then do homework with them, it just ... "

Analysis of archival data also showed that the organisation in question would also allow not only spatial flexibility of team members, but also temporal flexibility, in that team members could listen to the meeting recording of webinars a short while afterwards. As a general principle, webinars would be recorded and team members would be able to listen to the meeting notes as soon as a few minutes after the conclusion of the meeting. Therefore, in the situation described above by Respondent 6, it would have been possible to attend to her family even while the webinar was ongoing and then listen to the recording at a later time, if necessary.

Respondent 11 reconstructed how she had had the opportunity to discuss the implications of working variable working hours, since the two of them were situated in different time zones:

"Then we spoke with my boss, Camilla, and said, how do I manage, she said you don't necessarily need to start at 8.30. If you have a series of meetings that are starting very late you can actually start maybe midday and then progress as you go. So when I started doing the management of meetings and maybe a block a day just to review some of the documents, if it's a strategy that we're working on, I block that day, no meetings. The way I do my calendar now is different. For example, I don't put meetings on Fridays or Mondays, those days I need to look at the big picture, what was last ... and also what has helped is that within the team we have Wednesday team meetings where all the team comes together and …"

The opportunity of flexible working hours that her manager afforded her was clearly an important issue for the respondent, as she mentioned that she often had to participate in late night calls in order to accommodate the difference in time zones for early calls that had been scheduled in the United States. My memos captured how surprised Respondent 11 was as she reflected on how she possibly could

have managed to get work done in the traditional work context in the past. She commented:

> *"I don't know. Because when I come, I sit there, half the time there's noise around, people are passing, they're laughing, the next thing, someone walks to you, oh, your dress is nice, or ... you're distracted, next thing you're having coffee, next thing you're moving around. So up to now I actually asked myself, how did I manage to work in such an environment and deliver results? When I'm sitting at my desk and maybe it's because of the work I'm doing now that is so focused, that it's not too general, that I feel that I'm even growing in the job, that I'm understanding it even better, every day I'm learning new things in it because it's so focused."*

In addition to the positive impact of flexible working hours, another positive factor experienced by respondents as virtual team members was that communication was generally perceived as far less formal than in co-located teams, and this was seen as encouraging more open communication amongst team members. In particular, more relaxed communication was made possible as the environment was perceived to be more enabling for team members who were non first-language English speakers as Respondent 13 already described above.

Respondent 17 also explained the role of informal communication in the creation of an informal work culture, particularly the extensive use of WhatsApp. She concluded that that while team members did not take WhatsApp very seriously, they relied on it for work updates, and this worked well for the team, even though that may seem odd:

> *"They don't all have Skype on their phone but they've got WhatsApp. Maybe Skype is ... I think email is seen as you've got to have good language and write real sentences whereas in WhatsApp if I say please, everybody, remember you've got to RSVP by the end of this week, you just send a smiley, cool, or whatever. So I know they've got it, they're on it, it's working, and then the big benefit with WhatsApp is people will send photos, they will*

not say we are doing such and such an event and there's a lot of people attending. No, they will just send a photo of the group doing something and say, CF. Now everybody knows what CF is and its significance because it has become common language. So suddenly everybody knows, oh, they're doing that ... so its reporting and just telling me what they're doing…strange."

At the same time, however, she expressed her own reservations with relying on WhatsApp or Skype, indicating that she would not feel comfortable sharing certain types of professional information via a text message with her own boss:

"Maybe when you communicate with your boss you don't send a smiley. Maybe that's unprofessional whereas in the team it's fine, where you send somebody an emoji ... "

Respondents also expressed the limitations that informal communication such as WhatsApp, Skype and emojis presented for use in formal work purposes, such as measurement and evaluation.

In one of my memos recorded after an interview with Respondent 17, I noted my surprise as to just how commonplace the use of WhatsApp and Skype in the virtual work context were. I was certainly expecting extensive use of emails, Skype texts and Skype calls, but had not realised just how extensively WhatsApp was used. Moreover, the use of photos or emojis had been even more extensively adopted, and these appeared to substitute the use of written or text communication altogether. The emotional connections created by photos and emojis were therefore explored in-depth after the interview with Respondent 17.

The archival data shared reflected the extensive use of emojis, not only within WhatsApp and Skype messages, but also emails. Supervisors had systematically created groups on all media platforms to disseminate information quickly. The use of WhatsApp chats was extensive, with ongoing group chats over long periods, and an extensive use of emojis and GIFs used as an alternative to texts.

While technology was widely viewed as an enabling factor that allowed for effective working in the virtual context, the demands created by the virtual work environment, on the other hand, were reported as stressful. One of the pressures reported arose from the fact that it took time to establish a rhythm of work in the virtual work context because it took time to get accustomed to how work happens. In particular, there was a sense that when interpersonal interaction does occur, it is very intense and exhausting. Respondent 17 commented:

> *"Not on the virtual calls, on the face to face, the demands for being together in the face to face … I don't want to know them. No. Honestly, I told my African colleague, I said ... but ... because they want ... they want you to stay late in those pubs and then ... every evening you're together for dinner. I don't do those things but that's what they want"*

While the use of WhatsApp was viewed as widely beneficial, respondents described restrictive conditions in the efficient use of technology. Firstly, interactions could be unpredictable as a supervisor could "ping" you or try and call you as soon as they saw you online. Additionally, even when you responded quickly to a work issue, other team members might respond a lot more casually and impact achievement of a team deadline. Respondent 10 described how this practise was widespread within her VO, across the board, from head office to country subsidiary operations:

> *"I would say from the head office … except if it's a very new person…everybody knows information flows very slowly."*

> *"Our recipients are on the system so that's not our challenge. Our challenge is around intermediaries. A grant comes and somebody is thinking of it, can we use an organisation as partner for this? Now, how many partners are already doing whatever the grant is on? Agriculture, conservation…no, no, it's not on the system. I have to ask a person who's ten to one chance not connected, he's only going to get this tomorrow, so that's when I will send it formally on email, but I also send on my WhatsApp. So this one they'll get*

the email maybe a week later, they have to get the information formally…but everybody does understand that. I think people do understand that information in Southern Africa doesn't flow quickly."

On the other hand, even where there was an appreciation for the improved work speed that online platforms afforded, there were some real constraints that impacted team members tasked with co-ordination or compiling a final report that were not related to the type of communication platform. Respondent 10 related the following with regards to some processes within her organisation:

"So our process is still very manual. I wish it was better but the same as the communication, you just now know that you cannot have real time reporting, you know that reporting takes me two months from how many intermediaries we have that are doing something…It takes two months for the answer to come back because it's not automated, it's not ... so if you know it, you know, but nobody knows everything and it's like, 'that area of the country, are they working there, are they not?' You can't write an email to the intermediary, you've either got to call him or ... so it makes turnaround time slow"

Besides the behavioural issues, respondents also articulated the shortcomings of technology from an infrastructural and connectivity perspective. Respondent 17 laughed off some of the statistics that referred to the number of mobile phones in the world equating to an average of 2 or 3 per person. She mentioned that this did not make sense because having the technology alone did not reflect how effective and usable the technology was:

"People always go into the stats, yes, but the stats say that in Africa people have got so many phones. I think, honestly, in the West where they develop some of these things, they don't realise there is no connectivity, there's no data."

Respondents therefore expressed that their virtual work environment was determined largely by the capability of work tools. In addition to mobile connectivity, the prohibitive cost of data was also discussed. The speed and

stability of Wi-Fi was highlighted as sometimes having a negative impact on the quality of communication when it prohibited Skype meetings from taking place due to bad connectivity. An underlying issue in dealing with virtuality was how it was ever changing due to emerging technology, and how understanding virtuality required adaptive mind-sets and behaviours to be effective in the virtual work environment.

4.4.3 *Theme 3: Managing interpersonal relationships*

The management of interpersonal relationships was a cross-cutting theme as well as a major theme emerging from the study. Going into the research study, one might not have predicted the pivotal role of interpersonal relationships in the success of culture formation in a virtual organisation or virtual team context. It originally presented as an outlying theme, “the elephant in the room”, as it were, since the expectation might have been that the role of interpersonal relationships would be minimised in a virtual work context, given the limited physical interaction. However, as the themes were saturated with data, meaningful interpersonal relationships emerged as antecedent to *effective work processes*, and in particular, antecedent to effective culture formation which was the core concern of the study. This was particularly important to consider in the context of the dynamic evolution of culture, where the players and factors influencing culture are seen as multidimensional (Erez & Gati, 2004; Schein et al., 2015).

Two key theorisations thus emerged from the sub-categories of data – firstly, that the virtual work environment made it difficult, if not impossible to distinguish clearly between the work and personal environment, and secondly, that the virtual work environment required a significant investment in interpersonal relationships, as these were integral to the creation of a positive work culture in a virtual work environment and virtual team.

4.4.3.1 Work relationships

Participants described their struggle with managing the boundaries between personal and work life, with the ever-present existence of work tools (i.e. laptop,

email and Skype), meaning that there was ongoing psychological pressure to work continuously, as detailed by Respondent 17:

> *"Actually, to be honest, the first few months were not as easy because I think it's a mindset thing, that you need to get in your car in the morning, drive to the office, meet other people, sit at the desk, and so on, and so the first few days I struggled a little bit because I would wake up and I'm sitting there and trying to figure out what I'm going to do today. So first few months, actually, not even days, were very difficult until I got into a rhythm, where I said, you know, I need to organise my day, especially that sometimes I would have calls very late in the day, so in fact the first three months I was overworking myself, I was so tired, and I almost hit a burn rate, because I didn't manage the timing properly. So I basically start at 8.30 and I'm going on and then sometimes even lunch time we're having meetings, until about 7pm, it was crazy."*

Likewise, Respondent 13 had earlier described how she had to create boundaries with regards to taking work calls and attending virtual meetings:

> *"When I've asked her, why are you answering me at this late time, almost every time she said, because I'm waiting for a meeting or because I'm just done with a meeting. So I think we do have very long working hours, meetings start from six in the morning 'til nine, ten at night, but obviously on a Friday I really don't say yes to Friday evening meetings. I'm okay Monday to Thursday but I would say to a person, I don't do Friday meetings after five, six o'clock in the evening."*

What was interesting to note from this respondent was that while she mentioned she was drawing a line about not working on Friday evenings, thus creating a work-life balance boundary, she was indeed going online and asking others why they were working, and, in effect not adhering the working conditions she aspired to. Perhaps this occurred because while respondents acknowledged the importance of trying to define their work boundaries, they also believed it important to accept that being continuously surrounded by technological tools was the "cost of doing business" so to speak, when it came to working in the virtual context. In particular,

it was generally accepted that the inconvenience of being “always on”, while being to the advantage of the organisation’s operational productivity, it was at the disadvantage of the employees’ psychological well-being.

Respondent 15 elaborated on this issue, describing how she managed the insurance claim process. This involved, on the one hand, having to wait for responses from co-workers in other time zones, while, on the other hand, responding quickly, in order to make up for lost time on account of disparate time zones. It was interesting to note that the respondent placed herself under pressure to respond very quickly to work requests from others, yet accepted that her colleagues might take a long time to respond to her own requests, anticipating the need to follow up on requests:

> *“Also if I don't respond to email then it takes another day and then they get their response from me only two days…and if I’ve for instance need to apply for a certificate and I do it the next day only with the insurer, they take another day so it takes two days instead of one day. If I do it the same day when I get it, even if it’s my after hours, then at least I can get it to the person who requested it the next day.”*

> *“Yes, that is something for me that’s important, is to respond. I don't like it ... my experience in the company is that people don't respond to requests. I think they have a lot of other important issues that’s their number one, two and three…and then you come in, it’s like here, okay, but at least I acknowledge your email and I will look at this and I will respond within two, three, four, five, ten days, whatever…then at least you know, okay, they’re busy…but they just ignore it and you need to follow up and follow up, to me, that’s a challenge”*

4.4.3.2 Personal relationships

Even while respondents expected the challenge of maintaining work-life balance, the impact on personal relationships was described as unhealthy and disruptive. Respondent 9 explained the negative impact of the virtual work context upon her wellbeing, in that it resulted in her feeling as if she was not coping in terms of the

number of hours she was working, as well as the mental pressure she felt from the demands thrust on her during different times of the day. She felt this psychological pressure particularly because she was working for head office and flexibility around working hours was an expectation:

> *"I want to try to maintain the work-life balance because that's really a challenge, especially if you're working with people in different time zones. You know that my contract is 8.15 to 4.30 but that's on paper, that's not ... when it comes to reality, when you're working virtually you have to manage your time very well, otherwise you'll not rest, you will get sick because if I use that time of 8.15 to 4.30, it means that I should refuse literally everything that comes after 4.30, and it doesn't work for someone who is working virtually and interacting with people in different time zones. The Americans will be waking up…They want a meeting with you, and that's six o'clock. It's already way beyond your working hours. The Australians are up in the morning. In fact I have to wake up early in the morning if it's going to be early evening for them. So at the end of the day you end up working, I don't know how many hours a day because you're trying to cover up and you're trying to be nice to everybody but forgetting that they were sleeping when you're working. So sometimes working virtually, you also need to learn to set boundaries and push a little bit and negotiate for a time that is I think more friendly ..."*

However, Respondent 9 felt that once one got to know their team members personally, positive interpersonal relationships allowed for better understanding, and led to improved integration of work and improved collaboration. With time, team members responded to and supported the work requests of co-workers, regardless of them not being in synchronous time zones. Therefore, one was confident enough to send requests to offline co-workers, trusting that their work requests would be attended to as soon as this was feasible:

> *"So once we create ... and then we continue with our virtual and then you're free to use any mode of communication that is free to you, whether you want to use Skype or webinar, you can reach out to me at any time without that*

barrier of saying, I don't know what this person thinks, you know, am I really intruding their space? Because when you meet face to face you can discuss ways of working, how do you want us to work together, and do you mind, do you have an open door policy? Then I say, you know what, you can feel free to send me any message at any time on Skype, if I'm awake at that time and I can respond, I can respond, if you don't get a response from me, probably the time zone, I'm in a different country, the time zone is not allowing me to respond to you, but as soon as I wake up and I have the chance, I will respond to you. So they'll get also to understand the modalities of your work and how you interact with people from different countries, so they don't expect a quick response"

It was expressed that as time progressed, there was a sense of strengthening interpersonal relationships and colleagues started to care for one another beyond the professional sphere. Respondent 14 described her concern for her colleagues when she had been unable to make contact with them with in a politically tense time during national elections:

"Maybe because your work, life and family are all one thing…I remember when, just after the…elections, everything went black, they switched off everything, we all realised it very quickly….where are you ... because we've got two people there, and very quickly it was, 'listen guys, government must have switched off because why can we not reach either of you".

The lack of internet connectivity of those colleagues located in unstable political environments during the elections created concern for other team members as well, and they were concerned about their whereabouts and personal wellbeing, as they cared about and had formed a psychological bond with them.

Virtuality was also viewed as central to the perception of trust building amongst team members. Respondents' trust relationships with team members differed, based on whether they felt that other team members could get on with their work

independently of the rest of the team, or whether once they were unmonitored their work output would decline:

Respondent 8 commented that:

> *"In the past I've had colleagues who ... so some of the group that worked for me in my past job, they were hourly, two days a week they worked from home, so I worked in the office all the time when I wasn't travelling, I was there Monday to Friday, but there were schedules, two days a week that had flex time but three days a week they were in the office. Would I have ever wanted them to go straight virtual? No. Partially for the work that they worked on and just the type of people that they were, I don't know that I would have trusted them to be a hundred percent ... maybe they would have proved that later but it's like some of the things you see or know that aren't getting done get done really when they're in the office but then when they're not in the office, do they really get done?"*

Respondents felt that trust between team members was built over time becoming accustomed to each other's virtual working habits. Developing trusting relationships and having an understanding of how team members work best would thus facilitate a productive work environment. Respondent 9 added the following explanation to what was earlier said by Respondent 8:

> *"So I think it's just a matter of setting up accountability systems and measures and creating that trusting environment, but each person's going to be different, I think, because the style's going to be different. I have a friend, she's in sales but she works from home, she gets up, walks the dog, gets showered every morning before she sits down, gets dressed, but that's what they say to do, is like pretend like you're going to the office. I can't tell you the last time I've done that, but what works for some might not work for others."*

Respondent 12 added that she felt it was important to set aside time to get to know team members whom one worked closely with on a personal level, even though it was impossible to do this with the entire team:

> *"…I work with 12 out of 80, so those are the people who I got to know because I would meet them once a year…"*
>
> *"We try to build even personal relationships, I think it's one of the key essentials, when you're working as virtual teams, because people don't know you, you have never met them physically and so how do they trust you?"*

Likewise, Respondent 16 felt that an initial investment into establishing good relationships with those whom he worked with was crucial for the team's future success. He explained that were it possible, starting with a brand new virtual team, he would ensure that members met face to face during team formation in order to establish trust:

> *" I know sometimes circumstances maybe will not allow to start with this ideal but I would say if it's a brand new team I would do a first physical gathering of all the team members, where people will get to know each other, see each other, and probably from there set some ground rules about how we … but at least break the ice for people to know each other and then when they start having calls, at least they have the voices, know each other, have the jokes, you know. I think the concept of team building, I would say if any team did not do it, virtual teams should do that, physical meeting together, playing together, doing all sorts of things which when they are behind their screens and phones, talking, there are all these images that are there to sustain that relationship, that's one measure I would solely recommend."*

Similarly, Respondent 13, who was based in a head office, expressed the need for an investment in relationships with those she worked closely with in subsidiary offices, and that this was an essential ingredient for successful team collaboration.

4.5 Core theme and theory-building

Using Saldaña (2015)'s model, a core theme emerged from the study, *managing virtuality*, which encompassed the three main themes of: maintaining organisational effectiveness; managing interpersonal relationships; and moving from dealing with virtuality in a responsive manner to proactively managing the virtual context in a deliberate manner. The core theme, three main categories and subcategories are depicted in the thematic map in Figure 8 below.

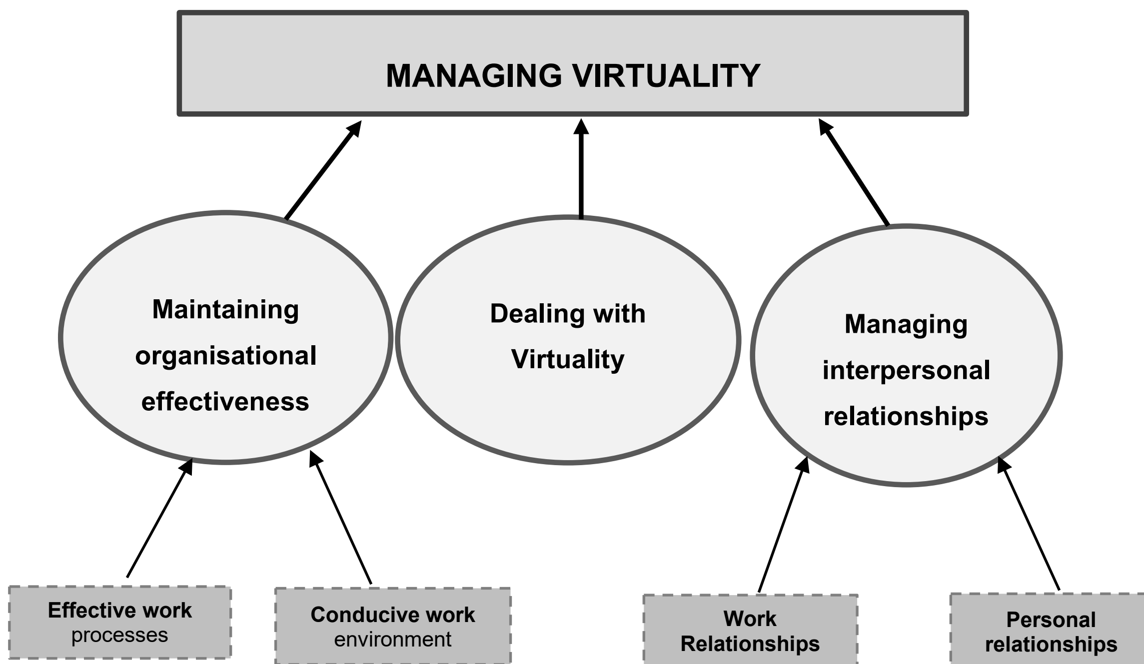


Figure 8: Thematic map developed during the present study showing main themes and sub-categories

4.6 Presentation of results: closing

This chapter presented a detailed analysis of the results from the present study. Respondents described their experience on the development of shared meaning of organisational culture within the context of managing virtuality, by explaining the need to balance certain organisational and interpersonal factors, taking into account the macro environment and technological infrastructure. Analysis of data from the grounded theory research yielded 98 initial codes and 18 intermediate

data codes and Gerund categories. From this, three main themes emerged while investigating the core concern. The resultant core theme was *managing virtuality* and provided insights into the proactive approaches that shape the process of culture formation in virtual organisations and virtual work teams. This core theme of managing virtuality also refers to the mechanisms that the various stakeholders within virtual organisations and teams need to deploy, in order to effectively influence organisational culture within the virtual organisation and virtual team. Given these insights, the results of the research will now be compared against and integrated with existing theory of virtual organisations, teams and organisational culture formation processes.

CHAPTER 5. INTEGRATING EXISTING LITERATURE AND STUDY FINDINGS

5.1 Introduction

The previous chapter presented the results of the grounded theory enquiry into the process of culture formation within a virtual work context. The data obtained will now be discussed in the context of existing literature, in order to gain an understanding of how these results might extend the current understanding of virtual organisations and the experience of virtual team members as organisational culture forms in their organisation. Extant literature covers the following in the context of the present study: culture and factors influencing its formation in virtual organisations and teams; the impact of characteristics of virtuality on culture formation and expression in a virtual work team; managing virtuality and its impact on organisational effectiveness; and managing the impact of virtuality on interpersonal relationships.

The difficulty of conceptualising culture was described earlier and brought about in that culture presents as an abstraction even though we know 'it' exists (Schein, 2011). This meant however, that within the context of the study, an opportunity was available to explain culture formation from different process perspectives – on one hand, as in a system such as we have in computer networks or physical forces of influence (DiMaggio & Powell, 2012) and on the other, being temporal and dynamic as described by Schein et al. (2015), and even to include uncertainty as described by Gilson et al. (2015). These elements of culture formation were described by participants, who often also provided a reflection on these explanations in an attempt to attribute the reasons for connections across their ideas of the virtual work context. The system or network factors observed included those forces that acted from within and without the organisation to define culture formation and change, such as the macro-environment and organisational structure (DiMaggio & Powell, 2012), while dynamic factors observed included those such as the historical ownership, size and nature of workforce, leadership

and technology use (Schein et al., 2015). Approaching the study this way also allowed for the observation of dynamic factors such as the impact of technology access and extent of engagement, which were key findings related to technological engagement within the virtual work context. By combining the system and dynamic perspectives and the context of uncertainty, we are able to explain culture formation and change processes utilising a dynamic (Kitayama, 2002), evolutionary (Strang, 2011) and multilevel lens as advocated in Schein et al. (2015).

The sensitising review of literature described in Chapter 2 provided an overview of the theories of organisational culture, the nature and characteristics of virtual organisations and virtual teams, and the dynamic evolutionary perspective of culture. This earlier introduction to key concepts informed and located the findings of the grounded theory study. An understanding of how research had developed in these three key areas enabled the contribution of the present study to be recognised and integrated into the prevailing discourse of virtual teams in terms of how they function. This was possible during the various stages of the study – data collection and analysis, interpretation and presentation – while conducting this grounded theory research, since any existing theories on how culture forms in traditional organisations needed to be discounted, while simultaneously recognising the topical discourse of virtuality and how this might influence organisational culture. A synthesis of sensitising literature located the study, permitting the development of the area of concern for the current grounded theory research, as depicted in Figure 9 below:

How does culture form within virtual teams operating within virtual organisations?

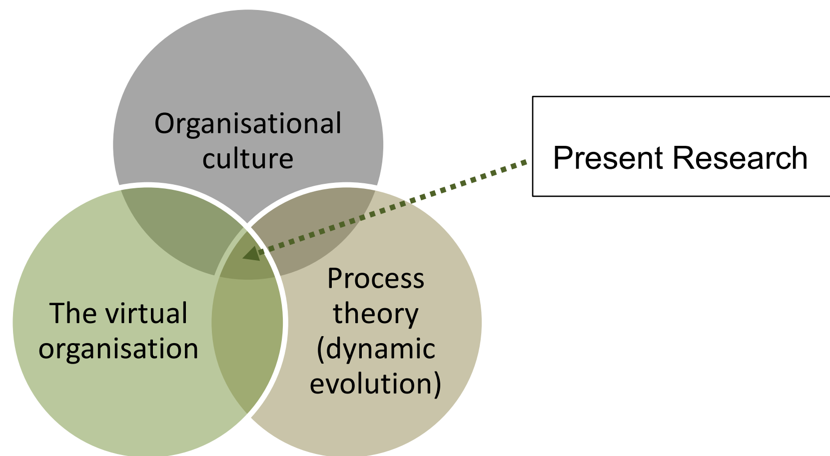


Figure 9: Location of the current grounded theory study in research

In order to investigate this core concern of the research and to further gain insights into the process of culture formation within virtual teams of virtual organisations, the following research statements were put forward to conceptualise the area of investigation, taking into account a work context characterised by technology, temporal distribution and spatial distribution.

i. *A theory of virtual culture formation: how does virtuality (technology, temporal distribution and spatial distribution) influence culture formation within virtual teams in virtual organisations?*

ii. *How do stakeholders effectively manage organisational culture within the virtual team and virtual organisation?*

The extant literature therefore theorises about the context of formation of organisational culture, the characteristics of virtual organisations and teams, and the effects of dynamic evolution. The present study went on further to investigate the effect that distribution (temporal and spatial) as well as technology – in effect, what 'virtuality' (as depicted in Figure 1) – had upon the process of culture formation within virtual organisations. The existing literature was then applied to the findings of the current study in order to illuminate the impact of virtuality and help extend understanding of how culture formation happens in the context of a virtual team operating within a virtual organisation.

Theories of culture vary based on the level of cultural analysis on which they are focused (Erez et al., 2013). Historically, most cross cultural research has focused on the national level, where cultural groups have been closely aligned to nation states (Boyacigiller, Kleinberg, Philips, & Sackmann, 1996; Chhokar, Brodbeck, & House, 2013; Hofstede, 2010; Smith, Peterson, & Schwartz, 2002). Most of the theories of organisational culture described in literature (summarised in Table 1) focused on the middle layer as given in Schein (1984)'s model (Hofstede, 2010; Inglehart & Baker, 2000; Smith et al., 2002). Fewer of the theories in the field have focused on visible behaviours and practises (Chhokar et al., 2013; Smith et al., 2002; Trompenaars, 1994), and even less models have focused on the invisible, internal basic assumptions (Erez et al., 2013). The current study focused across the various levels of analysis, from discovering invisible basic assumptions shared by respondents, to deducing invisible and internal basic assumptions made in the absence of physical cultural expression, through alternative expression and artefacts, in a context grounded in virtuality.

Acknowledging the existence of shared meaning expressed through practises, norms and artefacts was significant for demonstrating culture expression within virtual organisations and teams. The phenomenon of culture formation and development within a virtual organisation in which physical interaction of team members is largely absent was expected to differ and be more nuanced from the culture formation process in which team members are co-located and physical expression of the process is more evident (Boyd et al., 2013; Van Oorschot et al., 2013). Whilst organisational culture is expected to exist in technological environments (such as in virtual organisations) through shared meanings (Plavin-Masterman, 2015), there is an absence of tangible artefacts, symbols, patterns of behaviour, rites and rituals for one to physically observe in order to gauge beliefs and underlying assumptions of the context (Schein, 2015; Zakaria et al., 2012). However, it was observed that the digital environment offered alternative expression of shared meaning through digital artefacts, which included communication channels like emails, company-wide information on official platforms, such as the intranet and uploaded or embedded documents, and images

on informal platforms, including Skype, text messages and WhatsApp messages and graphics. A comparison of existing theory with the results of the current study thus focused on how culture formed, giving alternative forms of expression in defined virtual work contexts.

The findings of the grounded study put forward:

i. *A theory of virtual culture formation. Culture formation within virtual teams occurred as stakeholders managed virtuality, which involved maintaining effective work processes and a conducive work environment, whilst simultaneously managing interpersonal relationships in and out of the work environment. In addition to the substantive contribution to the 'what' (process) and 'how' (virtuality), the study also made the following methodological contributions:*
    a. *Utilisation of 3 lenses of interpretivism:*
        i. *Researcher's lens upon participant responses, including non-verbal cues;*
        ii. *Participant's lens of evaluation upon archival documents for relevant data for analysis; and*
        iii. *The researcher's lens upon archival data.*
    b. *Utilisation of Gerund 'categories':*
    The variation of establishing Gerunds following the aggregation of interview and archival data after the intermediate coding process, and not concurrently, facilitating a streamlined approach for categorisation of large amounts of data
    c. *Thematic analysis:*
    Focused on the psychological processes rather than actions, as the virtual work context lends itself to digital artifacts, symbols and interpretations, rather than visual physical expression as in the traditional work context.

ii. *That virtuality was the context within which culture formation within virtual teams and virtual organisations occurs. The concept of virtuality was found to extend beyond technology enablement, temporal distribution and spatial distribution, to a meta-institutional environment that included digital access and digital engagement.*

5.2 Explaining the findings

5.2.1 *Culture formation in organisations*

Authors have argued that organisations are the subject of isomorphic pressures, yet it has also been shown that organisations maintain their boundaries and that these boundaries define their unique identities and organisational cultures that sustain them (DiMaggio & Powell, 2012). Within this framework, modernisation, which has contributed to globalisation, has been viewed as a non-isomorphic force that has influenced the development of the modern global organisation. Early studies demonstrated how exposure to similar Western-style education systems created a homogenising impact on factory labour, thus creating similarities in personal values and cultural practises across several nations (Nelson & Gopalan, 2003). Even more studies extended these similarities from just the historical Western context to the Asian context, and then notably generalised this phenomenon across global contexts. Hence similarities that were often attributed to dominant Western national cultures in headquartered companies were soon thought to be similarities attributable to organisational culture (Gerhart & Fang, 2005). This perspective was captured in terms such as “McDonaldization” (Ritzer, 1995) reflecting the consistency in values and practises that evolve throughout the various global locations of a single multinational enterprise (Harush, Lisak, & Erez, 2016).

Plavin-Masterman (2015, p. 43) challenged the view of organisational culture residing only in the traditional “physical brick-and-mortar location” of an organisation to existing within a “virtual reality”, thus providing an early attempt at refining the concept of organisational culture within virtual organisations. Plavin-

Masterman (2015)'s study found that employees within a virtual organisation experienced a common sense of belonging, and in so doing, the author revisited the definition of organisational culture expression – from "a firm's artefacts, symbols, shared norms, beliefs, and behavioural expectations in a physical location, in proximate space" (p.43), where cultural expression is "seen" to be a context within which face to face expression is largely absent.

By focusing on the explicit re-conceptualisation of where an organisation's culture resides, anchored in physical or "seen" artefacts, symbols, shared norms, beliefs and behavioural expectations, Plavin-Masterman (2015) changed the assumption that organisational culture could be created and maintained only through a link to the physical space or proximate location of an enterprise. This had the effect of advancing our understanding of organisational culture, because it provided an account for organisational forms that do not have a physical space or physical boundaries, such as VOs. The current study built further upon the idea of physical co-location of employees as being unnecessary for the formation of a strong organisational culture, and created a foundation of understanding for culture development in the virtual organisation. The results theorised around processes for culture formation within the virtual work context, and demonstrated that this formation of organisational culture is in fact "seen" within virtual organisations and teams, both in dominant digital artefacts and alternative non-verbal communications. Resultant work cultures are specific to a context of virtuality and therefore artefacts, symbols, practises and beliefs expressed had to be interpreted within the context of a virtual environment, in order to offer alternative shared meanings.

Given that the virtual community consists of different individuals with different national culture, identities and norms, the findings of the current study also suggest that national cultural preferences were diminished in the virtual organisation as the effects of globalisation increased further (Hao et al., 2016). The alternative shared reality of the virtual work environment, albeit "imagined" and lacking physical human connection, provided compensation for being virtual, not only through

artefacts, but also through alternative human interactions. In this virtual environment, the organisation created alternative “virtual practises”, such as recurring meetings and events for establishing interpersonal connections via electronic means, which laid a foundation for a common approach for *‘how things are done’* in the VO and VT. The current study evaluated data and theorised around the processes involved in creating the culture, which was then manifested at the various levels of culture of the organisation. This happened despite the participants’ physical location, which appeared to have no bearing on the experience of the organisations within which they worked.

At the turn of the millennium, it was theorised that the emergence of the virtual team developed out of the need for a new global infrastructure to support the fourth industrial revolution (Snyder, 2003). At the same time, it appeared that resultant virtual organisations created virtual teams with little or no understanding of the unique implications of such a decision. Thus, the virtual organisation seems to have been borne out of randomised rather than systematic events, resulting in an ill-planned phenomenon, dependent on enabling technological platforms (Bergiel et al., 2008). In fact, when we study some of the literature on the rapid transition to virtual work by organisations in 2020 on account of Covid-19, there were indeed a myriad of companies that failed to transition successfully to remote working arrangements (Bartsch, Weber, Büttgen, & Huber, 2020). This suggests that there has been no road map of what influences this organisational form to form and develop successfully – instead, the virtual organisation is formed via trial and error in a rapidly evolving technology environment, meaning that organisations took on a significant amount of risk when establishing a virtual work environment.

While other theories of organisational culture have been put forth since Schein (1984), his model of organisational culture as advanced through the introduction of multilevels by Erez and Gati (2004) and again by (Schein, 2010; Schein et al., 2015) remains useful for studying the multilevel manifestation of organisational culture. This is so because the virtual organisation presents a context in which values and underlying assumptions are as difficult as in any organisation to

establish, moreover, alternative expression is not well understood, overtly visible, or overtly decipherable. By conceptualising organisational culture as dynamic, evolutionary and multi-level, it was therefore possible to theorise the existence of culture within a virtual work context within a network or system, as well as a function of dynamic factors as proposed by (Schein et al., 2015).

5.3 Factors influencing culture formation in virtual organisations

5.3.1 *Virtuality*

An understanding of culture formation has been advanced in the context of origination, transmission and persistence in traditional organisations as well as virtual organisations. Traditional teams (otherwise known as "face-to-face" teams) comprise members who work closely together in terms of proximity and also coordinate their work through face-to-face interaction (Krumm et al, 2016). On the other hand, while virtuality is viewed as multidimensional in nature, it is generally accepted that it exists on a continuum and therefore the distinction of traditional and virtual teams is largely viewed as conceptual (Kirkman et al, 2012; Cohen and Gibson, 2003; Griffith et al, 2003; Martins et al, 2004). More so, some researchers argue that virtuality is not an objective construct but a psychological one, referring instead to perceived virtuality, which is dependent on the extent of interaction with technology (Brown, Prewett, & Grossenbacher, 2020; Handke, Costa, Klonek, O'Neill, & Parker, 2020a). However, because the extent of interaction with technology was conceptualised as a dynamic factor, for the purposes of this study, virtuality was presented as an objective construct and a differentiator of traditional and virtual organisations and work teams. To recap, virtuality comprises three distinguishing characteristics – temporal distribution, spatial distribution and reliance on technology – as given in Figure 1. The resultant extent of virtuality was understood to be a function of the interaction of these three factors.

5.3.1.1 Temporal distribution

Virtual teams may be distributed according to time and team members deliver on their work simultaneously across different time zones (Maynard et al., 2017). Even where members are not collocated, they may achieve temporal bounding through mechanisms such as videoconferencing in which work is synchronised real time, compared to, for example, email, which is asynchronous and creates greater temporal distribution (Hoch & Kozlowski, 2014). The need to work in distributed form or real time is determined by the complexity of the task and resultant work flow – the greater the interdependencies or complexity of the task, the higher the need for collaboration and real-time communication (Kirkman et al., 2012). However, by being temporally distributed, it makes it possible for virtual teams to span other related boundaries, and, for example, these teams may comprise a cross-section of different members of employees, experts, consultants, partners and customers (Kozlowski & Bell, 2013).

5.3.1.2 Spatial distribution

Virtual team members may also operate as spatially dispersed, despite possible large geographical distances between them (this is opposed to temporal distance which related to different time zones). The use of technology, in such instances, becomes central to member interaction within virtual teams, whereas in face to face teams, communication tools like Skype and video conferencing are intended only to supplement physical interaction (Kozlowski & Bell, 2013). One additional effect of spatial distance is cultural distance – possible large physical distances between team members also means that team members can be drawn from a multiplicity of national contexts and cultures.

5.3.1.3 Technology

While it may be argued that technology is an inherent characteristic of virtual organisations (Martins & Shalley, 2011), it was the role of technology as an enabler or mediator, as described by Gilson et al. (2013), that was used within the proposed study. Mukherjee et al. (2012a) described a virtual team as an organisation type

or structure in which members were in different physical locations in terms of country and continent, communicating primarily via computer-mediated technology such as email and teleconferencing, and seldom or never seeing one another face to face. Technology enablement thus provides a significant distinguishing feature of the virtual organisation because it allows for distributed teams to work across space using technological mediation (Brown et al., 2020; Kozlowski & Bell, 2013). This conceptualisation formed the basis of Lipnack and Stamps (2013)'s definition of *virtuality as a* function of technology enablement, and Kozlowski and Bell (2013)'s argument that the power of virtuality to transcend boundaries of space was the most critical and most important feature of virtual teams.

Despite this conceptualisation of virtuality, Kirkman et al. (2012) earlier argued that the extent of physical dispersion on its own was not sufficient to determine the resultant extent of virtuality adopted by a particular work team. Instead, they proposed that resultant virtuality was contingent on certain antecedents within the work team, since with the use of digital tools, even co-located team members could deliver on their work in a highly virtual manner, that is to say that co-located teams could decide to have a high reliance on technology platforms, and, at the same time, highly enabled teams might also decide to use technology to a lesser degree than their capability allows. Kirkman et al. (2012) proposed that the extent of team virtuality was a function of three specific antecedents: context; task-media member compatibility; and temporal dynamics. This is to say that firstly, the extent to which team members chose to rely on virtual work tools to execute and deliver on their work outcomes, secondly, the 'informational value' of the virtual tools determined by the perceived richness or meaningfulness of virtually shared information, and lastly, the extent to which team members interacted synchronously (i.e. real time such as Skype, Zoom, Microsoft Teams, etc.) versus at different times, such as when responses to emails are done at a later time. The detailed model as put forward by (Kirkman et al., 2012) containing the contextual features, task-media member compatibility and temporal dynamics that determine the antecedents of virtuality are given in Figure 10 below:

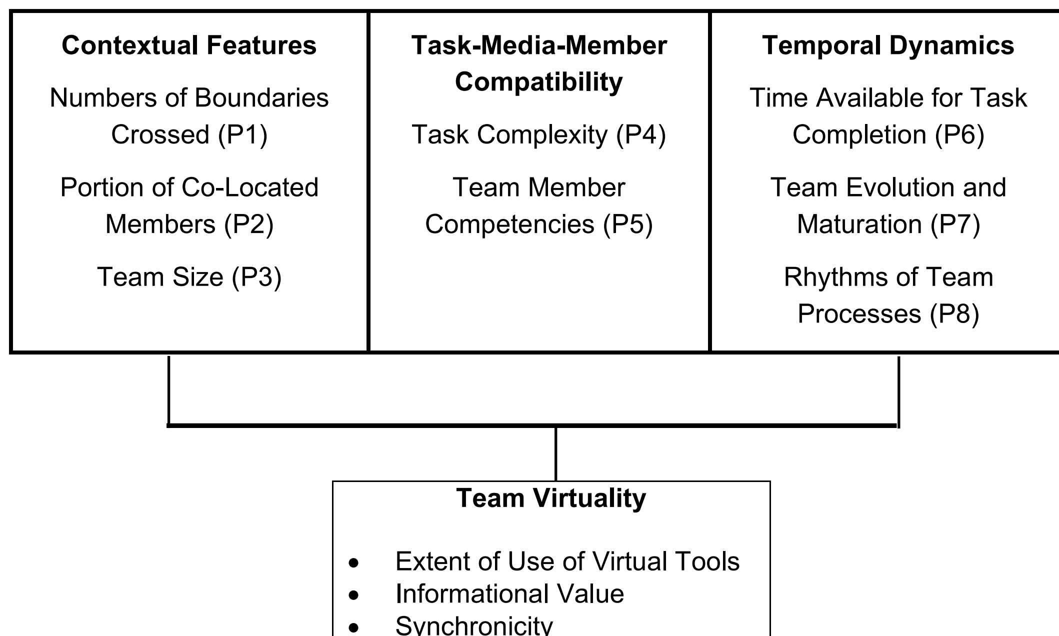


Figure 10: Antecedents of Team Virtuality (Kirkman et al., 2012)

A recent study showed that it was not actually the objective distance measures that were important in determining the virtual context but rather the perceptions of virtuality which influenced how individuals and teams utilised technology in relation their work (Brown et al., 2020). Even though perceptual measures of virtuality might be more reflective within a rapidly evolving technological context, the current study focused not on the reasons for virtuality, but rather the state of virtuality; thus objective measures were considered more useful for describing the common experiences at a certain point in time – allowing for theorising about the shared experience.

Studies investigating the impact of technology on the effectiveness of virtual teams have produced varied results, with some suggesting that technology either reduced the effectiveness of virtual teams (Kirkman et al., 2012; Schweitzer & Duxbury, 2010) or, had no effect at all (Lincoln et al., 2018). A recent study showed that increased technology use in virtual contexts could have both positive and negative effects upon virtual team environments; a study of Dutch workers demonstrated that technology use contributed on one hand, to increased wellbeing by increasing

accessibility and efficiency of work, while on the other, negative impacts from increased interruptions and unpredictability upon wellbeing were observed (Ter Hoeven, van Zoonen, & Fonner, 2016). The current study did not seek to compare the effectiveness of technology use in traditional versus virtual teams; however, participants described what they felt the effect of technology was on organisational effectiveness, as they explained the centrality of technology use within their respective organisations. As described from the results, respondents described both negative and positive effects of technology use upon their wellbeing – however, within the context of virtuality, the ambiguity of distinction between the personal and work contexts resulted in the impact spilling over to outside the restrictions of the work space into the personal space.

Other recent studies have also investigated the impact that use of communication tools has on the team views of leadership and organisational effectiveness. A recently study by Newman, Ford, and Marshall (2020) demonstrated that a team's views about their leader's effective use of communication tools and techniques influenced its perception of team performance outcomes. In addition, the organisational design of a virtual team has been found to determine the level of its virtuality and subsequent response to rapidly changing needs of the organisation's customers, particularly in complex and competitive global economy that requires robustness and agility (Handke, Klonek, Parker, & Kauffeld, 2020b).

This transition from merely being a group to a team is brought about by a common task-oriented purpose (Guzzo & Dickson, 1996; Schein, 2010). The context of the virtual organisation demonstrates how the characteristics of group members are defined though common purpose – not simply from operating within similar physical boundary conditions (Handke et al., 2020a). The nature of member interactions crossing various boundaries makes work teams virtual – the ability that this provides for communications and interactions as well the formation of relationships across space and time enables work teams to be regarded as virtual (Lipnack & Stamps, 2013; Mäkelä et al., 2020). During the present study, participants explained their need to feel a sense of common purpose with their virtual team

members. Respondents formed mental connections between their job roles and the strategic outcomes of the organisation and explained the resultant frustration that occurred when team members did not appear to be in alignment.

5.3.2 *Institutionalisation*

According to institutional theory, mimetic, coercive and normative isomorphic forces influence the structure and dynamic aspects of culture so that certain qualities become taken for granted or "nested" within the organisation over time (DiMaggio & Powell, 2012). According to this institutional perspective, coercive isomorphism, normative isomorphism and mimetic isomorphism are mechanisms used by organisations sharing the same macro environment and possessing similar organisational structures to respond to like pressure. A fundamental characteristic of the traditional MNE was its multiplicity of geographical locations, having transferred its identity and capabilities over borders, employing strategies such as institutionalisation (Tolbert & Zucker, 1999) in order to remain competitive and effectively manage globally and culturally diverse workforces. There appeared, therefore, to be ongoing pressure upon traditional MNEs to be both isomorphic and non-isomorphic at the same time. This is to say that whilst traditional organisations are seen as striving for as much isomorphism for standardisation and replication within operations, when we consider the context of the VO, this created an unknown context, as there were no known institutional options available for achieving isomorphism.

From a dynamic evolutionary perspective, Strang (2011) argued that diffusion of institutional practises is enhanced by cultural and cognitive connections – this happens when actors and practises are seen as similar and practises seen as modern. Because of their borderless qualities and limited physical artefacts, VOs were not expected to execute strategies for transferring capabilities across different geographical locations. However, as already described, the demonstration of the existence of organisational culture within the virtual work context meant that resultant organisational culture was expected to manifest visibly, even though such expression would be via digital behaviours and artefacts rather than in a co-located

office space. Culture formation in VOs was therefore different from that of multinational organisations as the 'borderlessness' of VOs made it impossible to physically 'see' other actors and practises in the workplace, as it occurs in traditional MNEs. The formation of organisational culture was evident in the common description of practises and artefacts that respondents interacted with during the formation of organisational culture within their work contexts.

The distributed organisational structure (temporal and spatial), as well as the influence of technology in the VO, were expected to have a significant influence on how organisational culture was shaped. It was also expected that the tension of reciprocal opposition created by isomorphic and centripetal forces, as described by Narula and Verbeke (2015), would be minimised due to the removal of physical boundaries across operating entities and team members. As a result of this, it was also expected that isomorphic and non-isomorphic forces would be less decipherable as they would be more difficult to identify. Regardless of the difficulty associated with recognising practises and artefacts, convergent forces were expected to result in more defined commonalities as cultural differences on account of geographical location being reduced, while similarities in practises were increased on account of the effect of common technology across operating business entities and teams. However, being a grounded theory study, it was important to 'bracket' out any pre-existing assumptions based on existing theories (Glaser, 2016) whilst also recognising the context of the study; the impact that virtuality as a differentiator in virtual work contexts was expected to have on culture formation.

5.4 Culture formation: taking things 'for granted' and nesting in a virtual organisation

Respondents explained the nature of the feedback loop in the VT context, and distinguished how different it was from the traditional office environment, where physical artefacts and cues from team members are ever present. One of the verbal cues commonly relied one in the virtual environment was found in the choice

of words and tone of communication used. Through this and other non-verbal cues, such as emojis, group members could gauge emotion and mood of the team.

Real time feedback and interaction was an opportunity to solve problems faster and move onto concrete goals that would result in operational execution of work tasks. In this context, virtuality provided a mechanism for team member interaction and allowed the use of digital tools to resemble exchanges that would otherwise not occur without the use of these tools. This characteristic concept of virtuality was what was explained in the category *dealing with frustration*, as concrete strategic direction was missing from supervisors and organisations. Explanations pointed to the virtual work context failing to provide an optimal environment for team communication with regard to strategy. This was in stark contrast to another category, *ensuring cordial team dynamics and work effectiveness* which reflected a concern for personal safety amongst team members, leading them to enquire about each other's whereabouts in times of uncertainty. Being unable to contact her team mates over WhatsApp for two days created anxiety and a dilemma within the team that the group needed to resolve – this was seen as a marker event during the group formation process, as described by Schein (2015).

5.4.1 ***Group formation: work relationships***

(Schein, 2015) theorised that three possible marker events could result in the emergence of a group. These were: an environmental accident; a decision by an originator to bring people together for a common purpose; and an advertised event or common experience that drew a number of individuals together. Initially, the group was not really a group, team or organisation but rather a collection of individuals focused on individual interests and agenda and working through personal issues, as described above. One of the possible marker events through which the group phenomenon occurred was when an individual assumed the role of leader and the group members learn by social learning and modelling the behaviour of that leader (Bandura, 2018). Within this social learning paradigm, the leader models solutions and what society defined as appropriate and efficient as a way of finding largely endogenous and gradual solutions for problems within a

group. Organisational culture can also form in a systematic or spontaneous manner through a natural event or by accident, as a group organises itself. During this first stage of group formation, also referred to as the fusion stage, organisational culture begins to form – a common way of doing things. These three possible explanations of culture formation would, however, limit the way that the virtual team's culture could form, since on the one hand the virtual organisation is distributed and therefore needs to rely on alternative approaches to achieve co-ordination and control, and on the other hand, there are limited opportunities for social learning and physically modelling behaviour in the virtual work context.

During the fusion stage, this context of diverse interests and divergent agendas created tension amongst the group. However, as the group interacted with one another, it established a basic purpose of task, with each member sharing his or her ideas, knowledge and feelings with others. This process of exploration and solution finding created the "next marker" event, which determined the next response, which, in turn, reduced tension as silence was broken and so on. This cycle developed intimacy within the group (Schein et al., 2015). The unique characteristics of a group developed out of the fact that unique members constitute a group, experience unique marker events, and in turn elicited unique responses under similar circumstances to other groups. Everything that happened (or not), had a different potential meaning and consequence for the resultant group (Schein, 2015).

During the early stages of group formation (and less so in the later stages of group formation), certain behaviours develop into norms through reinforcement, or learning. There are essentially two types of learning mechanisms: positive problem solving, for solving external integration issues; and anxiety avoidance, to cope with internal integration issues (Schein, 2011). In positive situations of problem-solving, the group employs a trial and error approach until a desirable outcome results, and this outcome is then adopted by members successfully and is repeated indefinitely thereafter. In the opposite situation, anxiety is caused because of the human need for consistency, the hostility and dangers of an

unstable social environment, or anxiety caused by undesirable physical working conditions (Schein, 2011). These two mechanisms allow for learning through either successful outcomes or painful trauma (Bandura, 2018).

In order for the group to transition into a team, its members must establish a sense of common purpose. Tuckman (1965)'s early model for team development described the four stages of team development: forming; storming; norming; and performing. Later, this stage model was updated to explain group structure as a function of the team activity or task on hand, and matched four development stages with the following dominant activities: testing and dependence; intragroup conflict; development of group cohesion; and functional role relatedness. Later, while testing the four stages of development within the virtual team, Furst, Reeves, Rosen, and Blackburn (2004) found that there were particular challenges that were unique to the activities associated with the various stages within virtual teams, compared to co-located teams. Later, Tuckman's four stages were aligned to the following respective group outcomes: orientation to task; emotional response to task demands; exchange of relevant interpretations; and emergence of solutions (Tuckman & Jensen, 2010).

Within the forming stage, co-location would typically provide the opportunity for relationship-building based on common interests and the development of trustworthiness amongst work colleagues (Ford, Piccolo, & Ford, 2017). The opportunity to develop relationships within less frequent communication contexts and over informal 'water-cooler'-type contexts was not available in virtual teams, and so alternative opportunities had to be identified for this purpose. Opportunities identified for building trust relationships often resulted out of one on one interactions between virtual team members, with respondents feeling that this was more effective, where team members had the opportunity to have an initial face to face interaction. While virtual interactions also allowed trust-building, this required more intentionality and intense interactions between team members for this to happen and the process was viewed as taking much longer.

Likewise, during the storming phase, misunderstandings occurred more readily in virtual teams, as opportunities for reading team members' non-verbal cues were reduced, thus reducing opportunities to communicate effectively. Within a virtual work context, all one had to do to avoid another team member was to ignore an email communication or go offline and make themselves unavailable for interaction. These particular limitations would not be as prevalent in face to face teams, since one's presence could be physically ascertained, with an added burden to explain one's unavailability. Mäkelä et al. (2020) evaluated some challenges of the virtual work environment, which included an increased number of internal and external stakeholders and increased work outcomes across a multiplicity of boundaries. A recent study by (Bartsch et al., 2020) conducted, following the outbreak of the Covid-19 pandemic, found that key responses to challenges inherent in virtual work, included leaders focusing on maintaining team cohesiveness as well as allowing individual autonomy in the delivery of work outcomes. It was also common during this storming stage to have misunderstandings and conflict develop within the virtual team over what members felt constituted an appropriate method and intensity or frequency of contact. This is to say, for example, the ideal frequency and perceived benefit of online interactions, such as video conferencing and online meetings, could vary from one member to the next on the team.

During the norming stage, the team needed to establish work norms and standards around work processes, as a foundation to measurement of team effectiveness, based on performance in the final group stage of formation. (Berry, 2011) summarised the leader's role for ensuring virtual team effectiveness as: resolving conflict and misinformation; developing competent roles; and facilitating good communication within the team. More recently, research has identified other factors such as increased employee engagement (Panteli, Yalabik, & Rapti, 2019) and online collaboration as increasing effectiveness of the working context.

5.4.2 *Group formation: organisational culture within teams*

As described above, organisational culture forms and develops through problem solving, as a solution to how an organisation relates to its environment and deals with internal affairs, reducing uncertainty and confusion and thereby creating stability (DiMaggio & Powell, 2012; Schein, 2004; Schein, 2010). Earlier, Schein had described four stages of group development, denoting the establishment of the group and the development of its organisational culture (Schein, 2004). These stages are shown in Table 5 below.

Table 5: Stages of Group Evolution: (Schein, 2004, p. 70)

Stage	Dominant Assumption	Socio-emotional Focus
Group Formation	*Dependence:* "The Leader knows what we should do"	*Self-Orientation:* Emotional focus on issues of (a) inclusion, (b) power and influence, (c) acceptance and intimacy, and (d) identity and role
Group Building	*Fusion:* "We are a great group; we all like each other"	*Group- as Idealised Object:* Emotional focus on harmony, conformity, and search for intimacy. Member differences are not valued
Group Work	*Work:* "We can perform effectively because we know and accept each other"	*Group Mission and Tasks:* Emotional focus on accomplishment, team-work, and maintaining the group in good working order. Member differences are valued.
Group Maturity	*Maturity:* "We know who we are, what we want, and how to get it. We have been successful, so we must be right"	*Group Survival and Comfort:* Emotional focus on preserving the group and its culture. Creativity and member differences are seen as threats.

Reigle (2001) found that mechanistic structures and cultures were suited for stable environments, while organic structures and cultures are suited to fast-paced, innovative environments. Organic cultures have grown increasingly important due to technological use and globalisation. Lipnack and Stamps (2013) explained the evolution of group change in human history, using an analogy of three waves of change: an initial wave from the nomadic to the agricultural age over 10 thousand years ago; followed by an industrial age from the 18th to the 20th century; and finally an information age emerging out of a third wave of change. From this final wave, we see the digital transformation which has permitted the emergence of VOs as a function of complexity, speed as well as globalisation. While the original small human group, the family, has survived, networked VOs are producing new organisational forms in shared leadership hierarchies and decentralised bureaucracies, and institutional processes of culture formation.

The ethno-methodological approach to institutionalisation implied that three aspects of cultural persistence (transmission, maintenance and resistance to change) were affected by institutionalisation (Tolbert & Zucker, 1999). The first stage – formation, or transmission – was centred around how culture is understood and communicated to a succession of actors, essentially followers (Schein, 2010) or how bureaucracy and power changes with the size and structure of an organisation (Schein, 2011). Following formation, the organisation begins to enter a second stage of growth or maintenance, and this is through the interaction of organisational structure and functioning which results in phases or crises to which the organisation responds or, transmission of highly institutionalised acts (DiMaggio & Powell, 2012; Schein, 2011). During the last stage, character formation via birth and evolution and creation of ‘sagas’ which were significant or tension-filled events, that created increased organisational resistance to change and thus organisational culture (DiMaggio & Powell, 2012; Pettigrew, 1979; Schein, 2011).

5.4.3 *Effective work processes: institutional context of culture formation within the virtual team*

Stephenson (1990)'s theoretical description of the institutional environment that gave rise to the emergence of virtual groups is still used to this day – being typified by ambiguity and uncertainty. These institutional contexts involved three stages: firstly, a chaotic stage where new ideas were met with scepticism and rejection; secondly, facilitated by the ambiguity of the first stage, informal, adhoc groups which rallied behind specific tasks or projects were formed in an attempt to get a better understanding of initial problems; and lastly, formal corporate groups were established to enable a systematic approach to work tasks through organised leadership, strategy and mission of purpose. Thus, within the virtual team, the passage of time facilitated the emergence of calmer, more predictable behaviour, reflected in Table 7 below.

Table 6: Developmental trajectory of a virtual group (Stephenson, 1990)

PARADIGM	Confront anomaly	Assimilate novelty	Canonise convention
PROCESS	Exploit ambiguity	Routinise uncertainty	Institute leadership
CORPORATE GROUP	Ad hoc (committees)	Standing (task forces)	Formal group (divisions)
	STAGE 1	**STAGE 2**	**STAGE 3**

The representation of the developmental trajectory in virtual groups in Table 6 provided a basis for the psychological wrestle that resulted from the frustration of respondents in the study being unable to attribute a physical company building to provide legitimacy to their commercial enterprises. While their experiences varied with regards to personal level or sense of frustration, the lack of clarity came across clearly as something that team members 'nested' over time regardless of associated negative or positive sentiment. Respondents therefore came to expect

ambiguity and uncertainty in both strategic direction as well as in work guidelines as part of the main theme of *dealing with virtuality*.

5.4.4 *Conducive work environment: learning from 'the other side', the learning process in virtual teams*

Within co-located teams, group cohesion has been known to develop through problem solving, as members find solutions to how their organisation relates to its environment and deals with internal affairs, reducing uncertainty and confusion, and thereby creating stability (DiMaggio & Powell, 2012; Schein, 2004; Schein, 2010). Every team experiences group dynamics of establishing member identity, common goals, influencing mechanisms for managing aggression and intimacy, and it is through developing solutions to these critical incidents that team evolution and learning occurs (Schein, 2015). These team experiences enable organisational culture to form from what society defines as appropriate, and through efficient social learning via modelling and observation of behaviours (Bandura, 2018). However, because modelling of behaviour was not easily decipherable in virtual organisations, this study examined whether this would mean acculturation would be manifested differently, perhaps as spontaneous or unstructured (Schein, 2010). Instead, the findings demonstrated that except for being virtual, the experience of culture formation was rather systematic across virtual teams in virtual organisations, irrespective of how long the teams had been in existence.

Respondents of the study described that although there was uncertainty and ambiguity around their work environment, the process through which they learned about the organisation was systematic. Key to this was feedback – despite not being able to get 'real-time' feedback for reinforcing or curbing certain actions, they received this feedback via alternative mechanisms. In addition to some of the pro-active examples described in Chapter 4, respondents described the type of feedback they received from their supervisors after the event, providing an opportunity to correct behaviour through learning as part of the category, *learning and rewarding*, which for example, allowed Respondent 6 to learn from her boss's

nuanced way of light criticism. The respondent mentioned that she did not think that this would have happened had they all been in a face-to-face meeting and that perhaps the body language would have been enough for her to ‘observe’ what was acceptable to say in that situation.

Therefore, while feedback was late in that it occurred after the fact, it eventually took place and translated into meaningful learning and implications for future behaviour. The lack of visible pointers and cues to affirm the ‘political correctness’ of something said was conspicuous in the virtual workplace setting. In some cases, non-sensitive feedback was given as written feedback in the ‘chat’ on Skype or Webex, or as an emoji or emoticon in a group conversation. Sometimes, a ‘heads-up’, a reaction or feedback was given in a separate private, one on one conversation between two individuals, including the use of GIFs and jokes, even when another team conversation was ongoing. More so, as already explained, this ambiguity was accepted as the norm within the context of a VT and VO and therefore i*ncreased virtuality was equated to increased ambiguity.* Some respondents did not necessarily dislike or aim to reduce this ambiguity and instead viewed it as a natural part of the given work context, identifying and responding to the various artefacts presented in their environment. In fact, since there was a feeling that virtual organisations and working were the future of businesses, this would mean that uncertainty and ambiguity were expected to define the future of work as well.

During the current study, respondents were asked questions that elicited responses focused on the multi-level conceptualisation put forth by (Schein et al., 2015). Therefore, firstly, respondents explained their experiences with primary visible processes, behaviours and practises of culture, and, secondly, because the virtual work context is grounded in *virtuality*, responses also provided insights into the invisible and internal basic assumptions made in the formation of organisational culture within respondents’ respective organisations, and, lastly, respondents were also asked questions to theorise about the macro-environment. Erez et al. (2013) proposed that globalisation was the most macro of cultural levels and that factors

such as international trade, migration and wars could explain the cultural change that occurred even when different cultures encountered one another at a macro level. During this study, respondents explained how they felt digitalisation and technology impacted the way things were done within their respective organisations and team member interaction, as part of the intermediate category, *relying on technology*.

Acculturation is the term used to explain the extent to which people were attracted to other national cultures or choose to maintain their own cultural identity (Berry, 2011; Harush et al., 2016; Segall et al., 2000). Since the concept of acculturation was introduced in 2000, it has been expanded upon to recognise that the term extends beyond national culture. With increased globalisation, there are increased freedoms in consumer choices, increased cross-border market choices of goods and services, and increased individual rights (Ganesh & Gupta, 2010). The migration of the workforce, coupled with increased interdependence of multinational work teams means that MNEs are required to bridge both geographical and cultural gaps to ensure effective communication and coordination across subsidiaries (Erez et al., 2013). Acculturation takes when individuals are socialised into a society where culture originates and diffusion of this culture takes a top-down approach to the various individuals who are part of the group through its appeal to cognition, affect, behaviour, and other characteristics of people (Erez et al., 2013; Harush et al., 2016).

Cultural diffusion on account of globalisation occurs when individual characteristics interact with those of different cultural backgrounds and results in a collective phenomenon as a result of a higher level bottom-up phenomenon, and this process results in a new culture and influences the extent of acculturation (Harush et al., 2016). Despite the differing national backgrounds of the participants from the current study, there were common expectations regarding effective use of technology. Technology use was therefore viewed as a significant aspect of acculturation, and digital artefacts gave rise to the expression of internal organisational culture. Because technology was a common tool used across virtual

teams, respondents expected to interact and leverage the various platforms in ways that would be beneficial to their organisation and other team members. During this study, respondents theorised on the critical function of technology – not only the characteristics of platforms, but also in terms of agility of enabling software and access to reliable and affordable internet services. A stable institutional environment, offering dynamic and proactive solutions was viewed as a priority within a virtual team context.

5.4.5 *Dealing with virtuality: ambiguity and uncertainty spurn creativity*

While facing an environment of uncertainty and ambiguity, some respondents found ways to cope with the work environment and performance expectations, with some even finding ways to leverage the power of this uncertainty. As a problem-solver, Respondent 15 explained how she enjoyed figuring out how to work through problems on her own, contributing to the intermediate category of *experiencing the work environment as positive or beneficial*; however, she was also able to relate to situations where others may have found this frustrating. Within the virtual work context, virtual teams focus on achieving “virtually organised” tasks which have “concrete” goals yet require abstract actions in order to complete the task (Mowshowitz, 1997, p. 374). So while the work context was expected to be abstract and ambiguous, the management of these tasks happened through a process of *meta-management*, a way of systematically structuring, managing and operating that consists of four basic activities: analysing abstract requirements; assessing how possible it is to satisfy requirements; developing and maintaining a procedure for allocating satisfiers to requirements; and adjusting the optimality (otherwise known as satisficing) criteria for allocation (Mowshowitz, 1997).

As a result of these factors, virtual organisations become conceptualised as goal-oriented enterprises that operate under meta-management. This management approach requires a systematic way of both managing and performing tasks, therefore work requirements need to be reviewed simultaneously and constantly alongside the needs of organisational satisfiers, which may also change or shift at any time. In fact, the dynamic environment enables satisfiers to actually “switch”

roles as they mix with the organisation and may become rather indistinguishable from the latter. Because of these dynamic qualities, virtual organisations have the ability, according to Agency-Dynamic Theory, to allow key resources, such as people, to be physically separated from entities such as systems, structures and processes, and yet perform successfully.

In the traditional organisational structure, there is a clear distinction between the two (i.e. key resources and organisational entities), and they remained mutually exclusive – one can never become the other (Mowshowitz, 1997, p. 376). These dynamic characteristics of virtual organisations enable their teams the means for accomplishing certain tasks despite their distinctive constraints (Kozlowski & Bell, 2013). Therefore, virtual teams go beyond being classified as another type of work team and instead emerge as a distinct type of organisational form. Being grounded in technology allows people resources to interact with technological systems in a way that makes the two indistinguishable, for instance, delivering training on a Zoom or Skype videoconferencing platform means that facilitation occurs, not only through the person facilitating, but also through the technology-enabling interface to a distributed audience.

Another strategy described for coping with ambiguity was being pro-active. When Respondent 15's supervisor had approached her to understand upfront, how she might work better with a certain African male colleague, this signalled an expectation that the supervisor/supervisee relationship was going to be complex. It was therefore prudent of them both to anticipate this upfront and attempt to facilitate a smooth relationship from the onset. Similarly, when Respondent 17 mentioned that she had been getting annoyed at the expectations for video conferencing by some of her British colleagues, she had enquired as to what she could do in early response in order to not come across as rude or standoffish. By seeking to understand reasons for responses and making an early attempt to make the relationship as cordial as possible as early as possible, respondents fulfilled data categories for *investing in interpersonal relationships and building trust*, and

feeling empowered that they would not behave inappropriately ‘before’ the person on ‘the other side’ of their virtual platform.

5.5 Culture expression through a dynamic lens

At this point, we have transformed the phrase, ‘all things flow’ into the alternative phrase, ‘the flux of things’ (Whitehead, 2010)

With its Darwinian roots, the Dynamic Evolutionary approach provides a description of a process that drives cultural formation and change, and yet also allows one to observe the interplay of certain factors involved in this process itself. Process theory contains within its ontology the key elements of both change and a state of becoming (Tsoukas & Chia, 2002); processes are seen as a representation of a change in things (substantive metaphysics), while things are a function of processes, as in process metaphysics (Rescher, 2014). Mackay and Chia (2013) pushed this conceptualisation of process ontology further still by suggesting that processes are owned neither by the organisation nor its actors, so that the boundary separating the two is ever changing.

The dynamic nature of organisational context, influenced by both changes outside the organisational boundaries and within, is constantly reconstituted through processes of interaction over a period of time. This state of affairs generates actors, environments and organisations that are in constant, uncontrollable and mutual flux (Langley et al., 2013; Whitehead, 2010), hence the dynamic evolution of the organisation. The interactions of various processes within the organisation’s environment is often reflected in various ways to describe and communicate dynamic process theorisations, such as causal loop diagrams, drawn from process modelling algorithms in systems dynamics (Van Oorschot et al., 2013), visual maps of organisational value practises and event synopsis in boxes, with directional arrows that reflect a passage of time and emergent themes (Wright & Zammuto, 2013).

5.5.1 *The macro-environment*

The present study provided an opportunity to investigate the formation of culture using the various levels of cultural expression, as described by the participants, and through the dynamic lenses offered through their varied experiences. These experiences involved themselves, other team members in the virtual team, supervisors, their respective organisations, as well as other organisations and external players. Several structural and dynamic properties have been used to describe the interplay of various levels of culture, illuminating both the VO and VT. Erez et al. (2013) explained cultural diffusion as when individual characteristics interacted with those of others and resulted in a higher level, collective phenomenon, via a bottom up process, which influenced the total extent of acculturation (Harush et al., 2016). The authors explained that the migration of the workforce coupled with increased interdependence of multinational work teams meant that global organisations were required to bridge geographical and cultural gaps to ensure effective communication and coordination across subsidiaries. With globalisation came improved cross-cultural alliances, sharing of knowledge, and transfer of technology, and, at the same time, these benefits might have been offset by tension created by the conflict between local and global dynamics reflected in tribalism and universalism respectively.

The process of culture formation at the macro level of the environment of a VO and VT in the context of the present study is thus summarised in Figure 11 below.

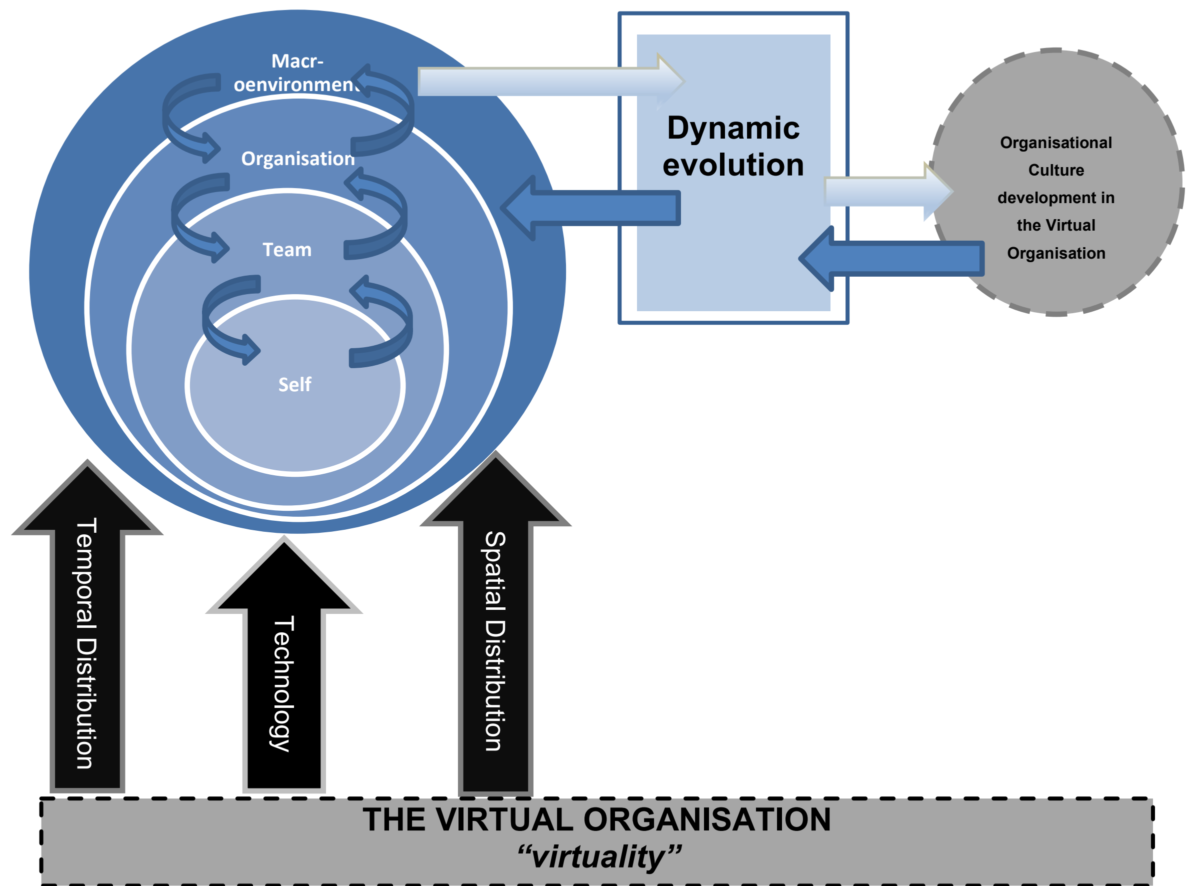


Figure 11: The process of culture formation summarised as it happens in the macro-environment

Figure 11 represents the flow of factors influencing culture formation across the context of the virtual organisations, comprising several layers of cultural expression. The flow of information and processes are depicted as multidirectional and dynamic, resulting in an ever-changing context of virtuality, within which this culture evolves over time. Temporal distribution, spatial distribution and technology are foundational characteristics of the virtual context, but by no means all encompassing. Globalisation has also long been viewed as a concept offering convergence in the capitalist state and modernisation, and is seen as a non-isomorphic force upon global enterprises (Nelson & Gopalan, 2003, p. 1119). Globalisation affects behavioural changes of members from various cultures at the macro level of culture, whilst individual changes in behaviour affect the organisational culture through a bottom-up process (Erez et al., 2013). For

example, one study showed that VT members in certain countries, such as the United States, felt that it was much more important than members from Belgium, the Netherlands and India be more inclusive in their decision making (Andres, 2012). It is by accepting that the two forces co-exist, that multinationals adapt their management practises to their national context while still achieving high business performance (Mäkelä et al., 2020).

In the context of VOs, the lack of a clear external institutional environment in which the organisation resides has led to the emergence of the description of a meta-institutional field, which goes beyond Institutional Theory to explain the existence of an intra-organisational environment comprising regulations, cognitive structures, and norms which also include organisational culture (Beugelsdijk et al., 2017). This intra-organisational context advocates for certain organisational structures and practises that are viewed as more globally acceptable than others – that is to say, best practise standards. From this perspective, one can see that while there is ordinarily substantial isomorphism within organisations of a similar context, within a virtual organisation there is limited isomorphism and virtual work units are viewed as being within the similar intra-organisational institutional fields. At the same time, this serves to substantiate the existence of organisational culture within the virtual work context as there is a common identity, and similarity that binds various individuals to a particular work context with a common purpose.

5.5.2 *National culture*

National culture has been described as having varying effects upon team members and how they work together within organisations as a result of the filtering of information through cultural lenses, and this has been shown to have both positive and negative consequences in traditional co-located teams (Joshi & Roh, 2009) as well as virtual teams (Mäkelä et al., 2020). One such positive outcome found within nationally-diverse team members has been reduced group thinking, which has been subsequently found to have a positive concomitant impact on increased creativity and resultant improved team performance (Carrell, Elbert, & Hatfield,

2000). However, the lack of social cohesion that stems from differing identities, conflicting values and beliefs, has also been shown to result in increased conflict in teams where members have diverse national identities (Mäkelä et al., 2020; Stahl, Maznevski, Voigt, & Jonsen, 2010). Global teams therefore need to overcome multiple identity boundaries such as language and culture, including communication style preferences of team members, in order to achieve common goals (Miska, Stahl, & Mendenhall, 2013). Within the virtual team environments in this study, it was apparent that technology mediums were viewed as a common 'language', with global norms of etiquette, even though the content and styles of communication were culturally-nuanced. The prevalence of mandated communication platforms across organisations integrated across the enterprise became a unifying factor within virtual work teams, and these platforms presented as artefacts of communication.

Beugelsdijk et al. (2017) proposed that by tracing back the history of an organisation, one could draw this direct link to the ineffaceable impact of the founder on the value systems of the organisation which was attributed to the fact that only the founder could really ensure that the organisation adapted to them, and all future joiners might experience problems because of the effect of different cultural value systems. Minkov and Hofstede (2012) argued that foreign subsidiaries of traditional Multinational Enterprises (MNEs) could overcome these difficulties through the development of hybrid cultures, which represented the amalgamation of the international parent culture and local national cultures. In such an organisation, an outsider quickly noticed the consistency of member characteristics despite the differing national origins of employees – "There is something American about I.B.M. the world over …" (Hofstede, 1985, p. 350) despite the differences in values on the basis of nationality between employees working in different countries within the same multinational enterprise (Miska et al., 2013). However, it was also been found, for example, that members from some collectivist societies held more positive views of certain team processes in global virtual organisations compared to members from more individualistic societies (Mockaitis et al., 2012). This may have accounted for the variations across

respondents' opinions of certain work processes that some reported as rather cumbersome. The extent of variations may also have been largely influenced by the extent of interaction with their team members, which in turn impacted the strength of interpersonal relationships*, highlighting the need for investing in interpersonal relationships and building trust.*

A major consequence of globalisation as the transformation of individual identity and the ability of globalisation to coexist with the individual's local identity has been viewed as largely dependent on the similarity between the local and global cultures (Arnett, 2002). The level of tightness-looseness also affects the dynamic properties of culture as those cultures less tolerant of deviant behaviours (for example, collectivist societies) will be less likely to change, while those that are more open to deviance (individualistic societies that believe in free will) will be more likely to change and hence adapt well to the global context (Hao et al., 2016). Global teams can therefore be viewed as instrumental in the quest for global MNEs to balance the need for being both locally responsive while also being globally integrated; they need to hold both the localised expertise for culture and values while also possessing the benefit of deploying global solutions to their business challenges.

The globalised environment has resulted in a culture-mixed society, which is the mixing of two or more cultures or their symbols (i.e. artefacts), and results in the production of hybrid 'glocalized' products (Holt, Quelch, & Taylor, 2004) in the "same space at the same time" (Hao et al., 2016, p. 509). Individuals with dominant local or global culture identities have been found to have negative and exclusionary responses to culture mixing, whereas those with a balanced global culture orientation are more embracing of culture mixing (Harush et al., 2016). The researchers proposed a global acculturation model that posits that individuals will have varied responses to culturally mixed symbols and artefacts based on their prevailing socio-cultural identity. Within this model, individual identity types are construed through varying combinations of one's global and local identities,

resulting in a specific identity dominance that determines the extent of balance in one's perspective of culturally-mixed symbols and artefacts.

Harush et al. (2016)'s model was unlike previous models because socio-cultural identity was determined by comparing the local and global cultures instead of host and local cultures (as in a traditional MNE), recognising the global culture as a construct and allowing a more accurate model for studying the impact of national culture within organisations with a global presence. This conceptualisation is useful for studying global virtual organisations with a distributed workforce instead of a centralised headquartered organisation, whose parent culture dominates operations within different national cultural contexts. This particular aspect was dominant in the current study, with participants sharing their day-to-day experiences using the concept of a global culture as a reference point, rather than any national culture or identity, including, in particular, their own native cultures or the national context of their headquarters. Examples of organisations in which this is manifested in modern society are those that produce culturally-mixed products and artefacts relatable to a global customer base – such as: McDonald's, Visa and Facebook (Harush et al., 2016).

The recent acceleration of globalisation has thus led to the development of the cultural construct of global identity – the extent to which one identifies with a global culture – "a person's self-concept" (Erez et al., 2013, p. 335), and "a sense of belonging to a worldwide culture, and includes an awareness of the events, practises, styles and information that are part of the global culture" (Harush et al., 2016, p. 1398). A high global identity is seen as the basis for positive individual and professional relationships through overcoming of cultural barriers which would otherwise come between an individual and others operating with the global work environment (Hao et al., 2016). The literature has not yet demonstrated what the impact of time is on attempts to satisfy these two cultural needs on team members working within these coexisting cultures: do participants eventually see these two approaches merging into one "glocal" culture (Erez & Gati, 2004), or do the two cultures remain distinctly separate and distinguishable one from another, allowing

the team to forever leverage global best practises and strategies for application across various cultures, yet never changing these fundamentally (Braun & Warner, 2002; Hao et al., 2016)? In the current study, participants shared how they felt it was inappropriate for team members to attempt to impose their national cultures upon the team, particularly supervisors, given that they were operating in a global context. This seemed to confirm that an expectation of the virtual team was that national cultural expression would be minimised and instead a global culture standard would be expected over time.

Regardless of the long-term effects, cultural complexity and motivation have been found to be an essential ingredient for creative thinking, as these factors are responsible for creating the cultural awareness required to perform well within the global cultural context (Tadmor, Galinsky, & Maddux, 2012). Global culture awareness was therefore found to be significant in the global virtual organisational context and its meta-institutional field of operation. The conceptualisation of the meta-institutional field within the virtual organisation, the virtual team and the individual considering the impact of the global culture upon individuals as per the current study, is depicted in Figure 12, below.

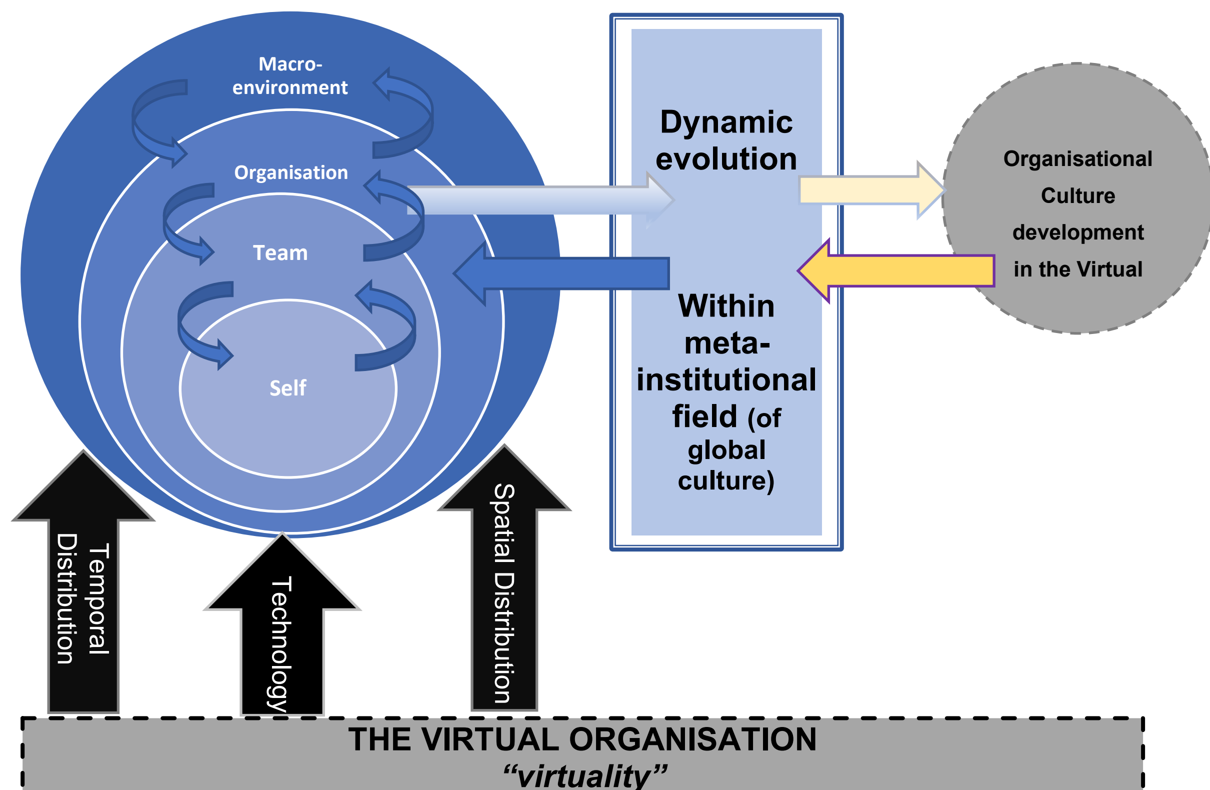


Figure 12: The meta-institutional field of a virtual organisation

Figure 12 depicts that in addition to dynamic culture processes across several layers of the organisation and differing cultural expression, there is common context in which the various stakeholders operate. The concept of virtuality is understood consistently, from a perspective of a global culture, within which these stakeholders find a common sense of identity and cultural expression through digital artefacts and virtual expressions.

5.5.3 *The organisation*

The institutional determinants that influenced firms were on account of their national identity or embeddedness (Gooderham, Nordhaug, & Ringdal, 2013). It has historically been thought that the successful integration of an organisation with its environment would, in turn, result in managerial approaches that are "meaningful, relevant and compatible" within the local context, and by implication, more likely to succeed; and the other hand, it was differentiation from the environment that organisations sought to rely on for the establishment of an independent identity and distinct boundary that leads to competitive advantage (Nelson & Gopalan, 2003, p. 1118). The Rational Model provided an alternative explanation by prescribing a high level of managerial autonomy (Dessler & Varrkey, 2005) in work teams that operated across dissimilar environments and postulated that universal characteristics of organisational practises were achieved via the rapid dissemination of management practises across national borders (Gooderham et al., 2013; Lippert & Dulewicz, 2018). Within the context of the VO, this dissemination was viewed as possible and occurred rapidly with the utilisation of various technological tools and where respondents felt trusted to go on with their work without micromanagement by supervisors. In this way, workforce autonomy was seen as a precursor to more effective work – a competitive advantage within the virtual work environment.

The concept of virtual organisation was used generally in early research to refer to the relationships and connections within and across organisations (as referred to

originally by Davidow and Malone (1992)), others focus on the challenges of virtuality on the internal operations of organisations (Furst et al., 2004; Townsend, DeMarie, & Hendrickson, 2000), and yet others on defining virtual organisations as "borderless systems" (Dess, Rasheed, McLaughlin, & Priem, 1995; Hedberg, Dahlgren, & Olve, 1997; Venkatraman & Henderson, 1998). In this present research, the virtual organisation was treated as borderless, physically, although operational processes and relationships were not. In this sense, therefore, respondents described the culture formation process, highlighting the various mechanisms that they had to deploy to try and make sense of their work environment or culture through the way things got done within a virtual work context.

From a Dynamic Evolutionary Perspective, (Strang, 2011) argued that diffusion of institutional practises is enhanced by cultural and cognitive connections, and this happens when actors and practises are seen as similar and practises seen as modern. In the context of the VO, isomorphism is, on the one hand, possible (on account of technology enablement), yet on the other, unnecessary for survival, as it is essentially a boundaryless physical context (Newton, 2017). Within the context of this meta-institutional environment, therefore, team members within the virtual work context can form the meaningful psychological bonds that Respondent 14 described in the previous chapter, as part of *investing in interpersonal relationships and building trust*. It is these bonds that formed the 'glue', as it were, of team membership and commitment towards each other as 'work' was conceptualised across the individual, team and the organisational spaces.

5.5.4 *The team and leadership*

In determining an effective leadership style or styles for a culturally diverse team, one might consider the various ways that leaders can influence followers: a directive mode of influence (ranging from directive to participatory); a transactional mode of influence (rewards); or transformational influence (Zakaria et al., 2012). From a leadership perspective, culture and leadership have been described as two sides of the same coin – organisational culture describing suitability for leadership,

on the one hand, and on the other, viewing this organisational culture as the most important creation or value proposition of leaders (Schein, 2010). Different individual characteristics that culminate in a leadership emergence rating have also been shown to impact leadership perceptions in the virtual work environment (Charlier et al., 2016). In the present study, respondents demonstrated a desire of independence from their managers insofar as their work delivery was concerned, thus leadership support was required primarily for strategic direction and reporting.

Respondents in the present study expressed their appreciation and dismay at certain leadership behaviours displayed by their supervisors. In order for one to ascertain effective modes of leadership for a work team, one requires an understanding of the cultural preconceptions of effective leadership for each team member, since leader prototypes are culturally-determined and followers tend to use implicit prototypes when evaluating leadership behaviour (Zakaria et al., 2012). For example, certain early studies on leadership perception in VOs showed that team members show a higher level of appreciation for their leader when the latter is able to understand and decode their messages, despite being geographically distant from them (Henderson, 2008). Over the years, different types of leadership – inspirational (Joshi et al 2009), transformational and transactional (Huang et al, 2010; Strang 2011) and emergent leadership (Carte et al, 2006), were studied within the virtual organisation and issues such as communication type, leadership support and problem-solving have been shown to impact perception of team members. Thus various cross-cultural research on leadership has indicated that different cultural groups generally have different leadership constructs and expectations (Chhokar et al., 2013). Within the current study it appears that leaders were criticised for their lack of effective strategic leadership behaviour - national cultural differences in leadership approaches appear to have been expected.

Leaders within a globalised context have been described as performing three key roles in order to effectively manage stakeholders as well as manage their work team effectively – as a boundary spanner, a blender and a bridge maker (Butler,

Zander, Mockaitis, & Sutton, 2012). As a blender the leader brokers people-oriented behaviours within their team and in the process smooths out culture and language barriers amongst its members (Mäkelä et al., 2020). As a boundary spanner the leader can then connect his or her team socially so that there is a meaningful exchange of information, knowledge and resources for effective performance (Butler et al., 2012; Mäkelä et al., 2020), while at the same time integrating global solutions that are also locally responsive, for achieving the best possible strategic outcomes for both local and global stakeholders (Osland, Bird, & Mendenhall, 2012).

Using the concept of an appropriate virtual leadership style as evaluated above, it is possible to relate to respondents' expectations on optimal leadership expression in the virtual work environment. According to early evaluations of leadership in the virtual context, researchers Hambley, O'Neill, and Kline (2007, p. 1) defined effective leadership in the context as "a social influence process mediated by advanced information technologies to produce changes in attitudes, feelings, thinking, behaviour and/or performance of individuals, groups, and/or organisations". Recent studies, since the onset of the Covid-19 pandemic, have found that both effective task and relation oriented behaviours are essential in virtual team leadership (Bartsch et al., 2020), including the effective use of technological platforms and non-verbal communications (Darics, 2020). Therefore, while respondents relied on technology for delivering effectively on their work, they found the most value from their leaders who enabled them to make social connections that transcended the digital network. The technological platform was an essential ingredient of the environment – it was in utilising technological platforms for strengthening social connections that team members could benefit from their leaders.

5.5.5 *Followership*

Minkov and Hofstede (2012) explained that followership involved giving meaning to symbols that we have learned from school, the family and society as a whole. They described most modern theories in management as ethnocentric, thereby

taking the cultural environment of the theorist for granted. They therefore suggested alternative lenses in organisational anthropology and management anthropology, for the purposes of achieving greater cultural sensitivity in management theories, and for gaining greater acceptance of leadership by its followership. It would therefore be important to consider the diverse type of followership characteristics, coupled with differing cultural backgrounds, management approaches, and taking leadership decisions intended to inform follower behaviour in the global organisation. Follower characteristics, such as personality, openness to experience and preference for a VO versus a face-to-face work environment for introverts and extroverts, for instance, would also influence team member perceptions of the VO (Gilson et al., 2015, p. 1316). Other factors such as size of the team and demographic characteristics like gender, race and age have also been studied as inputs into the Virtual Team environment (Martins & Shalley, 2011; Mockaitis et al., 2012).

5.5.6 *Interpersonal relationships*

Various aspects of interpersonal relationships have been studied over the years to establish their role in team effectiveness and performance. Interpersonal trust involves cognitive and affective evaluation of other individuals in family and secondary relationships, thereby offering the foundation of strong relationships (Horwitz, Bravington, & Silvis, 2006) Back in 1977, Weimann identified five factors that determined interpersonal competence, which included: affiliation or support; empathy; behavioural flexibility; social relaxation; and interaction management. More recently, Mogale and Sutherland (2010) found that certain social and emotional capabilities (energising, networking and alliance-building, decisiveness and good interpersonal skills), are necessary for ensuring success in multinational virtual teams. Personal trust was considered integral by participants in this research for assisting in building intra-organisational trust which is pivotal in the context of organisational culture within the VO. Trust was important for VTs to cope with different levels of uncertainty, since, from a social perspective, trust

permits necessary knowledge sharing, delegation and cooperation (Gilson et al., 2015; Maynard et al., 2017), all of which impact on the organisation's effectiveness.

Low trust teams lack awareness and a vision towards common goals, are characterised by power battles and misunderstanding, and members have little social interest in other team members (Coppola, Hiltz, & Rotter, 2004; DeRosa, Hantula, Kock, & D'Arcy, 2004; Harvey et al., 2004; Lawley, 2006; Shin, Kim, Choi, & Lee, 2016). On the other hand, Ford et al. (2017) described members of high trust teams as being aware of, and sharing common goals, focusing on shared power and facilitation, and making attempts to meet face to face or otherwise interacting on a social level geared to build interpersonal relationships. Kirkman et al. (2012), stated that it was important for managers to rethink old notions of control in order to move beyond the fear of losing control, and being more open to employee-centred ways of working. In this context, leadership is challenged to ensure that a culture of trust is fostered for performance, despite the lack of physical oversight over their direct reports. This type of leadership was viewed as more supportive in contexts where team members might have felt isolated and that their efforts were not always recognised (Byrd, 2019). In the current study, the role of leader feedback, coaching and guidance was shown to have a positive influence upon the learning of team members within the virtual work context.

The impact of interpersonal relationships emerged as a major theme in the current study. Respondents explained how and why they felt that work effectiveness was contingent on the quality of personal relationships that they were able to develop and foster within their virtual work teams. Prioritising these relationships could happen face to face where this was possible, or it could also happen through adopting deliberate actions that encouraged positive enquiry, learning and feedback. Intentional face to face interactions, where these were possible, and deliberate reaching out using different virtual tools where these were not, provided a stimulus for trust and effective working in the VT and VO.

Studies of the socialisation process in organisations provide some insight into how group members acquire the necessary technical and social skills that allow them

to gain the knowledge for execution of tasks, as well as group norms and expectations (Bandura, 2018). Because socialisation is a form of learning process that focuses on shared experiences and therefore tacit learning of mental models and technical skills, understanding how it happens in virtual groups provided insight into how team members develop a sense of belonging in the group leading as they develop norms, cohesion and a sense of identity in the team (Ahuja & Galvin, 2003; Bandura, 2018). In other words, understanding the process of socialisation in VOs also assists in the understanding of the process of learning and therefore cultural formation within these organisations.

Communication of expectations of standards ought to be explicit in virtual contexts, as socialisation of members was not always possible via observation since observation is limited (Charlier et al., 2016; Daim et al., 2012). As regulative and normative information could not be shared verbally, it was important to have alternative methods for communicating norms and social expectations. Consequently, if social learning is a complicated process in VOs, it may be expected that the development of organisational culture in VOs will also be complex on account of the fact that social learning constitutes an integral part of cultural transmission within the VO environment (Van Oorschot, 2013; Bresman, 2013; Ahuja & Galvi, 2003; Boyd & Richardson, 1996; Schein, 1984).

5.6 Integrating theory and findings from current study

The nature and purpose of theory, according to Charmazian grounded theory is as follows:

> *Theories present arguments about the world and the relationships within it … My preference for theorizing – and it is for theorizing not for theory – is unabashedly interpretive. Theorizing is a practice … The fundamental contribution of grounded theory methods resides in offering a guide to interpretive theoretical practice not in providing a blueprint for theoretical products.” (Charmaz, 2006, p. 129).*

Theory is a general statement of concepts and how their interrelationships show how and/or why a phenomenon occurs, and in grounded theory studies this theory emerges in the data responsible for generation of these concepts (Gehman et al., 2018). This general statement must be able to transcend the historical background and world views of the various actors of the research in order to theorise effectively; this means that the statement must be capable of highlighting the context of a study, while recognising the theoretical context in which it occurs (Hamann et al., 2020). It is important that while theory makes a unique contribution insofar as context is concerned, a study's purpose statement and results should be comparable to previous theory and work. Rocco and Plakhotnik (2009, p. 121) commented that "even qualitative empirical studies using grounded theory must be connected to a body of literature, conceptual framework or theoretical framework".

While the existing body of literature supports the need for the study, this is not to mean that there is a single 'truth' or that the value of the results is in a single narrative. Roth and Mehta (2002) proposed that different individuals hold their own idea of the truth and thus there are multiple versions of 'truth' representing a diversity of perspectives. Grounded theorists are more interested in understanding why variability exists rather than in trying to control it (Gehman et al., 2018). What is of more interest to them is the suspension of prior knowledge when theorising in order to develop a robust understanding of the phenomenon as given by those living it, so as to develop the best theory possible. By the researcher applying an interpretive lens upon the data, she was able to analyse the data in a way that helps the observer makes sense of it. Process approaches focus more on deepening the data rather than explaining variability, and so it can be expected that any two researchers will have different explanations for the same data (Delbridge & Fiss, 2013). The data is thus subject to continuous theorising on account of incoming data and arguments that are presented, thus theory is an active, ongoing process rather than a final position (Charmaz, 2017a). Indeed, this is the basis of the interpretivist approach which advocates for an understanding of patterns of behaviour rather than a common version. The data is subject to the interpretation of the researcher, and thus never becomes a truth or fact, as it were, and the

researcher's role becomes one of uncovering the different versions and interpreting these for the best possible meaning (Charmaz, 2017a). The data is not itself similar, but the patterns of relationships across concepts is similar and allows the researcher to subjectively interpret their meaning using a dialectical framework (Flick, 2018a).

The relationships across concepts are demonstrated in different contexts through adherence to principles of methodological rigour, moving between data and interpretation in a systematic way while maintaining the uniqueness of individual data, as described in Chapter 3. Thus the concepts identified and relationships drawn were substantiated as theory because they can be successfully applied in another similar setting. It also means that these same relationships can be attributed to underlying forces or mechanisms in similar contexts for development and change (Langley et al., 2013), and in this particular case, insofar as they relate to the formation and manifestation of organisational culture and coming to an understanding of why people act the way they do, they make sense of seemingly irrational behaviour (Schein, 2010). Despite the dialectical thinking required during the interpretation of data, culture wasn't inferred only through behaviour of participants, but was also viewed as an interplay of cultural disposition and context, reflected through shared understanding across actors in organisations (Schein, 2011).

The various codes applied to data differ, depending on the particular grounded theory approach that one takes, since this forms the critical link between data and the explanation of social phenomena that emerges from the coding (Saldaña, 2018). Charmazian grounded theory is less focused in developing dense or abstracted theory (as emphasised by Strauss and Glaser respectively), and more interested in the multiplicity of participants' experiences as the basis of discovery of social processes (Apramian et al., 2017). Roulston (2010) argued that research interviews ought to be based on a similar principle of evolution, thus, incoming data was relative, partial and arbitrary rather than unitary and finalistic. These considerations were important in the design of the study and in the decision to also

analyse archival documentation as well as consider non-verbal cues captured in memos. In order to achieve more diversity in theorising knowledge in management theory, Delbridge and Fiss (2013) suggested that more transparency and attention to power dynamics in organisations was required, that is, more attention should be paid to the impact of powerful individuals who impact change or maintaining of the status quo. It was therefore important in theorising from the data findings that the impact of the managers or leaders within organisations was captured. In addition, the impact of other influential players such as matrix reporting lines or business partners was taken into account during the theorising process.

To recap, the summary of findings for the current study were that in order for culture to develop within the VO and VT, the various players within the dynamic and meta-institutional environment needed to focus on the following three main factors within the area of concern -

i. Maintaining organisational effectiveness, which encompassed the following two sub-categories:

   a. Effective work processes; and
   b. A conducive work environment.

ii. Dealing with virtuality.

iii. Managing interpersonal relationships, which also comprised the following two sub-categories:

   a. Work relationships; and
   b. Personal relationships.

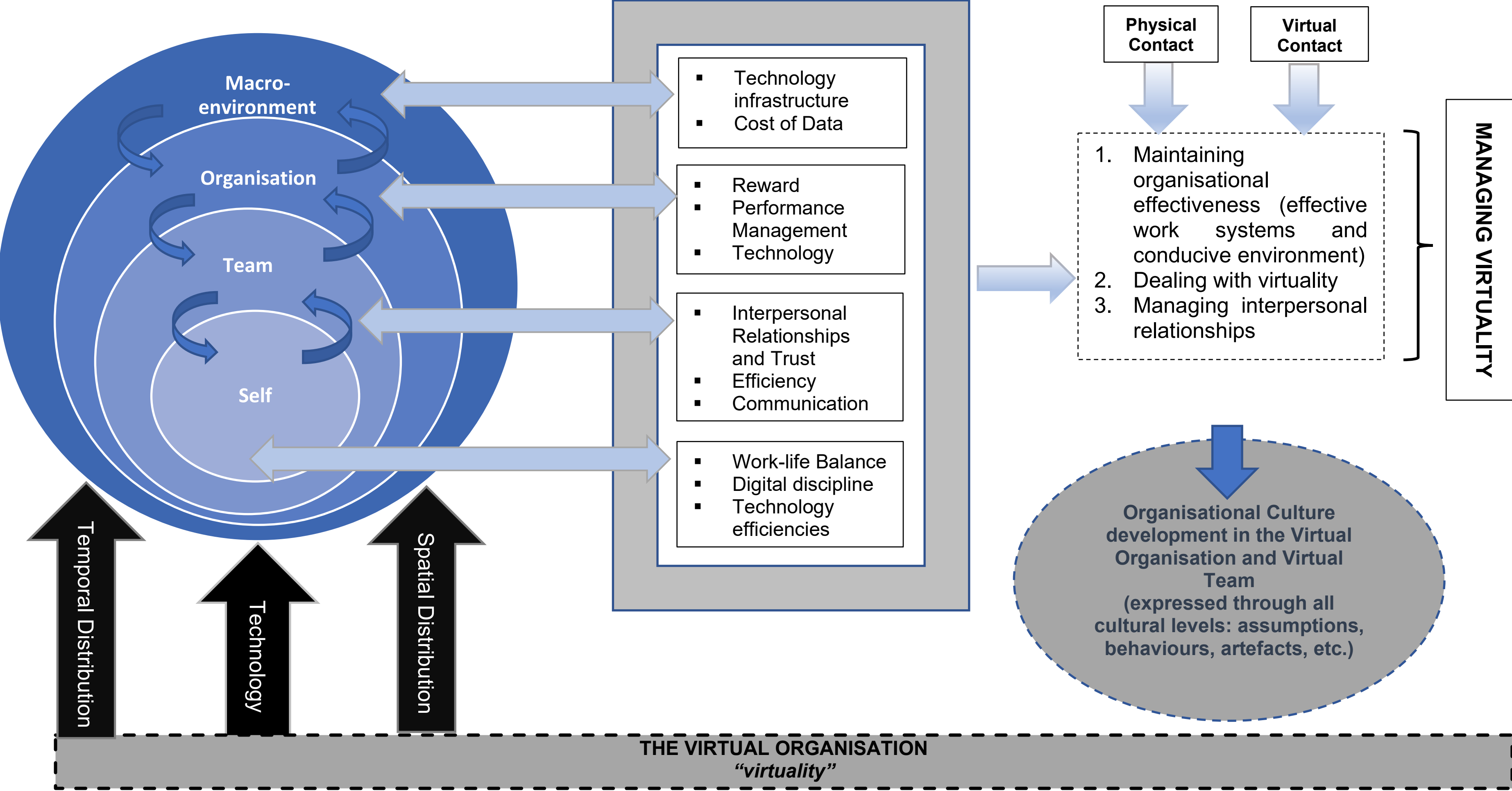
The current research found that it was in dealing effectively with these three main themes of the study that the core theme of the study emerged within the virtual organisation and virtual team – ***managing virtuality***. Managing virtuality was the core finding obtained from studying the core concern of the study, and respondents

theorised about how organisational culture formed around this key theme. The virtual organisation and team needed to focus their efforts on managing virtuality effectively in order for organisational culture to form and persist. Based on the data from the present study, the process of culture formation in a virtual organisation and virtual team involves managing virtuality by effectively dealing with virtuality, maintaining organisational effectiveness and managing interpersonal relationships. At the same time, this must all happen in a context of actively building interpersonal relationships through minimal physical contact, or none at all, in the work environment.

At the same time, it found that to build and maintain healthy interpersonal relationships, one realised the need to carefully manage the integration of their personal and professional lives. The ability to establish some physical contact (albeit limited) with colleagues played a significant role in the time it took for establishing interpersonal relationships. Those respondents without early face to face opportunities for establishing interpersonal relationships had the opportunity to do so from establishing psychological connections using virtual work tools, such as telephony, internet calling, WhatsApp and email. It was imperative that the various players within the virtual work context, such as leaders, their followers and business partners, moved from merely dealing with the virtuality to proactively anticipating the context and strategically managing the elements of virtuality within a global cultural context. However, in managing how to operate effectively, stakeholders interacting with the virtual work context needed to recognise that the meta-institutional environment of virtual operation transcended temporal distribution, spatial distribution and technology. In addition to these foundational architectural characteristics of virtuality, the concept also encompasses factors that impact on the ability to access digital resources and psychological factors associated with the level of digital engagement.

A detailed summary of these findings is depicted in Figure 13 below:

Figure 13: Culture development in virtual organisations and virtual teams



CHAPTER 6. CONCLUSIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

6.1 Introduction

The present research found that for organisational culture to develop, members of VTs working in VOs needed to deal with the central characteristic of virtuality while maintaining organisational effectiveness and managing interpersonal relationships. The core theme that emerged was that the process involved managing virtuality.

6.2 Summary of findings

Organisational culture in VOs occurs within a dynamic context that involves several players, all constituting an organisation's meta-institutional field. At the level of the macro-environment, technology infrastructure and the cost of data affects the cultural development process. At the organisational level, reward and performance management mechanisms, together with technology capabilities, influence culture formation. The organisational culture is also expressed through various technology enabled behaviours and digital artefacts. At the team level, interpersonal relationships underpinned by trust are central to the team's effectiveness and efficiency, with communication and feedback being central to the culture learning process. Finally, at the individual level, balancing work and other life priorities is essential, together with leveraging technology efficiencies and exercising digital discipline.

These various factors found within the extra-institutional and intra-institutional fields, when analysed, resulted in three main themes within the area of concern. Firstly, dealing with virtuality was the cross-cutting theme that underpinned the cultural development process within the virtual work context – how effectively this was done determined, "how things got done", and was an ever-present factor in the minds of actors at various levels. Secondly, the need for maintaining organisational effectiveness flowed from this central theme – the need to balance

what was considered enabling and debilitating, or the pros and cons of virtuality. Lastly, and flowing from the concept of dealing with virtuality, was the need to effectively balance interpersonal relationships between the work and personal levels in order to cope effectively within the VO and VT. These three main themes all culminated in a central or core theme of the study – the management of virtuality.

6.3 Theoretical contribution

The theoretical contribution of the present study was in the development of a theoretical model (Figure 13 above), describing the process of culture formation in virtual organisations and virtual teams, advancing the understanding of how culture is expressed in the virtual work context and in the definition of virtuality. These contributions are summarised in Table 7 below.

Table 7: Theoretical contribution of the current study

<table>
<tr><th>Current Theories</th><th>Contribution</th></tr>
<tr><td colspan="2">a. Culture formation in virtual organisations and virtual teams</td></tr>
<tr><td>N/A</td><td>▪ The present study found that culture formation was achieved through all actors managing virtuality by balancing organisational and interpersonal factors.</td></tr>
<tr><td></td><td>▪ The present study made the following methodological contribution to the interpretivist grounded theory approach:
o Utilisation of 3 lenses of interpretivism – the researcher upon the participant, the participant upon archival data and the researcher upon archival data;
o The use of Gerunds as ‘categories’ instead of codes to facilitate the categorisation of data; and
o The focus on psychological processes instead of actions for thematic analysis to recognise that the virtual work culture context is expressed through digital artefacts, symbols and interpretation rather than through physical expression.</td></tr>
</table>

Current Theories	Contribution
b. Culture expression in virtual organisations and teams	
Plavin-Masterman (2015) Acknowledged the existence of organisational culture and the concept of 'shared meaning' in the VO. Did not explain how this sense of shared meaning came about.	▪ The present study described the **dynamic process** through which a sense of shared meaning is achieved and expressed: o Culture is expressed through various communication types, particularly through digital artifacts, symbols and interpretation as described above, and feedback plays a particularly critical role in encouraging and deterring behaviours. o Communication takes the form of various forms, including email, internet-based communication (Webex, Skype, Viber, Zoom, etc.), mobile phones and mobile apps like WhatsApp. o Non-verbal expressions (graphics like photographs, GIFs and emojis) play a key role for enabling quick and engaging communication between team members.
c. Virtuality	
Kirkman et al (2012) ***Krumm et al (2016)*** Described the distinguishing characteristics of the environment within which virtual organisations operated (i.e. temporal distribution, spatial distribution and technology enablement) as virtuality	▪ The present study defined the concept of virtuality as the total meta-institutional environment within which virtual organisations operated, i.e. *temporal distribution + spatial distribution + technology enablement + digital access + digital interaction = virtuality.*

6.4 Developments in virtual work

Virtual work increased by at least 86% between 1995 and 2015 (Slade, 2015). Given that the rise in virtual work has been associated with increased digitalisation, it may well be expected that these numbers have increased exponentially since then to much higher levels. There appears to have been a renewed focus on virtual working and studies have focused on various segments of research (Raghuram, Hill, Gibbs, & Maruping, 2019). One segment that has been growing is virtual work efficacy, given different working arrangements like

teleworking and telecommuting – for example – fostering engagement (Panteli et al., 2019); online collaboration (Darics & Cristina Gatti, 2019); leadership action learning (Byrd, 2019) and virtual team well-being and identity (Gibbs, Hill, Kossek, & Nurmi, 2019; Shaik, Makhecha, & Gouda, 2020). As more and more organisations offer the option of virtual work to their employees, the area of the effectiveness of individuals in the virtual working environment is a growing area of investigation, given the perceived lack of control of team members. It also becomes important that organisations offering virtual work options ensure that their employees have adequate tools and supporting technology infrastructure for enabling delivery of required work. This would also present an opportunity for organisations to leverage ever-evolving technologies and digital solutions to ensure that they are maximising these platforms for the best delivery of work results.

6.4.1 *The Covid-19 pandemic*

The novel Corona virus or the Covid-19 pandemic and resultant nationwide lockdowns forced millions of workers around the world to work virtually full time, or at least part time since 2020. By October 2020, it was reported that 33% and 25%, respectively, of workers remained working virtually, full time, (Gallup, 2020). During the same period, maintaining strong organisational performance was found to be possible through the use of effective e-leadership skills, like trust and appropriate technology use, including the use of social media platforms (Mustajab et al.) It has also been demonstrated that leaders need to play an even stronger role in maintaining the organisational mission and sense of shared meaning within virtual work teams, and need to broker as well as foster effective work relationships amongst virtual team members (Levin & Kurtzberg, 2020). During this health pandemic, the role of human resources practitioners has also been transformed, to focus on continuous learning, engagement and retention of employees in virtual work contexts (Yawson, 2020). The Covid-19 pandemic has also placed a renewed focus on employee wellbeing, as part of employee engagement, through the need to provide social and emotional support for

employees during prolonged periods in which they are being forced to operate within virtual work conditions. Antonello, Panzenhagen, Balanzá-Martínez, and Shansis (2020) found that increased incidents of poor health and anxiety were associated with prolonged periods of social isolation, particularly for the elderly, who faced, on average, longer periods of reduced social contact due to the inherent Covid-19 risk, on account of age.

The Covid-19 pandemic has led to a rethinking of the conventional work environment and work cultures globally, meaning that the recommendations of the current study become useful and practical insofar as how organisations recognise what they need to do in order to strengthen organisational culture and manage virtuality within teams. Even though remote working opportunities have been commonplace over the past decade, employees were usually the ones who were requesting the flexibility to work from outside the office. The Covid-19 environment created, for the first time, an environment in which employees were being compelled to work from home by governments and/or employers. The impact of a sudden and mandatory virtual working context created an environment for employees in which certain unplanned stressors (such as childcare and domestic responsibilities) were thrust upon them without warning. Recently, at a Reuter's conference in January 2021, the Unilever chief indicated that the company's office workforce would not be returning to a five-day office week. This followed a Twitter announcement that all its employees would have a choice to work remotely "forever" (Guardian, 2021). The impact of being required to work virtually, with additional domestic and childcare responsibilities, contrasted to the virtual work context in which the employee worked in optimal personal conditions from the onset, and was outside the scope of the current research. However, it may be expected that the effect of forced virtuality upon workers will have a different impact, compared to the context of the current study, where participants were well prepared to work in a virtual work context from the onset.

6.5 Suggestions for future research and conclusion

The present grounded theory study involved participation from 18 interviews carried out across seven countries and three continents and included five sets of archival data. From the data analysis of the grounded study, the geographical spread of respondents and national culture did not have an impact on the process of culture formation within the global context. However, it would be useful to test the impact of the various aspects of the framework, such as the extent and direction of how managing virtuality impacts organisational effectiveness and interpersonal relationships. An additional dimension might also be how 'unpredictable virtuality', such as that thrust upon millions of employees on account of Covid-19 during 2020, impacts organisational effectiveness, working relationships and mental wellbeing, and how this differs from contexts of anticipated virtuality. Insights into the types and strength of impact, as well as relationships between variables, would help organisations understand what type of management efforts during culture formation would yield the greatest return (and conversely, what the corresponding detrimental impact that a lack of focus on components would have) upon the organisation.

Additionally, communication and feedback were highlighted as key components in the theoretical model from this research. The extent of impact of these two components on individual performance and organisational effectiveness could be investigated to guide approaches on individual and organisational learning within the virtual work context. Research carried out in recent months during the Covid-19 pandemic has indicated, for instance, that virtuality can result in increased intergenerational breakdown in communication (Urick, 2020). Research into what virtual team members need to learn in order to improve their relationships and experience in the virtual organisation would also provide insights for improving employee engagement within the virtual work context.

Lastly, an investigation into the various types of informal communication within the virtual organisation and work team would also test the efficacy and impact of different technology platforms. In particular, the role of the growing use of non-

verbal and non-linguistic forms of communication such as emojis, emoticons, GIFs, and other visual representations of human feelings within a virtual work context. The extent of use as well as the appropriateness of use under different circumstances would also be an area of research that yields useful insights for future contexts of work. The theoretical model presented within this study provides a basis for testing the nature and strength of the relationships between variables of interest within the virtual work context.

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