

**An examination of the influences of telecommuting on
employee satisfaction and organizational citizenship
behaviour in the information technology industry in
Singapore**

A thesis submitted in partial fulfilment of the requirements of Edinburgh Napier
University, for the award of Doctor of Business Administration

NEO Hong Tat
Date of Submission (October/2020)

Abstract

Telecommuting or telework has seen slow adoption over the years with some large corporations rescinding their support for this practice. While studies have linked telecommuting to favorable organizational outcomes such as employee satisfaction, organizational performance, reduced turnover intentions, higher employee commitment, some other studies have shown debatable outcomes. This thesis aims to study the influence of telecommuting support on employee satisfaction and organizational citizenship behaviour in the IT industry in Singapore. Using sequential-mixed methods approach, this study collected data from 100 IT employees familiar with telecommuting using purposive sampling comprising online questionnaires as the first step, followed by in-depth interviews with five managers. The findings conclude that telecommuting support positively impacts employee satisfaction and organizational citizenship behaviour. Disadvantages of telecommuting often cited in literature are not found to be significant variables. The presence of elderly dependents is a predictor for increased organizational citizenship behaviour while employees working in large multinational companies larger than 250 employees are found to have decreased organizational citizenship behaviour. There are 10 factors identified to influence manager's adoption of telecommuting practice for their work teams. The results from this thesis enable the proposal of a telecommuting adoption conceptual model where managers can lend guidance in the adoption of telecommuting for their organizations.

Acknowledgements

This thesis is dedicated to my beloved wife Peh Ling for her unwavering support throughout the DBA journey which seemed never ending at some point in time. An athlete's ability to win hinge's heavily on the support team. I am sure it must be more stressful for her when it comes to the kids than my thesis is for me.

To my boys Enzo and Ettore who are still young and bubbly:

“Boys, there is no right method in life, you will grow up just right and fine!”

“With perseverance and enough thoughts, you shall have what you need in life”

I hope both of you will remain happy and inquisitive for a long time to come.

Both of you are the greatest gifts I have ever received.

To my friends and colleagues, who had to encourage me through the tough times, when the 3.30 a.m. days hits me hard, I thank you from the bottom of my heart. I promise not to be critical when we are just having a conversation.

To my supervisors, Dr Kirsteen Grant, Dr Helena Lee, Prof. Richard Whitecross and Dr Eleni Theodoraki, thank you for reining in my messy mind, reading through multiple versions of my thesis, and guiding me successfully to this stage. Your patience is greatly appreciated because I understand the amount of texts you have to read through on a daily basis.

To my tutors, Dr Gerri Matthews-Smith, and Dr Janice McMillan, I am already sold on Unit one. Your mentoring really made the journey to be worthwhile and challenging at the same time. I am happy to say that this is the best course I have ever embarked on.

To my DBA classmates, especially Stanley and Jeffrey, the pleasure of acquaintance is all mine, all the best!

Declarations

I hereby declare that the work presented in this thesis has not been submitted for any other degree or professional qualification and that it is the result of my own independent work.

NEO HONG TAT

Full Name Goes Here (Candidate)

1st Oct 2020

Date

Contents

Abstract	2
Acknowledgements	3
Declarations.....	4
List of Figures	8
List of Tables.....	8
1. Introduction	10
1.1. Background of the study	12
1.2. Problem statement.....	13
1.3. Research purpose	14
1.4. Research Aim and Objectives	16
1.5. Objectives of study.....	16
1.6. Research Significance	17
1.7. Structure of Thesis	18
2. Literature Review.....	19
2.1. Understanding Telecommuting.....	19
2.2. Telecommuting as part of flexible work arrangements.....	21
2.3. Enablers of telecommuting	22
2.3.1. <i>Telecommunications</i>	22
2.3.2. <i>Information Technology</i>	23
2.4. Drivers of Telecommuting	24
2.4.1. <i>HRM and Competitive Advantage</i>	24
2.4.2. Reduction of commuting time.....	26
2.4.3. Telecommuting pairing with other forms of flexible work arrangements	27
2.4.4. Generation Z employees	27
2.4.5. <i>Absenteeism and talent retention</i>	28
2.4.6. <i>Presenteeism</i>	29
2.4.7. Activating the female workgroup	30
2.4.8. Business continuity	31
2.5. Challenges in adopting telecommuting.....	31
2.5.1. <i>Inconsistent telecommuting outcomes</i>	31
2.5.2. <i>Productivity of telecommuting</i>	33
2.5.3. <i>Managers' Trust</i>	33
2.5.4. <i>Individual role conflicts</i>	35
2.5.5. <i>Organizational type and size</i>	35
2.5.6. <i>Blurring demarcation and employee isolation</i>	38
2.5.7. <i>Summary of Telecommuting Literature</i>	38
2.6. Employee Satisfaction (ES)	40

2.6.1.	<i>Employee Satisfaction and Job Satisfaction</i>	41
2.6.2.	<i>Drivers of Employee Satisfaction</i>	42
2.6.3.	<i>Telecommuting and Employee Satisfaction</i>	42
2.6.4.	<i>Measurement of Employee Satisfaction</i>	44
2.6.5.	<i>The Curvilinear relationship of Telecommuting and Employee Satisfaction</i> 45	
2.6.6.	<i>Summary of Employee Satisfaction Literature</i>	45
2.7.	Organizational Citizenship Behaviour (OCB)	46
2.7.1.	<i>Categories of Organizational Citizenship Behaviour</i>	47
2.7.2.	<i>Organizational Citizenship Behaviour and Employee Satisfaction</i>	48
2.7.3.	<i>Telecommuting and Organizational Citizenship Behaviour</i>	49
2.7.4.	<i>Organizational Citizenship Behaviour and Trust</i>	50
2.7.5.	<i>Organization Citizenship Behaviour reciprocation</i>	51
2.7.6.	<i>Summary of Organizational Citizenship Behaviour Literature</i>	52
2.8.	The research gap and research questions	52
2.8.1.	<i>Telecommuting in Singapore</i>	52
2.8.2.	<i>Information Technology industry in Singapore</i>	53
2.8.3.	<i>Differing views on relevance of Telecommuting</i>	55
2.8.4.	<i>Research questions</i>	56
2.8.5.	<i>Gaps identified in contemporary Literature</i>	57
3.	Research Methodology and Methods	62
3.1.	Philosophy	62
3.2.	Ontology	63
3.3.	Epistemology	64
3.4.	The link between Ontology and Epistemology	65
3.5.	Researcher’s Philosophical Stance	67
3.6.	Ethics and Axiology	69
3.7.	Research design: Mixed Methods Sequential Approach	70
3.8.	Sampling	72
3.9.	Research Procedure	78
3.10.	Methods	79
3.10.1.	Data Collection and Analysis	80
3.10.2.	Independent Variable: Telecommuting Support	82
3.10.3.	Dependent Variable: Employee satisfaction	84
3.10.4.	Dependent Variable: Organizational Citizenship Behaviour	85
3.10.5.	Control Variables	86
3.11.	Manager’s Perceptions	88
3.11.1.	The Big Five approaches to Qualitative Methodology	89

3.12.	Interview Process	92
3.13.	Coding Procedure.....	93
3.14.	Pilot Study.....	102
3.15.	Summary of methodology and methods chapter.....	103
4.	Data Analysis and Findings	104
4.1.	Quantitative investigation	104
4.2.	Relationship between Variables.....	105
4.2.1.	Examining the association of Telecommuting Support and Employee Satisfaction.....	108
4.2.2.	Examining the association of Telecommuting Support and Organizational Citizenship Behaviour.....	109
4.2.3.	Examining the association of Disadvantages of Telecommuting and Employee Satisfaction and Organizational Citizenship Behaviour	109
4.2.4.	Determining the impact of Telecommuting Support and Employee Satisfaction.....	110
4.2.5.	Determining the Impact of Telecommuting Support and Organizational Citizenship Behaviour.....	111
4.2.6.	Investigation of Dependent Variables' interaction with Control Variables	111
4.2.6.1.	Employee Satisfaction (DV)'s statistical significance with Control Variables	112
4.2.6.2.	Organizational Citizenship Behaviour (DV) 's statistical significance with Control Variables	114
4.2.6.3.	Employee Satisfaction (DV) and Control Variables Hierarchical Linear Regression.....	116
4.2.6.4.	Organizational Citizenship Behaviour (DV) and Control Variables Hierarchical Linear Regression.....	117
4.2.7.	Quantitative summary	118
4.3.	Exploring Manager's Perceptions of Telecommuting Support.....	120
4.3.1.	<i>Employee's Individualism</i>	124
4.3.2.	<i>Employee's Discipline</i>	125
4.3.3.	<i>Employee's Productivity</i>	127
4.3.4.	<i>Employee's Career Progression</i>	129
4.3.5.	<i>Psychological Contract</i>	130
4.3.6.	<i>Organizational Citizenship Behaviour</i>	133
4.3.7.	<i>Talent Retention</i>	134
4.3.8.	<i>Trust</i>	135
4.3.9.	<i>Business Continuity</i>	136
4.3.10.	<i>Telecommuting guidelines</i>	139
4.4.	Summary of Findings	140
5.	Discussions.....	141

6. Contributions and Conclusions	153
6.1. Achievement of Research Aim	153
6.2. Contribution to Knowledge.....	154
6.3. Contribution to Practice	155
6.4. Limitations of study	158
6.5. Recommendations for Practice	159
6.6. Future areas of research	160
References	162
Annex 1- Online Questionnaire	182
Annex 2- Semi-Structured Interview Questions	187
Annex 3- Research Consent Forms.....	188

List of Figures

Figure 1. Household penetration rate in terms of wired broadband according to the national survey from 2017 to 2019 (IMDA, 2020)	23
Figure 2. An overview of the coding process by Williams and Moser (2019, p.47)	96
Figure 3. A cyclical coding process illustration by Williams and Moser (2019, p.48) ..	96
Figure 4. Proposed Telecommuting Adoption Conceptual Model from (Source: Author)	147

List of Tables

Table 1. Average Monthly Resignation Rate by Industry and Occupational Group	54
Table 2. Characteristics of the Sample (Research Participants)	74
Table 3. Demographic Profile of Managers Interviewed in this Thesis	76
Table 4. Cronbach's Alpha Test on Telecommuting Survey Questions	83
Table 5. Cronbach's Alpha test on Employee Satisfaction survey questions	85
Table 6. Cronbach's Alpha Test on Organizational Citizenship Behaviour Survey Questions	86
Table 7. Demographic Profile of Participants in Samples	86
Table 8. Contrasting Foundational Considerations of Five Qualitative Approaches (Source: Creswell and Poth (2018, p.104)	91
Table 9. Contrasting Data Procedures of the Five Qualitative Approaches (Source: Creswell and Poth (2018, p.105).....	91
Table 10. Open coding and associated quotes (Source: Author)	97
Table 11. Axial coding showing the convergence of codes from open coding	100
Table 12. Selective coding showing the further classification of codes and identification of themes	101
Table 13. Emerged Themes.....	102
Table 14. Descriptive Statistics and Correlations	107
Table 15. Results for Linear Regression with Telecommuting Support predicting Employee Satisfaction.....	110
Table 16. Results for Linear Regression with telecommuting predicting OCB	111

Table 17. Multiple Regression Table of Employee Satisfaction with Control Variables	113
Table 18. Multiple Regression Table of Organizational Citizenship Behaviour with Control Variables	115
Table 19. Hierarchical Linear Regression Model	116
Table 20. Hierarchical Linear Regression Model	117
Table 21. Emerged Themes and quotes describing manager's perceptions of telecommuting.....	122

1. Introduction

Eight in ten employers in Singapore allow their staff to work from home (SBR, 2012). However, the real telecommuting figures are not easy to verify statistically as telecommuting tend to be a “formalized discretion” by managers (Kelly & Kalev, 2006, p.382). Telecommuting has been a controversial topic where employees demanded it with the skepticism from managers. Yet, telecommuting is seen as a star form of work to solve the issue of work-life balance in the new knowledge-based economy where it is described as an economy where “consumption of material goods gradually gives way to a prevalence of knowledge and information” (Gálvez, Tirado & Martínez, 2020, p.5). There are many factors driving the need for telecommuting. However, from a management point of view, this is not yet commonly accepted, as the governing process is problematic (Rasmussen & Corbett, 2008). Much of the current research on telecommuting focuses on employees and organizations in the western context. Telecommuting was a relatively new phenomenon among companies in Singapore (Lim & Teo, 2000. p.561). Much telecommuting research continue to remain focused on western context currently. However, telecommuting has been more accepted in Singapore over the years.

Telecommuting practice has gained adoption in Singapore over the years since 1970s when Jack Niles first coined the term telecommuting, benefits associated with the presence of this practice are not always apparent to organizations. One of the key benefits commonly claimed in literature with respect to employees include improved work life balance (Hornung & Glaser, 2010). Benefits stemming from the organizational stance included employee satisfaction (Igbaria & Guimaraes, 1999), decreased turnover intentions (McNall, Masuda & Nicklin, 2009) and increased commitment. While there are disadvantages associated with telecommuting such as employees career progression and potentially increased employee isolation due to the

lack of office presence. There is still a lack of agreement on the adoption of telecommuting in Singapore. As such it is of interest that why the practice, which is commonly practiced elsewhere in the world still face uncertainty in its adoption in Singapore. One of the key arguments for telecommuting is associated with the satisfaction of alleviating multiple role conflicts in employees. Furthermore, employee satisfaction is intuitively linked to increased organizational citizenship behaviour as suggested in the study from (Williams & Anderson, 1991) who further suggested that managers need to go beyond pay systems to increase organizational citizenship behaviour performance. Salas-Vallina, Alegre and Fernandez (2017) claimed that organizational citizenship behaviour is essential to achieve excellence in organizations. However, telecommuting is also inevitably linked to a loss of control for managers which hinders adoption as current management philosophies are unable to address the challenges of managing virtual work environments. Adopting telecommuting programs potentially change communicating patterns, organizational culture, employee and manager relationships, and performance tracking (Watad & Will, 2003). It is another goal of this thesis to understand what are the factors that may influence managers in the adoption of telecommuting.

This thesis thus seeks to investigate if telecommuting influences employee attitudes such as employee satisfaction and organizational citizenship behaviour on IT employees in Singapore. Separately, managers are queried on their views on telecommuting with respect to employee satisfaction as well as organizational citizenship behaviour.

This study is one of the first to investigate the effects of employee satisfaction and organizational citizenship behaviour with telecommuting support using a sequential mixed-method approach. The findings suggested that telecommuting practice is essential in encouraging organizational citizenship behaviour and heighten employee satisfaction. As we progress into the “new normal” of the work environment after the

COVID-19 pandemic, manager's concern about their ability to manage a remote virtual workforce remained evident. Organizations could take the chance now to prepare management training as well as official telecommuting guidelines and policies as a handbook for managers. Wiesenfeld, Raghuram and Garud (1993) argued that manager's resistance to telecommuting could stem from the insecurity about their role in the age of virtual work. Enabling managers as change managers to facilitate the transition of more employees into telecommuting with new skills for management of a virtual workforce could alleviate their fears. Inaction of firms to better enable managers in this new virtualization of the workforce could otherwise work against the desired outcomes of the organizations decreasing employee satisfaction as well as prohibiting organizational citizenship behaviours.

1.1. Background of the study

Governments around the world as well as corporations are requesting their employees to work from home wherever possible to reduce the chances of further infections from a pandemic which is spreading globally (Regan, George, McKenzie & Vera, 2020).

Massive workforces around the world are being locked out of their workplaces and advised to carry out their work from home. Global workforces are impacted by such government orders and organizations are forced to mandate their employees to perform work remotely. This specific measure brings renewed focus on telecommuting and its necessity in organizations during non-pandemic times.

Telecommuting has been practiced since the 1970s when Jack Niles first introduced the term. Since then, organizations have adopted telecommuting as part of flexible work arrangements. While the definitions of telecommuting remained inconclusive, adoptions of the practice in various forms have grown over the years. Though the applications of

telecommuting have become more diversified, corporations have questioned the efficacy of the practice. If telecommuting could be made mandatory during the COVID-19 pandemic as demonstrated in the recent study of Moretti et al., (2020), what is holding adoption during non-pandemic times when academic studies had reported positive influences on employee satisfaction (Igarria & Guimaraes, 1999), decreased turnover intentions (McNall, Masuda & Nicklin, 2009), better work life balance (Hornung & Glaser, 2010)? This sets the background of this thesis into exploring the influences of telecommuting on employee satisfaction and organizational citizenship behaviour on IT employees in Singapore.

1.2. Problem statement

The modernization of information communications and telecommunications had brought about changes in how organizations conduct work around the world enabling telecommuting (D'Arruda, 2001). Work is no longer confined to the office or within a local geographical location. Work can now be performed anywhere, anytime and on any digitally connected device to the network allowing telecommuting with the use of virtual private networks (VPN) (Bucşa, 2020). The information technology industry being the enablers of digitization could be argued to be more equipped than other industries to enable their employees to telecommute. Most employees in IT organizations in Singapore today are equipped with portable computing devices which allowed work to be performed remotely. This technological advancement had initially enabled organizations to grant employees the flexibility of bringing work home to complete them after office hours or enable the physically challenged to perform work remotely (D'Arruda, 2001). This also allows employees to perform work remotely to allow employees some flexibility in resolving challenges at home i.e., care of young

child who is unable to attend school occasionally etc. There are professions or roles where telecommuting is not suitable as detailed by Watad and Will (2003) ...

“Telecommuting is not suitable for employees who require intensive face-to-face interaction with coworkers and customers, or who require physical resources to handle their work” (Watad & Will, 2003, p.464). A further study done by Cetrulo, Guarascio and Virgillito (2020) in Italy suggested that only about 30% of the workforce have occupations which could be conducted from home with woodcutters, miners, constructions workers and fishermen ranking the top professions which cannot be conducted from home. Occupations involving specialized field knowledge, managerial and executive positions where organization of work activities can be self-arranged are more likely to be able to be conducted remotely (Cetrulo et al., 2020).

However, as digitization of process (emails) and products (software and applications) permeated into more and more industries, the likelihood of work being performed remotely on portable computing devices increased. A necessary precursor to telecommuting is information technology maturity within the country as well as the organization. Higher job performance is reported for telecommuters who have complex job designs, low levels of interdependence and social support (Golden & Gajendran, 2018).

1.3. Research purpose

Telecommuting is not a new practice. Van Meel (2011) described that the new ways of working today originated from the 1970s. Van Meel (2011) explained that typewriters of the 1970s were just replaced with personal computing devices and that long distance teleconferences had already existed during that era albeit with lower quality images and audio and exclusive. A conclusion that Van Meel (2011) highlighted is that telecommuting may never be fully achievable due to the need for employees to stay socially connected and build their social influence and not to be excluded from social

contacts and gossips. However, Van Meel (2011) did note that employees enjoyed the flexibility of working from home sometimes.

Stanworth (1998) examined the effects of telework and found that gender imbalance could persist with males dominating the categories of higher paid part time telework. Part time telework according to Stanworth (1998) referred to employees who enjoys the best of both worlds working from office when required and working from home when needed (telecommuting). Stanworth (1998) further pointed out that females were more usually found in the category of full time telework (tele sales), however fully virtualized organizations remained scarce.

The perceived benefits brought to the firm by allowing employees to telecommute could be summarized into reduced absenteeism (Kocakülâh, Kelley, Mitchell & Ruggieri, 2009), increased productivity (Ruth & Chaudhry, 2008; Claudiu, 2017). The acclaimed benefits argued to be felt by employees through flexibility of work conditions ranged from increased job satisfaction, increased work life balance and increased commitment and citizenship behaviour (Igbaria & Guimaraes, 1999; Hunton & Norman, 2010; Solanki, 2013). There is evidence that telecommuting could be pro-poor where it can elevate the income and quality of life for the rural poor (Kanellopoulos, 2011).

The influences of telecommuting on employee attitudes need to be understood by managers for an informed adoption into their organizations. Telecommuting in organizations should not be unspoken but rather be made institutional in the long run (Olson, 1983). Telecommuting is most often left to the approval of the line managers (Kelly & Kalev, 2006) as such with a clearer understanding on the relationships between telecommuting, employee satisfaction and organizational citizenship behaviour, it is the intent of this thesis to advise managers through theoretically and empirically proven recommendations on the approach to adoptions on telecommuting.

This shall be achieved by the setting of the research aim and objectives in the following section.

1.4. Research Aim and Objectives

The aim of this thesis is to investigate the effects of telecommuting in IT organizations in Singapore with regards to employee satisfaction and organizational citizenship behaviour.

The efficacy of telecommuting leading to positive organizational outcomes has been suggested in multiple literatures i.e. high-performance work practices (Poelmans, Chinchilla & Cardona, 2003), reduction of absenteeism and increased productivity (Morgan, 2004), but also had its fair share of problems such as being studied together with other types of flexible work arrangements e.g. flexitime or compressed workweeks (Ongaki, 2019; Conradie & de Klerk, 2019), isolation of telecommuters (Ahmadi et al., 2000), reduced promotional aspects for telecommuters (Khan, Tung & Turban, 1997), work family disruptions (Scholefield & Peel, 2009), blurring of work and family when telecommuting (Kelly & Moen, 2020).

1.5. Objectives of study

- To review the literature on telecommuting support and explore its influence on employee satisfaction and organizational citizenship behaviour.
- To collect and analyze the data collected from surveys with correlation analysis and regression testing.
- To explore the perceptions of managers on telecommuting's influence on employee satisfaction and organizational citizenship behaviour using a series of in-depth interviews.

- To provide theoretically and empirically proven recommendations to managers on a flexible adoption of telecommuting.

1.6. Research Significance

Human resource departments face radical changes in employee mentality and commitment where short-term benefits are preferred in a fast-changing organizational climate (Wang & PHwang, 2012). Organization structure and human resource management systems are required to change to adapt for a hyper competitive scenario. Human resource departments must function as change agents, but attention must be focused on people related issues for change to be effective (Maheshwari & Vohra, 2015). Human resource management practices which create positive employee perceptions are more likely to retain existing talents and attract new ones to refresh the internal labour market.

It is the intent of this thesis to investigate telecommuting in IT organizations and its influences on employee attitudes (employee satisfaction and organizational citizenship behaviour) to provide the empirical evidence to HR managers on the feasibility of supporting telecommuting practice as a HR initiative. This thesis captures manager's perceptions on telecommuting. These perceptions are explained by theoretical underpinning which allow the practice to be understood by HR managers. With this thesis, HR managers could be informed of what factors are influencing managers on the adoption of telecommuting but also on the potential positive correlation on employee satisfaction and organization citizenship behaviour. Using the eventual telecommuting adoption conceptual model, HR managers could find more traction to support and enable managers on their adoption of telecommuting but also present the benefits to stakeholders of telecommuting within the organization for executive support.

1.7. Structure of Thesis

This thesis is presented in six chapters namely, Chapter 1: Introduction, Chapter 2: Literature Review, Chapter 3: Research Methodology and Methods, Chapter 4: Data Analysis and Findings, Chapter 5: Discussions, Chapter 6: Contributions and Conclusions

Chapter 1 provides the context and background of the thesis where the research is located. It presents to the reader the problem set in the context leading to the research purpose. Four research objectives are communicated on how to achieve the research aim. The chapter is concluded with the research significance and its contribution to research.

Chapter 2 reviews the current literature about telecommuting with its enablers, hindrance, factors and issues, advantages, and disadvantages. Employee satisfaction and organizational citizenship behaviour are also explained and explored in terms of their relationship to telecommuting.

Chapter 3 explains the ontological and epistemological perspective of the researcher leading to the choice of research methodology and subsequent choice of sequential mixed methods approach.

Chapter 4 details the data collection process for the chosen research methods and subsequent findings through both statistical and thematic analyses.

Chapter 5 is a detailed discussion of the findings from Chapter 4 and presents a theoretical telecommuting adoption conceptual model to managers.

Chapter 6 concludes the research with recommendations for managers and firms with regards to telecommuting and how this could better enable managers as a frontline change enabler for positive telecommuting.

2. Literature Review

This chapter reviews current literature on the three major constructs which are telecommuting, employee satisfaction and organizational citizenship behaviour. In this chapter, each major construct is defined to ensure clarity i.e. telecommuting and its relationship with flexible work arrangements is explained and separated. Additionally, employee satisfaction is defined and its relationship with job satisfaction clarified. Lastly, the construct of organizational citizenship is detailed with its five commonly known categories with their origins. After which, the theories which underpinned the constructs are explored and challenged. Telecommuting with its enablers, hindrance, factors and issues, advantages, and disadvantages are elaborated. Employee satisfaction and organizational citizenship behaviour are explored in terms of their relationship to telecommuting support.

The chapter concludes with a summary of literature and identifies the gap in literature where this thesis will examine.

2.1. Understanding Telecommuting

The five-day week eight hours work schedule

The five-day work week with eight hours workday had only become popular since the beginning of the 1900s. In that era where 12 hours shift workdays were common, it was a critical first step towards a standardization of work hours. However, in the twenty-first century the advent of information technologies and rapid digitalization had enabled current knowledge workers unprecedented methods of working. Telecommuting may not just be a convenience or fringe benefit for employees, it is possible to think of a future where telecommuting is the dominant method of working (Oundjian, 2020).

Telecommuting is described as working remotely by electronic means away from office full time or some days a week (Gainey & Clenney, 2006). It allows employees to work in locations other than the predominant office location. Regardless of how telecommuting is performed: “Telecommuting does not alter the basic nature of the job. However, it can provide individuals with greater autonomy in execution of work, freedom of work location, and flexibility of work timing” (Hartman, Stoner & Raj, 1992, p.41).

The commonly known originator of telecommuting Jack Nilles described two generic forms of telecommuting where the first was work from home while the second was to work in a remote location closer to home (Nilles, 1991). The second option would require some sort of commute, but it would not require the full commute to office. This resonated with the more recent examples of working in remote locations like a café where the employee is still able to function. However, Nilles (1991) had a view that telecommunications were not a critical enabler for telecommuting as work information could be carried by employees. This could be explained by the fact that work conditions in 1990s did not have much office automation and information technology was not as developed to support general usage of telecommuting. Telecommuting is referred to as telework in some literature purportedly due to geographical differences such as USA and Europe, explored as a singular construct (Maruyama & Tietze, 2012), or as part of flexible work arrangements (Mohamed Ayman Abdel-Latif, Amal Abdelrahman & Raghda Aboulsaoud, 2015, Wadhawan, 2019). Research scholars have time and time again questioned the makeup and definition of telecommuting (Mihhailova, 2009) and this is clarified in the following section.

2.2. Telecommuting as part of flexible work arrangements

Flexible work arrangements allow the employee flexibility to work when, where, and how to achieve the tasks (Kelly, Moen & Tranby, 2011).

Flexible work arrangements could refer to one and or more of the following practices:

- 1) Flexiwork (Bryan & Sevilla, 2017)
- 2) Compressed work weeks (Vega & Gilbert, 1997)
- 3) Job shares (e.g. two employees sharing a full-time position and remuneration) (Tiney, 2004)
- 4) Telecommuting (e.g. work from home or from any other locations) (Khan, Tung & Turban, 1997)

Certain flexible work arrangement practices like compressed workweek reduces work-life conflict but flextime and telecommuting does not (Julien, Somerville & Culp, 2011). This could possibly be explained the fixated hours of some activities which occurs at specific hours e.g. fetching children back from school at 3 p.m.

Telecommuting may still render the employee vulnerable to a personal disposition happening during office hours where there could also be an expectation to attend a remote conference with a live presentation on the computer screen. Other alternative work arrangements such as flextime (or flexitime) could address this situation better than telecommuting.

Different types of flexible work arrangements have been found to have different and diverse effects within or across similarly situated employees (Saltzstein, Ting & Saltzstein, 2001). Saltzstein et al. (2001) argued that while telecommuters reported greater job satisfaction, but work-family balance satisfaction was negatively influenced.

Flexibility in work schedules made organizations appear more attractive to job applicants as compared to the absence of it (Nadler, Cundiff, Lowery & Jackson, 2010).

The differences between the various types of flexible work arrangements have effects

specific to each practice. Thus, it is the opinion of this thesis that telecommuting should be studied as an independent construct rather than as part of flexible work arrangements. Telecommuting could be differentiated into five categories into multi-site teleworking, tele-homeworking, freelance teleworking, mobile teleworking and relocated back-offices (Huws et al., 1997). This thesis uses the term telecommuting as what Huws et al., (1997) would term as multi-site teleworking. *Telecommuting* is more commonly adopted than multi-site teleworking within literature to denote working from home practice.

Telecommuting in academic studies was explored: as a longer-term commitment to presence away from office which in turn leads to relationship to traffic jams (Onchoke & Akash, 2012; Alexander, Dijst & Ettema, 2010), as optimization to real estate utilization (Apgar, 2002), as enabling automation in the workplace (Wataad & DiSanzo, 2000), and as an avenue to increase of productivity (Ruth & Chaudhry, 2008).

Telecommuting intensity is varied in literature and subjective, but it is acceptable that it is at least once a week (Harker Martin & MacDonnell, 2012). Telecommuting is rather ad hoc in application or on odd days for some industries but usually dealt with on a case-by-case basis (Wheatley, 2012). In this thesis, telecommuting intensity is considered to be no more than a few days per week and on an ad hoc basis to address some family responsibilities rather than a permanent feature.

2.3. Enablers of telecommuting

2.3.1. Telecommunications

Telecommunications had been argued to be linked to economic growth (Madden & Savage, 2000; Dutta, 2001). Globalization and its positive contribution to growth of certain economies was evident including the enhancements to productivity of domestic firms in the face of competition (Das, 2010). Telecommunications formed an integral

part of the journey for economic growth for most nations. Pliskin (1998) argued that the lack of high-speed communications infrastructure away from the office such as homes inhabited telecommuting. As such, telecommunications are argued to enable the gradual change in how and where work can be conducted. Singapore achieved more than 90% household penetration rate in terms of wired broadband according to the national survey from 2017 to 2019 as illustrated in Figure 1 (IMDA, 2020). This meant most households in Singapore would be able to support telecommuting for employees in terms of basic infrastructure.

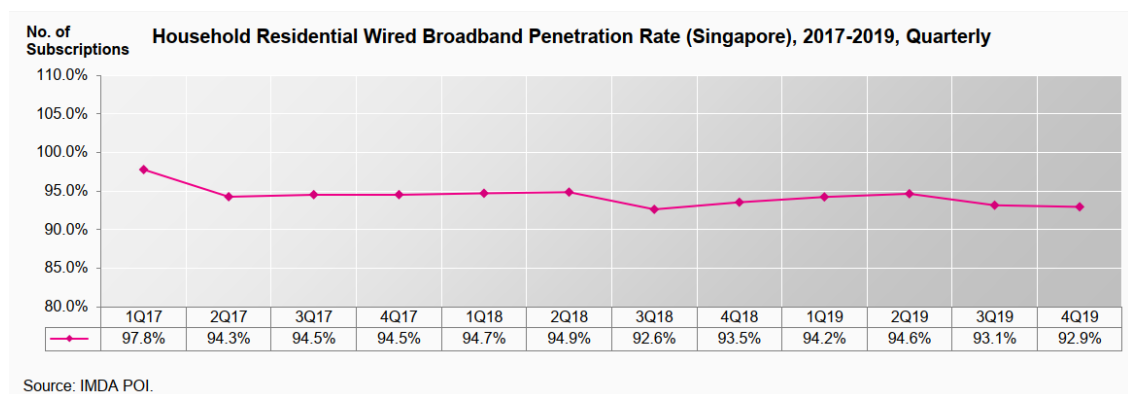


Figure 1. Household penetration rate in terms of wired broadband according to the national survey from 2017 to 2019 (IMDA, 2020)

2.3.2. Information Technology

Information and communication technology (ICT) can be described as a function that acquires, stores, process, delivers, distribute, handle, control, transform, retrieve and lastly the use of information (Sasvári, 2010). Sasvári (2010) further explained that ICT allowed the creation of virtual teams which were able to bring employees within and outside the company together. Remote access technologies such as virtual private networks (VPN) allow employees to securely access corporate information from remote locations if there is internet connectivity available. The technologies that allowed employees to remain in contact with each other through use of instant messaging application also became ubiquitous in most modern knowledge-based companies. This

mobility removed the need for employees to be deskbound, working anywhere from meeting rooms to pantries and cafeterias.

2.4. Drivers of Telecommuting

2.4.1. HRM and Competitive Advantage

Often called the *black box*, human resource management and its posited links to organizational outcomes continue to be agreed and debated at the same time (Boxall, Ang & Bartram, 2011). Many have argued the undeniable links to firm performance with the implementation of HRM practices in isolation or as a whole (Huselid, 1995, Huang, 2001, Chand & Katou, 2007, Pahuja & Ramesh, 2012) but HRM practices continue to invite much debate in the actual causality of their direct impact on firm performance. Human resource management policies such as high-performance work systems (HPWS) have positive associations to organizational performance (Fu, Flood, Bosak, Morris & O'Regan, 2013; Ferguson & Reio, 2010). It is more likely for telecommuting to be adopted by firms that employ high performance work systems (Poelmans et al., 2003). The quantitative study in Spain found support that telecommuting allow employees to achieve outcomes beyond their strict job descriptions (Poelmans et al., 2003). Partial supporting evidence was found that firms employing high performance work systems foster the use of flexible work arrangements where job autonomy, communication systems and payment structures were significantly associated (Goñi-Legaz & Ollo-López, 2015). One view which is gaining popularity is the resource-based view, which maintains that a firm could sustain competitive advantages with resources which are rare, inimitable, valuable, and non-substitutable. It emphasizes the relationship between human resource and human resource management (Barney, 1991).

Committed employees

Rompho (2017, p.459) explored the difference between “make-organic” or “buy-bureaucratic” HRM strategies with regards to firm’s short-term financial performance and long-term financial performance but found no relationship with either strategy. The study did however agree with previous studies that employees in make-organic firms exhibit positive traits such as commitment and empowerment. Organizational commitment is recognized to be a predictor of organizational citizenship behaviour where positive correlations with reduced turnover, reduced absenteeism, employee satisfaction, loyalty, consumer satisfaction and customer loyalty were found (Chahal & Mehta, 2010).

HRM practices and specific organizational outcomes

Literature suggests that there are three common theoretical views to which HR systems adopted which are universalistic, contingency and finally configurational (Delery & Doty, 1996). A universalistic HR perspective suggests a best practice approach where scholars would be arguing for greater use of some management practices and that other organizations should also adopt them if the same outcomes were desired (Pfeffer, 1999).

Telecommuting is recognized for its flexibility which removed limitations on geography, time, or physical presence where it was argued that the most successful organizations would employ telecommuting as a competitive advantage Offstein, Morwick and Koskinen (2010). Offstein et al. (2020) see telecommuting as a human resource-based asset which allowed HR managers to secure talented employees. Human resource capability is argued to be a significant predictor for sustainable competitive advantage in addition to organizational performance (Khandekar and Sharma, 2005). However, organizations adopting telecommuting are not equipped with clear guidelines from HR departments but rather allowed managers to decipher and interpret the

execution of such a practice. Solomon and Templer (1993) in their quantitative study of 91 responses from Canadian firms found that only a very low percentage of telecommuting organizations had specific human resource policies directed at telecommuters. As such, managers are often identified as key contributors to the process of adoption of telecommuting for organizations. Peters, den Dulk and de Ruijter (2010) argued that the wide variations of managerial attitudes towards telecommuting stem from the lack of internal fit of telecommuting practice with the internal workforce philosophy.

2.4.2. Reduction of commuting time

Time is of the essence is the crux of the discussion. Every working employee is undoubtedly laden with their own set of personal duties and responsibilities requiring attention and time during the day. Telecommuting allows employees to be physically at home to soften the domestic challenges that are otherwise not possible. This increases the interaction time with family members which was otherwise not possible too. The additional travel time for commuting to work added to the overall time spend away from home. The additional commuting time is a cost to the employee which is largely ignored by the organization. Typical commuters spent an average of 84 mins in commute per day in Singapore but with 85% of commuters reporting travel times of more than 2 hours daily (CNA, 2018). The typical employee in Singapore works an average of 44 hours per week which is about 9 hours per day (MOM, 2020). The additional 2 hours of time is an incremental 22% of time away from home every day spent on commuting. The ability to recover two hours of time daily is a powerful proposition for telecommuting. In geographies such as California where commuting time was troubled by traffic jams coupled with a lack of widespread public transportation system,

telecommuting brought relief to extent of traffic congestion (Khan, Tung & Turban, 1997).

2.4.3. Telecommuting pairing with other forms of flexible work arrangements

Increased levels of engagement and performance were found to be correlated to the use of a combination of two flexible work arrangements namely flexitime and telecommuting (Conradie & de Klerk, 2019). The outcomes from the study included. “Apart from being associated with higher engagement and perceived performance levels, the adaptability to circumstances that flexitime and telecommuting offer individuals and potential employees potentially enable companies to recruit from a much larger talent pool” (Conradie & de Klerk, 2019, p.9). Although the study done by Conradie and de Klerk (2019) suffered from non-stringent sampling (convenience sampling method) and voluntary in nature which could have attracted likeminded individuals to participate. Their study did caution the generalization of the results to all types of flexible work arrangements because it was a targeted study on flexitime and telecommuting as a pair and not to be taken separately in terms of the outcome. A similar result was also reported by Ongaki (2019) where the use of both flexible work schedules and telecommuting had a significant relationship to organizational commitment and job performance. Ongaki (2019)’s research however did not find a significant effect when each of the flexible working arrangements were tested independently. This was a quantitative survey (n=237) gathered through snowballing sampling with self-reported data done in USA on 2 institutions.

2.4.4. Generation Z employees

There are differences between different generations of employees in terms of values and preferences. Identification and retention of intellectual capital within a

multigenerational workforce remained a challenge for leaders (Wiedmer, 2015). The Z generation is described as an entirely different generation as compared to the X generation or Y generation and management should have different recruitment strategies to engage with employees of different age groups (Yaneva, 2018). Jones, Chauhan and Torabian (2019) concluded the differences between the generations in the below excerpt:

Gen Zs want to make their own money and do their own thing and want to be seen to be achieving. Gen Ys seem uncommitted and casual but thrive on flexibility and a less structured work environment but can multitask. Gen Xs can be between Baby Boomers and Gen Y, caught between both—depending on their attitudes and situation. Baby Boomers are looking forward to retirement, achieving lifelong life goals and moving on. But it all depends on the employee-boss relationship. This could be Gen Z and Gen Y, Gen Y and Gen X, Gen X and Baby Boomer—or the other way around. Or any combination of the two, or three, or four. It is just another variable at workplace relationship complexity and the ongoing leadership challenge.

As such the interaction between the different generations remains a leadership challenge. Generation X and Y in leadership positions could not fully appreciate or comprehend the needs of the generation Z. Telecommuting which is a common trait found within the generation Z could be perceived as a lack of responsibility in the eyes of generation X and Ys. Sánchez-Hernández, González-López, Buenadicha-Mateos and Tato-Jiménez (2019) concluded the differences between the generations:

The most significant generational difference stems from the emphasis placed by young people on family and leisure. Gen Z workers expect flexibility on the part of the company they work for to help them maintain WLB, one of their top concerns.

2.4.5. Absenteeism and talent retention

Telecommuting could reduce absenteeism which is costly and disruptive for business with personal illness and family issues being the most common reason for unplanned absences (Kocakülâh, Kelley, Mitchell & Ruggieri, 2009). While employers seek to

maximize productive work time and thus implemented work/family support initiatives which provide relief to working parents, it was concluded that supportive management practices such as childcare, paid leave and flexible work arrangements were important innovations which supported working parents (Friedman, 2001). Telecommuting was able to help British Telecom achieved a reduction in staff absenteeism and sick and improved staff retention with increase productivity between 10 and 20 per cent (Morgan, 2004). Telecommuting is argued to be a differentiator to retaining talented IT professionals when higher salaries could not (Beasley, Lomo-David & Seubert, 2001). Hunter, Tan and Tan (2008) conducted a study done on 35 IT professionals from Singapore and New Zealand to understand the motivating factors for turnover between the culturally different countries. Within the study, it was revealed that for collectivistic culture dominant Singapore, family commitments formed most of non-work factors driving turnover intentions. These commitments include spending more time with families and looking for sick or aged parents.

2.4.6. Presenteeism

Presenteeism is generally known as when the employee is present at work but unable to perform or engage fully thus being present but not contributing. A situation usually induced by the fear of repercussions due to absenteeism. Johns (2009) described the influences of presenteeism as:

From an employee perspective, presenteeism is important in that it might exacerbate existing medical conditions, damage the quality of working life, and lead to impressions of ineffectiveness at work due to reduced productivity. In addition, many organizational practices and policies that are designed to curtail absenteeism could in fact stimulate attendance while sick.

Telecommuting had been proposed to have mitigating effects on presenteeism (Lack, 2011). Lack (2011) claimed that presenteeism caused by employees who were preoccupied with family issues or suffering from ailments yet continue to be present at

work cost the organization more than absenteeism. Nakrošienė, Bučiūnienė and

Goštautaitė (2019, p.91) suggested that telecommuting could assist with presenteeism:

It is probable that individuals who wish to fulfill their work obligations under any circumstances may be less stressed because of the telework possibility. Therefore, we consider this factor as an important resource that can increase satisfaction with telework. ...

“Thus, for employees seeking to fulfill their work obligations even if they are sick and who wish to survive in a competitive work environment, telework makes this possible” (Nakrošienė, Bučiūnienė & Goštautaitė, 2019, p.98).

2.4.7. Activating the female workgroup

Telecommuting was reported to have lower levels of time-based work family conflicts as compared to the use of other flexible work arrangements (Cicei, 2015). Cicei’s study was limited by the high percentage of female participants (85.3%) which could skew the results of the study due to possibility of higher demands of flexibility to address work family demands (Cicei, 2015). This is supported by the study of Scandura and Lankau (1997) where it was suggested that flexible work hours significantly increase job satisfaction and organizational commitment for female managers and that it has similar effects for employees who had not utilized the program. The effects of flexible work arrangements affecting women in career progression in isolation has yet been proven even though literature reviewed suggested detrimental effects to career progression for women using flexible work arrangements e.g. telecommuting (Schwartz, 1996).

When telecommuting was available to themselves or to their spouses, women were more likely to report happiness (Giovanis, 2017). The longitudinal research paper (1991-2009) on secondary data in UK using British Household Panel Survey (BHPS) explored the happiness of women when they or their spouse were a teleworker (Giovanis, 2017). The study separately reported that the men who teleworked were more likely to share more household labor tasks and that likely contributed to increased

levels of happiness in women, as such providing supporting literature on telecommuting as a valuable “tool” for work life balance for employees (Giovanis, 2017). The demands of family are significantly predicted by the number of hours spent on household chores, children, dependents and particularly on the working females in dual career families (Kengatharan, 2020). Telecommuting is a viable initiative to ameliorate the demands of the family.

2.4.8. Business continuity

The concept of telecommuting enabling business continuity has recently resurfaced with serious pandemic issue (Belzunegui-Eraso & Erro-Garcés, 2020). Belzunegui-Eraso and Erro-Garcés, (2020) demonstrated that telecommuting provided business continuity at the same time protecting employees from health risks and subsequently leading to the preservation of economic conditions. It was reported that firms were not prepared for biological risk situations even though the first incidence of H1N1 crisis in 2003 could have prompted firms to adopt telecommuting as a measure for business continuity (Belzunegui-Eraso & Erro-Garcés, 2020).

2.5. Challenges in adopting telecommuting

While telecommuting experience is generally positive, there is a tendency to underestimate the positive influences and overestimate the negative experience of telecommuting prior to adoption (Maruyama & Tietze, 2012). The quantitative study which examined data collected from a cross-sectional survey of 394 teleworkers called on human resource managers to harness telecommuting as a competitive advantage (Maruyama & Tietze, 2012).

2.5.1. Inconsistent telecommuting outcomes

Within flexible work arrangements, compressed work weeks were suggested to reduce work life conflict while flexible time and telecommuting do not (Julien, Somerville & Culp, 2011). Julien et al., (2011) cited inconsistencies in literature about telecommuting outcomes and called for future research to determine. Furthermore, personality matters for telecommuters as Clark, Karau and Michalisin (2012) reported in their study on the big five personality dimensions and their relationships to telecommuting attitudes.

Telecommuting increases work pressure and work-life conflicts in a study conducted on a sample of 2960 participants from a large government agency in Sweden (Bjärntoft, Hallman, Mathiassen, Larsson & Jahncke, 2020). Telecommuting is found to have negative direct outcomes for return on labor with no significant effects on job satisfaction or staff turnover in a quantitative study involving 4,204 employees in Australia (Kotey & Sharma, 2019). Although the disclaimer by Kotey and Sharma (2019) on the interpretation of the results was that it could be due to the large percentage of employees from jobs which could require employees to be present at the workplace, however the industries were not explained in detail in the sample characteristics.

Providing employees, the choice of telecommuting could result in higher job satisfaction (Morganson, Major, Oborn, Verive & Heelan, 2010). The study performed by Morganson et al., (2010) was with a large sample (n=578) from a US-based technology research organization however revealed mixed findings where no higher levels of work life balance support were reported for home-based telecommuting as compared to main office workers. Job satisfaction was higher for home-based workers only after controlling for differences in inclusion which the researchers called for more research on this topic where future research could explore on “if teleworkers do indeed regard their status as a privilege” (Morganson et al., 2010, p.589). Morganson et al.,

(2010) highlighted an important limitation which stated that the number of teleworkers in organizations was limited and thus they represented only a small part of the firm's demography.

2.5.2. Productivity of telecommuting

The lack of adoption for telecommuting was argued to be the reduction of productivity (Ahmadi, Helms & Ross, 2000). Ahmadi et al. (2000) explained what could go wrong...

Only self-disciplined, motivated individuals should be considered. Personality must also play a role. Those who have a strong need for socialization may feel isolated and become depressed. In addition, not all jobs are well suited for telecommuting. It is important to have both the right person and the right job. Telecommuting is not a substitute for child day care. It is a concern that many telecommuters are parents of young children. The idea that one can be productive at home while keeping charge of a young child is a false assumption in most cases. Unless the employee is doing most of her work at night or at other times while the child is napping it is difficult to maintain a level of professionalism at home. Phone calls can be a disaster and constant distractions are likely to decrease productivity. (p.88)

Working conditions at home of telecommuters could explain the inconsistent and contradictory outcomes of telecommuting in other research studies (Solís, 2016). There are little to no guidelines on the conditions of the working environments in the homes of telecommuters.

Hypothesis: Employee satisfaction is negatively associated with disadvantages of telecommuting practice.

Hypothesis: Organizational citizenship behaviour is negatively associated with disadvantages of telecommuting practice.

2.5.3. Managers' Trust

Lack of managerial support underpinned by concerns over performance of telecommuters due to prevalence of home-based distractions continue to dampen telecommuting adoption (Scholefield & Peel, 2009). The sample comprised of managers

from large organizations instead of the dominant smaller/medium enterprises in New Zealand where findings and recommendations could not be generalised. The concern of social responsibility where respondents could have reported a socially acceptable answer than the true answer was noted in the study by Scholefield and Peel (2009). Furthermore, the desire of managers to exercise more control over employees was also argued to be one of the factors stemming the wider adoption of telecommuting (Oly Ndubisi & Kahraman, 2005). The survey conducted on 98 firms reported that attitude towards telecommuting is a strong determinant of adoption and suggested that shaping of managerial attitude towards more positive perceptions is necessary for more telecommuting adoptions in Malaysia (Oly Ndubisi & Kahraman, 2005). Additionally, telecommuting is an emotive issue and managers are deemed to be the most significant obstacle to the introduction of telecommuting schemes (Lupton and Haynes, 2000) in a quantitative study on 44 facility managers in the UK. The feasibility of unconditional trust in telecommuting management style was questioned in a multi- method research on 65 managers from six financial sector organizations that (Peters, den Dulk & de Ruijter, 2010). The study showed that their sample of managers were unconvinced with the efficacy of telecommuting for most employees and preferred the traditional management methods of coordination and direct control (Peters et al., 2010). Peters et al., (2010) called for future works to explore the internal and external fit of telecommuting practice with other elements of HRM. As such, the success of teleworking programs could depend on communications, trust, and support of which the factors are all interrelated (Berube Kowalski and Swanson, 2005). In their study to provide a framework of critical success factors, trust was found to be the most critical of the three factors studied and the bidirectional trust relationship between employees and managers could be enabled through results-based performance management system (Berube Kowalski & Swanson, 2005). With wavering support and lack of trust from

managers, it is no surprise that impediment to career growth was cited to be the top inhibiting factor for both Singapore and state of California (Khan, Tung & Turban, 1997). Future research was called to explore where the role of trust and trust worthiness of telecommuters and their managers could help in the adoption of telecommuting (Khan et al., 1997).

2.5.4. Individual role conflicts

High role conflict candidates are indifferent to telecommuting while candidates with low role conflict are more attracted to organizations offering telecommuting (Rau & Hyland, 2002). In their study on 142 post graduate students in Midwest USA, telecommuting was found to be more attractive to participants with low role conflict as opposed to applicants with high role conflict as suggested by other literature (Rau & Hyland, 2002). Rau and Hyland (2002) further cautioned organizations that the flexible work arrangements meant to reduce work family conflicts for employees could attract the unintended group of job seekers contrary to popular literature claims. Organizations seeking to attract candidates by offering telecommuting need to be aware of training programs for managers, as well as assessing the employee's suitability for telecommuting (Bernardino, Roglio & Del Corso, 2012).

2.5.5. Organizational type and size

Telecommuting is less likely to be used by employees in small firms as compared to larger firms, it is more likely to be available in very small and very large organizations as compared to medium sized organizations (Goñi-Legaz & Ollo-López, 2015).

However, blanket regulations from regulators on the adoption of flexible work arrangements can be detrimental to firms which differed in terms of size and industry which they operate in (Kotey & Koomson, 2019). General recommendations and guidelines for telecommuting without regards to firm size and type could be

problematic. Kotey and Koomson (2019) were able to demonstrate in their study that flexible work arrangements are positive HR practices that are relevant to firm performance however, this is moderated by firm size and type of flexible work arrangements adopted and that adopting telecommuting in medium to large firms has beneficial outcomes where the workforce comprised of a large female population. This could be due to the presence of operational problems and administrative burdens deterring the potential successful implementation of flexible work arrangements in smaller businesses (Maxwell, Rankine, Bell & MacVicar, 2007). “In many incidences flexible working arrangements are requested by employees, operated informally, and centered on the business needs.” (Maxwell et al., 2007, p.138). Additionally, low adoption of teleworking was also influenced by the prevalence of smaller businesses and negative attitudes of managers. “There have been at least four different types of explanations for the limited use of teleworking: the prevalence of small businesses, insufficient investment, lack of government leadership and, negative attitudes of managers.” (Rasmussen & Corbett ,2008, p.27). The operational problems and administrative burdens faced by smaller businesses could be present in larger enterprises with complex workflows. While trying to reap the benefits of telecommuting, disadvantages which could be detrimental to the organization such as complexity of management, uncertainty of scheduling and ultimately the negative impact to teamwork in the workplace need to be noted (O'Brien and Hayden, 2008). Such problems and their potential impact to organizations may not be fully visible or quantifiable. Furthermore, organizational processes and requirements are not usually designed to support a flexible workforce which may be the case in smaller organizations. Disadvantages of telecommuting manifest in the form of management complexity and uncertainty of scheduling and ultimately the negative impact to teamwork in the workplace (O'Brien & Hayden, 2008). This could be seen in the

presence of perceptions such as higher costs to be incurred by the organization which further slows adoption and as such, the practice remained mostly informal and untracked by organizations (Mattis, 1990). The informal arrangements of such flexibility contribute to the inability to be tracked by organizations. Thus, this may explain why most organizations have formalized flexible work arrangements in their written policies, but approvals and practice were often left to the managers' discretion with little to no tracking (Kelly & Kalev, 2006).

Contemporary literature about telecommuting suggests that while literature on telecommuting has increased, there lacks agreement on standard definitions of telecommuting and measurements of what constitutes a successful telecommuting program (Siha & Monroe, 2006). Describing the extent of research on telecommuting as scratching the surface Siha and Monroe (2006) explained more research will contribute to literature...

Clearly, there is much more to be learned from the actual experiences of organizations. Well-documented successes and failures in the form of case studies, surveys and longitudinal empirical studies will augment the research in all categories tremendously. (p.475).

Similarly, as concluded by Clear and Dickson (2005, p.230), the lack of clear guidelines and definitions of telecommuting coupled with strong hierarchies and "logic of subordination" impede the general adoption of telecommuting in small and medium-sized firms in the UK. The lack of an official telecommuting definition and standardization of practice makes observation and measurement difficult due to "hidden" telecommuters (Clear & Dickson, 2005, p.228). Crucial to the success of telecommuting are factors such as leadership styles (Dahlstrom, 2013). Isolated introduction of telecommuting practice lacks the ability to achieve desirable organizational outcomes and more consideration in the supporting culture is encouraged (Peters, Poutsma, Van der Heijden, Bakker & Bruijn, 2014). The implementation of

telecommuting may not be a simple fringe benefit to be allowed at the manager's discretion without broader management support to achieve the desired outcomes intended.

2.5.6. Blurring demarcation and employee isolation

In a research on 456 civil servants in Sweden, it was reported that more groups of employees are gaining access to telecommuting with new digitization of work processes (Thulin, Vilhelmson & Johansson, 2019). New and old groups of telecommuters alike are faced with working outside regular hours due to time pressure to meet deadlines and prepare for future work facilitated using smartphones (Thulin et., 2019).

Telecommuting could be understood as a coping strategy to maintain control over daily commitments for time-pressed people (Thulin et al., 2019). However, this flexibility does not change the constant expectation of availability coupled with an always connected smartphone with an unreasonable amount of work, eventually leading to overload for telecommuters (Kelly & Moen, 2020). Other issues such as telecommuter's isolation where dilution of corporate culture inevitably could lead to potential negative outcomes on individual attitudes and behaviours. (Gainey, Kelley & Hill, 1999).

2.5.7. Summary of Telecommuting Literature

Telecommuting is enabled by the presence of telecommunications (Pliskin, 1998) and the advancement of information and communication technology which include the use of virtual private networks (Claudiu, 2017). Telecommuting has been commonly associated with the use of high-performance work practices (Poelmans et al., 2003). High-performance work practices have also been theorised to increase organizational performance (Fu et al., 2013; Ferguson & Reio, 2010). This is in line with the HRM

resource-based view that employees form a critical pool of resource for the success of organizations. HRM practices are continually deployed to influence the commitment of employees through “make-organic” HRM strategies of promotion of employees and investing in them (Rompho, 2017, p.460). As such, telecommuting is indirectly influential to the use of strategic HRM practices for the benefit of organizations. Retaining talents and attracting new ones are key levers to success for organizations (Khandekar and Sharma, 2005) which telecommuting is a differentiator for IT employees besides higher salaries (Beasley et al., 2001). Other than talent retention, telecommuting has additional organizational benefits such as reduction of absenteeism and increased productivity (Morgan, 2004) or the reduction of the opposite of absenteeism which is presenteeism where employees are present but preoccupied with illness or worries and thus ineffective at work (Lack, 2011). Telecommuting is often mixed with other types of flexible work arrangements e.g. flexitime or compressed workweeks (Ongaki, 2019, Conradie & de Klerk, 2019) where the results could not be separated for use.

In summary, telecommuting studies suggested positive outcomes such as: the activation of certain groups of workers (e.g. female workgroup) (Scandura & Lankau, 1997), improving work life balance (Morganson et al., 2010), increase employee commitment (Lee et al., 2008), reduce turnover and turnover intentions (McNall et al., 2009), source of competitive advantage (Conradie & de Klerk, 2019) and in recent times an effective mitigation work practice in the countering of pandemics (Belzunegui-Eraso & Erro-Garcés, 2020). However, there are disadvantages that stem from the traits of telecommuting practice which include the isolation of employees (Ahmadi et al., 2000), reduced promotional aspects for telecommuters (Khan et al., 1997), work family disruptions (Scholefield & Peel, 2009), blurring of work and family when telecommuting (Kelly & Moen, 2020), operational and administrative burdens in

smaller businesses (Maxwell et al., 2007) and lack of managerial support and trust for telecommuters generally (Bernardino et al., 2012). The outcomes from telecommuting literature are not always consistent where more research are called upon (Julien et al., 2011).

2.6. Employee Satisfaction (ES)

Employee satisfaction, job satisfaction or satisfaction was used interchangeably in literature (Gu & Chi Sen Siu, 2009; Auer Antoncic & Antoncic, 2011; Appelbaum et al., 2004; Rust, Stewart, Miller & Pielack, 1996; Arnett, Laverie & Mclane, 2002; Kearney, Coughlan & Kennedy, 2013; Cheema, Akram & Javed, 2015; Spinelli & Canavos, 2000) although definitions of each of the constructs generally leads back to the same underlying argument of the extent i.e. the amount of satisfaction experienced related to the job held by an employee. Employee satisfaction is defined as the amount of satisfaction or degree of liking towards their job (Spector, 1997). Locke (1976) described employee satisfaction as the emotional state that arise from the evaluation of one's job experience. Thus, satisfaction is a subjective and personal disposition which could be influenced to varying degrees in individuals.

Dimensions of employee satisfaction comprised of other forms of satisfaction of which job satisfaction is one of them (Küskü, 2001). Sengupta (2011) concurred that employee satisfaction was different from job satisfaction where the latter was entirely dependent on the job scope, but employee satisfaction encompassed more. This signifies that job satisfaction entailed specific work conditions such as job design and the nature of work excluding the environment or culture that the employee was performing the job in.

Should Küskü's (2001) definition of employee satisfaction be adopted, there is indeed a difference between satisfaction from personal disposition and the job being undertaken. It thus made sense to be clear on whether job satisfaction was meant as the overarching

definition of satisfaction that arose from an employee's employment which entailed everything or just the job scope itself which excluded external factors e.g. distance of work location and difficulty getting to work or even a possible stringent front entrance security policy.

2.6.1. Employee Satisfaction and Job Satisfaction

This thesis adopts the stance that job satisfaction or employee satisfaction are referring to the common employee attitude and behaviour that occurred when the employee experienced satisfaction while performing work in an organization. Job satisfaction is argued to be a subjective variable which could be used to predict and understanding human behaviour (Freeman, 1978). Herzberg (1964) classified the factors driving job satisfaction into lower (hygiene) and upper (motivator) levels. The satisfaction of the hygiene factors (supervision, working conditions, co-workers, pay, policies/procedures, and job security), lowers dissatisfaction but demotivates when it is not fulfilled (Herzberg, 1964). The satisfaction of the motivational factors (achievement, recognition, the work itself, responsibility, advancement, and growth) at the intrinsic level creates satisfaction (Herzberg, 1964). Departmental pride was found to be an additional antecedent to job satisfaction aside from promotional opportunities, satisfaction with pay and satisfaction with benefits exerted powerful effects on job satisfaction as predictors (Ellickson, 2002).

Earlier studies on worker satisfaction could be linked to one of the first management scientist Frederick Taylor in the 1920s. Wage was determined to be the greatest source of motivation for workers whereby it was proposed to pay workers high wages to encourage efficiency and productivity (Taylor, 1911).

2.6.2. Drivers of Employee Satisfaction

HRM practices were found to have a statistically significant effect on worker's overall job satisfaction in their analysis of two secondary British datasets collected by CERS in 2000 (Petrescu & Simmons, 2008). Petrescu and Simmons (2008) also found that workers appreciated some amounts of monitoring, but close supervision is disliked generally. Three predictors of employee satisfaction were found which are support, trust in management and age of employees (Renee Baptiste, 2008). Renee Baptiste (2008) argued that while support and trust was consistent with social exchange theory, age could be explained by the longer tenure of satisfied employees. The performance of satisfied employees cannot be underestimated. Higher customer satisfaction is reported in service companies such as banks just by interacting with satisfied employees (Evanschitzky, Sharma & Prykop, 2012). A direct and positive correlation between employee satisfaction and firm performance is reported in the study by (Melián-González et al., 2015) on 475 firms (n= 60990). Although, the study by Melián-González et al., (2015) claimed a large sample size, it did have limitations in the reliability of collection of data over employer review websites. Employee satisfaction influences customer satisfaction and, organizational citizenship behaviour influences firm profitability (Koys, 2001). Koys (2001) in his study on 28 restaurant employees across two years was able to associate a positive unidirectional effect of HRM practice influencing organizational effectiveness thereby claimed that organizational citizenship behaviour induced performance and employee satisfaction influenced customer satisfaction.

2.6.3. Telecommuting and Employee Satisfaction

Literature reviews showed associations between telecommuting and employee satisfaction. However, the association is not consistent across literature. The positive

increase in satisfaction could be explained by exchange theory and reciprocity where telecommuting provided more work life balance for employees (Caillier, 2016a). However, Caillier (2016a) found contradictory findings which suggested that telecommuting increases turnover intentions although the study cautioned that turnover intentions are just intentions and not actual turnover. Using data collected from surveys over a multi-year period (2011 to 2014) from multiple federal agencies, results suggested that telecommuting frequency should be reduced, as this could be due to interference with work life balance (Caillier, 2016a). However, in another study by (Caillier, 2016b), telecommuting was not found to have any impact on turnover intentions as opposed to the previous study. In the seemingly same longitudinal batch of data, no evidence was found to support that an increase in telecommuting lead to an increase in employee satisfaction when the analysis was conducted again albeit with different study variables. The intensity of telecommuting frequency affects employee satisfaction (Suh and Lee, 2017). However, the results were surprising as it reported lower technostress faced by high frequency telecommuters as compared to irregular telecommuters and thus call for more IT training for telecommuters to mitigate perceptions of IT complexity and IT presenteeism for fresh telecommuters (Suh & Lee, 2017). IT presenteeism is defined as the extent of reachability of telecommuters using technology (Suh & Lee, 2017).

Different occupational groups within telecommuters have different levels of employee satisfaction i.e., higher employee satisfaction reported for the sales team more than the technical specialists (Mihhailova, 2009). Traditional management methods which are not adapted for virtual workforce tend to erode employee satisfaction, as such methods evolved from traditional work environments (Mihhailova, 2009). Telecommuting reduces role-stressor levels and increase employee satisfaction (Igbaria and Guimaraes,

1999). However, reduced interaction with peers and promotion opportunities are also common causes of lower satisfaction for telecommuters (Igarria & Guimaraes, 1999). The association of telecommuting and employee satisfaction may seem intuitive, yet studies conducted to prove a positive correlation is problematic.

Hypothesis: Employee satisfaction is positively associated with telecommuting support.

2.6.4. Measurement of Employee Satisfaction

Employee satisfaction is essential for organizations to be high performing (De Waal, 2014). However, De Waal (2014) argued that employee satisfaction surveys tend to be problematic as most employee satisfaction surveys do not achieve their intended purposes and frustrated both employees and employers. The outcomes of the employee satisfaction surveys are seldom addressed, coupled with ambiguous questions with the length of the survey being too short or too long (De Waal, 2014). Work design and environment could strongly influence employee's delight where hourly wage increase could not (Rust, Stewart, Miller & Pielack, 1996). The usual drivers such as salary and benefits cannot be sustained infinitely especially in times of business downturn (Gu & Chi Sen Siu, 2009). Thus, non-monetary fringe benefits such as work life friendly practice telecommuting could be more likely to be sustained during various stages of business growth. This resonated with an interesting observation from Groot and Maassen van den Brink (1999) in their secondary survey data collected from 4700 households in 1993 on job satisfaction on older workers (age 43 to 63) in Netherlands that job content account for the main factor of overall job satisfaction however, satisfaction from colleagues and management was insignificant. Groot and Maassen van den Brink (1999) highlighted that a general question about job satisfaction would not solicit the same response when the same question was posed on ten different aspects of the job. Thus, job satisfaction questions could be more accurately answered with direct correlation to the job measure of interest echoing the concerns of De Waal (2014).

2.6.5. The Curvilinear relationship of Telecommuting and Employee Satisfaction

A curvilinear relationship was reported between the extent of telecommuting and employee satisfaction (Golden & Veiga, 2005). Employee satisfaction increases with the number of hours employees spent on telecommuting and eventually tapering off at about 15.1 hours thus showing an inverted U shape for the relationship (Golden & Veiga, 2005). Task interdependency and job discretion are also found to moderate the relationship between telecommuting and employee satisfaction (Golden & Veiga, 2005). The curvilinear relationship could be argued to explain the varied outcomes on satisfaction where extent of telecommuting was not considered. This is partially supported by the findings of Torten, Reaiche and Caraballo (2016) that the number of telecommuting days is statistically significant related to both employee performance and satisfaction.

2.6.6. Summary of Employee Satisfaction Literature

The maturity of telecommunications and information technology within the nation and the organization provides the platform to enable telecommuting. Knowledge-based organizations where work is performed using computing devices created mobility for knowledge workers and proliferated the locations where work could be performed. The requirements to perform work for a knowledge worker could be simplified in the availability of personal computing devices capable of accessing corporate informational database through secure reliable network connections. As such the requirement to be in a corporate office to perform work is greatly reduced. Telecommuting and its flexibility provide increased work life balance for telecommuters (Caillier, 2016a) which in turn increases employee satisfaction. Employee satisfaction is described as the amount of satisfaction of liking towards their job (Spector, 1997). More studies have used the

terms job satisfaction and employee satisfaction interchangeably (Gu & Chi Sen Siu, 2009; Auer Antoncic & Antoncic, 2011) than others who have distinctly separated the two constructs (Küskü, 2001; Sengupta, 2011). This study has adopted the stance that job satisfaction and employee satisfaction refer to the same construct being studied. Employee satisfaction is very much influenced by HRM practices (Petrescu & Simmons, 2008), has a direct and positive correlation to firm performance (Melián-González et al., 2015). Employee satisfaction is also reported to be associated to organization citizenship behaviour more as an antecedent to organizational citizenship behaviour (Koys, 2001). Employee satisfaction can be increased by presence of telecommuting support which reduces role-stressors (Igarria & Guimaraes, 1999) and this satisfaction can vary between different occupational groups amongst telecommuters (Mihhailova, 2009) and between gender (Giovanis, 2017) and between different age groups (Goñi-Legaz & Olló-López, 2015). There are also confounding factors in the execution of surveys which made the assessment of employee satisfaction problematic with too many or too little questions being asked to respondents (Groot & Maassen van den Brink, 1999). Lastly, a curvilinear relationship being reported between frequency of telecommuting and employee satisfaction where an inverted U shape relationship made introduces some complexity in determining the relationship (Golden & Veiga, 2005).

2.7. Organizational Citizenship Behaviour (OCB)

Organ (1988) described organizational citizenship behaviour as the good soldier syndrome. Organizational citizenship behaviour was introduced as going “beyond role requirements for accomplishment of organizational functions” (Katz & Kahn, 1978). “Organizational citizenship behaviour is behaviour that is beneficial for an organization but that falls outside of formal role requirements such that it is difficult to formally specify or reward” (Morrison, 1996, p.493). It is generally understood as the equivalent of performing selfless act of going beyond the monetary rewards provided by the

organization. Organizational citizenship behaviour can further classify into organizational level (OCBO) and interpersonal level (OCBI) (Williams & Anderson, 1991). OCBO refers to behaviours which are beneficial at the organizational level. This paper adopted the earlier definitions of organizational citizenship behaviour from Organ (1988) and Williams and Anderson (1991) with an interpersonal versus organizational level exhibition of organizational citizenship behaviour. Organizational citizenship behaviour could occur at the individual level, group level as well as organizational level. It was argued that organizational level citizenship behaviour brought about the most impact on effectiveness of an organization (Schnake & Dumler, 2003). This was supported by Chahal and Mehta (2010), in their conceptual model of antecedents and consequences of organizational citizenship behaviour linked positive outcomes such as reduced turnover, reduced absenteeism, employee satisfaction and employee loyalty driving customer satisfaction and loyalty and subsequently achieving organizational performance.

2.7.1. Categories of Organizational Citizenship Behaviour

The organizational citizenship behaviour construct was generally unknown and not well understood until 1983 when organizational citizenship behaviour was created with just two categories altruism and general compliance (Bateman & Organ, 1983). Organ (1988) deconstructed general compliance to include four other factors to describe the five categories of organizational citizenship behaviour which are namely altruism, conscientiousness, civic virtue, sportsmanship, and courtesy. Altruism referred to the acts of helping colleagues in face to face situations at work while courtesy was described as gestures that employees exhibit to prevent work problems for others and sportsmanship was the tendency to accept inconvenience at work without excessive demands for relief (Konovsky & Organ, 1996). Civic virtue could be the individual's

willingness to attend meetings, keeping informed about the developments of the organization, and practicing constructive and appropriate forms of governance of the workplace (Konovsky & Organ, 1996). Conscientiousness captured the personal qualities of employee's "dependability, planfulness and perseverance" and predicts compliance to adherences to rules such as attendance, punctuality, use of time at work (Konovsky & Organ, 1996, p.255).

2.7.2. Organizational Citizenship Behaviour and Employee Satisfaction

Job satisfaction does not significantly influence organizational performance but rather through organizational citizenship behaviour that organizational performance was achieved due to good cooperation and togetherness (Sawitri, Suswati & Huda, 2016). Sawitri et al. (2016) conducted a quantitative study on 186 respondents of distribution firms found significant effects of job satisfaction on both organizational citizenship behaviours and organizational commitment. Both organizational citizenship behaviour and organizational commitment had significant and positive impact on employee performance while job satisfaction had no direct significant effect on employee performance (Sawitri et al., 2016). Service oriented forms of organizational citizenship behaviour could be promoted when firms place a high value on employee, as long-term assets were argued to have a direct positive link on the firm's level of service quality resulting in high customer satisfaction (Morrison, 1996). High levels of absenteeism and turnover rate might not be the result of lack or inappropriate HRM policies but rather the lack of emphasis on organizational citizenship behaviour as seen in a quantitative study on 230 participants in companies located at the US-Mexico border (Jung & Hong, 2008). The use of psychological contracts as a variable to promote citizenship behaviour has been studied and further advocated by Chambel and Castanheira (2005). Newton, Blanton and Will (2008) examined the importance of psychological contracts influencing the behaviour of IT professionals. A suggested point for further research

was to investigate working conditions specifically for IT professionals to enhance the psychological contracts. Mann, Varey and Button (2000, p.680) in their qualitative study on 14 supervisors of customer call centers in a bank and a telecommunications firm explored the emotional impact of telecommuting and suggested a “tele-psychological contract” where telecommuting practice could be governed by written guidelines by managers detailing their expectations of working from home.

As such, it could be argued that when employees are satisfied, there is a higher likelihood for organizational citizenship behaviour which will benefit firms in the form of reduced absenteeism and decreased turnover. Use of psychological contract from managers could further encourage organizational citizenship behaviour. Employee satisfaction and organizational citizenship behaviour are related.

Expanded benefits plan which caters towards employees emphasizing care and concern towards their circumstances will be appreciated. It is highly likely for employees to reciprocate when certain benefits are supportive of the employees’ plight. Lambert (2000) in a quantitative study on 325 employees in a manufacturing firm located in the Midwest of USA found that employees are reciprocal towards the organization for the perceived benefits usefulness and thus more likely to exhibit organizational citizenship behaviour. Lambert (2000) did caution about the value of the benefits attached by the employees needed more explorations in their contribution to organizational citizenship behaviour. This means that the more employees find organization benefits to be useful, the more they are likely to reciprocate suggesting subjective outcomes for every employee.

2.7.3. Telecommuting and Organizational Citizenship Behaviour

The presence of work life practices such as telecommuting in organizations are perceived as organizational support which enhances affective commitments resulting in

organization citizenship behaviour (Kopelman, Prottas, Thompson & Eileen, 2006).

Kopelman et al., (2006) argued in their research study that organizations should attempt to undertake more forms of work life initiatives rather than fewer of them.

Measures for telecommuters such as proactive availability by initiating communications to improve coordination and reduce process losses mitigate the effects of reduced face time in to increase group level organizational citizenship behaviour within the work group (Van Dyne, Kossek & Lobel, 2007). Vega, Anderson and Kaplan (2014) examined telecommuting using a within-person research methodology on 180 respondents from a large government entity reported higher levels of job satisfactions, self-rated job performance and creativity. Vega et al.'s (2014) study contributed to existing literature of telecommuting's association to job satisfaction but called for future research to explore telecommuting's relation to other dimensions of job performance such as organizational citizenship behaviour. Studies have not been able to provide correlation between telecommuting support and organizational citizenship behaviour.

Hypothesis: Organizational citizenship behaviour is positively associated with telecommuting support.

2.7.4. Organizational Citizenship Behaviour and Trust

Trust was reported to be a dominant theme with regards to organizational citizenship behaviour (Richardson, 2009) i.e. employees drew on conclusions of their interactions with their managers where trust was felt and was subsequently more willing to engage in organizational citizenship behaviour and increased commitment to their manager and organization. Richardson (2009) further argued that the management of telecommuters is an evolving relationship where managers and employees constantly evaluate and interpret their relationship while adjusting their behaviour accordingly. However, Peters

et al., (2010) reported that while cooperation was sought for the team, it is not related to trust but rather an expectation that employees should be in the traditional office to be able to execute organizational citizenship behaviour such as educating the new colleagues. Without depending on trust but using transactional costs and agency theories to forecast the impact of telecommuting, Brice, Nelson and Gunby (2011) proposed management governance strategies to supervise telecommuters. Stemming from a governance model, it explains the behaviour of managers when employee behaviour is not directly observable which might ultimately lead to the use of high intrusive management systems to govern telecommuters (Brice et al., 2011).

2.7.5. Organization Citizenship Behaviour reciprocation

It was hypothesized that organizational citizenship behaviour could lead to work-family conflict and role overload (Dash & Pradhan, 2014). While the hypotheses were not tested empirically, the research paper brought attention to the possible negative consequences of extra role behaviour. Telecommuting is associated with improved task and contextual performance despite concerns from managers on telecommuting imposing performance and citizenship costs (Gajendran, Harrison & Delaney-Klinger, 2014). Telecommuters are more likely to exhibit citizenship behaviours by investing more work resources obtained from telecommuting practice to get new resources (Gajendran et al., 2014). Gajendran et al. (2014) further argued that as telecommuting intensity increases, the pressure to reciprocate co-workers increased along with the longer hours working. This suggested that the associated outcomes from telecommuting is more pronounced with the arrangement is not pervasive, is a privilege rather than a norm in workplace. Furthermore, telecommuters feel the need to reciprocate due to the convenience enjoyed at the expense of the work team and are more inclined to perform extra role behaviour.

2.7.6. Summary of Organizational Citizenship Behaviour Literature

Organizational citizenship behaviour is the act of going beyond what is expected within the role an employee is supposed to undertake with no clear or immediate benefits for the employee (Morrison, 1996). The five major categories of organizational citizenship behaviour are altruism, conscientiousness, civic virtue, sportsmanship, and courtesy (Konovsky & Organ, 1996). Organizational citizenship behaviour is reported to reduce absenteeism and turnover more than HRM practices (Jung & Hong, 2008), and is believed to be moderated using psychological contracts (Chambel & Castanheira, 2005) and trust from managers (Richardson, 2009). Organizational citizenship behaviour is also reportedly seen from telecommuters who have benefitted from the use of telecommuting as a form of reciprocation (Gajendran et al., 2014). But this may lead to overloading of telecommuters and introduces more work family conflicts from the exhibition of organization citizenship behaviour (Dash & Pradhan, 2014). However, organizational citizenship behaviour is encouraged as the benefits are many such as reduced turnover, reduced absenteeism and indirectly driving organizational performance (Chahal & Mehta, 2010).

2.8. The research gap and research questions

2.8.1. Telecommuting in Singapore

Telecommuting is one of the main factors recommended that improves employee's work-life balance and well-being (Semlali & Hassi, 2016). The Government of Singapore has been encouraging employers to explore the adoption of more telecommuting arrangements to foster better family relations in a fast-moving society which has recently been added to help with COVID-19 measures (Ministry of Manpower Singapore, 2020). There are, however, a lack of telecommuting literature located within the Singapore context. A study based on data collected from 212

participants in Singapore studied the effects of employee services (e.g. childcare services, elderly services, wellness programs) on employees' commitment and turnover intentions (Lee, Lee & Lum, 2008). The results of the study reaffirmed that firms that helped employees to balance their work and families enhances employee commitment and lowers the turnover intention. The authors choice of country which was Singapore in 1999 was due to the scarcity of firms providing employee services and the relatively high female labour force of 56.3% in Singapore in 1998.

Organizational commitment is negatively correlated to telecommuting which was interesting to note as it suggested a view that employees who were more committed would choose to work in office rather than telecommuting (Lim & Teo, 2000). It could also be interpreted as the other way around where less committed employees were more likely to perceive teleworking favourably. Teo and Lim (2000) attempted to find gender differences on perceptions of teleworking in Singapore but could only find relatively small differences. Their mixed methods study included a survey on 258 Singapore IT professionals from the same organization also included focused group interviews with 30 of the respondents could not find any gender differences in the advantages and disadvantages of teleworking (Teo & Lim, 2000). The hypothesis that females were more likely to prefer teleworking than males had weak associations, but reduction of commuting time and costs were key advantages that both male and female related to which surprised the authors due to the small land mass of Singapore (Teo & Lim, 2000).

2.8.2. Information Technology industry in Singapore

In 2017, there were 224,700 information communication(infocomm) jobs in Singapore (Government Technology Agency, 2017). The number of infocomm jobs were expected to grow by another 42,000 over the next three years from 2017 (TODAY online, 2017). Singapore continues to be "Asia's technology capital" as its tech sector continues to

grow (Channel News Asia, 2019). Singapore continues to attract foreign IT talents to Singapore in line with the inward investments from some of the biggest technology companies in the world like Google and Facebook (Singapore Economic Development Board, 2019). It was claimed that the local IT pool of talents and with Singapore's ability to provide "job satisfaction and quality of life" to IT professionals stand out in the region (Singapore Economic Development Board, 2019). The Infocomm industry revenue for Singapore reached S\$235.6B with a compounded annual growth rate of 9.0% from 2013 to 2018 (IMDA, 2020). Therefore, the infocomm sector in Singapore is sizable and an important sector which fuels Singapore growth and is a key component to all other sectors in their digital transformation. Turnover within the infocomm sector in 2019 was about 1.8% (Government Technology Agency, 2019). As shown Table 1, IT turnover remained high among the list only ranking below sectors which are associated with high turnover such as admin and support services e.g., cleaning and landscaping or food and beverage industry.

Table 1. Average Monthly Resignation Rate by Industry and Occupational Group

AVERAGE MONTHLY RESIGNATION RATE BY INDUSTRY AND OCCUPATIONAL GROUP						
						Per Cent
			2017	2018	2019	4Q
					2018	2019
	TOTAL		1.1	1.1	1.1	1.1
N81	Cleaning & Landscaping		4.3	4.2	3.9	3.4
I56	Food & Beverage Services		3.8	3.4	3.6	3.3
I55-56	ACCOMMODATION AND FOOD SERVICES		3.6	3.3	3.4	3.1
N77-82	ADMINISTRATIVE AND SUPPORT SERVICES		3.6	3.4	3.5	3.1
	Other Administrative & Support Services		3.3	2.5	2.7	2.4
G47	Retail Trade		3.0	3.0	2.4	2.1
N80	Security & Investigation		3.0	3.0	3.8	3.7
L68	REAL ESTATE SERVICES		2.7	2.5	2.5	1.7
I55	Accommodation		2.6	2.4	2.5	2.0
	Clerical, Sales & Service Workers		2.6	2.5	2.6	2.3
C10-12	Food, Beverages & Tobacco		2.5	2.8	2.6	1.6
	Production & Transport Operators, Cleaners & Labourers		2.2	2.2	2.1	1.7
G46-47	WHOLESALE AND RETAIL TRADE		2.0	2.0	1.8	1.5
G-U	SERVICES		1.9	1.9	1.8	1.6
	Other Transportation & Storage Services		1.9	1.9	2.1	1.7
F41-43	CONSTRUCTION		1.8	1.8	1.8	1.4
J62-63	IT & Other Information Services		1.8	1.8	1.8	1.7
S,T,U	Other Community, Social & Personal Services		1.8	2.3	1.8	1.4
C17,18,22	Paper / Rubber / Plastic Products & Printing		1.7	1.7	1.6	1.1
C25,28	Fabricated Metal Products, Machinery & Equipment		1.6	1.5	1.4	0.9
G46	Wholesale Trade		1.6	1.6	1.4	1.3
J58-63	INFORMATION AND COMMUNICATIONS		1.6	1.6	1.6	1.5
K65 & 662	Insurance Services		1.6	1.6	1.6	1.5
M69-70	Legal, Accounting & Management Services		1.6	1.6	1.6	1.5
R90-93	Arts, Entertainment & Recreation		1.6	1.5	1.6	1.5
C10-32	MANUFACTURING		1.5	1.6	1.5	1.0
C26	Electronic, Computer & Optical Products		1.5	1.6	1.5	1.0
M69-75	PROFESSIONAL SERVICES		1.5	1.6	1.7	1.4
M71	Architectural & Engineering Services		1.5	1.7	1.7	1.4
	Other Professional Services		1.5	1.8	1.8	1.3
C29-30	Transport Equipment		1.4	1.3	1.2	0.8
A,B,D,E,V	OTHERS*		1.4	1.4	1.2	1.0
	Other Manufacturing Industries		1.3	1.5	1.4	1.0
H49-53	TRANSPORTATION AND STORAGE		1.3	1.3	1.4	1.1
H49,5221	Land Transport & Supporting Services		1.3	1.3	1.1	0.9
K64-66	FINANCIAL AND INSURANCE SERVICES		1.3	1.4	1.2	1.0
J58-61	Telecommunications, Broadcasting & Publishing		1.2	1.2	1.2	0.9
K64 & 66	Financial Services		1.2	1.3	1.2	0.9
	Professionals, Managers, Executives & Technicians		1.2	1.3	1.2	1.0
Q86-88	Health & Social Services		1.1	1.2	1.2	1.1
O-U	COMMUNITY, SOCIAL AND PERSONAL SERVICES		1.0	1.1	1.0	0.8
C19-21	Petroleum, Chemical & Pharmaceutical Products		0.9	0.9	0.8	0.7
H50,5222,	Water Transport & Supporting Services		0.9	0.9	0.9	0.8
H51,5223	Air Transport & Supporting Services		0.8	1.0	0.9	0.9
O84,P85	Public Administration & Education		0.6	0.7	0.7	0.4

Note. Data for the average labor turnover rate in Singapore Labor Market Survey 2019 released by the Government Technology Agency (2019).

2.8.3. Differing views on relevance of Telecommuting

Telecommuting as a strategic HR practice could be seen in its' absence in some firms while other firms proclaim the positive outcomes of the practice. "Employers do not have direct control over employee performance but must create conditions that motivate employees to improve their performance" (Kotey & Koomson, 2019, p.1). Previous Yahoo CEO Marissa Mayer removed telecommuting from Yahoo! entirely in 2012 publicly while other firms questioned her decision (Forbes, 2013). IBM being one of the

pioneers of adopting telecommuting practice for the past decades citing real estate optimisation recently rescinded telecommuting practice citing the presence of “X-factor” when employees work shoulder to shoulder (Business Insider, 2017). With the two technology giants’ removal of the telecommuting practice, the efficacy and impact of such a practice brought renewed discussions on telecommuting arrangement. Paradoxes exist in telecommuting i.e., where managers desiring more control over telecommuter’s activities but forced to accept that employees were ultimately responsible; that organization had to be more structured but yet accommodating the flexibility of telecommuting; while telecommuters were separated from the team physically had to be tightly knitted back in spirit (Pearlson & Saunders, 2001).

In geographically huge nations like the US, telecommuting addressed a more spatial concern. Nilles (1991) conducted a telecommuting pilot project in California USA over two years from June 1987 to December 1989 with 150 respondents that suggested telecommuting resulted in decreased automobile use in distance travelled as well as trips made. However, in small nations like Singapore or within well connected cities, the distance commuted might not be as far but still pose as a concern. Typical commuters spent an average of 84 mins in commute per day in Singapore but with 85% of commuters reporting travel times of more than two hours daily (CNA, 2018). This reduces the time for employees in addressing inconveniences at home, be it childcare or other family matters. The need for telecommuting applies until the inconvenience is over and the employee is expected to be back in office.

2.8.4. Research questions

This thesis is interested to investigate if that there is a correlation between the support from telecommuting and employee satisfaction and organization citizenship behaviour

which means that we can predict the level of employee satisfaction or organizational citizenship behaviour by examining the independent telecommuting variable. The correlation (positive, neutral or negative slopes) if any and the strength of a possible relationship will be determined by using spearman's correlation (for correlation) and linear regression model (GLM) for strength of the association between telecommuting and employee satisfaction and organization citizenship behaviour. This relationship will be further tested with eight control variables gender, age group, family commitments, size of organization worked for, managerial position, awareness of telecommuting and officiality of telecommuting to conclude if these control variables have any effects on the relationship.

Research questions:

1. What is the relationship and impact between telecommuting support and employee satisfaction and organizational citizenship behaviour?
2. Do any of the control variables such as age group, gender, marital status, presence of family commitments, managerial capacity, formal telecommuting, size and type of organization and awareness of telecommuting have an influence together with telecommuting on employee satisfaction and organizational citizen behaviour?
3. What perceptions are most prominent that could influence managers on the adoptions of telecommuting practice in their organizations?

With the above research questions formulated, the following chapter on research methodology and methods chapter will detail the philosophical stance of this thesis leading to the choice of methods to answer each of the research questions.

2.8.5. Gaps identified in contemporary Literature

Most human resource management discussions revolve around the “ability, motivation and opportunity” theoretical model which demonstrates the importance of motivation

for employees and how human resource management practices could be the tool to achieve this (Almutawa, Muenjohn & Zhang, 2015, p.413). Employee satisfaction with its links to organizational performance had been discussed in detail (Melián-González, Bulchand-Gidumal & González López-Valcárcel, 2015). This thesis posits that satisfied employees would be motivated to perform at their best for the firm. Of the flavors of flexible working arrangements, one of the variants closer to the benefits of telecommuting would be flex time or flexitime. Flexitime which is a distinct dimension of flexible working was shown to play an integral role in increasing synchronous time between couples in families (Bryan & Sevilla, 2017). The study performed in UK on 1533 couples revealed that by adjusting the timing of work to coincide with their spouse increased synchronous time alone. Children played a moderating factor in this study where couples with children were more likely to benefit from flexitime than couples without such dependents. The amount of synchronous time for couples with older children was also increased by 0.7hr daily with flexitime than couples with older children without flexitime. While flexible work for employees were available for request since June 2014, only 48% of employees perceived that flexitime was available. The study did not include telecommuting and was one of the cited limitations. Employees enriched from work to home with the convenience of flexible work arrangements (compressed work weeks and flexitime) leading to job satisfaction further leads to lower turnover intentions (McNall et al., 2009). McNall et al. (2009) were not able to explore the relationship between telecommuting and enrichment as there was a lack of representation in the sample of 220 respondents from an internet database. Telecommuting is generally accepted as a beneficial practice to both employees and employers alike with benefits such as higher job satisfaction (Crandall & Gao, 2005). However, Crandall and Gao (2005) concluded that the suggested benefits of telecommuting were anecdotal with more empirical studies required to provide more

credibility to the findings. Gajendran et al. (2014) highlighted the lack of empirical research investigating organization citizenship behaviour among telecommuters in their study as a research gap in literature. The question is “What is the influence of telecommuting support on employee satisfaction and organizational citizenship behaviour in Singapore, particularly in the information technology sector?”

Hypothesis (H1) Employee satisfaction is positively associated with telecommuting support.

Hypothesis (H2) Organizational citizenship behaviour is positively associated with telecommuting support.

In a study on Spanish employees, telecommuting was found to be more utilized by more qualified workers and in high-ranking employees and needed to be considered as a human capital investment rather than serving the organizational more than for the flexibility of employees (Goñi-Legaz & Ollo-López, 2015). Accessibility to telecommuting in firms appeared to be skewed to the employees who are rewarded or rather attracted by this practice where their talents were likewise valued by the organization (Goñi-Legaz & Ollo-López, 2015). The use of telecommuting was found to be significantly associated with more senior (age), higher ranking employees with higher level of studies. Telecommuting is less likely to be used by employees in small firms as compared to larger firms, it is more likely to be available in very small and very large organizations as compared to medium sized organizations (Goñi-Legaz & Ollo-López, 2015).

Disadvantages of telecommuting practice negatively influence telecommuting outcomes i.e. the presence of other family members at home, the availability of a designated working area at home and other distractions such as house chores (Solís, 2016;

Scholefield & Peel, 2009). Another disadvantage faced by telecommuters is isolation from colleagues which impacts individual telecommuting outcomes such as employee satisfaction and turnover intentions either directly or indirectly (Gainey, Kelley & Hill, 1999). Another commonly reported disadvantage of telecommuting is that being away from office also potentially impede career growth which is a negative outcome of telecommuting outcomes (Khan et al., 1997). The efficacy of telecommuting leading to positive organizational outcomes has been suggested in literature but do not see pervasive adoption in Singapore. It could be a multitude of factors which could potentially affect organizational outcomes diverting attention from the construct. Effects such as excessive working hours at home because telecommuting made it easier to work anytime and anywhere for employees (Kelly & Moen, 2007) work to the organization's benefit of having a highly productive workforce.

Hypothesis (H3) Employee satisfaction is negatively associated with disadvantages of telecommuting practice.

Hypothesis (H4) Organizational citizenship behaviour is negatively associated with disadvantages of telecommuting practice.

However, Kelly and Kalev (2006) found in their qualitative research on 45 respondents from 41 different organizations that while most organizations have formalized flexible work arrangements in their written policies, but these were left to the immediate managers' discretion with little to no tracking. Kelly and Kalev (2006) further went on to challenge that these official policies with informal practices were not accurately captured in surveys about the realistic availability of flexible work arrangements to all groups of employees. A diverse workforce of varying demographics will introduce family commitments into an employees' life like a family or a sick family member.

Flexibility to telecommute allow employees to react and manage the demands of a family. But commitments to complete work in a timely manner with enormous amounts of correspondence with office employees could lead to unsustainable balance of work and family. The employee may potentially face burnouts while struggling between the family and work at the same time. When telecommuting can alleviate or support the challenging circumstance that the employee is facing, satisfaction can be achieved. Employees who feel that they are valued by the organization reported higher job satisfaction (Amos & Weathington, 2008). The findings support the notion that organizations can influence employee attitudes by the provision of non-wage benefits.

3. Research Methodology and Methods

This chapter introduces the ontological and epistemological position adopted in this thesis. The transformation of the adopted philosophical stance through the course of study is elaborated. This also led to the choice of research methodology and subsequent choice of sequential mixed methods approach. The independent, dependent and control variables for the quantitative analysis are determined coupled with sampling process explained. For both quantitative and qualitative methods, Actions taken to ensure that research integrity is upheld are demonstrated. The data collection process for both methods are detailed and tested with a scoping study for refinement to be used in the final study.

3.1. Philosophy

Philosophical approach is best be explained using the research onion with layers of ideologies influencing the layers within (Saunders, Lewis & Thornhill, 2009). It starts with a person's research philosophy which allows insights into the researcher's worldview leading to the research procedures and strategies. The philosophical underpinnings of a researcher such as the ontological and epistemological stance should be clearly defined prior to starting a research (Singh, 2015). A researcher should possess knowledge of the various types of philosophical positions as they lead to the choice of research methodologies (Greener, 2008). It was argued that the knowledge of diverse social research perspectives in university curriculums aided students in improving appreciation of diverse and alternative perspectives and methodologies (Bastalich, 2016). Thus, it is critical for researchers to be aware of the different philosophical underpinnings possessed by others, understand their own philosophical stances and appreciate alternative perspectives to be able to be more receptive of alternative information. If we were only well versed with our own philosophical perspective but fail to understand the variety of different philosophical stances

available, it would be difficult to overcome aversion of dialectical perspectives when consuming alternative sources of information. The task of critiquing allowed the researcher to engage in a dialogue with the author who was none other than the author (Knowles & Gray, 2011). As such, critique is argued to be important for development of the researcher (Silva, 2007). If the goal was to improve research through critiquing, then the process would be beneficial and encouraged (Russ-Eft, 1999). The purpose of critiquing could be detrimental when there were emotions involved and thus the process should be kept neutral and impartial. Critiquing and reflection are a continuous process in a research journey much like the development of a thesis where new knowledge could challenge older beliefs.

Researchers should be clear of their own philosophical stance and clearly present it to the readers in a thesis. This would allow readers to understand the researcher's biases and ideology which will allow them to better understand the research findings and conclusions. This is especially important for interpretive research where the research questions answered by different philosophical stances and methodologies could yield different findings and conclusions. Research is seldom ever misguided but rather stemming from a potentially different philosophical perspective and interpretation from the reader.

3.2. Ontology

Oxford's online dictionary defines ontology as the branch of metaphysics dealing with the nature of being (Oxford, 2020). Webster's online dictionary defines ontology as a theory about the nature of being or the kind of things that have existence (Merriam-Webster, 2020); the study of being. Ontology is thus about how an individual perceives reality. Whether this reality is external to an individual or is it the product of an individual's sensory perceptions is a problematic question with no conclusive evidence. This basic ontological assumption allows the stage to be set between realism and

nominalism (Burrell & Morgan, 1979). The debate between what is real and what is not unreal continues to present day. This primary difference between the two views summarises the discord between the objectivist and subjectivist stance. Ontologies in research could be broadly categorized onto opposing far ends on a scale where objectivism and subjectivism sat on opposite ends (Burrell & Morgan, 1979). In the middle of the two extremes lay realism. Objectivism assumes a real reality where it could be studied independently and free of researchers' participation. Subjectivism assumes a perspective that reality is co-created, and every individual subject could thus form their very subjective perspective on what reality is. Straddling in between objectivism and subjectivism is where realism sits in between the middle ground between order and chaos. Interpretivism could be perceived to be a methodological alternative to positivism (Moore, 2009). An objectivist view of reality whereby it is real and can be observed, studied and replicated in a way was the adopted stance. This view has transcended along the ontological scale slightly towards subjectivism through the course of the study. As such, the stance in this thesis has seen a movement from a positivist stance to be a post-positivist stance gradually and comfortably.

3.3. Epistemology

Epistemology is defined as the theory of knowledge by the Oxford's dictionary (Oxford, 2020). The Webster's dictionary's definition of epistemology is the study or theory of the nature and grounds of knowledge especially with reference to its limits and validity (Merriam-Webster, 2020). The assumption lies between whether knowledge can be transferred, learned with a tangible form as opposed to an attainment subjected to a personal experience. This relates back to the ontological assumption on reality and where it sits, externally or internally to an individual and whether truth can be debated at all. Or truth is subjective which perpetuates an endless debate. The commonly known dichotomy sits between the positivists and the subjectivists where the former takes the

stance that knowledge can be identified and is absolute as opposed to the latter where knowledge is surreal and unable to be quantified. Epistemological stance determines how the researcher viewed what constitutes as empirical data and the method of collection until the conclusion of findings (Devine, 2012). Differences between positivist and interpretivist resonate with the ontological fundamentals where a positivist believes knowledge can be neutral and devoid of researcher influences or emotions versus an interpretivist's co-creation of experiential findings.

This thesis initially adopted a positivist epistemological view that knowledge can indeed be sought from the real world through value-free investigation and generalizable (Deshpande, 1983; Hirschman, 1986; Tsoukas, 1989). Phenomenon should be ultimately replicable with as little contamination as possible from the researcher or any other interactions. This view has shifted towards a post-positivist stance where data will ultimately be tainted to a certain extent if it were to be observed and reported through any research or study. The measurement of observations could be argued to be a process of shoe-horning phenomenon into quantifiable datum whether be it nominal, cardinal, or ordinal on scales.

3.4. The link between Ontology and Epistemology

Ontological and epistemological beliefs are related to some extent, though not proven empirically (Olafson, Schraw & Vander Veldt, 2010). If ontology were a branch of metaphysics dealing with the study of being and a researcher had an objectivist ontological view, it would be natural to assume that a positivist epistemological approach of quantifying and proving that knowledge will follow. The positivist approach has been suggested to be a methodology for determining a causal relationship rather than the causal mechanisms (Lin, 1998). However, Lin (1998) also suggested that neither the positivist nor interpretivist approach alone are enough to provide a

conclusive understanding. The combination of both approaches was argued to be wholesome in research.

Post-positivism

It is argued that while positivistic research philosophy assumes objectivity, it is still subjected to some degree of creativity and interpretation (Lacity & Janson, 1994). A pure positivist is objectivistic and dualist in epistemological stances. Reality stands distinct and separate where ways of capturing and measuring can be replicated and unpolluted by any kind of interpretation. A post positivist deviates from a positivist to acknowledge that reality is not possible to be captured other than through some lenses which are tainted inevitably by the observer and subsequently reported. A post-positivist epistemological perspective is that it is probably true until proven wrong. Some research questions are better answered with some paradigms suggested that a staunch positivist or even post-positivist might not fully address the research question with their dominant paradigm (Brand, 2008). If the only tool one has is a hammer, in the eyes of the beholder, problems will look like nails (Maslow, 1966). As such, if we were to view a specific paradigm to be a hammer in the hands of a researcher, then the researcher may approach all research problems and hit them like nails. Recent evolving paradigms such as pragmatism argue that there are fallbacks associated with a dominant ontological perspective held by the researcher. The pragmatism paradigm put the focus on the research question to adopt the “appropriate” perspective to best approach the topic. The term paradigm was brought to visibility by Kuhn (1962). Paradigm is understood to be a set of agreed thinking on a set of perspectives, values and assumptions in research. Pragmatism could provide a sustainable perspective in the ever-changing world of reasons and theories where their application and relevance of the paradigms are specific to the circumstance at that point in time (Ormerod, 2006). The ability of pragmatism to accommodate other new paradigms as they evolve is appreciated. Suggesting that

pragmatism hinged on adaptation as a construct, it is then recommended that pragmatism be promoted as the foundation philosophy in occupations such as occupational therapists (Ikiugu & Schultz, 2006). Perhaps the strongest argument made for sequential mixed-methods research is the ability to generate important research questions and the ability to answer them subsequently (Johnson, Onwuegbuzie & Turner, 2007). It is argued that certain professions could have dominant research approach like interpretivism within the education discipline (McPhail & Lourie, 2017) and positivism within medicine. It further supports the point to remain open minded in our industry and community where a paradigm may be prevalent.

3.5. Researcher's Philosophical Stance

A post- positivist stance accepts the probable falsifications of intended hypotheses. Post-positivism rejects the core idea of positivism where natural sciences and observable events can be measured for inquiry instead of subjective experiences. This rejection is easily accepted as most methods have biases injected because the scientist is ultimate a human. A human has individual subjective experiences and axiological differences which is used to interpret and consume information. Every methodology will be subjected to critique because everyone has a different worldview. The methodologies chosen are influenced by the philosophical underpinnings that is present in the researcher (Palagolla, 2016). "The link between theoretical paradigm and research method is a very strong one" (Deshpande, 1983, p.104) but methods are just tools which researchers can employ to answer research questions.

Mixed methods research with methodological pluralism could lead to superior research (Anthony, 2018). The combination of numerical and cognitive reasoning is argued to lead to the best answer that could not be explained adequately otherwise (Anthony, 2018). Deductive inference talks about the truth but reveals nothing about the truth

(Ormerod, 2010). Inductive reasoning refers to observation of a particular truth and thus “inductively” infer that this is generally the truth (Ormerod, 2010). Traditional approaches like inductive reasoning generalise a theory after observation while deductive approaches posit a theory and confirms the theory by testing of hypotheses. Abductive reasoning is argued to be a combination of both approaches taking incomplete observations while choosing a pattern within the data and theories to suggest a plausible hypothesis (Anthony, 2018). A combination of both deductive reasoning (quantitative analysis) in this thesis and inductive reasoning (qualitative analysis) draws on the strength of different types of data collection and analyses. Apesoa-Varano & Hinton, (2013) argues that by the triangulation and constant comparison of approaches offer better explanations of the “how” and “why”. Apesoa-Varano & Hinton, (2013) further argues that the contribution of qualitative integration of the voice of the subjects are often unacknowledged. Within the many ways to carry out mixed method research, telling a different story within a story may confirm convergence or refuting extant knowledge Apesoa-Varano & Hinton, (2013).

3.6. Ethics and Axiology

Six voices or theoretical positions can be mapped out to account for dilemmas and conflicts in ethics (Brady, 1999). Ethic of universal care and personal relations are mapped under axiology. Universal care ethics is described as the study of values that all human beings should or could have. The opposite could be seen in ethics of personal relations where one put their own interest above all else. This research topic on employee satisfaction and organizational citizenship behaviour touch upon personal vulnerabilities and needs which potentially exposes an individual's need for telecommute. The needs of individuals are personal and confidential, and it is imperative to safeguard participants' identities. The interviews conducted could expose the vulnerabilities of managers and put them in an uncomfortable position. It is important to recognize that whilst conducting research, no research subjects should be subjected to any compromising situations aligned with the ethics of universal care. Within the conduct of this study, due diligence was exercised to achieve comfort for the research subjects before they choose to proceed with the surveys or interviews. Confidentiality of the research subject's personal identifiable information is maintained and replaced with pseudo naming. No personal information was collected from the participants in the online survey. Only the internet IP addresses of the participants were collected to ensure distinct responses. Care was taken as much as possible to ensure that at no point within the data collection, the subject could be identified individually. This anonymity was maintained during the analysis of the coding and thematic analysis to ensure that the research subjects' identity would not be associated in the final report. Ethics application reference ENBS-2018-19-037 was approved by Edinburgh Napier University Research Integrity Committee for the conduct of this research.

3.7. Research design: Mixed Methods Sequential Approach

Adopting a deductive approach and relying on surveys for data collection means that larger population sampling is required. It also implies that the heavy reliance on scientific methods is prevalent. Qualitative approaches tend to end up with a smaller sample size for interviews due to the participant's proximity to the topic studied. It has been argued that employing both subjective and objective measures increase the reliability of the results as errors occur within each type of measurement (Wall et al., 2004). Problems could be tackled by the collective efforts of both quantitative and qualitative methods instead of the persistent debate on the divide of paradigms as seen in education science (Tillman, 2009). The choice of philosophical approach affects the results and conclusions with regards to the research question. Quantitative approaches are most appropriate when generalizable results and predictable outcomes are desired (Neuman, 1997). This is prevalent in organizational studies where most research tend to drift towards. The positivist approach is reported to dominate the domain of strategy research where it further stretches theories due to the aims and objectives to further generalise theory derived hypotheses (Adcroft & Willis, 2008). A lack of big ideas that resulted from the lack of competitive ideologies, philosophies and theories plagued research domains such as strategy research (Adcroft & Willis, 2008). Qualitative approaches have sought to bring a voice and insights behind phenomenon (Heyink & Tymstra, 1993) such as team morale and productivity where research findings could be used to explain corporate measures and their outcomes. However, the interpretivist approach had been alleged as personal impressions (Mays & Pope, 1995) and lacking in scientific rigor (Sarma, 2015). The same research question could be answered with different approaches which could be with a positivistic recommendation or an interpretivist's deeper understanding of the phenomenon or a combination of both in complement of each other (Langhout, 2003). Thus, in this sequential mixed-methods

design approach, a conclusion through scientific methods suggesting relationship between the variables could be used for recommendations to the organization in this temporality. This is followed by semi structured interviews to provide deeper insights and hidden motivations from managers to the survey results. It is encouraged that researchers recognized the temporality of their research process and findings and reflected upon them (Hamann & Suckert, 2018). With a post-positivist philosophical approach employing statistical analysis on a large sample but also leveraging on a small sample of interviews to give interpretations to the statistical correlation, It is intended that the findings can provide a more wholesome picture to answer the research questions. There is nothing stopping a positivist from employing a qualitative methodology to answer a research question which is best answered using the chosen method. A pure positivist research potentially suffers from the lack of story within the empirical study, yet interpretivist research grappled with the lack of credibility in the research quality and framework (Singh, 2015). The possibility of having a dominant philosophical position like quantitative or qualitative research approach but having a method of the opposing or differing paradigms to substantiate or provide more meaning to the dominant methodology is possible (Frels & Onwuegbuzie, 2013). Because objectivity and subjectivity can complement each other in a reciprocal type of relationship instead of opposing philosophical dualism (Schultze, 2000). Although, tests to improve the validity and reliability of qualitative studies are available (Riege, 2003), there are no consensus in the adoption of such tests. Coleman, Guo and Dabbs (2007) in their paper about gifted children concluded that while qualitative research had provided insights, but due to the limited studies produced, restricted the ability to challenge the prevalent constructs in the field. It was a good attempt to provide a voice from the axiological aspect but that was still far from generalization for the implementation in organizations. The selection of any research methodology does not constitute research

quality (Mir & Watson, 2001) but rather, the clarity of the assumptions and generalizability of the findings are more crucial to the contribution of the research. Qualitative methods provide more insights and understanding but quantitative methods provided avenues to measure the strength of the associations of variables. While triangulation is often claimed as the purpose of adopting mixed method methodologies, the purposes of mixed-method approaches are many more such as complementarity, development, initiation, and expansion (Greene, Caracelli & Graham, 1989). Complementarity increases interpretability and validity of the constructs adopting the strengths of methods which is described as assessing similar as well as different aspects of the phenomenon (Greene, Caracelli & Graham, 1989). Congruent to the study conducted by Apesoa-Varano and Hinton (2013) where quantitative data from elderly patients suffering from depression was collected but semi-structured interviews were conducted with the elderly patients as well as primary care physicians to elicit their experiences, this thesis emulates the same methodological approach. This thesis draws upon the mixed method approach in the work of Apesoa-Varano & Hinton, (2013), surveys were used to collect the generalisable quantitative data from telecommuters, semi-structured interviews provide rich data or description from a non-probabilistic sample (Apesoa-Varano & Hinton, 2013). Use of semi-structured interviews with open-ended questions guided by literature allude data validity where the consistent use of data collection technique and analysis presents data reliability (Weideman and Hofmeyr, 2020).

3.8. Sampling

The need to generalize outcomes and conclusions drive the need for a larger population sampling than interpretive data collection samples. Probability sampling is one of the methods to assure an equal chance of every individual within a population of being

selected. This is viable in a study where the population is huge and readily available. In topic areas where the sample is relatively small and isolated, probabilistic sampling might be problematic. The entire sampling mechanism may not be possible, and it pose as a limitation for testing for validity. Testing for validity is a key process for quantitative research method which could be described as operationalizing the construct (Sartori & Pasini, 2007). Telecommuters' populations are not readily available in companies due to the scarcity of telecommuters in organizations (Morganson, Major, Oborn, Verive & Heelan, 2010). There are multiple ways of sampling for internet questionnaires and they are all worthy of exploring. The important criteria are ensuring a representative sample. Purposive, non-probabilistic sampling method is used for the selection of research subjects for the online questionnaire. Purposive sampling also known as judgement sampling is different from convenient sampling wherein the research participants in a purposive sample possess specific qualities whereby, they were chosen as the representative sample of a population (Etikan, Musa & Alkassim, 2015). Random and convenient sampling could bring in different participants of different backgrounds (Lee & Cheng, 2006). Non-probabilistic sampling strategies which includes snowball sampling is suggested for hidden populations which random sampling could not access (Heckathorn, 2011). Purposive sampling allows the researcher to gain access to research subjects that fit the criteria set this research in a short period of time. Adequate sample size should be carefully considered with regards to the statistical test requirements and assumptions (Asraf & Brewer, 2004).

The criteria for questionnaire participants for the online questionnaire are:

- Participants are currently working in Information Communication Industry e.g. information technology companies, telecommunications companies,

companies providing services related to information technologies to consumers or businesses.

- Participants who are familiar with telecommuting practice

The criteria for research subjects for the semi-structure interviews were:

- Participants are currently working in Information Communication Industry e.g. information technology companies, telecommunications companies, companies providing services related to information technologies to consumers or businesses.
- Participants have previously participated in the online questionnaire of this thesis
- Participants are managers of a work team

This study is focussed on the information technology industry where participants will be sampled. Participants are required to be familiar with telecommuting to be able to provide their perceptions on telecommuting support and its influences on employee satisfaction and organizational citizenship behaviour. Managers are funnelled from the questionnaire participants as this would allow the managers to be familiar with the context. A total of five managers agreed to participate in the interviews out of the 100 respondents.

Table 2. Characteristics of the Sample (Research Participants)

Demographic profile of participants in sample (n=100)			
Profile		n	%
Gender	Male	66	66%
	Female	31	31%
	Prefer not to disclose	3	3%

Age	20-29	5	5%
	30-39	30	30%
	40-49	51	51%
	50-59	12	12%
	60 and Above	2	2%
Marital Status	Single	18	18%
	Married	71	71%
	Divorced	8	8%
	Others	3	3%
Family Commitments	Young dependents	34	34%
	Elderly dependents	9	9%
	Other dependents	4	4%
	No commitments	42	42%
	Elderly and other dependents	1	1%
	Young and elderly dependents	7	7%
	Young, elderly, and other dependents	3	3%
Size of organization	Local Enterprise <250	25	25%
	Local Enterprise >250	13	13%
	Multinational MNC <250	7	7%
	Multinational MNC >250	55	55%
Manager of work team	Yes	40	40%
	No	60	60%
Awareness of telecommuting	Yes	97	97%
	No	3	3%
Organization telecommuting practice	Official	52	52%
	Unofficial	40	40%
	Unsure	8	8%

Note. Source: own study

Table 2 shows a summary of the characteristics of sample in this research study. A total of 100 responses from 121 submitted questionnaires were useable with the rest being incomplete and thus discarded. As such, the sample was made up of more males (66%, n=100) with some (3%, n =100) not revealing their gender. Respondents were mostly between 40-49 years old (51%, n=100) followed by 30-39 years old (30%, n=100). Relatively few were 20-29 years old (5%, n=100) as were 50-59 years old (12%, n=100) as well as those aged above 60 years old (2%, n=100). Most respondents (71%, n=100) were married. Close to half (42%, n=100) had no commitments at home requiring their physical presence, closely trailed by those (34%, n=100) having child commitments at home while the rest (24%, n =100) requiring some combination of commitments. More

respondents (62%, n=100) worked for multinational companies of varying sizes within Singapore. More respondents (60%, n=100) were of individual contributor capacity. A small percentage of respondents (8%, n=100) were unsure of whether the organization they worked for had telecommuting while more respondents (52%, n=100) reported availability of official telecommuting arrangement within their organizations.

The number and percentages of managers who opted into the semi-structured interviews are presented in Table 3.

Table 3. Demographic Profile of Managers Interviewed in this Thesis

Demographic profile of managers in sample (n=5)

Profile		N	%
Gender	Male	4	80%
	Female	1	20%
	Prefer not to disclose	0	0%
Age	20-29	0	0%
	30-39	2	40%
	40-49	3	60%
	50-59	0	0%
	60 and Above	0	0%
Marital Status	Single	0	0%
	Married	5	100%
	Divorced	0	0%
	Others	0	0%
Family Commitments	Young dependents	2	40%
	Elderly dependents	0	0%
	Other dependents	0	0%
	No commitments	1	20%
	Elderly and other dependents	1	20%
	Young and elderly dependents	2	40%
	Young, elderly, and other dependents	0	0%
Size of organization	Local Enterprise <250	2	40%
	Local Enterprise >250	0	0%
	Multinational MNC <250	0	0%
	Multinational MNC >250	3	60%
Manager of work team	Yes	5	100%
	No	0	0%
Awareness of telecommuting	Yes	4	80%
	No	1	20%
Organization telecommuting practice	Official	2	40%
	Unofficial	3	60%
	Unsure	0	0%

Male managers occupied most of the interviewees (80%, n=5). All managers were married (100%, n=5). Most of them (80%, n=5) had commitments at home either in childcare, elderly care or other forms of dependents requiring their physical attention at home. Most managers were 40-49 years old followed (40%, n=5) by 30-39 years old. More managers (60%, n=5) worked in multinational MNCs while the rest (40%, n=5) worked in local enterprises with lesser than 250 employees. More managers (60%, n=5) reported unofficial forms of telecommuting practice in their organizations.

3.9. Research Procedure

All participants were briefed on the context of the research prior to the participation of the online questionnaires. This was achieved by displaying the “Participants Information and Consent Forms” to the online survey participants. The Participants Information and Consent Forms introduced the researcher, research aims, and research objectives. Participants were informed of how the research data were collected, stored, and used. Participants were assured of confidentiality with measures taken to store the information securely in a non-public computer and protected with necessary security and passwords. Participants were assured that the research data from the questionnaires and interviews would not be traceable back to them. No personal identifiable information such as emails or names were collected in the online questionnaire except for the managers who volunteered to be interviewed where minimal information was collected on the contact method to contact the managers.

Participants were able to opt out of the survey if they were not comfortable with any of the details provided by clicking on the checkbox to leave the survey. Participants who read and agreed to the online consent form displayed clicked on the checkbox indicating their consent and proceeded with the survey. Prior to the completion of the questionnaire for each participant, another checkbox was presented to the participants on their consent to submit their responses to the researcher. Participants were presented the option to exit the survey without submitting their responses if they wished to do so. This allowed participants who had concerns about the survey after they had completed the survey to withdraw from submitting their responses.

All participants access the online questionnaire using the Edinburgh Napier’s official survey portal “Novi Survey”. This ensured that data collected by the questionnaire

remained on official campus infrastructure instead of external survey tools which could risk participants sensitive data to exposure. Within the questionnaire, a question was asked to funnel managers who agreed to separate interviews with the researcher. These managers would be required to input their contact information into the questionnaire. This could be in the form of a telephone number or email address. This information was to be kept only for the duration of the examination and to be destroyed thereafter the required examination process is completed.

The participant information and consent forms were again sent to managers partaking in the interviews over emails for their acceptance and approval. Their explicit verbal consents were required before the interview was conducted. Managers were also informed that voice recording was conducted for verbatim transcribing and their consents were recorded along in the voice recordings. In the interview consent form, participants were informed that even though data would be anonymised as much as possible, there may still a remote possibility that research subjects might be identified through voice recordings. As such, the voice recordings would survive only duration of the examination and to be destroyed upon the end of the required examination process. All other personal information was replaced with pseudonym or participant number to prevent any traceability back to the research subjects.

3.10. Methods

The mixed methods research approach gained popularity in recent years as a viable methodology in overcoming some of the limitations commonly present in either methods. Although a convergence of findings is often desired, the outcomes from sequential mixed-method studies may be a divergence where it could provide a variety

of information not usually found in any predominant method (Flick, Garms-Homolová, Herrmann, Kuck & Röhnsch, 2012). Flick et al. (2012) argued that instead of seeking confirmation of the findings of either method with different approaches, combination of methods of equal standing could provide a more comprehensive approach to research.

3.10.1. Data Collection and Analysis

Previous literature located in Singapore explored the differential effects of gender on telecommuting (Teo & Lim, 2000), differences of attitudes of workers towards telecommuting between Singapore and USA (Khan et al., 1997), attitudes towards telecommuting among IT professionals in Singapore (Lim & Teo, 2000), survey of attitudes of female computer professionals in Singapore (Yap & Tng, 1990) which explored topics such as gender, and perceptions from workers but lacked association and impact of telecommuting on employee satisfaction and organizational citizenship behaviour or perceptions of Singapore IT managers on telecommuting.

The research design started with a questionnaire addressing the first two research questions. The primary data for the quantitative portion was gathered using anonymous web questionnaires solicited through purposive sampling approach. Participants were solicited through social messaging platforms such as “WhatsApp” or direct mobile text messaging. Participants were informed that their attitudes resulting from telecommuting arrangements were the primary interests of study. The questionnaire took no more than 5 minutes to complete. This is to avoid discarded responses due to lack of time or attention to complete the questionnaire. The questionnaire was designed with four major sections to gather research data.

Section one of the questionnaire collected demographics of the respondents such as gender, age groups, marital status, organizational profile, family commitments, and whether the respondent was a manager of a work team.

Section two in the questionnaire explored respondents on attitudes towards telecommuting where it consisted of 11 questions. Two questions enquired participants about their awareness of telecommuting and whether their current organization adopted official telecommuting or unofficial telecommuting (Peters, den Dulk & de Ruijter, 2010).

This specific question sought to understand if the presence of a formal telecommuting policy affected participant's attitudes. Participants were also asked if telecommuting should be made a standard practice for its convenience and as such, when looking for a new job, would they be inclined to look for an organization that adopts telecommuting practice?

A sub section within section two contained three aspects of telecommuting adapted from the work of Mokhtarian, Bagley and Salomon (1998), explored respondent's perceptions of loss of productivity, corporate social interaction, and career promotional opportunities.

To measure employee satisfaction and organizational citizenship behaviour, five-point Likert scales (1= strongly disagree, 5= strongly agree) (Solomon & Templer, 1993) were presented to participants. Likert scales are widely used in surveys but the meaning of the collected data and how to use them form much of the discussion since its inception by Rensis Likert in 1932 (Willits, Theodori & Luloff, 2016). The use of Likert scale is commonly used for measuring attitudes. Although using Likert scales to interpret attitudes suggested an ordinal approach in statistical analysis, cardinal statistics had been successful in the interpretation of attitudes on Likert scales. Statistical

methods such as t-testing, which is a cardinal scale approach excels in simplicity and availability but lacking in clarity and exactness which may distort information within the data (Göb, McCollin & Ramalhoto, 2007). Göb et al., (2007) called for the development of more convenient and customised methods for ordinal statistics.

Section three listed items about employee satisfaction with regards to telecommuting such as availability of trust, perceived flexibility, and work life balance were adapted from the work of Aban, Perez, Ricarte and Chiu (2019) on satisfaction such as “I feel this organization really brings out the very best in me by trusting me to perform my work in a responsible manner remotely unsupervised” and “I am glad that I chose this company for the flexibility in work arrangements.”

The last section on organization citizenship behaviour presented seven items on civic virtue influence, assisting with organizational image, and helping others (Graham & Van Dyne, 2006). Similar throughout the questionnaire, five-point Likert scales (1= strongly disagree, 5= strongly agree) were used to explore the extent of participant agreement with the items presented.

Both descriptive and inferential statistics were used in the analysis of the data gathered from the questionnaires. Descriptive statistics were presented in SPSS version 26 format with means and standard deviations to describe the data. Pearson’s correlation coefficient was used to test if there was a statistical association between variables and the strength the association. It is a bivariate analysis and a parametric test where continuous variables are required. The variables though ordinal were transformed into interval scales which fulfils Pearson’s correlation coefficient test requirements.

3.10.2. Independent Variable: Telecommuting Support

Six items scale measuring telecommuting support were presented to participants; “I am satisfied with my current work arrangement, without telecommuting option.”

(Mean:3.16, SD: 1.152); “I am satisfied with flexible work arrangement: able to telecommute.” (Mean: 4.26, SD: 0.747); “When applying for any new jobs or assignments in a new organization, I am inclined to look for an organization that has telecommuting in practice.” (Mean: 3.88, SD: 0.856); “Telecommuting is a valuable corporate initiative for employee satisfaction even if there is no present need for it.” (Mean: 4.2, SD: 0.651); “The convenience of telecommuting is an important factor to employees.” (Mean:4.21, SD: 0.686); “Telecommuting should be adopted as a standard practice.” (Mean: 3.97, SD: 0.858).

Cronbach’s alpha was generated to validate internal consistency. It allowed the researcher to assess the reliability of the Likert scale test and the test measures what it intended (Spector, 1992). Each of the sections within the questionnaire except the demographics was tested for consistency. Cronbach’s alpha was performed on multiple Likert scale questions in a survey to determine how closely related they are to each other. The item “I am satisfied with my current work arrangement, without telecommuting option” (Mean:3.16, SD: 1.152) was removed from the calculation to improve the Cronbach’s alpha from 0.636 to 0.793. This question was to assess if the participants would be satisfied with the work arrangement today which is without the telecommuting option. With a mean of 3.16, the sample was close to neutral to the suggestion.

Cronbach’s alpha test for internal consistency test for telecommuting questions:

Table 4.Cronbach’s Alpha Test on Telecommuting Survey Questions

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.793	.802	5

The resulting α coefficient of reliability was 0.793 shown in Table 4 which indicated a high level of consistency for the 5 items scale measuring telecommuting support.

The five items scale were summed (min 5, max 25) where the greater the scale meant the higher the perceived support from telecommuting.

1. Whenever I telecommute, I experienced productivity loss due to domestic activities such as attending to the door or performing household chores.
(Mean:2.7, SD:1.04)
2. Whenever I telecommute, I lost important interaction with office coworkers.
(Mean: 3.22, SD: 0.949)
3. Because of telecommute, I may be passed over for promotion. (Mean:2.73, SD:0.777)

3.10.3. Dependent Variable: Employee satisfaction

Five items scale measuring satisfaction with telecommuting: “I experience job satisfaction due to the convenience of telecommuting.” (Mean:3.84, SD:0.849); “Telecommuting do NOT drive more job satisfaction.” (Mean: 2.78, SD:0.97); “I feel this organization really brings out the very best in me by trusting me to perform my work in a responsible manner remotely unsupervised.” (Mean: 4.02, SD: 0.887); “I am glad that I chose this company for the flexibility in work arrangements.” (Mean: 3.94, SD:0.679); “I am happy with the management for their support in promoting work life balance.” (Mean: 4.11, SD: 0.777). The five items scale were summed up (min 5, max

25) where the greater the scale meant the higher the level of satisfaction of participants perceived towards telecommuting.

Cronbach's Alpha Test for internal consistency test for employee satisfaction questions is shown in Table 5.

Table 5. Cronbach's Alpha test on Employee Satisfaction survey questions

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.679	.698	5

The resulting α coefficient of reliability was 0.679 indicated an acceptable level of consistency for the five statements measuring employee satisfaction in the presence of telecommuting. The statement: "Telecommuting do NOT drive more job satisfaction." was negatively worded and thus reverse coding was applied.

3.10.4. Dependent Variable: Organizational Citizenship Behaviour

Organizational citizenship behaviour was measured with seven items scale. "Without telecommuting in the company, I am less likely to go beyond my normal scope of work to participate in non-paid work" (Mean: 3.12, SD: 0.935); "With the availability of telecommuting in the company, even when I am busy, I am willing to take time to share information on with new colleagues." (Mean: 3.78, SD:0.773); "Without telecommuting in the company, I am less likely to actively participate in corporate events organized in and/or by my company." (Mean: 2.86, SD: 0.921); "With the availability of telecommuting in the company, I volunteer for projects, endeavours or events that improve ongoing issues in my organization." (Mean: 3.2, SD:0.778); "Without telecommuting in the company, I am less likely to weigh the consequences of my actions before doing something that could affect the business." (Mean: 2.7, SD: 0.905);

“With the availability of telecommuting in the company, I make suggestions to my colleagues about ways to work more effectively, even when it is not my direct responsibility.” (Mean: 3.56, SD: 0.820). The seven-item scale was summed up (min 7, max 35) where the greater the scale meant the higher the inclination of participants towards exhibiting organizational citizenship behaviour while telecommuting. Cronbach’s Alpha test for internal consistency test for organizational citizenship behaviour items is shown in Table 6.

Table 6. Cronbach’s Alpha Test on Organizational Citizenship Behaviour Survey Questions

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.767	.768	7

The resulting α coefficient of reliability is 0.767 indicated a high level of consistency for the seven-items measuring organizational citizenship behaviour.

3.10.5. Control Variables

Table 7. Demographic Profile of Participants in Samples

Profile (n=100)		N	%
Gender	Male	66	66%
	Female	31	31%
	Prefer not to disclose	3	3%
Age	20-29	5	5%
	30-39	30	30%
	40-49	51	51%
	50-59	12	12%
	60 and Above	2	2%
Marital Status	Single	18	18%
	Married	71	71%
	Divorced	8	8%
	Others	3	3%
Family Commitments	Young dependents	34	34%
	Elderly dependents	9	9%
	Other dependents	4	4%
	No commitments	42	42%
	Elderly and other dependents	1	1%
	Young and elderly dependents	7	7%
	Young, elderly, and other dependents	3	3%
Size of organization	Local Enterprise <250	25	25%
	Local Enterprise >250	13	13%
	Multinational MNC <250	4	4%
	Multinational MNC >250	55	55%
Manager of work team	Yes	40	40%
	No	60	60%
Awareness of telecommuting	Yes	97	97%
	No	3	3%
Organization telecommuting practice	Official	52	52%
	Unofficial	40	40%
	Unsure	8	8%

Note. own study

Control variables are used to reduce the possibility of spurious results (Stavrou & Ierodiakonou, 2011). In Table 7, eight control variables were used in this thesis: Gender (0 =Male, 1=Female, 2 = Prefer not to disclose); Age group (0= 20-29, 1= 30-39, 2= 40-49, 3= 50-59, 4= 60 and above); Marital status (0= Single, 1= Married, 2= Divorced, 3= Others); Responsibilities (1= Young dependents requiring adult attention, 2= Elderly dependents requiring attention i.e. medically unfit, 3= Other dependents at home requiring physical and/or mental intervention or care, 4 = No commitments at home which requires your presence, 5= Elderly dependents requiring attention i.e. medically unfit AND Other dependents at home requiring physical and/or mental intervention or

care, 6= Young dependents requiring adult attention AND Elderly dependents requiring attention i.e. medically unfit, 7 = Young dependents requiring adult attention AND Other dependents at home requiring physical and/or mental intervention or care AND Elderly dependents requiring attention i.e. medically unfit), 8= Young dependents requiring adult attention AND Other dependents at home requiring physical and/or mental intervention or care; Size of organization (0=Local enterprise <250 employees, 1 = Local enterprise> 250 employees, 2= Multinational MNC< 250 employees, 3= Multinational MNC >250 employees); Are you a manager (0= no, 1= yes); Are you aware of Telecommuting ; commonly known in Singapore as "work from home" Or "working remotely" with secure IT connection back to office (remote working) (0= no, 1=yes); My company adopts telecommuting practices (employees working from home) (0= Officially, 1= Unofficially, 2= Not sure).

Pearson's correlation coefficient tests indicate a positive or negative correlation which indicates that as one independent variable rises in value (perceptions of telecommuting) and rises or decreases in dependent variables. Correlations do not necessarily mean causality as what Hill (1965) argued where a strong correlation only provides a good starting point in the quest to prove causality. Hill (1965) explored the issue of association or causation and explained how nine aspects of the association needed to be considered before causation could be claimed:

- 1) Strength of association
- 2) Consistency of repeated observations
- 3) Specificity of factors of association
- 4) Temporality of the relationship of association
- 5) Biological gradient of the relationship
- 6) Plausibility which was the hardest of all
- 7) Coherence of the model
- 8) Experimental
- 9) Analogy

3.11. Manager's Perceptions

Exploration of manager's perception is best sought with in-depth semi-structured interviews allowing structured responses but also encourages free form expression of their opinions. Qualitative approaches have been critiqued to be lacking in quality assurance and there is a need to develop frameworks to guide and help qualitative methods achieve the needed quality (Reynolds et al., 2011). Quantitative research focuses on generalization and causality where the researcher could miss the stories behind the phenomenon.

3.11.1. The Big Five approaches to Qualitative Methodology

Creswell and Poth (2018) detailed different qualitative approaches to approach research questions in Table 8. One of the research questions of this thesis is to understand the viewpoints and perception of managers through a description of their experiences to explore any themes. Although there are similarities in the five approaches, such as data collection, interviews, observation or materials to varying degrees, the extent of each process differs amongst the approaches as such more extensive data analysis stage for phenomenology as compared to ethnography (Creswell & Poth, 2018). Qualitative research is a broad term consisting of multiple methods and approaches which needs to be chosen to address the research intention of the study, which is primarily made up of the researcher's role, focus of the study as well as the assumption of knowledge (Astalin, 2013).

Narrative Research

Narrative inquiry focuses on the stories told from individuals where the researcher could arrange the story in a chronological order (Creswell & Poth, 2018), identify the frame of the story on the plot as well as who the teller is and the listeners (Charon & Montello, 1999). The story could be told to exemplify certain point, meaning or lessons or simply to impart meaning so much so that when stories are told, meaning are created for the

teller (Ruth, 1998). Narrative inquiry is very much employed for the purpose of understanding of human experiences where stories are the vehicles (Lal, Suto & Ungar, 2012).

Grounded Theory

Grounded theory allows for the formation of new knowledge through the development of new theory from data collected and analysed immediately after (Astalin, 2013), and is a methodology commonly assumed to be best methodological choice for developing theories about psychological and social processes (Lal, Suto & Ungar, 2012).

Phenomenology

Phenomenology is the study of phenomena, describing events, situations, experiences or concepts which could be observed, known to exist but not well understood to be confidently explained but intended to raise the awareness of the underlying phenomena (Astalin, 2013). The phenomenological research design enabled investigation of perceptions to probe the participants experiences and feelings that influenced their refusal to implement telework for their employees (Brown, Smith, Arduengo & Taylor, 2016).

Ethnography

Ethnography is used to provide accounts of activity as perceived and recognised within the situation using observers which include behaviours (Ball & Ormerod, 2000). The parameter of study is that the subjects studied in their environment i.e. country or religious setting etc. has something in common which could be observed and reported but this is problematic when researchers themselves are unfamiliar with the cultural or social context during interpretations (Astalin, 2013).

Case Study

Case study research is seen as like narrative inquiry and ethnography when the unit of analysis is an individual, but the differences are in the type of data collected and

analysed (Creswell & Poth, 2018). As shown in Table 9, case studies may employ more than just interviews, using artefacts or documents and may involve more than one case (Creswell & Poth, 2018).

Choice of interpretive approach amongst the big five

The use of phenomenological approach is suitable when the study is exploratory and interviews allowed participants to express freely and spontaneously making the collection of insights and understanding of their behaviours easier (Semlali & Hassi, 2016).

Table 8. Contrasting Foundational Considerations of Five Qualitative Approaches (Source: Creswell and Poth (2018, p.104)

Foundational considerations	Narrative research	Phenomenology	Grounded theory	Ethnography	Case Study
Research focus of approach	Exploring the life of an individual	Understanding the essence of the experience	Developing a theory grounded in data from the field	Describing and interpreting a culture-sharing group	Developing an in-depth description and analysis of a case or multiple cases
Unit of analysis	Studying one or more individuals	Studying several individuals who have shared the experience	Studying a process, an action, or an interaction involving many individuals	Studying a group that shares the same culture	Studying an event, a program, an activity, or more than one individual
Type of research problem best suited for approach	Needing to tell stories of individual experiences	Needing to describe the essence of a lived phenomenon	Grounding a theory in the views of participants	Describing and interpreting the shared patterns of culture of a group	Providing an in-depth understanding of a case or cases
Nature of disciplinary origins	Drawing from the humanities including anthropology, literature, history, psychology, and sociology	Drawing from philosophy, psychology, and education	Drawing from sociology	Drawing from anthropology and sociology	Drawing from psychology, law, political science, and medicine

Table 9. Contrasting Data Procedures of the Five Qualitative Approaches (Source: Creswell and Poth (2018, p.105)

Data Procedures	Narrative Research	Phenomenology	Grounded Theory	Ethnography	Case Study
Forms of data collection	Using primarily interviews and documents	Using primarily interviews with individuals, although documents, observations, and art may also be considered	Using primarily interviews with 20-60 individuals	Using primarily observations and interviews but perhaps collecting other sources during extended time in field	Using multiple sources such as interviews, observations, documents, and artifacts
Strategies of data analysis	Analysing data for stories "restoring" stories, and developing themes, often using a chronology	Analysing data for significant statements, meaning units, textual and structural description, and description of the "essence"	Analysing data through open coding, axial coding, and selective coding	Analysing data through description of the culture-sharing group and themes about the group	Analysing data through description of the case and themes of the case as well as cross-case themes

Qualitative researches are under-applied to supplement quantitative research which could be attributed to the mistaken conception that qualitative approaches are non-positivistic. As such, qualitative approaches are as valid and available to researchers regardless of their philosophical positions (Lacity & Janson, 1994). Text analysis by

different philosophical positions are guided by validity checks through the assumptions made prior to the investigations (Lacity & Janson, 1994). Content analysis is deemed as positivistic where the frequencies of the codes within the data present ways of conducting hypothesis testing leading to results which are validated (Lacity & Janson, 1994). The interpretivist approaches text analysis with a concoction of influences where the author and researcher's background, culture, faith and experiences empathised the story within the text as compared to the linguistic approach where text is independent of reality (Lacity & Janson, 1994). Although validity checks for interpretivist approaches are often rejected and depend on acceptance by the scientific community for the plausibility of the results and findings, rich descriptions, triangulation of sources and methods and reviews conducted with peer and participant could present qualitative evidence of validity (Lacity & Janson, 1994). Literature supporting telecommuting practice are common in quantitative approaches (Torten, Reaiche & Caraballo, 2016) but literature exploring manager's perception had been supported with qualitative approaches (Richardson, 2010). This supports the study of a phenomenon seeking to theorize the dynamics of the relationship between managers and telecommuters rather than normative literature "prescribing" the "what" and "how" of the relationships (Richardson, 2009, p.49). Although interpretivist approaches suffer from validity challenges, the rich descriptions provided such an approach enhance the study of the phenomenon which is otherwise abstract.

3.12. Interview Process

The online questionnaire was launched on 19th March 2020 and closed on 26th March 2020. Thereafter, managers who consented to further interviews were contacted. There

were seven contacts of which only five managers agreed to the interviews after being contacted. The reason for the withdrawal could be due to personal reasons and thus they were excluded from the final interviews. All the interviews were conducted over Skype as well as telephone due to restriction of movement in general in Singapore at this period. All five interviews were conducted and completed from 9th April 2020 to 11th April 2020. Due diligence was practiced ensuring that every manager was informed of the research purpose and confidentiality of their identity. Voice recording was requested from each manager and performed only after acknowledgement from each of them for verbatim transcribing.

The questions started with ascertaining that the managers were familiar with the terms used in the interview such as telecommuting, employee satisfaction and organizational citizenship behaviour. Managers were first asked about their views on telecommuting pertaining to work life balance with telecommuting practice, career, and promotional aspects for employees on telecommuting, talent retention with telecommuting and productivity while telecommuting. This was to solicit their perceptions on the few major topics within telecommuting. They were next asked about their perceptions on companies with telecommuting practice compared to companies which do not. On employee satisfaction, they were asked if telecommuting practice could increase employee satisfaction and what other factors could be important in the topic of employee satisfaction. On the topic of organizational citizenship behaviour, they were asked about telecommuting as a privilege and on their views of employees potentially going beyond their duties while telecommuting. The recordings were then transcribed verbatim into NVivo 12 where coding was performed.

3.13. Coding Procedure

With only a sample size of five interviews conducted for the final study, such small purposive sampling for qualitative research could turn out to be high representative or

the opposite (Bock & Sergeant, 2002). Bock and Sergeant (2002) recommended four types of conclusions which could be valid findings:

- 1) Idea generation
- 2) Unanimous agreement or disagreement of conclusion
- 3) Some agreement of conclusion
- 4) Support the current conclusions

The interviews provided data to provide greater insights from the participants with managerial capacity. The questionnaire however collected sentiments of a large group which included both managers and employees on their views on telecommuting, employee satisfaction and organizational citizenship behaviour.

Qualitative methods allow researchers to advance understanding of change phenomena resulting in deeper and richer knowledge issues (Garcia & Gluesing, 2013). Using interviews and observations which are observational and human centric in nature Garcia and Gluesing (2013) subsequently argued that qualitative methods allowed researchers to uncover new themes and answers questions more effectively than quantitative methods. Vaismoradi and Snelgrove (2019) summarised the differences between the qualitative content analysis and thematic analysis where the former takes a more quantitative and systematic approach such as frequency of codes which heighten the risk of missing the context. Thematic analysis relies on the subjective interpretation of the researcher and personal insight for theme development (Vaismoradi & Snelgrove, 2019). Coding in qualitative research goes through three levels of coding which were open, axial, and selective where broad themes are identified, refined, and eventually integrated selectively as shown in Figure 2 and how the coding process is cyclical as shown in Figure 3 (Williams & Moser, 2019). A code is described as how a title captured the essence of the publication or context while extracting a passage of data from a transcript is “decoding” and eventually labelling it to encode it, denote the

process of coding which is a transitional process between data collection and data analysis (Saldana, 2016).

In this thesis, the transcripts were read and reread multiple times to allow a full immersion into the interview contents myself. This process of cycling is important as it allows the data to be reviewed multiple times to identify the units of code or categories. NVivo 12 qualitative software is useful to manage the transcripts, providing data shaping, management, classification, and analysis as well as automatic coding of data and pattern recognition (Brown et al., 2016). NVivo 12 software facilitated the coding process where codes can be grouped and revisited at any point to ascertain if the link was still valid. NVivo 12 also provided useful functions such as word count. Word count usually associated with content analysis was argued to be ideal but not necessary as themes may not be taking up much of the content to be considered as a theme (Braun & Clarke, 2006). A word frequency count was still conducted to avoid missing key words, but the results was not informative. The word on the top of frequency list was “Telecommuting” (Count= 124), which was expected to be intuitive because this was the main topic discussed. Subsequent high frequency words such as “work” (Count= 104), “Office” (Count= 67), “Time” (Count= 62), “Companies” (Count= 54).

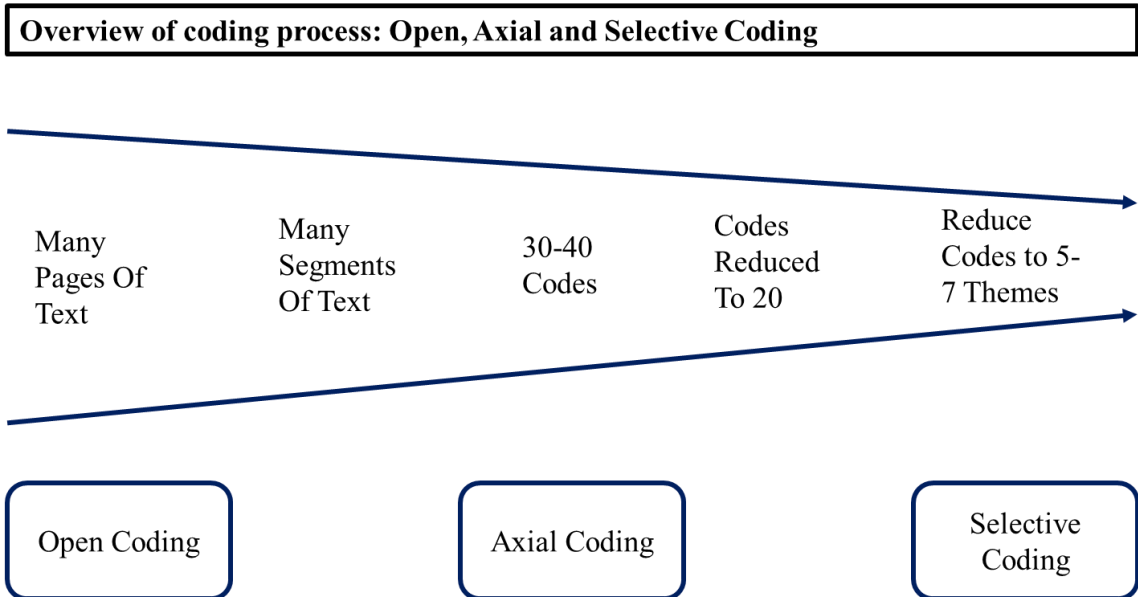


Figure 2. An overview of the coding process by Williams and Moser (2019, p.47)

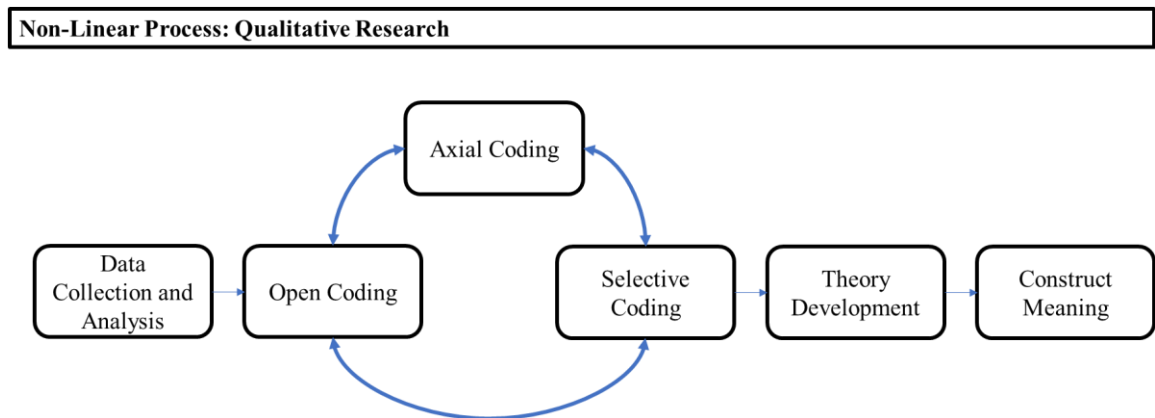


Figure 3. A cyclical coding process illustration by Williams and Moser (2019, p.48)

Open coding is the categorisation of data collected into units with labels or names. These labels are usually based on “in-vivo” codes which are actual terms used by participants. This is followed by axial coding where relationships between categories of data are drawn and subsequently followed by selective coding where selected categories are emphasized to identify the principal categories and how they relate to the subcategories (Saunders, Lewis & Thornhill, 2009). Benefits of using thematic analysis is its ease of use and generally accessible results to the educated public while useful for producing qualitative analyses for informing policy development (Braun & Clarke,

2006). The ability to generate unanticipated insights while highlighting the similarities and differences across the data set are some of the key advantages of thematic analysis (Braun & Clarke, 2006). “Thematic analysis is a way of seeing, making sense, analysing, systematically observing, or simply converting qualitative information.” (Hartman & Conklin, 2012, p.828). Braun & Clarke (2006) proposed a six phases approach to thematic analysis shown below:

- 1) Familiarisation
- 2) Generating initial codes
- 3) Searching for themes
- 4) Reviewing themes
- 5) Defining and naming themes
- 6) Producing the report

By applying the open coding approach, the first batch of codes identified through open coding is shown in Table 10. There was a total of 51 codes and segments of texts which was subsequently reduced in axial coding stage.

Table 10. Open coding and associated quotes (Source: Author)

Less pressure at home from negativity and gossip
Bad office vibes
Acting busy at work
Demanding boss and fix it right now
Satisfaction is subjective, expectations to be set right
Talent retention
Leadership could retain people more
Organizational loyalty is low now
Telecommute allow personal growth
to get ES from Telecommute, expectations to be set right
Timing is different for everyone
Employees have their own best time to work
Satisfaction with telecommute
Staggered hours
Time
Give and take mentality
Unspoken OCB
Working till 6 if no telecommute
It is not important to me, but it is too
Double edge sword
People are complicated
Attracting the wrong people

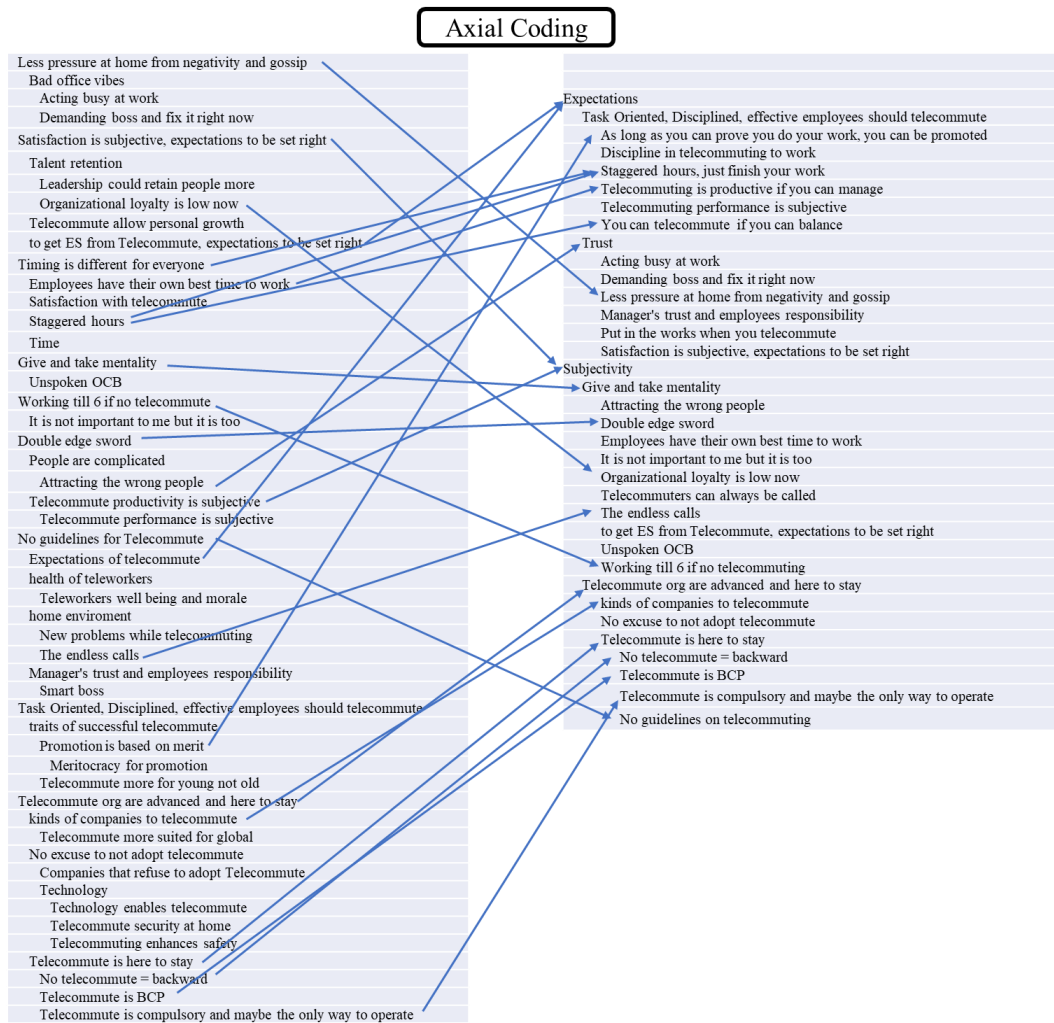
Telecommute productivity is subjective
Telecommute performance is subjective
No guidelines for Telecommute
Expectations of telecommute
health of teleworkers
Teleworkers well-being and morale
home environment
New problems while telecommuting
The endless calls
Manager's trust and employee's responsibility
Smart boss
Task Oriented, Disciplined, effective employees should telecommute
traits of successful telecommute
Promotion is based on merit
Meritocracy for promotion
Telecommute more for young not old
Telecommute org are advanced and here to stay
kinds of companies to telecommute
Telecommute more suited for global
No excuse to not adopt telecommute
Companies that refuse to adopt Telecommute
Technology
Technology enables telecommute
Telecommute security at home
Telecommuting enhances safety
Telecommute is here to stay
No telecommute = backward
Telecommute is BCP
Telecommute is compulsory and maybe the only way to operate

“Determining what data to capture and how to display it is a critical aspect of the research design” (Williams & Moser, 2019, p.49). Codes that emerged from open coding were “ No telecommuting = backward”; “ meritocracy for promotion” “Expectations of telecommuting” “ People are complicated” “Satisfaction is subjective to the individual” “ No guidelines for telecommuting” “Leadership could attract and retain people more” “ Telecommuting productive is subjective” “Telecommuting is compulsory and may be the only way to operate” “ To get satisfaction from telecommuting, expectations is to be set right” “Working until 6pm if there is no

telecommuting” “Double edge sword” “Give and take mentality” “Attracting the wrong people” “Traits of successful telecommuters” “Task oriented, disciplined, effective employees should telecommute” “Telecommuting is business continuity planning” “Manager’s trust and employee’s responsibilities” “Less pressure at home from negativity and gossip” “It is not important for me but it is too” “kind of companies that practice telecommuting” “fear of not being promoted” “ Job roles that are suitable for telecommuting” “New problems while telecommuting” “Health of telecommuters” “No telecommuting may be no experience to justify it” “No excuses to not adopt telecommuting” “ Organizational loyalty is low now” “Smart boss” “Staggered hours” “Telecommuting brings efficiency” “ Telecommuting brings personal growth” “Telecommuting is here to stay” “ Telecommuting is more for young and not old” “Telecommuting takes care of staff” “The endless calls” “Time” “Timing is different for everyone” “Teleworkers wellbeing and morale” “Telecommuting is more for global companies” “ Home environment” “Health of teleworkers” “Demanding boss and fix it right now” “Companies that refuse to adopt telecommuting”.

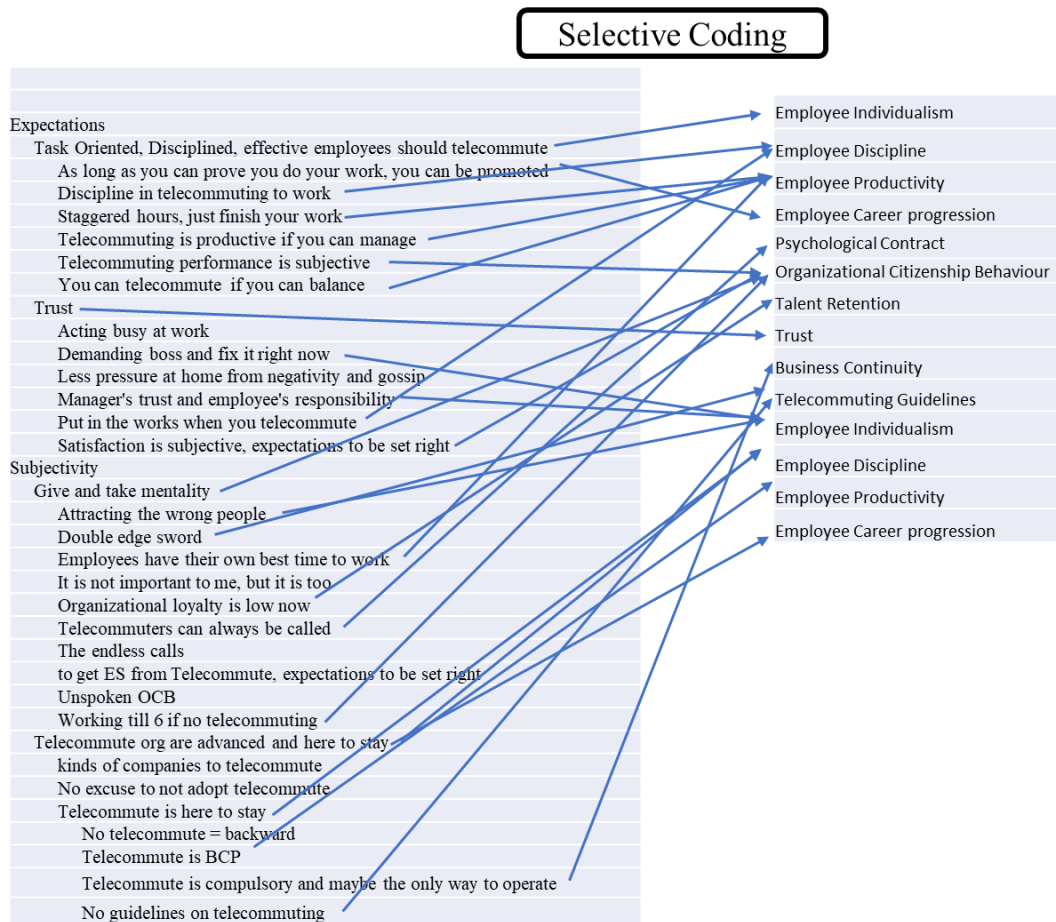
Continued coding through recategorization and continuous reflecting upon the coding leads to a consolidation of groups of codes into categories as shown in Table 11.

Table 11. Axial coding showing the convergence of codes from open coding



As coding progressed, some codes were combined as they could be classified under a similar theme. Selective coding was done to reorganize the nodes to form cohesive groupings including renaming the nodes to better reflect the intentions of the nodes shown in Table 12. Themes at this stage was still emerging as thematic fragments and concepts were organized to search for thematic connectivity leading to thematic patterns (Williams & Moser, 2019).

Table 12. Selective coding showing the further classification of codes and identification of themes



Positivist, linguistic and interpretivist approaches where the positivist assumed an objective reality to be found from the text analysis whereas the linguistic approach assumed a reality from the text exclusively while the interpretivist approach required researcher to be an insider to understand text data (Lacity and Janson,1994). The researcher's own experience and culture will influence text interpretation as the meaning of the text is extracted.

As the coding process progresses, its dynamic function and nonlinear directionality enables essential themes to be identified, codified, and interpreted in the service of a research study's focus and contributes to the associated literature. This cyclical process is both an art and science, requiring the researcher to understand intimately the data by continuously reading and rereading the collected data in order for theory to evolve. (Williams & Moser, 2019, p.47).

Table 13 summarises the emerged themes where they form the ten factors influencing manager’s adoption of telecommuting. These factors shall be discussed in detail in Chapter four.

Table 13. Emerged Themes

Themes
Employee Individualism
Employee Discipline
Employee Productivity
Employee Career progression
Psychological Contract
Organizational Citizenship Behaviour
Talent Retention
Trust
Business Continuity
Telecommuting Guidelines

3.14. Pilot Study

Piloting is a way to identify potential problems in the method and the instruments used. To ensure that the language and meaning intended in the questionnaire was well understood and not misrepresented in any way due to the use of academic terms, participants from the pilot survey were requested to proofread the survey questions and provide feedback. Their feedback could reduce or eliminate any potential harm if the intent of the questions were interpreted differently unintentionally. The pilot study was conducted in May 2019 with ten participants in the online questionnaire and two manager interviews. Through piloting, improvements to the questions were made to personalise the questions. Personalised questions refer to questions like “I experience work satisfaction due to the convenience of telecommuting.” versus “The positive actions of employees doing more for the company would continue to persist.” The use of personalized and qualified questions is suggested to be superior to non-personalized and unqualified questions (North & Schmid, 1960). This was a refinement adopted in

the final study conducted. The online questionnaire was assessed on the general ease of understanding and length of time taken to complete it was found to be satisfactory. Common stereotypes could be unknowingly and unintentionally injected into questions or answers which may be offensive to certain groups of individuals. This was found during the request for research integrity committee approval for proceeding with the data collection where certain phrases and connotations were spotted that could prove offensive to vulnerable groups i.e., the elderly dependents. This was reflected upon and corrected. Care was taken to ensure that the final study survey's language was not harmful or offensive to any individual in the final study.

Pilot interviews were conducted on two managers where three themes emerged. Discipline of employees for telecommuting was a key theme that emerged after thematic coding was performed. The interviews from the pilot study were not enough to provide any conclusions or agreement of any conclusions but served to finetune the questions to avoid close ended questions. Pilot studies could be used to solicit feedback on the effectiveness of the interview questions and reveal deficiencies in the research design which could be addressed before the formal study (Brown et al., 2016).

3.15. Summary of methodology and methods chapter

This chapter explained the philosophical stance and detailed how the research instruments were set up to collect primary data from research subjects. The preservation of research integrity was demonstrated. The following chapter will analyse the research data and present the findings for both quantitative and qualitative methods.

4. Data Analysis and Findings

This chapter analyses the data collected from both quantitative and qualitative methods. For quantitative analysis, the association of telecommuting support towards employee satisfaction and organizational citizenship behaviour are investigated and reported. The associations are further tested for their magnitude of impact from telecommuting support. Additionally, the eight control variables are tested for their association and further tested using hierarchical linear regression analysis. Following which, qualitative analysis using thematic analysis extracted themes from the interviews where it is duly reported. The chapter ends with a summary of findings to be further discussed in Chapter five.

4.1. Quantitative investigation

The following research questions was defined in Chapter two:

1. What is the relationship and impact between telecommuting support and employee satisfaction and organizational citizenship behaviour?
2. Do any of the control variables such as age group, gender, marital status, presence of family commitments, managerial capacity, formal telecommuting, size and type of organization and awareness of telecommuting have an influence together with telecommuting on employee satisfaction and organizational citizen behaviour?
3. What perceptions are most prominent that could influence managers on the adoptions of telecommuting practice in their organizations?

The first research question regarding the association and impact of telecommuting support on employee satisfaction and organizational citizenship behaviour is answered by the testing of the following hypotheses:

- Hypothesis (H1): Employee satisfaction is positively associated with telecommuting support.
- Hypothesis (H2): Organizational citizenship behaviour is positively associated with telecommuting support.
- Hypothesis (H3): Employee satisfaction is negatively associated with disadvantages of telecommuting practice.
- Hypothesis (H4): Organizational citizenship behaviour is negatively associated with disadvantages of telecommuting practice.

4.2. Relationship between Variables

In Table 14, the correlation matrix of control variables, dependent variables and the independent variables are presented. Marital status is significantly correlated to age with $r(98) = .305, p < .01$. Managerial status is also found to be negatively correlated to age groups $r(98) = -.219, p < .05$ and between different size and type of organization with $r(98) = .249, p < .05$. Official telecommuting is significantly (negatively) correlated to size and type of organization at $r(98) = -.37, p < .01$. Telecommuting support is significantly (negatively) correlated to whether telecommuting is officially in the organization with $r(98) = -.302, p < .01$. Disadvantages of telecommuting are negatively correlated to telecommuting support with $r(98) = -.252, p < .05$. Employee satisfaction is positively correlated to family commitments $r(98) = .251, p < .05$ but negatively correlated to whether telecommuting is official in the organization $r(98) = -.257, p < .01$. Employee satisfaction is also significantly correlated to telecommuting support with $r(98) = .504, p < .01$. Organizational citizenship behaviour is negatively correlated to size and type of organization $r(98) = -.238, p < .05$ but significantly correlated to telecommuting support $r(98) = .375, p < .01$ and employee satisfaction with $r(98) = .361, p < .01$. Positive correlation is also reported between organization citizenship behaviour

with disadvantages of telecommuting $r(98)=.238, p<.05$. The relationships will be tested further in the following sections where the primary dependent variables are tested with independent variable telecommuting support. Subsequently, the control variables will be tested on their ability to predict the dependent variables using multiple linear regression analysis.

Table 14. Descriptive Statistics and Correlations

		Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12
1	Gender	1.37	0.544												
2	Age group	2.76	0.806	-0.141											
3	Marital Status	1.96	0.618	0.195	.305**										
4	Commitments	3.01	1.772	-0.046	-0.027	-0.156									
5	Size and type of org	2.92	1.300	-0.015	0.078	0.021	0.149								
6	Manager or staff	1.60	0.492	0.106	-.219*	-0.053	0.097	.249*							
7	Awareness of telecommuting	1.03	0.171	-0.120	-0.020	0.011	-0.167	-0.080	-0.096						
8	Official telecommuting	1.56	0.641	0.037	-0.109	0.006	-0.049	-.370**	-0.019	0.121					
9	Telecommuting support	20.52	2.827	0.090	0.122	-0.034	0.090	0.077	0.064	-0.137	-.302**				
10	Disadvantages of telecommuting	8.65	2.057	0.009	-0.045	-0.027	0.098	-0.082	0.030	0.030	0.074	-.252*			
11	ES	18.69	2.553	0.076	0.126	-0.027	.251*	0.038	-0.027	-0.163	-.257**	.504**	0.012		
12	OCB	22.20	3.936	-0.044	0.120	-0.013	-0.016	-.238*	-0.057	0.096	-0.045	.375**	.238*	.361**	

Note. Pearson correlation significance (two-tailed) **p < 0.01 *p < 0.05 (2 tailed)

4.2.1. Examining the association of Telecommuting Support and Employee Satisfaction

Spector (1992) argued for the use of summated ratings scale, as single item questions such as straightforward yes-or-no questions were plagued by reliability, precision, and scope issues. Some research issues could be broad in scope and complex and render the need of multiple items to assess them (Spector, 1992).

Spearman's coefficient of rank correlation could have been used on the ordinal data however, the new variables would be deemed more as interval scale than ordinal and thus Pearson's correlation coefficient was used to explore the relationship as well as the strength of the relationship (Norman, 2010). SPSS (Statistical Package for Social Sciences) version 26 was used in the calculation of the statistical methods of significance and strength which was argued by Obilor and Amadi (2018) to be suitable and apt for such applications. SPSS's output of Pearson's correlation coefficient was significant at the 0.01 level which was more significant than at the 0.05 level.

The statistical analysis was adapted from (Wadhawan, 2019) with the use of Pearson's correlation coefficient for correlation analysis and ANOVA tests for impact of correlation.

Hypothesis (H1) Employee satisfaction is positively associated with telecommuting support.

Pearson's rank correlation coefficient measures the correlation between -1 to +1. As shown in table 14, there is significant evidence $r(98) = 0.504$, $p < .05$ to support the hypothesis that there is positive correlation between telecommuting support and employee satisfaction. The result is significant enough to reject the null hypothesis and accept the hypothesis that telecommuting is positively correlated to employee satisfaction.

4.2.2. Examining the association of Telecommuting Support and Organizational Citizenship Behaviour

Hypothesis (H2) Organizational citizenship behaviour is positively associated with telecommuting support.

As shown in table 14, there is significant evidence $r(98)=0.375$ $p<.05$ to support a positive correlation between telecommuting and organizational citizenship behaviour. The result is significant enough to reject the null hypothesis and accept H2 to conclude that there is a positive association between telecommuting support and organizational citizenship behaviour.

4.2.3. Examining the association of Disadvantages of Telecommuting and Employee Satisfaction and Organizational Citizenship Behaviour

Hypothesis (H3) Employee satisfaction is negatively associated with disadvantages of telecommuting practice.

As shown in table 14, there was no significant correlation $r(98)=0.012$, $p>.05$ observed between disadvantages of telecommuting and employee satisfaction. The result is not significant enough to reject the null hypothesis and accept H3 to conclude that there is no negative association between disadvantages of telecommuting and employee satisfaction.

Hypothesis (H4) Organizational citizenship behaviour is negatively associated with disadvantages of telecommuting practice.

As shown in table 14, a significant positive correlation $r(98)= 0.238$, $p<.05$ is observed between disadvantages of telecommuting and organizational citizenship behaviour indicating a small effect size. This correlation indicates that as disadvantages of

telecommuting increases, organizational citizenship behaviour tends to increase. The results are not significant enough to reject the null hypothesis and accept H4 to conclude that there is negative association between telecommuting support and disadvantages of telecommuting. There is a positive correlation between disadvantages of telecommuting and tendency to exhibit organizational citizenship behaviour which will be discussed further in Chapter five.

4.2.4. Determining the impact of Telecommuting Support and Employee Satisfaction

A linear regression analysis is conducted to assess whether telecommuting support significantly predicted employee satisfaction.

Results

The results of the linear regression model are significant, $F(1,98) = 33.38, p < .001, R^2 = 0.25$, indicating that approximately 25% of the variance in employee satisfaction is explainable by telecommuting support. Telecommuting support significantly predicted employee satisfaction, $B = 0.46, p < .001$. This indicates that on average, a one-unit increase of telecommuting support will increase the value of employee satisfaction by 0.46 units. Table 15 summarizes the results of the regression model.

Table 15. Results for Linear Regression with Telecommuting Support predicting Employee Satisfaction

Variable	<i>B</i>	<i>SE</i>	95% CI	β	<i>t</i>	<i>p</i>
(Intercept)	9.35	1.63	[6.11, 12.59]	0.00	5.73	< .001
Telecommuting Support	0.46	0.08	[0.30, 0.61]	0.50	5.78	< .001

Note. Results: $F(1,98) = 33.38, p < .001, R^2 = 0.25$ source: own study

Unstandardized Regression Equation: Employee Satisfaction = 9.35 + 0.46*

Telecommuting Support

4.2.5. Determining the Impact of Telecommuting Support and Organizational Citizenship Behaviour

A linear regression analysis is conducted to assess whether telecommuting support significantly predicted organizational citizenship behaviour.

Results

The results of the linear regression model were significant, $F(1,98) = 16.08$, $p < .001$, $R^2 = 0.14$, indicating that approximately 14% of the variance in organization citizenship behaviour is explainable by telecommuting support. Telecommuting support significantly predicted OCB, $B = 0.52$, $p < .001$. This indicates that on average, a one-unit increase of telecommuting will increase the value of OCB by 0.52 units. Table 16 summarizes the results of the regression model.

Table 16. Results for Linear Regression with telecommuting predicting OCB

Variable	<i>B</i>	<i>SE</i>	95% CI	β	<i>t</i>	<i>p</i>
(Intercept)	11.47	2.70	[6.11, 16.83]	0.00	4.25	< .001
telecommuting	0.52	0.13	[0.26, 0.78]	0.38	4.01	< .001

Note. Results: $F(1,98) = 16.08$, $p < .001$, $R^2 = 0.14$

Unstandardized Regression Equation: Organizational Citizenship Behaviour = 11.47 + 0.52* Telecommuting Support

4.2.6. Investigation of Dependent Variables' interaction with Control Variables

The second research question is shown below:

1. Do any of the variables such as age group, gender, marital status, presence of family commitments, managerial capacity, formal telecommuting, size and type of organization and awareness of telecommuting have an influence together with telecommuting on employee satisfaction and organizational citizen behaviour?

The control variables are tested on their influence on employee satisfaction and subsequently organizational citizenship behaviour.

4.2.6.1. Employee Satisfaction (DV)'s statistical significance with Control Variables

Table 17 presents the linear regression analysis conducted to assess whether gender, age group, marital status, family commitments, size and type of organization, awareness of telecommuting, manager or staff and official telecommuting significantly predicted employee satisfaction.

Table 17. Multiple Regression Table of Employee Satisfaction with Control Variables

		Coefficients^a				
		Unstandardized		Standardize		
		Coefficients		d		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	20.587	3.007		6.847	.000
	Young dependents requiring adult attention	-.220	.626	-.043	-.352	.726
	Elderly dependents requiring attention i.e. Medically unfit	1.713	.680	.264	2.518	.014
	Other dependents at home requiring physical and/or mental intervention or care.	-.072	1.010	-.008	-.071	.944
	Are you a manager of a work team?	.020	.591	.004	.034	.973
	Are you aware of Telecommuting; commonly known in Singapore as "work from home" Or "working remotely" with secure IT connection back to office (remote working)	-1.510	1.556	-.101	-.970	.335
	Official	1.148	1.057	.226	1.086	.281
	Unofficial	-.609	1.061	-.118	-.574	.567
	Male	-3.399	2.094	-.634	-1.623	.108
	Female	-2.502	2.084	-.455	-1.201	.233
	20s	-1.442	2.462	-.124	-.586	.560
	30s	-.590	1.992	-.106	-.296	.768
	40s	-.030	1.946	-.006	-.015	.988
	50s	-.552	2.024	-.071	-.273	.786
	Single	3.043	2.225	.460	1.368	.175
	Married	3.041	2.110	.543	1.442	.153
	Divorced	2.375	2.240	.254	1.060	.292
	local bigger than 250	-.878	.969	-.116	-.907	.367
	MNC smaller than 250	-.548	1.281	-.055	-.428	.670
	MNC bigger than 250	-.628	.720	-.123	-.872	.386

Note. a. Dependent Variable: Employee Satisfaction source: own study

The results reported only the presence of elderly dependents which is statistically significant in the relationship to employee satisfaction. The presence of elderly dependents increases the coefficient of employee satisfaction by 1.713. In the correlation matrix shown in Table 14, Employee satisfaction is correlated with commitments at home as well as whether telecommuting is official. Official telecommuting is not significant enough to predict employee satisfaction.

4.2.6.2. Organizational Citizenship Behaviour (DV) 's statistical significance with Control Variables

Table 18 shows the linear regression analysis conducted to assess whether gender, age group, marital status, family commitments, size and type of organization, awareness of telecommuting, manager or staff and official telecommuting significantly predicted organizational citizenship behaviour.

Table 18. Multiple Regression Table of Organizational Citizenship Behaviour with Control Variables

		Coefficients^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	20.065	4.418		4.541	.000
	Young dependents requiring adult attention	1.102	.920	.140	1.198	.234
	Elderly dependents requiring attention i.e. Medically unfit	2.315	.999	.232	2.316	.023
	Other dependents at home requiring physical and/or mental intervention or care.	2.115	1.483	.147	1.426	.158
	Are you a manager of a work team?	.396	.868	.050	.456	.649
	Are you aware of Telecommuting; commonly known in Singapore as "work from home" Or "working remotely" with secure IT connection back to office (remote working)	3.147	2.286	.137	1.377	.172
	Official	-.416	1.553	-.053	-.268	.789
	Unofficial	-2.637	1.559	-.330	-1.691	.095
	Male	-2.252	3.076	-.272	-.732	.466
	Female	-1.527	3.062	-.180	-.499	.619
	20s	-3.349	3.617	-.186	-.926	.357
	30s	-.961	2.927	-.112	-.328	.744
	40s	.872	2.859	.111	.305	.761
	50s	-.517	2.974	-.043	-.174	.862
	Single	3.611	3.270	.354	1.104	.273
	Married	2.258	3.100	.262	.729	.468
	Divorced	2.592	3.292	.180	.787	.433
	local bigger than 250	-2.258	1.423	-.194	-1.587	.117
	MNC smaller than 250	-2.147	1.882	-.140	-1.141	.257
	MNC bigger than 250	-2.812	1.058	-.357	-2.657	.010

Note. a. Dependent Variable: OCB source: own study

With respect to organizational citizenship behaviour, two control variables are found to have a correlation which are the presence of elderly dependents at home, and with employees working in multinational companies larger than 250 employees. The presence of elderly dependents increases the coefficient of organizational citizenship behaviour by 2.31. The coefficient of organization citizenship behaviour decreases by 2.812 for respondents working in multinational companies with more than 250 employees.

4.2.6.3. Employee Satisfaction (DV) and Control Variables Hierarchical Linear Regression

A two-step hierarchical linear regression is conducted with employee satisfaction as the dependent variable. For step one, the presence of elderly dependents variable is entered as a predictor variable into the null model. Telecommuting support is added as a predictor variable into the model at step two as shown in Table 19.

Table 19. Hierarchical Linear Regression Model

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	18.407	.278		66.329	.000
	Elderly dependents requiring attention i.e. Medically unfit	1.487	.637	.230	2.336	.022
2	(Constant)	9.539	1.613		5.914	.000
	Elderly dependents requiring attention i.e. Medically unfit	1.087	.562	.168	1.935	.056
	telecommuting	.436	.078	.483	5.562	.000

a. Dependent Variable: ES

The presence of elderly dependents did not significantly predict employee satisfaction, $B = 1.09$, $p > .05$. Based on this sample, this suggests that adding the category of elderly

dependents does not have a significant effect on the mean of employee satisfaction.

Telecommuting support significantly predicted employee satisfaction, $B = 0.44$, $p < .001$. This indicates that on average, a one-unit increase of telecommuting support will increase the value of employee satisfaction by 0.44 units. As such, the presence of elderly dependents (control variable) is determined to be not significant in the prediction of employee satisfaction.

4.2.6.4. Organizational Citizenship Behaviour (DV) and Control Variables Hierarchical Linear Regression

A two-step hierarchical linear regression is conducted with organizational citizenship behaviour as the dependent variable. For step one, the presence of elderly dependents variable and the size and type of organization variable are entered as predictor variables into the null model. Telecommuting support is added as a predictor variable into the model at step two as shown in Table 20.

Table 20. Hierarchical Linear Regression Model

		Coefficients ^a				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	22.695	.594		38.222	.000
	Elderly dependents requiring attention i.e. Medically unfit	2.303	.961	.231	2.396	.018
	MNC bigger than 250	-1.696	.758	-.215	-2.238	.028
2	(Constant)	12.239	2.578		4.747	.000
	Elderly dependents requiring attention i.e. Medically unfit	1.816	.897	.182	2.025	.046
	MNC bigger than 250	-1.966	.704	-.250	-2.790	.006
	Organizational Citizenship Behaviour	.521	.126	.374	4.151	.000

a. Dependent Variable: OCB

The presence of elderly dependents significantly predicted organizational citizenship behaviour, $B = 1.82$, $p < .05$. Based on this sample, this suggests that the presence of elderly dependents will increase the mean value of organizational citizenship behaviour by 1.82 units on average. The size and type of organization which is multinational companies with more than 250 employees significantly predicted organizational citizenship behaviour, $B = -1.97$, $p < .01$. Based on this sample, this suggests that large MNC will decrease the mean value of organization citizenship behaviour by 1.97 units on average. Telecommuting support significantly predicted organizational citizenship behaviour, $B = 0.52$, $p < .001$. This indicates that on average, a one-unit increase of telecommuting will increase the value of organizational citizenship behaviour by 0.52 units. As such, organizational citizenship behaviour is significantly correlated and could be predicted by the presence of two control variables other than telecommuting support.

4.2.7. Quantitative summary

The results of this thesis demonstrated a significant and positive correlation between the telecommuting support and employee satisfaction. A 0.455-unit increase of employee satisfaction combined composite score could be explained by a unit increase of support by telecommuting. A 0.523-unit increase of organizational citizenship behaviour composite score can be explained by a unit increase in support by telecommuting.

The relationships are estimated by the regression equations:

Employee Satisfaction = $9.347 + 0.455$ (Telecommuting Support) and

Organizational Citizenship Behaviour = $11.47 + 0.523$ (Telecommuting Support).

In terms of telecommuting support and increased employee satisfaction, the results support the findings of (Igbaria and Guimaraes, 1999). However, there is no evidence in this study to suggest any differences between satisfaction levels with regards to telecommuting support in terms of seniority of employees such as managers and staffs

(Goñi-Legaz & Olló-López, 2015) or any difference between gender groups (Giovanis, 2017) or different age groups (Goñi-Legaz & Olló-López, 2015).

Control variables included gender groups, age groups, different marital status, different family commitments, large and small organizations of local enterprises and multinational corporations, manager or staff capacity, awareness of telecommuting and lastly whether telecommuting was officially adopted within the participant's organization are tested for their significance towards employee satisfaction and organization citizenship behaviour.

Only the presence of elderly dependents requiring adult care is found to be significantly associated with employee satisfaction. Further two-steps hierarchical linear regression analysis is performed by exploring the incremental impact of telecommuting after controlling for control predictor variables. However, the further testing revealed that elderly dependents did not significantly predict employee satisfaction with a p-value of 0.056 which is higher than the required 0.05 value. The final step in the hierarchical linear regression analysis explores the incremental impact of telecommuting after controlling for elderly dependents as well as large multinational companies above 250 employees on organizational citizenship behaviour. Presence of elderly dependents is found to significantly predict the increase in organizational citizenship behaviour composite score by 1.82 on average. Large multinational companies above 250 employees are also able to significantly predict decrease in organizational citizenship behaviour composite score by 1.97. Telecommuting support can increase the mean value of organizational citizenship behaviour composite score by 0.52 units after controlling for elderly dependents and large multinational companies above 250 employees. Employees working in large multinational companies with more than 250 employees are significant in predicting the tendency of exhibition of organization citizenship behaviour albeit in a negative manner. Results show that the tendency to

exhibit organizational citizenship behaviour decreases by 1.97 units by employees in such organizations.

In this thesis, disadvantages of telecommuting are not found to be negatively correlated to both employee satisfaction and organizational citizenship behaviour. It was hypothesized that the with the disadvantages of telecommuting, telecommuter's employee satisfaction would be reduced and as such, also do not have an increased tendency to exhibit organizational citizenship behaviour. For employee satisfaction, the correlation with disadvantages of telecommuting was not significant enough. This means that the disadvantages of telecommuting are not able to predict the level the employee satisfaction in telecommuters much less in a negative direction. It can be posited that employees are not bothered by the disadvantages of telecommuting when it comes to telecommuting support associated with employee satisfaction. Telecommuting is found to be positively correlated to higher turnover intentions amongst employees (Caillier, 2016a) where the disadvantages of telecommuting were cited to be possible influences. Thus, the findings of this thesis do not support the discussions of Caillier (2016) on the disadvantages of telecommuting. On the other hand, disadvantages of telecommuting are significantly correlated to organizational citizenship behaviour, but it is positive in correlation. This means that as employees encounter more distractions at home or lose productivity and risk the chances of being bypassed for promotions, their tendency to exhibit organizational citizenship behaviour increases. These results will be further discussed in Chapter five.

4.3. Exploring Manager's Perceptions of Telecommuting Support

The third research question seeking the perceptions of managers on the adoption of telecommuting is answered using data from interview and conducting a thematic analysis drawing out the prominent themes.

Participants demographics:

<p>Manager P1</p>	<p>P1 holds a senior management capacity who had been in numerous leadership roles in IT organizations. He had been with numerous IT organizations leading change management. The roles that he had been in involved in revolves around result-oriented outcomes and execution. His capacity involved strategic correspondence with the chief executives daily where his views may provide senior leadership insights.</p>
<p>Manager P2</p>	<p>P2 is a manager from a large global telecommunication multinational organization in Singapore. He leads a team based in multiple countries and his function involved liaising with functions from different regions. He is familiar with telecommuting in his current organization is happy to share his views on telecommuting. His views could contain a multi-geographical operational aspect of telecommuting.</p>
<p>Manager P3</p>	<p>P3 is an IT manager in a global hospitality organization. His role involved management of personnel in an industry where remote working is uncommon but familiar.</p>
<p>Manager P4</p>	<p>P4 is a manager of IT services within a large public entity. Viewpoints and concerns from a public entity provides fresh insights.</p>
<p>Manager P5</p>	<p>P5 is a sales manager within an IT company providing services to local institutions. Viewpoints coming from small medium enterprise of view.</p>

Data was collected through the semi-structured interviews conducted with managers on their opinions in the areas of telecommuting with regards to employee satisfaction and organizational citizenship behaviour. The managers interviewed generally expressed support to telecommuting like the study conducted by Scholefield and Peel (2009). Benefits identified were increased work life balance, more trust of employees by managers, advances the organization, reduces transportation time, retain and attract talents, business continuity, increased flexibility for employees, employee satisfaction, increased personal development, increased productivity, increased hours of productivities, reduction of office culture toxicity and employees more willing to respond to emergencies with telecommuting. The disadvantages identified were blurred work life boundaries, more calls and online presence, inadequate home environment for work, employees taking the chance to skive at home. Table 21 presents the themes and representative quotes from managers.

Table 21. Emerged Themes and quotes describing manager’s perceptions of telecommuting

Themes	Interview excerpt
Employee individualism	If I were to put telecommuting, flexible working hours, work from home, remote office in my job hiring description, hiring applications will jump by the thousands every day. Because everybody won’t have to go to the office and see the boss or see the management or report or anything. This will attract the wrong people. (P1)
Employee Discipline	...Sometimes if you have kids at home, then it might get in the way of you telecommuting at home. But if you are willing to put in the work, finish what you were planning to do during that day or whenever it is done. Let us say you spend like half an hour more with your kids doing official hours a day is okay, spend extra half an hour, after your usual working hours to complete what you need to complete. It depends on how you balance yourself, how you adjust your time yourself. But it should be okay with self-discipline. (P3)
Employee Productivity	...So, again, this is subjective if the person can manage his or her time properly, and then he or her should know when the best time for them is to do whatever task is needed. It is very subjective if the person can manage it. Well, I think it could be you know, they could be more productive and have a have a way to settle all their time schedules. (P5)

Employee Career progression	... My view is that telecommuting is independent of career promotion and this should not be a factor in promotion for an individual. (P4)
Psychological Contract	... Yes, I do believe they can perform beyond their duties. So sometimes you got to believe these are there. They might not be able to work beyond the hours. But if anything, that crops up after office hours, they can VPN in after office hours. (P3)
Organizational Citizenship Behaviour	... So, with telecommuting I've noticed employees are more proactive. They are more innovative and will take initiative to perform jobs of other functions that are above the above your paygrade or beyond their job scope. (P1)
Talent Retention	... So, at the end of the day, it's about how to make sure they get the job done, yet they don't feel that the company is undercutting them. So, it promotes a psychological effect. That is the way I look at it. By treating the staff, well, they take care of all the customer in the business. (P1)
Trust	... Given the changing employee landscape and our expectations for employees, especially the younger generations, I believe that an employee will view companies with telecommuting arrangement as more forward thinking. And at the same time, they probably have a view that these companies trust the employees in terms of managing their work. Regardless of where they work from as long as it doesn't impact the results. (P4)
Business Continuity	...I think in the current context, a lot of companies in fact, more advanced companies or forward planning companies should always have telecommuting as something that they should investigate if not already you should have. (P5)
Telecommuting Guidelines	...I think most companies that are used to work from home only have very gentle generic standards or guidelines for telecommute. You need to have a desk you need to have to maintain a proper working environment at home. But I think they overlooked part of the we need to be healthy as well. (P2)

Note. own study

While the emerged themes with their respective representative quotes from managers are presented in table 21, they are further discussed in detail in the following sections.

The theme that emerged first is that employee individualism matters for telecommuting outcomes. It consisted of description of characteristics of telecommuters from the managers point of view. The telecommuter's characteristics that manager expect from telecommuters could be aggregated into responsibility and discipline which echoed Tustin (2014) research recommendations that employees deemed responsible enough by the organization would then be provided the option to telecommute.

4.3.1. Employee's Individualism

While the interviews were guided by questions on their perceptions towards telecommuting and association to employee satisfaction and organizational citizenship behaviour most managers are consistent in the concern about the continuity of work and organizational performance and are also convinced that individual telecommuters react differently to the flexibilities of telecommuters. Managers interviewed in this study expected telecommuters of certain personality dimensions for successful telecommuting outcomes, but this is subjective to the individuals. This echoed the conclusions of Clark et al., (2012) where different personalities in telecommuters play a pivotal role in telecommuting attitudes. Manager P1 is also concerned that employees could be enticed by the availability of telecommuting to join the organization just for this flexibility as cautioned by Rau and Hyland (2002) and could explain why telecommuting remained informal and untracked in organizations (Mattis, 1990) as shown in the excerpt below.

... If I were to put telecommuting, flexible working hours, work from home, remote office in my job hiring description, hiring applications will jump by the thousands every day. Because everybody won't have to go to the office and see the boss or see the management or report or anything. This will attract the wrong people. (P1)

Managers hesitate to acknowledge or publicize the availability of telecommuting for the above reason. In which case, if telecommuting was to be provided, the desire of managers to exercise more control over employees was also argued to be one of the factors stemming the wider adoption of telecommuting (Oly Ndubisi & Kahraman, 2005). As manager P1 explained that telecommuting could be used by employees to shy away from responsibilities.

...On the contrary, I have also seen people doing lesser things. ... They will try to avoid all the first level work because they'll say let's not do this because I'm at home I got to do what I need to write coding to solve some of the platform issues. Sometimes, they can just remote to the system and do it instantly but they are shunning away, ... the account people actually took on more responsibility but that would also means giving up more things that they were supposed to do as part of their job. (P1)

Manager's perception and past experiences form the basis of their attitudes towards the adoption of a practice. This is supported and evident in the study by (Richardson, 2010) where her sample of managers indicated that specific skills are required to manage telecommuters which can only be learnt through experience.

As such, behavioural control may be used as a tool for managers when uncertain transaction cost as well as uncertain outcomes plague telecommuting outcomes (Brice, Nelson & Gunby, 2011). Managers may eventually succumb to a managing function which is intuitive in most cases as it is the traditional way of management in extreme cases of distrust until managers are convinced with telecommuters. Performance of telecommuters was deemed to be subjective to the individual as manager P4 explained:

...It depends on the individual. I have seen cases where individuals feel that it is nice because they prefer face to face meeting, but I have also met individuals who claimed that telecommuting enhances their productivity. It is especially so where companies have multiple branches in different locations. With telecommuting they can essentially get on a call immediately and there is no requirement for them to travel to the various branches. (P4)

This may be explained by the employee's ability to observe personal discipline as explained in the next sub theme.

4.3.2. Employee's Discipline

Conditions at home such as presence of young children could interfere with a telecommuter's ability to perform work during normal hours and reduce productivity (Ahmadi, Helms & Ross, 2000) but childcare is also one of the common reasons as to why telecommuting is utilised by employees. Such flexibility requires telecommuters to have self-discipline to complete their work in a timely manner after office hours probably at night. This is the expectation as seen in the excerpts from Managers P1, P3 and P5:

...Sometimes if you have kids at home, then it might get in the way of you telecommuting at home. But if you are willing to put in the work, finish what

you were planning to do during that day or whenever it is done. Let us say you spend like half an hour more with your kids doing official hours a day is okay, spend extra half an hour, after your usual working hours to complete what you need to complete. It depends on how you balance yourself, how you adjust your time yourself. But it should be okay with self-discipline. (P3)

...They actually have more time for themselves that is outside of work. They have more time for themselves or for their family. So, it promotes a certain degree of work like balance. But then again, I must stress that telecommuting is very much a self-discipline issue. It is up to the employee's self-discipline. (P1)

...I think if there is a group of telecommuters, the baseline is always KPIs. So, if all of them are able to meet their KPIs. And then we do not have to micromanage and look at, you know, when they are doing it, what time they are doing it as long as they get it done and sorted. (P5)

Additionally, it may not just be human factors in the family of telecommuters that may bring distraction to telecommuters in their course of work. Organizations need to be aware of the conditions of work at home for telecommuters and should look to improve such conditions to expect benefits rather than conflicts at home (Solís, 2016). The presence of persons at home and the availability of a proper designated area like a separate room for working at home are reasons which increases the conflicts between work and family (Solís, 2016). Telecommuters who have an exclusive room are reported to encounter less work interference with family and also work less hours per week although the presence of people at home while telecommuting did not correlate to an increase in working hours which Solís (2016) posited that it may just exhaust telecommuters more even if they do not work additional hours. Scholefield and Peel (2009) described the adoption of telecommuting to be problematic largely stemming from the manager's point of view...

Most managers in this study stated that they were in favour of teleworking. Three-quarters of questionnaire respondents and interviewees believed that employee satisfaction and preferred employer status is improved. However, only around half of those for whom teleworking was feasible for their staff actually had some form of an arrangement in place. Although the majority of the interviewees stated that they were supportive of teleworking, they identified

many more disadvantages than benefits. Many of the benefits that were noted, had conditions or qualifiers attached. (p.9)

Managers interviewed understood that having telecommuting increases employee satisfaction but were also expecting that the primary causes for telecommuting do not distract employees from performing their allocated work. If there are distractions during the day such as dependents requiring attention, then employees are expected to fulfil the allocated work at a suitable timing which may increase the number of work hours. This may be working late at night i.e. when young children are asleep before work can be done. Boundaries in work and nonwork are lost when having too much flexibility in executing work eventually becoming detrimental to the employee who is not able to manage it (Allen & Shockley, 2006). Allen and Shockley (2006) called for more studies into individual traits affecting telecommuting outcomes where most studies focused on increased productivity and profits for the organization.

4.3.3. Employee's Productivity

Telecommuting provides employees with the flexibility of being physically at home to handle matters otherwise not possible if they had to be physically in the office. This flexibility is expected by managers to have the same level of productivity in the office. This is provided that telecommuters can balance manage their work and family responsibilities at home. This expectation is reflected in Manager P5 excerpt below:

...So, again, this is subjective if the person can manage his or her time properly, and then he or her should know when the best time for them is to do whatever task is needed. It is very subjective if the person can manage it. Well, I think it could be you know, they could be more productive and have a have a way to settle all their time schedules. (P5)

Managers are guided by objectives ensuring employee productivity. Productivity is a common key measurement of firms. It is reported that the more an employee telecommute, the more, the employee's family interfered with work (Solís, 2016).

Employees who have more responsibilities are found to undergo greater work-family conflicts as opposed to a reduction alleviated by telecommuting. Employees requiring the flexibility of telecommuting may not be able to attend to work during the official working hours between 9 a.m. and 6 p.m., but the requirement is that assigned work will need to be completed in a workday. This commonly means that more after-office hours work is performed to complete the assigned work. While managers recognized the need for flexibility for employees, employees have the freedom to execute their work from home, however this flexibility still needs to be able to achieve the level of productivity required by the organization. Managers did not clearly state if this implies that employees could be working longer than intended but expect employees to be professional in juggling both families and work commitments as shown in the below excerpt from manager P2.

... I'm part of the global team. I have people in the US and people in Europe and people even in India, so telecommuting today gives me an opportunity to tune my time just to be able to work with most of them. Sometimes my team meetings are at 10pm just to be able to attend the meeting with someone who's in Canada or with someone in France or someone in Egypt. So, I think this brings lots of flexibility to the organization and this brought lots of flexibility to myself as well. (P2)

This could be working before or after office hours where it allows employees to balance their personal responsibilities if the work is done as explained by manager P3.

... It depends on how you balance yourself, how you adjust your time yourself. But it should be okay with self-discipline. So, you have to do what you need to do. We are professionals. (P3)

Although, the tendency to micromanage telecommuters (Richardson, 2009) is tempting but manager P1 call for a “give and take approach” akin to “cutting telecommuters some slack”. This is reflected in the excerpt from manager P1.

... They have more time to do their own things. The idea is that they get to be at home. Maybe their response to issues or emails is slower when they must attend to family issues or go to run errands when they must. But it is better than to just sit in office and act like everything is very busy where in fact, it is not.

If they have nothing to do, they could do their own personal things, which is a good thing for them, and you have more free time and it is about give and take.

Manager P1 is conscious of the issues of presenteeism where he is conscious of productivity. This principle underpins his “give and take” approach to reduce presenteeism. An example is shown below from manager P1:

...See there are people who spend eight hours in office and did nothing. They can write an email that never get sent out, write a report that never got handed in, and look at data and analyse things and give lots of excuses but instead it can be done in a jiffy. (P1)

Manager P1’s intention may to be alleviate the situation of employees being in office at work but unable to contribute fully at work, which is presenteeism which leads to measurable loss of productivity (Lack, 2011). Although the commonly cited reasons for presenteeism is attending to work while being ill or unhealthy, other stressors and circumstances which preoccupy employees are also common. As manager P1 has acknowledged, that while telecommuter’s response could be slower while working remotely, this prevented the situation where the employee continued to be present in the office but not really engaged and contributing to work. To summarize, managers expect telecommuters to be preoccupied but still able to be productive. If this is the case, promotional aspects should not be a concern which will be discussed in the following section.

4.3.4. Employee’s Career Progression

Managers unanimously argued that chances for promotion are not affected by telecommuting which echoed the findings of McCloskey and Igbaria (2003) from a survey of 89 telecommuters from one large telecommunications firm where increased telecommuting was not reported to have an impact on advancement opportunities. These opinions are supported by expectations from managers which could be applied to

telecommuters and non-telecommuters alike. The following excerpts illustrate this theme:

... In terms of promotion, I always believe that promotion is based on merit, based on ability... (P1)

... So, I don't see any problem for promotion. Promoting employees is not an issue as most likely they are task oriented and they can deliver. So, the main evaluation will be on their delivery capabilities and how effective they can communicate during the time of working from home. (P2)

... This should not be affecting the chances of promotion. I believe that's if you performed your duties well and do whatever is needed, it shouldn't be affecting the chances of promotion. (P3)

... My view is that telecommuting is independent of career promotion and this should not be a factor in promotion for an individual. (P4)

... I don't think that it will decrease their chances of promotion. But, again, this is very dependent on the person's work integrity. So, if the person is very responsible, you know, dedicated to the work. I'm sure that you know, this doesn't make them you know, have a lesser chance of promotion. (P5).

Thus, if telecommuters can perform their duties well while telecommuting (which is the underlying assumption from managers), chances of promotion could be assumed to be similar as compared to working in the office. This finding contradicts the findings of Khan et al., (1997) where reduced promotional aspects for telecommuters ranked top in their study.

4.3.5. Psychological Contract

The circumstance of telecommuters responding to work after office hours for crisis is common in the IT industry and this is cited by managers P1, P2 and P3.

... I will do a bit more like if the boss wants me to fix something or something urgent came up after office hours I will be more willing to put in extra work/resource to resolve issues attending to all this extra after of challenging question. (P1)

... Sometimes my team meetings are at 10pm just to be able to attend the meeting with someone who's in Canada or with someone in France or someone

in Egypt. So, I think this brings lots of flexibility to the organization and this brought lots of flexibility to myself as well. (P2)

... Yes, I do believe they can perform beyond their duties. So sometimes you got to believe these are there. They might not be able to work beyond the hours. But if anything, that crops up after office hours, they have the ability to VPN in after office hours. (P3)

This demonstrates the formation of a psychological contract being formed between the manager and employee where the flexibility enjoyed by employees is expected to be reciprocated in terms of willingness to respond to crisis and emergencies. Changing conditions have connected employees remotely to the organization 24 hours a day with new technology and equipment such as smartphones (Thulin et al., 2019). As explained in Chapter two, the use of smartphones blurs the boundaries between work and life but in this case also provide an avenue for exhibition of extra role behaviour and allows work to be done as stated by manager P1.

... I get more proactive on doing work. And I'll mostly be on my phone a large portion of my time when I have to or when I need to, to actually resolve issues or look at possible ways of doing things more efficiently. Well it comes down to individual discipline and upbringing and responsibility and accountability. (P1)

A healthy psychological contract form between employees and employers is key to successful remote working environment because it is believed to inspire trust (Chen & Nath, 2005). Trust is a key theme of this thesis to be discussed in the later part of this chapter. Manager P1 is of the opinion that the opposite of organizational citizenship behaviour could happen if telecommuting were to be removed. A fair exchange of service and compensation could be seen in the below excerpt:

... But if there is telecommuting, there is no excuse that you will not be uncontactable after office hours.... This means that the employer expects you to work more but they also know how to give and take... Telecommuting has got no impact to me. I just shut off after six o'clock after my normal office hours and when I am at the office, I do not care if I have a phone, I just throw it in the office. That's it, because I have no access to anything at all. But it is very rare that the organization will remove this. If they do not have telecommute, fair enough. But if they have it today, it is rare for them to remove it especially when

everyone is able to access the cloud today... I do provide you the function of telecommuting that you are able to, have access to company resources and data to get our work done after office hours. (P1)

Manager P2 also explained that extra role behaviour is not possible and called it the “going back to the traditional way of working” if telecommuting were to be removed or unavailable.

... It's kind of going back to the traditional way of working. Manager and employee and staff that had to be attended to every day from nine to six. And I think that employee productivity will be only limited to these hours. And at the same time, you know, this organization is not kind of flexible. (P2)

The implications to the organization if telecommuting were to be rescinded could be further seen in the below excerpt

...My thoughts are that the company is actually backtracking, instead of moving forward, towards a more IT enabled organization and tapping on all the applications, internet and all possible platforms. If the company takes away telecommuting, it literally reduces the productivity of the company. (P5)

The building of psychological contract with the availability of telecommuting is supported by the study of Hornung and Glaser (2010). In their quantitative survey (n=947) on the German public administration to investigate the fulfilment of psychological contract towards the appreciation of benefits of telecommuting program that telecommuters had more positive representations of social exchange than non-telecommuters. “Employees enjoying telecommuting as a work-life benefit are morally obliged to reciprocate to their employer for this privilege. This would not be the case, if remote working was an obligatory job requirement or is perceived as a widely available standard option.” (Hornung & Glaser, 2010, p.88). While the implications for the building of psychological contracts involves extra role behaviour such as contact ability after office hours which introduces other concerns such as overworking, managers are convinced that the availability provides the basis for the building of psychological

contracts. Such extra role behaviours shall be elaborated in the following section on organizational citizenship behaviour.

4.3.6. Organizational Citizenship Behaviour

The employee's inclination to enter a psychological contract with the manager increases the chances of organizational citizenship behaviour (Tsui-Hsu Tsai & Jing Lin, 2014).

Managers interviewed argued that with telecommuting, employees are more willing to exhibit organizational citizenship behaviour as seen from an excerpt from Manager P1:

... So, with telecommuting I've noticed employees are more proactive. They are more innovative and will take initiative to perform jobs of other functions that are above the above your paygrade or beyond their job scope. (P1)

Manager P1's expectation of the telecommuters enjoying the flexibilities of telecommuting are more likely to reciprocate because of benefits enjoyed from telecommuting. This willingness to exhibit organizational citizenship behaviour of helping was echoed by manager P3:

... Yes, I do believe they can perform beyond their duties. So sometimes you got to believe these are there. They might not be able to work beyond the hours. But if anything, that crops up after office hours, they have the ability to VPN in after office hours. (P3)

It is evident in this thesis that managers commonly refer to organizational citizenship behaviour as the telecommuter's willingness to work after normal office hours. It is also the willingness of the telecommuter to extend help in emergency situations where help is unlikely to be found easily e.g. the failure of an international web portal serving customers around the world at 3 a.m. in Singapore where it is peak traffic period for other regions and this could be worked upon by telecommuters who are able to access the necessary service through VPN. Such behaviors as believed by managers are organizational citizenship behaviour and reinforce their belief that it is contributed by the flexibility provided to employees from telecommuting. As such, this possibility of

exhibition of organizational citizenship behaviour is positively influencing manager's adoption of telecommuting.

4.3.7. Talent Retention

The need for talent retention is important in the age of low organizational loyalty as commented by manager P1.

... Gone are the days where people are more than willing to contribute more to the organization because in the past organizations actually employ you for life unless it is insolvent. (P1)

Telecommuting is positively associated to organizational commitment (Harker Martin & MacDonnell, 2012). Organizational support that provides employees quality of life has an influence on employee loyalty (Sudarmi, Sapta & Mareni, 2019). Baby boomers experienced the conditions of lifetime employment with pension plans where an employee working in one firm for their entire career was not unheard of. Current employment tenures have decreased. Manager P1 explained the evolution of employment tenures and how talent retention is important and could contribute to better customer services.

... So, at the end of the day, it's about how to make sure they get the job done, yet they don't feel that the company is actually undercutting them. So, it promotes a psychological effect. That is the way I look at it. By treating the staff, well, they take care of all the customer in the business. (P1)

It was reported that personal affection like happy moods rather than negative moods is known to be more susceptible to performing organizational citizenship behaviour (Williams & Shiaw, 1999). Thus, when employees feel supported and shortchanged by the organization, they are expected to be happier with staying with the organization. It was reported that students achieved better results where teachers exhibit organizational citizenship behaviour (DiPaola & Hoy, 2005). With satisfied employees remaining in the organization, the outcome could be argued to be happier and more satisfied

customers in return. Manager P3 concurred that work life balance provided by telecommuting retains employees in the following excerpt.

... Well, I believe that with telecommuting, actually people will feel they have more of a work life balance. So, they will definitely be happier with the company and is willing to stay longer. Rather than finding another job so as to have better work life balance. Family is important, and family comes first. (P3)

Talent retention is supported by the presence and adoption of telecommuting which is supported by the study of Beasley et al. (2001) where IT employees are most important telecommuting motivator is the ability to spend time with one's children. Subsequent motivators were reported to be increased work hours flexibility and the ability to spend more time with one's spouse (Beasley et al., 2001). Such benefits are beyond monetary compensation which could be offered by organizations.

4.3.8. Trust

Trust between employees telecommuting and managers (Richardson, 2009) emerged as a key theme and factor in this thesis. The lack of physical supervision reduces the level of trust that managers can have as argued by Manager P1:

...When people are in the office, I go, hey, go and look at this customer now. But now they are at home doing all the coding and stuff, I cannot just go and tell them. If this was an email, they may take a couple of days to reply , or maybe a few auto replies as opposed to the situation where I would just walk to them and tell them " Hey, guys, look at this, I need to fix this coding problem. I need this infrastructure up now". ...People are making use of the new equilibrium of telecommuting to shift their job roles and responsibilities around, so it becomes a bit of a grey area. I have to put it back to the management to actually ensure that nobody in organizer is short changed and everybody is getting their job roles done correctly. That is the important part of all this telecommuting where some people are taking more initiative and some doing less. (P1)

But manager P4 and P5 believed that trusting employees could allow them to exhibit responsibility as narrated:

... Given the changing employee landscape and our expectations for employees, especially the younger generations, I believe that an employee will view

companies with telecommuting arrangement as more forward thinking. And at the same time, they probably have a view that these companies trust the employees in terms of managing their work. Regardless of where they work from as long as it doesn't impact the results. (P4)

... So, with telecommuting being an option, it gives possible candidates the sense that they are trusted, they have been given trust by the company that they can be independent and then manage their own time schedules and work. So, in that sense, it might make them more responsible, I think. ...Yes. So, it will give the employee the sense of responsibility and that the employee is well trusted to perform at their own pace. (P5)

Trust from managers in the management of telecommuters is important as Chen and Nath (2005) explained...

In a distributed organizational setting, trust is of paramount importance. To create a successful nomadic work environment, employers must trust employees to be self-motivated, trustworthy, responsible, and capable of governing themselves, whereas employees need to trust employers to evaluate and reward them fairly. (p.63)

As such, trust from managers in the management of telecommuters remained a problematic topic (Khan et al., 1997) while Berube Kowalski and Swanson (2005) called for the use of results-based management system to facilitate bi-directional trust because unconditional trust in telecommuting is unconvincing where managers are still more comfortable with coordination and direct control (Peters et al., 2010). Other than trusting telecommuters, manager's resistance to telecommuting could stem from the insecurity about their role in the age of virtual work (Wiesenfeld, Raghuram & Garud, 1993). The traditional role of the manager as a direct supervisor in an office environment is very much obfuscated with transition to a virtual manager. This could add on to manager's resistance to telecommuting.

4.3.9. Business Continuity

Managers unanimously conceded that telecommuting is essential from the organizational point of view as it allows continuity of business in times of pandemic or

geopolitical emergencies. The traditional workspace has just been made questionable with the emergence of pandemics which render social distancing mandatory. Workplace social distancing is reported to reduce influenza transmission (Ahmed, Zviedrite & Uzicanin, 2018). The current situational event of a pandemic allowed managers to appreciate the benefits of remote work as well as recognised the inevitability of such a practice in the future. The ability for the firm to remain in operation remotely could be the only way to survive. The excerpts below from all five managers exemplify the necessity of telecommuting for organizations.

... But from a human perspective, employees will think it is odd that they are removing this suddenly. Is there a problem in the company they may start thinking otherwise? And they may start looking for a different organization to jump to or some other sources of money-making sources. Maybe they will just look for a different job or get a sideline. (P1)

...They are used to this kind of telecommute environment, and even managers are used to manage telecommuting employees. I think they are more adapted to the new changes brought on by the COVID-19 pandemic. (P2)

...Well, for me telecommute is you have to be doing this now due to the COVID-19 situation. But during normal times telecommuting is actually quite good, you reduce time on transportation, you can actually have slightly more time with your family. (P3)

...Personally, I do feel pretty privileged. I mean, especially given the current COVID-19 pandemic, I mean, there are folks who are not able to telecommute because of company restriction, or because their companies are not ready to. So, in a way, it is a privilege where we can still continue to work in the safety of our own home without being exposed to potential infections by the virus. We are still able to contribute to the company and work on our own assignments. ... So, I do see that telecommuting could get a wider acceptance by more and more companies moving forward and I don't see companies will move back the current trend. (P4)

...I think in the current context, a lot of companies in fact, more advanced companies or forward planning companies should always have telecommuting as something that they should look into if not already you should have. (P5)

Without telecommuting, organizations are seen as “traditional” and “backward” where you need to be “seen” in the office which may not be feasible anymore as described by the managers P2, P3 and P5.

I would say they are kind of traditional. I think they are going to lose lots of opportunities, and they may not be able to attract the adequate talents to be part of their organization. (P2)

...Most all the companies right now are forced to telecommute because they are actually able to do so in the first place, just that some of the companies are still in the mindset that you should be seen at the office during office hours, or to be seen in the office to do your work but in reality, you can be at home doing telecommuting. (P3)

... My thoughts are that the company is actually backtracking, instead of moving forward, towards a more IT enabled organization and tapping on all the applications, internet and all possible platforms. If the company takes away telecommuting, it literally reduces the productivity of the company. (P5)

The change in mindset inadvertently brought on by the emergence of pandemics may force organizations to look further and take the opportunity to adopt telecommuting as shown in the below excerpt.

...Prior to the COVID-19 situation again, it is always in the concept that more advanced companies more forward planning companies will look into telecommuting. They are the big players such as Google and other large tech companies, they will definitely have this as an option. And then I would think that more traditional companies like you know, the old school kind of companies, they do not have this because they do not have the knowledge as to how to do it. ... So, with newer companies, which are with fresh blood, new grads, people who are savvier with the internet, they should already have this thing that's telecommuting. That should be within the company's system. (P5)

“Millennials desire work-life balance and crave flexibility at the workplace, such as working from home and casual dress. They aim to work smarter, rather than harder, making them excellent at multitasking. Despite the eagerness that Millennials bring to the table, this generation is often criticized for being self-involved and overly dependent on technology.” (Jones, Chauhan & Torabian, 2019, p.66). The future of workplace

influenced by the onset of pandemics but with the influx of younger generation workers made telecommuting a compelling option for organizations to adopt.

4.3.10. Telecommuting guidelines

However, the guidelines on telecommuting remained unclear to managers while some forms of guidelines might be present. The practice is often left to manager's interpretation and implementation without formal guidelines on employee wellbeing or material support as reported by manager P2.

...I think most companies that are used to work from home only have very gentle generic standards or guidelines for telecommute. You need to have a desk you need to have to maintain a proper working environment at home. But I think the they overlooked part of the we need to be healthy as well. (P2)

Manager P4 questions about the implementation of security measures on telecommuting practice where breaches were reported. Additionally, manager P4 also raised concerns about the scenario of blurring boundaries while telecommuting.

... of course, security is very important. I mean lately we have read reports on some of the telecommute platforms which are vulnerable to security lapses. (P4)

... Well, my view of telecommuting and the relationship to work life balance allows employees to work in the comfort of your home in a location where they are most comfortable with. But at the same time, this may also introduce the situation of the work boundaries and our home being blurred while we have telecommuting. (P4)

Manager P2 had more concerns about telecommuter's work environment and telecommuter's health as a result of prolonged telecommuting.

... So, the main challenges, say for the telecommuting in general is the "homework" environment. So sometimes you may have an employee who doesn't have appropriate environment just to work from home, including the logistic part. Maybe it is one of the countries that there is no high-speed internet connection. Maybe at home, he doesn't have a dedicated space just to carry on his business activities. ... If you have an employee who doesn't care and doesn't have this healthy habit, he will simply be staying on his chair for so long. And then at some point, you may lose this employee suddenly. (P2)

Guidelines on telecommuting practice will help managers in the adoption of telecommuting and be cognizant of the necessary working conditions of telecommuter's home, health conditions of telecommuters, security practice to protect telecommuters etc.

4.4. Summary of Findings

Quantitative findings concluded the association and impact of telecommuting support on employee satisfaction and organizational citizenship behaviour. Results supported hypothesis one and two on telecommuting support and positive influences on the dependent variables but rejected both hypotheses three and four on the negative influences of disadvantages of telecommuting on employee satisfaction and organizational citizenship. Eight control variables were tested on their interaction with the dependent variables where only two were found to have a significant relationship in the prediction of organization citizenship behaviour i.e. presence of elderly dependents and multinational companies with more than 250 employees. Manager's perceptions on adoption of telecommuting are influenced by ten factors which are employee's individualism, discipline, productivity, career progression, psychological contract, organizational citizenship behaviour, talent retention, trust, business continuity and lastly telecommuting guidelines. The findings provided strong evidence of telecommuting support for employees but also provided insights into factors that influence manager's view on telecommuting adoption. The next chapter shall discuss the findings and provide managers a theoretical telecommuting adoption model to consider when adopting telecommuting.

5. Discussions

In this chapter, a detailed discussion of the findings from chapter four is done and a theoretical telecommuting adoption conceptual model is developed and proposed to managers. Interpretation of the conceptual model is provided as well as the limitations of the model.

Overview of the research objectives

The following objectives were set out to achieve the research aim:

- To review the literature on telecommuting support and explore its influence on employee satisfaction and organizational citizenship behaviour.
- To collect and analyze the data collected from surveys with correlation analysis and regression testing.
- To explore the perceptions of managers on telecommuting's influence on employee satisfaction and organizational citizenship behaviour using a series of in-depth interviews.
- To provide theoretically and empirically proven recommendations to managers on a flexible adoption of telecommuting.

The WHO (2020) declared COVID-19 outbreak to be a pandemic on 12 March 2020.

Firms that do not embrace telecommuting during non-emergency times may find themselves scrambling to adopt telecommuting and associated controls and process in a short period putting them behind competition in an already challenging economic landscape when such measures were required such as COVID-19 pandemic situation. Telecommuting could be the only viable means for corporate organizations to continue operating in the uncertain future plagued by the continuing influences of social distancing measures introduced to contain the COVID-19 pandemic. For organizations to stay ahead of the competition, talent retention is important to remain competitive in the age of globalization of the economy where work and talents could be matched regardless of where talents are located and where work is conducted.

In chapter four, it had been demonstrated that telecommuting support is significant in the prediction of employee satisfaction and organizational citizenship behaviour answering the first research question. Telecommuting is often studied as part of flexible work arrangements or with companion arrangements such as flexitime where the outcomes of the studies could not be used separately. This thesis examined

telecommuting support as a distinct practice and can conclude the positive association and impact with respect to employee satisfaction and organizational citizenship behaviour. Literature reviewed also exposed concerns of disadvantages of telecommuting negatively affecting the associations of telecommuting. This has been reported to be insignificant in this study to both employee satisfaction and organizational citizenship behaviour.

The second research question was answered with the investigation of the control variables where the presence of elderly dependents and multinational companies larger than 250 employees were found to have moderating effects between organizational citizenship behaviour and telecommuting support. Family responsibilities requiring adult attention are common reasons behind telecommuting requests from employees. Childcare and other domestic responsibilities requiring attention at home could be greatly satisfied by the ability to telecommute which could explain the increase of employee satisfaction by the increased perceptions of telecommuting support. However, most literature found the ability to satisfy work life balance with childcare being a common reason as the basis for increased employee satisfaction. The presence of elderly dependents requiring adult attention which emerged as a significant control variable associated with employee satisfaction and organizational citizenship behaviour could be explained by the less emphasis on elderly in telecommuting context. Female employees with children associated challenges are common (Thulin et al., 2019; Friedman, 2001; Mokhtarian et al., 1998; Bryan & Sevilla, 2017) but elderly care is less commonly cited, sometimes as a factor in the study by Semlali and Hassi (2016). But the elderly dependents in eastern geographies are still being taken care of or staying with their family (Manasa & Showry, 2018) albeit by the women in the household. As such it may be that flexible work studies in western literature (Ezra & Deckman, 1996) would not see this a major factor in family responsibilities and thus explaining the lack

of literature. This responsibility when alleviated by the presence of telecommuting could explain the significance of the control variable and the increase in tendency to exhibit organizational citizenship behaviour in such instances. Telecommuting is suggested to be a good initiative to support employees providing elderly care (Zacher & Schulz, 2015) where the study was conducted in Germany collected data from 100 employees with eldercare responsibilities. Employees with eldercare responsibilities reported the number of hours spent on elder care to be between 2 to 35 hours per week (Zacher & Schulz, 2015). This also brought attention to the gender differences of caregivers in that women were reported to be more affected by childcare while men are reportedly more affected by eldercare (Mills & Grotto, 2017). Although, the sample in the study by Mills and Grotto (2017) had 82% male respondents compared to only 18% female respondents which may have skewed the responses, but it did bring attention to the topic of eldercare within telecommuting support.

Multinational companies above 250 employees are found to have significant prediction capabilities on organizational citizenship behaviour albeit in a negative manner whereby it decreases organizational citizenship behaviour instead. The findings may be explained by the size and type of company which in this case the firm type is large and multinational in nature. There are indeed differences in the availability of telecommuting in firms of varying sizes where it was reported that very large firms are more likely to practice telecommuting (Goñi-Legaz & Olló-López, 2015) as such, practice may not be considered to be a privilege by telecommuters (Gajendran et al., 2014) which may explain the reduction of the tendency for exhibition of organizational citizenship behaviour. The tendency for reciprocate co-workers by telecommuters is higher when telecommuting is non-pervasive and thus seen as a privilege (Gajendran et al., 2014). Thus, when telecommuting is commonly available, telecommuters may not

see the need to reciprocate and thus explains the reduction of organization citizenship behaviour.

The third research question was interested in the prominent perceptions of managers affecting their adoption of telecommuting when it is established that there exists a significant and impactful relationship between telecommuting support and employee satisfaction and organizational citizenship behaviour had been established. Ten factors were found from manager's perceptions that affects the adoption of telecommuting in organizations in turn answering the third research question. The factors are identified are supported by literature already identified in chapter two. The proposed telecommuting adoption conceptual model is shown in Figure 4.

Explaining the Telecommuting Adoption Conceptual Model

The results from this thesis concurred with the body of literature that telecommuting influenced employee satisfaction (Wadhawan, 2019) and organizational citizenship behaviour (Lambert, 2000) in a positive direction. In the sample surveyed, 52% of participants were aware that the organizations that they were working for had telecommuting officially while 40% thought it was unofficial and 8% was not sure whether there was such a practice. This finding reflects the same observation as what Kelly and Kalev (2006) had observed in their research study suggesting a high degree of manager's discretion when it comes to telecommuting practice. And that the findings suggest that telecommuting may need to be maintain as a privilege rather than commonly available where it is reported to increase organizational citizenship behaviour as supported by literature in Chapter two. Ten factors are identified to drive managers adoption of telecommuting as proposed in the proposed telecommuting adoption conceptual model shown in Figure 4.

In Figure 4, manager's adoption of telecommuting provides telecommuting support from the organization as viewed by employees. Subsequently, the bidirectional arrows between telecommuting support and employee satisfaction and organizational citizenship behaviour depicts the significant relationship between the dependent variables and independent variables. The reason for the bidirectional arrows is that causal relationship between the variables are not able to be determined in the scope of this thesis. The presence of elderly dependents and multinational companies moderates the relationship between telecommuting support and organizational citizenship behaviour and is shown in the model to advice managers of the significant relationships stemming from these two variables. The presence of elderly dependents is depicted with a green cross indicating a positive moderating effect while multinational companies with more than 250 employees is depicted with a red minus indicating a negative moderating effect on the relationship.

The factors driving manager's adoption of telecommuting

Telecommuting guidelines could help managers with a set of rules for a standard and fair form of telecommuting practice for employees. "From the managerial perspective, concern centres on the challenge of monitoring the performance of employees whom supervisors can no longer physically observe. Managers may find solace in more formal interactions, more structured job guidelines, or by focusing on results." (Kurland & Egan, 1999, p.501).

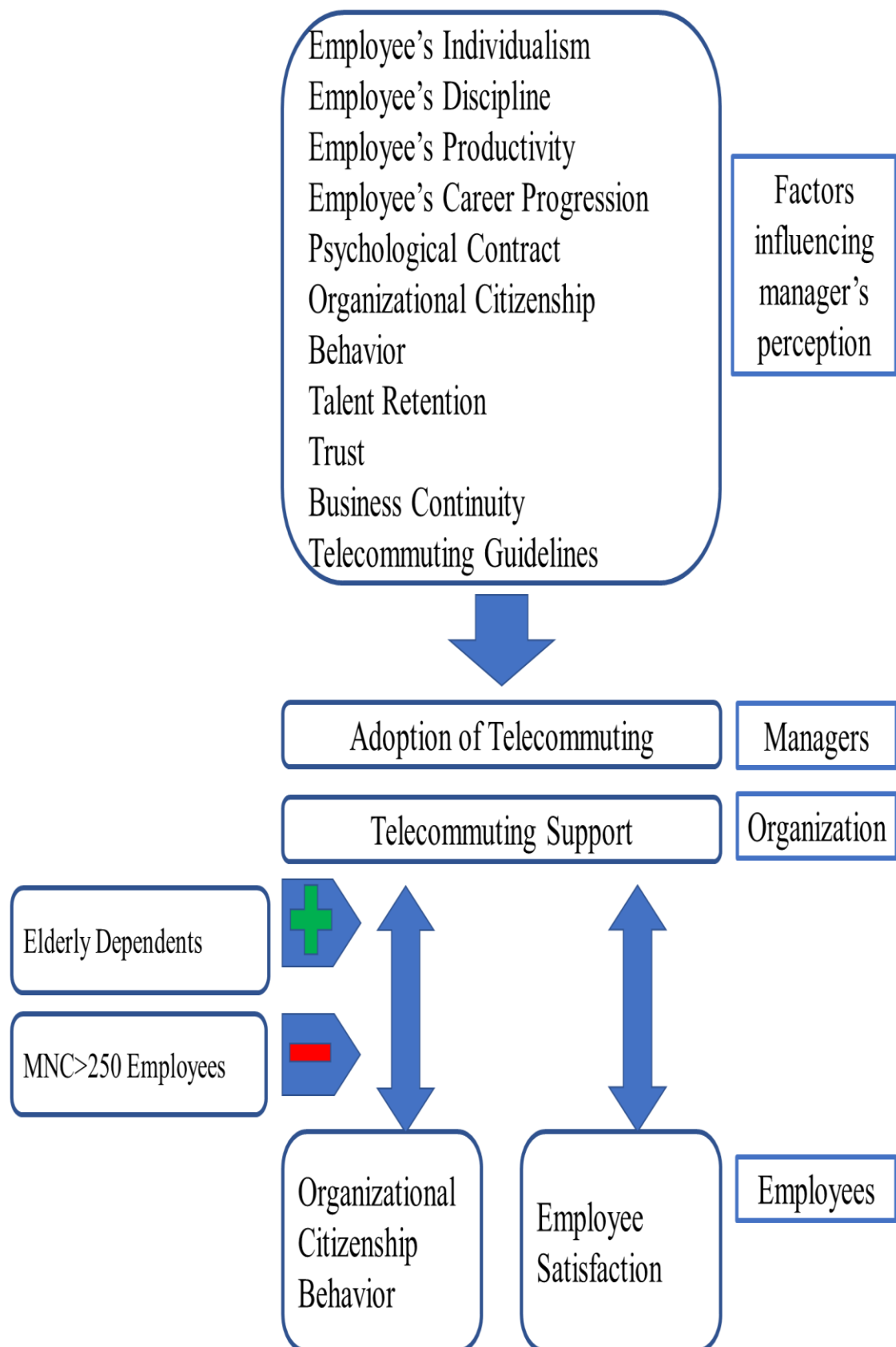


Figure 4. Proposed Telecommuting Adoption Conceptual Model from (Source: Author)

In the group of managers studied, there are expectations that telecommuters should be conscientious and exhibiting discipline during telecommuting. The expectations of

conscientiousness and discipline exemplify the need for productivity from telecommuters regardless of distractions at home. Telecommuting may not be a productive option for employees who do not already have solid work habits in the office (Bagley & Mokhtarian, 1997) as claimed by one of the managers. As such, office discipline could be used as a gauge by managers to assess employees who could deliver positive outcomes during telecommuting. If employees are disciplined and dependable, the location of work would not affect the productivity of employees. Managers interviewed also acknowledged the reduction of productivity (Ahmadi, Helms & Ross, 2000) when employees take several days to perform tasks which would have taken a shorter time if there was no telecommuting. However, this delay is also cited as one of the possible contributors to increased employee satisfaction by the same manager. Managers interviewed are unanimous in agreement to certain aspects of telecommuting such as the relevance of telecommuting practice in organizations, the ability of employees to juggle demands otherwise not possible without telecommuting, the blurring of work and family domains during telecommuting and equal chances in promotion without prejudice against telecommuters. Since this is a remote virtual working environment, employees need to be trusted by managers and thus suggesting that more trustable employees are more likely to be allowed telecommuting. The importance of social exchange for the formation of trust and commitment where the neglect of these mediating psychological states and processes could led to researchers underestimating predictors of organizational citizenship behaviour (Hornung & Glaser, 2010). Trust from managers in this thesis emerged as a prominent factor which could be attributed to the lack of physical supervision with telecommuting. Managers would have to trust telecommuters in terms when the traditional management method of “management by walking about” is not possible in a virtual workforce. Trust as a key factor of this study is supported by the findings of Richardson (2010) more so around

trust required from the managers to have positive telecommuting outcomes. A manager needs to exhibit trust in that a telecommuter would be to perform work satisfactorily without supervision and that telecommuters would be able to help the managers in times of crisis. Furthermore, a flexible and trustworthy relationship needed to exist for telecommuting to be effective (Bernardino et al., 2012). It was consistent through the managers conversations on the recognition of 6 p.m. to be an official end of working time for employees when telecommuting was not provided. But when telecommuting is available, most managers are convinced that the use of employee's time after 6 p.m. is possible indicating a strong case of voluntary psychological contract initiated from employees. Telecommuting in this study is touted to be the solution to unexpected work emergencies which could be due to telecommuters continuing to "put in the hours" compensating for the use of official time during the day on family matters, or simply because of the convenience of technology that made it easier for managers to engage telecommuters for a quick resolution simply by "logging into the VPN" which would otherwise not be possible if there was no telecommuting option. Such expectation could stem from the perception that telecommuting is a privilege because in most cases, telecommuting is not official for employees and as such reciprocation is warranted. Managers are also cognizant that this privilege saved employees personal time and provided personal flexibility. And a way to reciprocate this privilege could be the employee's ability to help the manager after office hours for emergencies that could be relatively easy to render using remote access technology thus seen as organizational citizenship behaviour. There is emerging evidence that the telecommuting is purported to be a tool for managers to gain employee consent in the form of reciprocity to perform intensified work which came at employee's costs (Bathini & Kandathil, 2017). In short, employees reciprocated by performing intensified work beyond working hours for the exchange of telecommuting as a privilege which explains the increased display of

organizational citizenship behaviour through increased work hours. Lastly, managers are fully aware of the flexibilities brought using telecommuting and in turn the increase in work life balance and satisfaction from employees. As such, this practice is useful in their opinion in the retention of employees in the current labour market.

Limitation of factors driving the adoption of telecommuting by managers

The ten factors that drive manager's adoption of telecommuting are explained in the previous sections are not without limitations. Discipline of employees while telecommuting is subjected to the presence of distractions at home. This is heavily dependent on the feasibility of having private working areas within the home of telecommuters. High density of citizen living is not uncommon in Singapore making distraction free working at home unlikely. As such, literature supports that distractions do exist at home from the immediate family due to this limitation. Distractions at home limit two factors which are employee discipline and employee productivity where telecommuters struggle to achieve the same level of productivity and attention during working hours unless otherwise having to compensate with longer working hours or late-night hours (Ahmadi, Helms & Ross, 2000).

Organizational citizenship behaviour is linked to psychological contract between the manager approving or supporting telecommuting. Telecommuters thus felt organizational support and would be willing to work longer hours in gratitude or for the simple fact that commuting time has already been saved. However, the boundaries limiting this factor is unclear. There is a tendency for this organization citizenship behaviour to be exploited and telecommuters eventually put in more hours than usual consistently leading to burnout and heavy blurring of work-family boundaries (Dash & Pradhan, 2014). Blurring of work family boundaries limits two factors which are psychological contract and organizational citizenship behaviour.

Trust continues to be a challenging factor to achieve. On the one hand, managers are struggling with loss of management control (Brice et al., 2011) but must accept that such is the norm with telecommuting. Managers must understand and accept that employees are individuals and that they must trust telecommuters to be disciplined to achieve their objectives.

Talent retention is cited in literature to be a common outcome for organizations that provides telecommuting as this allows employees to fulfil their roles in organization as well as at home (Khandekar and Sharma, 2005). However, research claimed that telecommuting is not significant for people with commitments but rather attracts employees with lower commitments (Rau & Hyland, 2002). As such, managers need to be mindful of the talents that are retained or attracted.

Although managers interviewed cited no hindrances to career progression for telecommuters which is supported by literature (McCloskey & Igarria, 2003) however, the lack of telecommuting guidelines and measurement limits this factor as performance monitoring of employees presents challenges for recommendations of promotions.

Business continuity is one of the major factors in the face of the current pandemic however, telecommuting is not always possible for all job scopes (Virgillito, 2020).

Organizations may find it difficult to operationalise telecommuting for levels within the organization.

Limitations of the proposed model

There are limitations to the telecommuting adoption model and managers need to be informed. The model did not consider of the kind of jobs suitable for telecommuting such as IT sales personnel versus internal administrative staff. Literature review has revealed potential differences in job types and different satisfaction levels amongst telecommuters. Educational level difference amongst respondents are not controlled where it could introduce differences in perceptions towards telecommuting support. The

model is an amalgamation first from a quantitative analysis and supported by a qualitative explanation. The model has not been tested within the scope of this thesis and as such remained theoretical where future research could test it.

6. Contributions and Conclusions

6.1. Achievement of Research Aim

The aim of this thesis was to investigate the influences of telecommuting support on employee satisfaction and organizational citizenship behaviour in IT organizations in Singapore. While telecommuting and its' influences are seemingly well documented and understood, widespread official adoption remained problematic in Singapore. A sequential mixed-method study was undertaken which started with online data collection through questionnaires using purposive sampling method. Based on primary data analyzed using quantitative approach through the establishment of hypotheses, statistical evidence suggested significant correlations between telecommuting support and employee satisfaction with Pearson's correlation test. Similar tests between telecommuting support and organizational citizenship behaviour yielded strong correlation similarly. Both dependent variables were tested for significance with control variables where the presence of elderly dependents and employees working in large multinational companies above 250 employees were found to have significant predictor relationships towards organizational citizenship behaviour. Elderly care was found to have a positive relationship to predict organizational citizenship behaviour while large multinational companies with more than 250 employees were found to have a negative predictor relationship to organizational citizenship behaviour. Qualitative analysis subsequently identified ten factors which drive manager's adoption of telecommuting. The relationships are proposed in the telecommuting adoption conceptual model in Chapter five. The model is intended to inform managers of the factors to consider in adopting telecommuting and be reminded of the strong relationship between telecommuting support and employee satisfaction and organizational citizenship behaviour. The moderating effect of the presence of elderly dependents and large multinational companies are explained and how they served to predict organizational

citizenship behaviour in addition to telecommuting support. The findings are supported by literature, evidence from primary data and thus the research aim is achieved.

6.2. Contribution to Knowledge

The outcomes of this study first contribute to the body of literature on telecommuting support and their positive correlation to employee satisfaction. This study examines telecommuting support as a specific practice apart from the common flexible work arrangements. Some studies on telecommuting were conducted with other forms of flexible work arrangements such as flextime where the outcomes could not be interpreted for telecommuting alone (McNall et al., 2009). In other cases, flexible work arrangements as a bundle was studied providing little focus on the efficacy of this isolated practice (Maxwell et al., 2007). Concurrently, this study also examined and found a positive correlation between telecommuting support and organizational citizenship behaviour when studies have explored organizational commitment (Ongaki, 2019) than organizational citizenship behaviour. As such, this thesis can contribute to literature on organizational citizenship behaviour and telecommuting support. To date while conducting review on literature, it was found that most telecommuting studies are predominantly conducted in the western part of the world. The location of this study in Singapore provides differential support to existing western dominated literature. Mixed methods sequential approach allowed generalizable results from survey data to be informed with views from managers obtained from interviews. This mixed perspective approach provides a wider perspective than single approach studies in the literature of employee satisfaction and organizational citizenship behaviour. This is the third contribution to knowledge where studies predominantly explore telecommuting using quantitative methods (Thulin et al., 2019; Morganson et al., 2010) or qualitative methods (Mihhailova, 2009; Richardson, 2010).

6.3. Contribution to Practice

To retain and develop talented employees, monetary compensation cannot be the sole sustainable method to ensure employee satisfaction. Employee satisfaction is argued to be influenced by HRM practice to influence organizational performance. Satisfied employees are more likely to stay with organization and exhibit organizational citizenship behaviour. Organizational citizenship behaviour is reported to reduce absenteeism and reduce turnover. This thesis demonstrates the positive tripartite relationship and draw conclusions for organizations to adopt telecommuting as a viable tool for organizational benefits. When there is a need to adopt telecommuting within organizations, HR managers can refer to the telecommuting adoption conceptual model to locate potential benefits for both employees and organizations within. With this thesis, HR managers are informed of the ten factors that drive manager's adoption of telecommuting and could introduce management training to alleviate some of the managers concerns. Subsequently, HR managers are able to use the generalizability of the quantitative outcome to support telecommuting practice towards the stakeholders of the organization. Organizational stakeholders can take comfort in the potential increased employee satisfaction and organizational citizenship behaviour with the adoption of telecommuting. The telecommuting adoption conceptual model therefore serves as a guiding model providing theoretically and empirically proven recommendations to HR managers who seek to adopt telecommuting but does not prescribe hard and fast rules. Telecommuting is seen as organizational support that helps employees juggle their personal responsibilities while fulfilling the needs of the organization. During non-pandemic times, telecommuting arrangements would continue to provide satisfaction to employees who need the flexibility of managing family responsibilities with work. The availability of telecommuting matters to employees and is reported to predict employee engagement positively for employees and organizations (Masuda, Holtschlag & Nicklin,

2017). The availability of telecommuting which is perceived to be useful and thus induce organizational citizenship behaviour due to employees attempting to reciprocate is evident in this thesis supported by the work of Lambert (2000). Managers are encouraged to be understand the needs of individual employees to be able to provide useful help such as telecommuting to achieve a win-win situation. The importance of telecommuting is critical in a post pandemic economy. The sooner, organizations possess a concrete plan for allowing more employees to telecommute, organizations can achieve a business continuity plan to safeguard against future pandemics. While the ten factors identified could help managers with a clear understanding of what these factors are, they are nonetheless challenging to overcome. There is no straightforward method to build trust which emerged as a key factor in several studies on telecommuting (Richardson, 2010; Bernardino et al., 2012). But managers should be informed of the potential links between psychological contract and its link to trust and in turn organizational citizenship behaviour. Managers could perhaps take these three factors together when tackling the issue of trust instead of the factors individually. It is advised that while trust remained an elusive factor, managers can seek to understand and overcome the rest of the factors which facilitate further adoption of telecommuting. As each factor has its influence on managers, there are no recommendations on which factor should be addressed first. Managers should be aware that while this thesis advocates a greater adoption of telecommuting, the influences on employee satisfaction and organizational citizenship behaviour remained influenced by employee individualism and characteristics and nature of their personal needs which determines the impact of telecommuting support. This is a pertinent contribution of this thesis to inform managers, that while conformity is desired, the magnitude of the influences of telecommuting support on employee satisfaction and organizational citizenship behaviour differs among individual telecommuters which could be determined through

the employee's discipline or conscientiousness. While literature has advocated some degree of privilege towards allowing telecommuting to employees and this thesis is in support of this concept in part due to the question of impartiality of managers in real life circumstances to prevent favoritism and thus depriving the more needy employees, guidelines from corporations could set a general framework on telecommuting and allow managers to be the arbitrator in other exceptional circumstances. Managers although touted as change agents ultimately holds the responsibility for delivering corporate objectives to the organization.

This thesis further contributes to practice where differences in organizational type and size is found to be significant predictor of organizational citizenship behaviour. The reported decrease in tendency for organizational citizenship behaviour for large multinational companies with more than 250 employees advised managers in their implementation of telecommuting practice in companies of such types. This study lends support to the body of literature advocating the importance of employee satisfaction where telecommuting support can now be presented to HR managers as one additional tool in their bag of HRM practices. Both the presence of elderly dependents and large multinational companies with presence of more than 250 employees have different (opposing effects) prediction abilities in terms of organizational citizenship behaviour. This finding preempts HR managers to exercise caution in larger multinational companies when applying telecommuting practice where employees could have a reduction in organizational citizenship behaviour. Employees with elderly dependents face challenges are more sensitive to organizational support so much so that they are more predictable to reciprocate with organizational citizenship behaviour. HR managers could be more supportive towards this group of employees offering telecommuting support or other supplementary supportive practice where it could prove beneficial for both employee and employer in such a relationship. Managers could be informed by the

ten factors and reduce reliance by traditional management methods where governance was the key philosophy. Continual comfort with traditional management methods could present continuing challenges in the future of virtual work environments which ultimately reduces employee satisfaction rather than increases it (Mihhailova, 2009).

6.4. Limitations of study

Non-probabilistic sampling strategies such as purposive sampling is suggested for hidden populations which random sampling could not access (Heckathorn, 2011). Purposive sampling is thus recognized to be a limitation in sampling technique but an accepted limitation as telecommuter population in IT is not easily accessible due to discretionary practice by organizations. Telecommuters' populations are also not readily available in companies due to the scarcity of telecommuters in organizations (Morganson, Major, Oborn, Verive & Heelan, 2010). The purposive sampling method thus presented a limited view of the telecommuting community within the IT industry in Singapore. As with non-probabilistic sampling for the survey, the generalisability of the outcomes is reduced. Some age groups are underrepresented in the sample such as the 20-29 and 60 and above. This limits the understanding of the younger and elder working employees. Quantitative method of using Likert scale and its analyses have had its fair share of problem such as using the means of response data. Use of the mean to test for significance using ordinal statistics had been known for its own limitations as a rating of five on the ordinal scale is not necessary five times worse or better than a rating of one (Destercke, 2016).

Researcher's bias is inevitable with the researcher as the only coder in thematic analysis. Five interviews are few compared to general qualitative research where more interviews were desired before data saturation was achieved. However, while the qualitative sample is small, the key concern is about whether data saturation is possible

with a small sample size. Although Braun and Clarke (2019) questioned the efficacy of sample size in the quest for data saturation, it is recognized that the sample size in this thesis is indeed a limitation which could be increased in future research to provide a more solid foundation for data saturation. Intercoder reliability was not conducted to safeguard confidentiality of data and this persist as a limitation in the qualitative analysis. Another limitation to the study is the capacity of the author who is of managerial capacity within an IT organization, this may affect the analysis of the qualitative data where the author is familiar with the described phenomenon and may report findings that resonate with the author's personal experiences.

6.5. Recommendations for Practice

Managers are change agents of organizational change and they possess a direct relationship with employees to mitigate the factors in adoption of new company policies. If they are unclear about the guidelines and expectations of the organization with regards to telecommuting, their execution of the policies would very much be determined by their previous encounters and experiences as which is the case of my sample of managers which echoed the same behaviour of the sample in the study conducted by Richardson (2010). "It will also suggest that a manager's understanding of him/herself is continually evolving through the social experience of managing flex workers as well as through interaction with others" (Richardson, 2010, p.139). As such, HR managers need to be cognizant of managers and the critical role they play. In some cases, telecommuting becomes a discretionary perk that managers use to reward past performance and inducement for continued commitment (Kelly & Kalev, 2006), which in this study is argued to be a necessity where psychological contracts and organizational citizenship behaviour could emerge. As such there is a need for corporations to reign in managers and provide guidelines and metrics to allow for a

fairer adoption of telecommuting. “Although change in itself means uncertainty, managers are expected to generate clear and adequate formulation of what the problem is and where they would like the organization to be” (Saka, 2003, p.493).

This research study further exemplifies the need for developing new managerial philosophies and methods where the outcomes are more virtual work friendly. To allay the fears and build up the trust of managers for telecommuting employees, HR managers could introduce minimally invasive systems which allow for some management visibility (Brice et al., 2011). This could be used by managers who have a need for such means before they are able to establish a comfortable level of trust. This although is not recommended by this thesis because such systems could be counterproductive as employees may feel the lack of trust from managers. Trust continues to be an open and delicate issue for managers to tackle in telecommuting practice. The need to tackle the issue of inclusion of virtual workers continue to be a challenge where managers need to be mindful of to encourage the cohesiveness in large multinational companies where job functions are dispersed. Should this be tackled in a constructive manner, managers and organizations alike may find that teleworkers in such organizations to be more inclined to exhibit organizational citizenship behaviour. This together with a heightened sense of satisfaction from employees would retain employees and attract more talents.

6.6. Future areas of research

Telecommuting allows employees to perform work remotely. This could be due to geographical limitations which prohibits daily commute to the work location. This also provided employees who are physically disabled with difficulty in commuting to perform work in their residence. It also assists employees with their personal dispositions. Telecommuting is one of the arrangements that allows employees to be

closer to home if that is where they are required to be physically to handle both work and personal matters. Telecommuting has since also served organizations in reduction of real estate requirements and business continuity process. Telecommuting has become an indispensable practice for knowledge-based organizations. Future research could further the direction of this thesis by exploring if the frequency of telecommuting affects employee satisfaction which is not studied in this thesis. Interviews with employees could provide an alternative picture on employee satisfaction and organizational citizenship behaviour from telecommuting support. As the sample of managers interviewed in this thesis is small, a larger sample studied by future studies could lend additional support to the list of factors influencing manager's adoption.

References

- Aban, C., Perez, V., Ricarte, K., & Chiu, J. (2019). The Relationship of Organizational Commitment, Job Satisfaction, and Perceived Organizational Support of Telecommuters in The National Capital Region. *Review Of Integrative Business And Economics Research*, 8(4), 162-197.
- Adcroft, A., & Willis, R. (2008). A snapshot of strategy research 2002-2006. *Journal Of Management History*, 14(4), 313-333. doi: 10.1108/17511340810893081
- Ahmadi, M., Helms, M., & Ross, T. (2000). Technological developments: shaping the telecommuting work environment of the future. *Facilities*, 18(1/2), 83-89. doi: 10.1108/02632770010312204
- Ahmed, F., Zviedrite, N., & Uzicanin, A. (2018). Effectiveness of workplace social distancing measures in reducing influenza transmission: a systematic review. *BMC Public Health*, 18(1). doi: 10.1186/s12889-018-5446-1
- Alexander, B., Dijst, M., & Ettema, D. (2010). Working from 9 to 6? An analysis of in-home and out-of-home working schedules. *Transportation*, 37(3), 505-523. doi: 10.1007/s11116-009-9257-1
- Allen, T., & Shockley, K. (2006). *Flexible work arrangements: Help or hype?*. Presentation, Paper presented at the Families and Health Conference, Provo, Utah.
- Almutawa, Z., Muenjohn, N., & Zhang, J. (2015). Unlocking the black box of the conceptual relationship between HRM system and organizational performance. *The Journal Of Developing Areas*, 49(6), 413-420. doi: 10.1353/jda.2015.0100
- Amos, E., & Weathington, B. (2008). An Analysis of the Relation Between Employee—Organization Value Congruence and Employee Attitudes. *The Journal Of Psychology*, 142(6), 615-632. doi: 10.3200/jrlp.142.6.615-632
- Anthony, M. (2018). A Review of Mixed Methods, Pragmatism and Abduction Techniques. *Electronic Journal Of Business Research Methods*, 16(3), 103-116.
- Apesoa-Varano, E., & Hinton, L. (2013). The Promise of Mixed-Methods for Advancing Latino Health Research. *Journal Of Cross-Cultural Gerontology*, 28(3), 267-282. doi: 10.1007/s10823-013-9209-2
- Apgar, M. (2002). Deconcentration: A strategic imperative in corporate real estate. *Real Estate Issues*, 3(4), 50-60.
- Appelbaum, S., Bartolomucci, N., Beaumier, E., Boulanger, J., Corrigan, R., & Doré, I. et al. (2004). Organizational citizenship behaviour: a case study of culture, leadership and trust. *Management Decision*, 42(1), 13-40. doi: 10.1108/00251740410504412
- Arnett, D., Laverie, D., & McLane, C. (2002). Using job satisfaction and pride as internal-marketing tools. *The Cornell Hotel And Restaurant Administration Quarterly*, 43(2), 87-96. doi: 10.1016/s0010-8804(02)80035-0
- Asraf, R., & Brewer, J. (2004). Conducting tests of hypotheses: The need for an adequate sample size. *The Australian Educational Researcher*, 31(1), 79-94. doi: 10.1007/bf03216806

- Astalin, P. (2013). Qualitative Research Designs: A conceptual Framework. *International Journal Of Social Science & Interdisciplinary Research*, 2(1).
- Auer Antoncic, J., & Antoncic, B. (2011). Employee satisfaction, intrapreneurship and firm growth: a model. *Industrial Management & Data Systems*, 111(4), 589-607. doi: 10.1108/02635571111133560
- Bagley, M., & Mokhtarian, P. (1997). Analyzing the preference for non-exclusive forms of telecommuting: Modeling and policy implications. *Transportation*, 24(3), 203-226.
- Ball, L., & Ormerod, T. (2000). Putting ethnography to work: the case for a cognitive ethnography of design. *International Journal Of Human-Computer Studies*, 53(1), 147-168. doi: 10.1006/ijhc.2000.0372
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal Of Management*, 17(1), 99-120. doi: 10.1177/014920639101700108
- Bastalich, W. (2016). Social philosophy curriculum in social science and humanities structured doctoral programmes. *International Journal For Researcher Development*, 7(1), 15-29. doi: 10.1108/ijrd-02-2015-0004
- Bateman, T., & Organ, D. (1983). Job Satisfaction and the Good Soldier: The Relationship Between Affect and Employee "Citizenship". *Academy Of Management Journal*, 26(4), 587-595. doi: 10.5465/255908
- Bathini, D., & Kandathil, G. (2017). An Orchestrated Negotiated Exchange: Trading Home-Based Telework for Intensified Work. *Journal Of Business Ethics*, 154(2), 411-423. doi: 10.1007/s10551-017-3449-y
- Beasley, R., Lomo-David, E., & Seubert, V. (2001). Telework and gender: implications for the management of information technology professionals. *Industrial Management & Data Systems*, 101(9), 477-482. doi: 10.1108/02635570110410663
- Belzunegui-Eraso, A., & Erro-Garcés, A. (2020). Teleworking in the Context of the Covid-19 Crisis. *Sustainability*, 12(9), 3662. doi: 10.3390/su12093662
- Bernardino, A., Roglio, K., & Del Corso, J. (2012). TELECOMMUTING AND HRM: A CASE STUDY OF AN INFORMATION TECHNOLOGY SERVICE PROVIDER. *Journal Of Information Systems And Technology Management*, 9(2), 285-306. doi: 10.4301/s1807-17752012000200005
- Berube Kowalski, K., & Swanson, J. (2005). Critical success factors in developing teleworking programs. *Benchmarking: An International Journal*, 12(3), 236-249. doi: 10.1108/14635770510600357
- Bjærntoft, S., Hallman, D., Mathiassen, S., Larsson, J., & Jahncke, H. (2020). Occupational and Individual Determinants of Work-life Balance among Office Workers with Flexible Work Arrangements. *International Journal Of Environmental Research And Public Health*, 17(4), 1418. doi: 10.3390/ijerph17041418
- Bock, T., & Sergeant, J. (2002). Small Sample Market Research. *International Journal Of Market Research*, 44(2), 235-244. doi: 10.1177/147078530204400205
- Boxall, P., Ang, S., & Bartram, T. (2011). Analysing the 'Black Box' of HRM: Uncovering HR Goals, Mediators, and Outcomes in a Standardized Service

- Environment. *Journal Of Management Studies*, 48(7), 1504-1532. doi: 10.1111/j.1467-6486.2010.00973.x
- Brady, F. (1999). A systematic approach to teaching ethics in business. *Journal Of Business Ethics*, 19(3), 309-318.
- Brand, V. (2008). Empirical Business Ethics Research and Paradigm Analysis. *Journal Of Business Ethics*, 86(4), 429-449. doi: 10.1007/s10551-008-9856-3
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research In Psychology*, 3(2), 77-101. doi: 10.1191/1478088706qp063oa
- Braun, V., & Clarke, V. (2019). To saturate or not to saturate? Questioning data saturation as a useful concept for thematic analysis and sample-size rationales. *Qualitative Research In Sport, Exercise And Health*, 1-16. doi: 10.1080/2159676x.2019.1704846
- Brice, J., Nelson, M., & Gunby, N. (2011). THE GOVERNANCE OF TELECOMMUTERS: AN AGENCY AND TRANSACTION COST ANALYSIS. *Academy Of Strategic Management Journal*, 10(1), 1-17.
- Brown, C., Smith, P., Arduengo, N., & Taylor, M. (2016). Trusting Telework in the Federal Government. *The Qualitative Report*, 21(1), 87-101.
- Bryan, M., & Sevilla, A. (2017). Flexible working in the UK and its impact on couples' time coordination. *Review Of Economics Of The Household*, 15(4), 1415-1437. doi: 10.1007/s11150-017-9389-6
- Buçşa, R. (2020). Teleworking and Securing Data with VPN Technology. *Economy Transdisciplinarity Cognition*, 23(1), 78-85.
- Burrell, G., & Morgan, G. (2019). *Sociological Paradigms and Organisational Analysis*. New York: Routledge.
- Business Insider. (2017). Business Insider. Retrieved 20 June 2020, from <https://www.businessinsider.sg/ibm-slashes-work-from-home-policy-2017-3/?r=US&IR=T>
- Caillier, J. (2016a). Do Work-Life Benefits Enhance the Work Attitudes of Employees? Findings from a Panel Study. *Public Organization Review*, 17(3), 393-408. doi: 10.1007/s11115-016-0344-4
- Caillier, J. (2016b). Does Satisfaction With Family-Friendly Programs Reduce Turnover? A Panel Study Conducted in U.S. Federal Agencies. *Public Personnel Management*, 45(3), 284-307. doi: 10.1177/0091026016652424
- Cetrulo, A., Guarascio, D., & Virgillito, M. (2020). The Privilege of Working From Home at the Time of Social Distancing. *Intereconomics*, 55(3), 142-147. doi: 10.1007/s10272-020-0891-3
- Chahal, H., & Mehta, S. (2010). ANTECEDENTS AND CONSEQUENCES OF ORGANISATIONAL CITIZENSHIP BEHAVIOUR (OCB): A CONCEPTUAL FRAMEWORK IN REFERENCE TO HEALTH CARE SECTOR. *Journal Of Services Research*, 10(2), 25-44.

- Chambel, M., & Castanheira, F. (2006). Different temporary work status, different behaviors in organization. *Journal Of Business And Psychology*, 20(3), 351-367. doi: 10.1007/s10869-005-9015-0
- Chand, M., & Katou, A. (2007). The impact of HRM practices on organisational performance in the Indian hotel industry. *Employee Relations*, 29(6), 576-594. doi: 10.1108/01425450710826096
- Channel News Asia. (2019). Companies hunt for talent as Singapore tech sector continues to grow. Retrieved 3 May 2020, from <https://www.channelnewsasia.com/news/singapore/companies-hunt-for-talent-as-singapore-tech-sector-continues-to-12133838>
- Charon, R., & Montello, M. (1999). Framing the Case: Narrative Approaches for Healthcare Ethics Committees. *HEC Forum*, 11(1), 6-15.
- Cheema, S., Akram, A., & Javed, F. (2015). Employee Engagement and Visionary Leadership Impact on Customer and Employee Satisfaction. *Journal Of Business Studies Quarterly*, 7(2), 139-148.
- Chen, L., & Nath, R. (2005). Nomadic Culture: Cultural Support for Working Anytime, Anywhere. *Information Systems Management*, 22(4), 56-64. doi: 10.1201/1078.10580530/45520.22.4.20050901/90030.6
- Cicei, C. (2015). Managing the Work and Family Roles. Does Flexibility Reduce the Negative Interference An Exploratory Study. *Management Dynamics In The Knowledge Economy*, 3(4), 717-727.
- Clark, L., Karau, S., & Michalisin, M. (2012). Telecommuting Attitudes and the 'Big Five' Personality Dimensions. *Journal Of Management Policy And Practice*, 13(3), 31-46.
- Claudiu, C. (2017). Teleworking evolution and trends in USA, EU and Romania. *Economics, Management And Financial Markets*, 12(2), 222-229.
- Clear, F., & Dickson, K. (2005). Teleworking practice in small and medium-sized firms: management style and worker autonomy. *New Technology, Work And Employment*, 20(3), 218-233. doi: 10.1111/j.1468-005x.2005.00155.x
- CNA. (2018). Commentary: Of course commuting shouldn't count as work hours. Retrieved 9 May 2020, from <https://www.channelnewsasia.com/news/commentary/working-while-commuting-on-the-way-to-work-life-balance-10732568>
- Coleman, L., Guo, A., & Dabbs, C. (2007). The State of Qualitative Research in Gifted Education as Published in American Journals. *Gifted Child Quarterly*, 51(1), 51-63. doi: 10.1177/0016986206296656
- Conradie, W., & de Klerk, J. (2019). To flex or not to flex? Flexible work arrangements amongst software developers in an emerging economy. *SA Journal Of Human Resource Management*, 17. doi: 10.4102/sajhrm.v17i0.1175
- Crandall, W., & Gao, L. (2005). An Update on Telecommuting: Review and Prospects for Emerging Issues. *S.A.M. Advanced Management Journal*, 70(3), 30-37.
- Creswell, J., & Poth, C. (2018). *Qualitative inquiry & research design* (4th ed., pp. 103-106). Los Angeles: Sage Publications.

- D'Arruda, K. (2001). Telecommuting: Factors to consider. *AAOHN Journal*, 49(10), 471-477. doi: 10.1177/216507990104901003
- Dahlstrom, T. (2013). Telecommuting and Leadership Style. *Public Personnel Management*, 42(3), 438-451. doi: 10.1177/0091026013495731
- Das, D. (2010). Another perspective on globalization. *Journal Of International Trade Law And Policy*, 9(1), 46-63. doi: 10.1108/14770021011029609
- Dash, S., & Pradhan, R. (2014). Determinants & Consequences of Organizational Citizenship Behavior: A Theoretical Framework for Indian Manufacturing Organisations. *International Journal Of Business And Management Invention*, 3(1), 17-27.
- de Waal, A. (2014). The employee survey: benefits, problems in practice, and the relation with the high performance organization. *Strategic HR Review*, 13(6), 227-232. doi: 10.1108/shr-07-2014-0041
- Delery, J., & Doty, D. (1996). Modes of Theorizing in Strategic Human Resource Management: Tests of Universalistic, Contingency, and Configurational Performance Predictions. *Academy Of Management Journal*, 39(4), 802-835. doi: 10.5465/256713
- Deshpande, R. (1983). "Paradigms Lost": On Theory and Method in Research in Marketing. *Journal Of Marketing*, 47(4), 101-110. doi: 10.2307/1251403
- Destercke, S. (2016). On the median in imprecise ordinal problems. *Annals Of Operations Research*, 256(2), 375-392. doi: 10.1007/s10479-016-2253-x
- Devine, K. (2012). Epistemology matters: A reply to David Patrick Houghton and a call for epistemological pluralism. *International Politics*, 49(6), 710-745. doi: 10.1057/ip.2012.21
- DiPaola, M., & Hoy, W. (2005). Organizational Citizenship of Faculty and Achievement of High School Students. *The High School Journal*, 88(3), 35-44. doi: 10.1353/hsj.2005.0002
- Dutta, A. (2001). Telecommunications and Economic Activity: An Analysis of Granger Causality. *Journal Of Management Information Systems*, 17(4), 71-95. doi: 10.1080/07421222.2001.11045658
- Ellickson, M., & Logsdon, K. (2002). Determinants of Job Satisfaction of Municipal Government Employees. *Public Personnel Management*, 31(3), 343-358. doi: 10.1177/009102600203100307
- Etikan, I., Musa, S., & Alkassim, R. (2015). Comparison of Convenience Sampling and Purposive Sampling. *American Journal Of Theoretical And Applied Statistics*, 5(1), 1-4. doi: 10.11648/j.ajtas.20160501.11
- Evanschitzky, H., Sharma, A., & Prykop, C. (2012). The role of the sales employee in securing customer satisfaction. *European Journal Of Marketing*, 46(3/4), 489-508. doi: 10.1108/03090561211202576
- Ezra, M., & Deckman, M. (1996). Balancing Work and Family Responsibilities: Flextime and Child Care in the Federal Government. *Public Administration Review*, 56(2), 174. doi: 10.2307/977205

- Ferguson, K., & Reio, T. (2010). Human resource management systems and firm performance. *Journal Of Management Development*, 29(5), 471-494. doi: 10.1108/02621711011039231
- Flick, U., Garms-Homolová, V., Herrmann, W., Kuck, J., & Röhnsch, G. (2012). "I Can't Prescribe Something Just Because Someone Asks for It . . .". *Journal Of Mixed Methods Research*, 6(2), 97-110. doi: 10.1177/1558689812437183
- Forbes. (2013). Forbes. Retrieved 20 June 2020, from <https://www.forbes.com/sites/petercohan/2013/02/26/4-reasons-marissa-mayers-no-at-home-work-policy-is-an-epic-fail>
- Freeman, R. (1978). Job satisfaction as an economic variable. *American Economic Review*, 68(2), 135-141.
- Frels, R., & Onwuegbuzie, A. (2013). Administering Quantitative Instruments With Qualitative Interviews: A Mixed Research Approach. *Journal Of Counseling & Development*, 91(2), 184-194. doi: 10.1002/j.1556-6676.2013.00085.x
- Friedman, D. (2001). Employer Supports for Parents with Young Children. *The Future Of Children*, 11(1), 62-77. doi: 10.2307/1602810
- Fu, N., Flood, P., Bosak, J., Morris, T., & O'Regan, P. (2013). Exploring the performance effect of HPWS on professional service supply chain management. *Supply Chain Management: An International Journal*, 18(3), 292-307. doi: 10.1108/scm-04-2012-0118
- Gainey, T., & Clenney, B. (2006). Flextime and Telecommuting: Examining Individual Perceptions. *Southern Business Review*, 32(1), 13-21.
- Gainey, T., Kelley, D., & Hill, J. (1999). Telecommuting's impact on corporate culture and individual workers: Examining the effect of employee isolation. *Advanced Management Journal*, 64(4), 4-10.
- Gajendran, R., Harrison, D., & Delaney-Klinger, K. (2014). Are Telecommuters Remotely Good Citizens? Unpacking Telecommuting's Effects on Performance Via I-Deals and Job Resources. *Personnel Psychology*, 68(2), 353-393. doi: 10.1111/peps.12082
- Garcia, D., & Gluesing, J. (2013). Qualitative research methods in international organizational change research. *Journal Of Organizational Change Management*, 26(2), 423-444. doi: 10.1108/09534811311328416
- Giovanis, E. (2017). Are Women Happier When Their Spouse is Teleworker?. *Journal Of Happiness Studies*, 19(3), 719-754. doi: 10.1007/s10902-017-9847-0
- Göb, R., McCollin, C., & Ramalhoto, M. (2007). Ordinal Methodology in the Analysis of Likert Scales. *Quality & Quantity*, 41(5), 601-626. doi: 10.1007/s11135-007-9089-z
- Golden, T., & Gajendran, R. (2018). Unpacking the Role of a Telecommuter's Job in Their Performance: Examining Job Complexity, Problem Solving, Interdependence, and Social Support. *Journal Of Business And Psychology*, 34(1), 55-69. doi: 10.1007/s10869-018-9530-4

- Golden, T., & Veiga, J. (2005). The Impact of Extent of Telecommuting on Job Satisfaction: Resolving Inconsistent Findings. *Journal Of Management*, 31(2), 301-318. doi: 10.1177/0149206304271768
- Goñi-Legaz, S., & Olló-López, A. (2015). Factors that Determine the Use of Flexible Work Arrangement Practices in Spain. *Journal Of Family And Economic Issues*, 36(3), 463-476. doi: 10.1007/s10834-014-9408-1
- Government Technology Agency. (2017). Retrieved 3 May 2020, from <https://data.gov.sg/dataset/number-of-infocomm-jobs-employed-and-vacancies>
- Government Technology Agency. (2019). Government Technology Agency. Retrieved 3 May 2020, from https://data.gov.sg/dataset/average-monthly-recruitment-resignation-rates-by-industry-and-occupational-group-annual?view_id=7b95d3ab-128b-4715-80ea-e5f244778c50&resource_id=205f7050-39fd-4af3-899b-ac2dd323e437
- Graham, J., & Van Dyne, L. (2006). Gathering Information and Exercising Influence: Two Forms of Civic Virtue Organizational Citizenship Behavior. *Employee Responsibilities And Rights Journal*, 18(2), 89-109. doi: 10.1007/s10672-006-9007-x
- Greene, J., Caracelli, V., & Graham, W. (1989). Toward a Conceptual Framework for Mixed-Method Evaluation Designs. *Educational Evaluation And Policy Analysis*, 11(3), 255-274. doi: 10.3102/01623737011003255
- Greener, S. (2008). *Business research methods*. London: Ventus Publishing ApS.
- Groot, W., & Maassen van den Brink, H. (1999). Job satisfaction of older workers. *International Journal Of Manpower*, 20(6), 343-360. doi: 10.1108/01437729910289701
- Gu, Z., & Chi Sen Siu, R. (2009). Drivers of job satisfaction as related to work performance in Macao casino hotels. *International Journal Of Contemporary Hospitality Management*, 21(5), 561-578. doi: 10.1108/09596110910967809
- Gálvez, A., Tirado, F., & Martínez, M. (2020). Work–Life Balance, Organizations and Social Sustainability: Analyzing Female Telework in Spain. *Sustainability*, 12(9), 3567. doi: 10.3390/su12093567
- Hamann, J., & Suckert, L. (2018). Temporality in Discourse Methodological Challenges and a Suggestion for a Quantified Qualitative Approach. *Forum : Qualitative Social Research*, 19(2).
- Harker Martin, B., & MacDonnell, R. (2012). Is telework effective for organizations?. *Management Research Review*, 35(7), 602-616. doi: 10.1108/01409171211238820
- Hartman, N., & Conklin, T. (2012). A thematic analysis of a leadership speaker series. *Journal Of Management Development*, 31(8), 826-844. doi: 10.1108/02621711211253277
- Hartman, R., Stoner, C., & Raj, A. (1992). Developing successful organizational telecommuting arrangements: Worker perceptions and managerial prescriptions. *S.A.M. Advanced Management Journal; Corpus Christi*, 57(3), 35-42.

- Heckathorn, D. (2011). Comment: Snowball versus Respondent-Driven Sampling. *Sociological Methodology*, 41(1), 355-366. doi: 10.1111/j.1467-9531.2011.01244.x
- Herzberg, F. (1964). The Motivation-Hygiene Concept and Problems of Manpower. *Personnel Administrator*, 27, 3-7.
- Heyink, J., & Tymstra, T. (1993). The function of qualitative research. *Social Indicators Research*, 29(3), 291-305. doi: 10.1007/bf01079517
- Hill, A. (1965). The Environment and Disease: Association or Causation?. *Proceedings Of The Royal Society Of Medicine*, 58(5), 295-300. doi: 10.1177/003591576505800503
- Hirschman, E. (1986). Humanistic Inquiry in Marketing Research: Philosophy, Method, and Criteria. *Journal Of Marketing Research*, 23(3), 237. doi: 10.2307/3151482
- Hornung, S., & Glaser, J. (2010). Employee responses to relational fulfilment and work-life benefits: A social exchange study in the German public administration. *International Journal Of Manpower*, 31(1), 73-92.
- Huang, T. (2001). The effects of linkage between business and human resource management strategies. *Personnel Review*, 30(2), 132-151. doi: 10.1108/00483480110380316
- Hunter, M., Tan, F., & Tan, B. (2008). Voluntary Turnover of Information Systems Professionals. *Journal Of Global Information Management*, 16(4), 46-66. doi: 10.4018/jgim.2008100103
- Hunton, J., & Norman, C. (2010). The Impact of Alternative Telework Arrangements on Organizational Commitment: Insights from a Longitudinal Field Experiment (Retracted). *Journal Of Information Systems*, 24(1), 67-90. doi: 10.2308/jis.2010.24.1.67
- Huselid, M. (1995). The impact of Human resource management practices on turnover, productivity, and corporate financial performance. *Academy Of Management Journal*, 38(3), 635-672. doi: 10.2307/256741
- Huws, U., Podro, S., Gunnarsson, E., Weijers, T., Arvanitaki, K., & Trova, V. (1997). *Teleworking: Guidelines for Good Practice*. Brighton: The Institute for Employment Studies.
- Igbaria, M., & Guimaraes, T. (1999). Exploring Differences in Employee Turnover Intentions and Its Determinants among Telecommuters and Non-Telecommuters. *Journal Of Management Information Systems*, 16(1), 147-164. doi: 10.1080/07421222.1999.11518237
- Ikiugu, M., & Schultz, S. (2006). An Argument for Pragmatism as a Foundational Philosophy of Occupational Therapy. *Canadian Journal Of Occupational Therapy*, 73(2), 86-97. doi: 10.2182/cjot.05.0009
- IMDA. (2020). *ANNUAL SURVEY ON INFOCOMM INDUSTRY 2019* (pp. 1-14). Singapore: Infocomm Media Development Authority.
- Johns, G. (2009). Presenteeism in the workplace: A review and research agenda. *Journal Of Organizational Behavior*, 31(4), 519-542. doi: 10.1002/job.630

- Johnson, R., Onwuegbuzie, A., & Turner, L. (2007). Toward a Definition of Mixed Methods Research. *Journal Of Mixed Methods Research*, 1(2), 112-133. doi: 10.1177/1558689806298224
- Jones, S., Chauhan, P., & Torabian, A. (2019). Working with Different Generations at the Workplace: Challenges for Leaders. *Effective Executive*, 22(4), 64-70.
- Julien, M., Somerville, K., & Culp, N. (2011). Going beyond the work arrangement: The crucial role of supervisor support. *Public Administration Quarterly*, 35(3), 167-204.
- Jung, J., & Hong, S. (2008). Organizational citizenship behaviour (OCB), TQM and performance at the maquiladora. *International Journal Of Quality & Reliability Management*, 25(8), 793-808. doi: 10.1108/02656710810898612
- Kanellopoulos, D. (2011). How can teleworking be pro-poor?. *Journal Of Enterprise Information Management*, 24(1), 8-29. doi: 10.1108/17410391111097401
- Katz, D., & Kahn, R. (1978). *The social psychology of organizations*. New York, N.Y.: Wiley.
- Kearney, T., Coughlan, J., & Kennedy, A. (2013). An Exploration of the Effects of the Servicescape on Customer and Employee Responses in a Grocery Retail Context. *Irish Journal Of Management*, 32(2), 71-91.
- Kelly, E., & Kalev, A. (2006). Managing flexible work arrangements in US organizations: formalized discretion or 'a right to ask'. *Socio-Economic Review*, 4(3), 379-416. doi: 10.1093/ser/mwl001
- Kelly, E., & Moen, P. (2007). Rethinking the ClockWork of Work: Why Schedule Control May Pay Off at Work and at Home. *Advances In Developing Human Resources*, 9(4), 487-506. doi: 10.1177/1523422307305489
- Kelly, E., & Moen, P. (2020). Fixing the Overload Problem at Work. *MIT Sloan Management Review*, 61(3), 1-8.
- Kelly, E., Moen, P., & Tranby, E. (2011). Changing Workplaces to Reduce Work-Family Conflict. *American Sociological Review*, 76(2), 265-290. doi: 10.1177/0003122411400056
- Kengatharan, N. (2020). Home is where the heart is: Factors determining family demand and its implications for HRM practices. *Nternational Journal Of Business And Society*, 21(1), 153-167.
- Khan, M., Tung, L., & Turban, E. (1997). Telecommuting: comparing Singapore to Southern California. *Human Systems Management*, 16(2), 91-98. doi: 10.3233/hsm-1997-16204
- Khandekar, A., & Sharma, A. (2005). Managing human resource capabilities for sustainable competitive advantage. *Education + Training*, 47(8/9), 628-639. doi: 10.1108/00400910510633161
- Knowles, J., & Gray, M. (2011). The experience of critiquing published research: Learning from the student and researcher perspective. *Nurse Education In Practice*, 11(6), 390-394. doi: 10.1016/j.nepr.2011.03.019

- Kocakülâh, M., Kelley, A., Mitchell, K., & Ruggieri, M. (2009). Absenteeism Problems And Costs: Causes, Effects And Cures. *International Business & Economics Research Journal (IBER)*, 8(5), 81-88. doi: 10.19030/iber.v8i5.3138
- Konovsky, M., & Organ, D. (1996). Dispositional and contextual determinants of organizational citizenship behaviour. *Journal Of Organizational Behavior*, 17(3), 253-266. doi: 10.1002/(sici)1099-1379(199605)17:3<253::aid-job747>3.0.co;2-q
- Kopelman, R., Prottas, D., Thompson, C., & Eileen, W. (2006). A Multilevel Examination of Work-Life Practices: Is More Always Better?. *Journal Of Managerial Issues*, 18(2), 232-253,155.
- Kotey, B., & Sharma, B. (2019). Pathways from flexible work arrangements to financial performance. *Personnel Review*, 48(3), 731-747. doi: 10.1108/pr-11-2017-0353
- Kotey, B., & Koomson, I. (2019). Firm size differences in financial returns from flexible work arrangements (FWAs). *Small Business Economics*. doi: 10.1007/s11187-019-00201-5
- Koys, D. (2001). The effects of employee satisfaction, organizational citizenship behaviour, and turnover on organizational effectiveness: A unit-level, longitudinal study. *Personnel Psychology*, 54(1), 101-114. doi: 10.1111/j.1744-6570.2001.tb00087.x
- Kuhn, T. (1962). *The structure of scientific revolutions*. University of Chicago Press.
- Kurland, N., & Egan, T. (1999). Telecommuting: Justice and Control in the Virtual Organization. *Organization Science*, 10(4), 500-513. doi: 10.1287/orsc.10.4.500
- Küskü, F. (2001). Dimensions of employee satisfaction: A state university example*. *METU Studies In Development*, 28(3-4), 399-430.
- Lacity, M., & Janson, M. (1994). Understanding Qualitative Data: A Framework of Text Analysis Methods. *Journal Of Management Information Systems*, 11(2), 137-155. doi: 10.1080/07421222.1994.11518043
- Lack, D. (2011). Presenteeism Revisited. *AAOHN Journal*, 59(2), 77-89. doi: 10.1177/216507991105900205
- Lal, S., Suto, M., & Ungar, M. (2012). Examining the Potential of Combining the Methods of Grounded Theory and Narrative Inquiry: A Comparative Analysis. *The Qualitative Report*, 17(21), 1-22.
- Lambert, S. (2000). Added Benefits: The Link Between Work-Life Benefits and Organizational Citizenship Behavior. *Academy Of Management Journal*, 43(5), 801-815. doi: 10.5465/1556411
- Langhout, R. (2003). Reconceptualizing Quantitative and Qualitative Methods: A Case Study Dealing with Place as an Exemplar. *American Journal Of Community Psychology*, 32(3/4), 229-244. doi: 10.1023/b:ajcp.0000004744.09295.9b
- Lee, S., & Cheng, Y. (2006). Reaching Asian Americans: Sampling Strategies and Incentives. *Journal Of Immigrant And Minority Health*, 8(3), 245-250. doi: 10.1007/s10903-006-9328-8

- Lee, S., Lee, T., & Lum, C. (2008). The effects of employee services on organizational commitment and intentions to quit. *Personnel Review*, 37(2), 222-237. doi: 10.1108/00483480810850551
- Lim, V., & Teo, T. (2000). To work or not to work at home. *Journal Of Managerial Psychology*, 15(6), 560-586.
- Lin, A. (1998). Bridging Positivist and Interpretivist Approaches to Qualitative Methods. *Policy Studies Journal*, 26(1), 162-180. doi: 10.1111/j.1541-0072.1998.tb01931.x
- Locke, E. (1976). *The nature and the causes of job satisfaction*. Chicago IL: Rand McNally.
- Lupton, P., & Haynes, B. (2000). Teleworking – the perception-reality gap. *Facilities*, 18(7/8), 323-328. doi: 10.1108/02632770010340726
- Madden, G., & Savage, S. (2000). Telecommunications and economic growth. *International Journal Of Social Economics*, 27(7), 893-906.
- Maheshwari, S., & Vohra, V. (2015). Identifying critical HR practices impacting employee perception and commitment during organizational change. *Journal Of Organizational Change Management*, 28(5), 872-894. doi: 10.1108/jocm-03-2014-0066
- Manasa, K., & Showry, M. (2018). The Impact of Work-Life Balance Practices on Women Employees in the IT Sector. *IUP Journal Of Soft Skills*, 12(3), 54-68.
- Mann, S., Varey, R., & Button, W. (2000). An exploration of the emotional impact of tele-working via computer-mediated communication. *Journal Of Managerial Psychology*, 15(7), 668-690. doi: 10.1108/02683940010378054
- Maruyama, T., & Tietze, S. (2012). From anxiety to assurance: concerns and outcomes of telework. *Personnel Review*, 41(4), 450-469. doi: 10.1108/00483481211229375
- Maslow, A. (1966). *The psychology of science*. New York: Harper and Row.
- Masuda, A., Holtschlag, C., & Nicklin, J. (2017). Why the availability of telecommuting matters. *Career Development International*, 22(2), 200-219. doi: 10.1108/cdi-05-2016-0064
- Mattis, M. (2020). New Forms of Flexible Work Arrangements for Managers and Professionals: Myths and Realities. *HR. Human Resource Planning*, 13(2), 133-146.
- Maxwell, G., Rankine, L., Bell, S., & MacVicar, A. (2007). The incidence and impact of flexible working arrangements in smaller businesses. *Employee Relations*, 29(2), 138-161. doi: 10.1108/01425450710719987
- Mays, N., & Pope, C. (1995). Qualitative Research: Rigour and qualitative research. *BMJ*, 311(6997), 109-112. doi: 10.1136/bmj.311.6997.109
- McCloskey, D., & Igarria, M. (2003). Does "Out of Sight" Mean "Out of Mind"? An Empirical Investigation of the Career Advancement Prospects of Telecommuters. *Information Resources Management Journal*, 16(2), 19-34. doi: 10.4018/irmj.2003040102

- McNall, L., Masuda, A., & Nicklin, J. (2009). Flexible Work Arrangements, Job Satisfaction, and Turnover Intentions: The Mediating Role of Work-to-Family Enrichment. *The Journal Of Psychology*, 144(1), 61-81. doi: 10.1080/00223980903356073
- McPhail, G., & Lourie, M. (2017). Getting Real: Is Realism a Blind Spot in Research Methodology?. *New Zealand Journal Of Educational Studies*, 52(2), 285-299. doi: 10.1007/s40841-017-0087-y
- Melián-González, S., Bulchand-Gidumal, J., & González López-Valcárcel, B. (2015). New evidence of the relationship between employee satisfaction and firm economic performance. *Personnel Review*, 44(6), 906-929. doi: 10.1108/pr-01-2014-0023
- Merriam-Webster. (2020). Dictionary by Merriam-Webster: America's most-trusted online dictionary. Retrieved 30 September 2020, from <https://www.merriam-webster.com/>
- Mihhailova, G. (2009). Management challenges arising from the use of virtual work. *Baltic Journal Of Management*, 4(1), 80-93. doi: 10.1108/17465260910930467
- Mills, M., & Grotto, A. (2017). Who can have it all and how?. *Gender In Management: An International Journal*, 32(2), 82-97. doi: 10.1108/gm-01-2016-0011
- Ministry of Manpower Singapore. (2020). Retrieved 3 May 2020, from <https://www.mom.gov.sg/employment-practices/good-work-practices/work-life-grant>
- Mir, R., & Watson, A. (2001). Critical realism and constructivism in strategy research: toward a synthesis. *Strategic Management Journal*, 22(12), 1169-1173. doi: 10.1002/smj.200
- Mohamed Ayman Abdel-Latif, A., Amal Abdelrahman, E., & Raghda Aboulsaoud., Y. (2015). Flexible work arrangements : related topics and directions. *Journal Of Business Studies Quarterly; Antioch*, 7(1), 36-45.
- Mokhtarian, P., Bagley, M., & Salomon, I. (1998). The impact of gender, occupation, and presence of children on telecommuting motivations and constraints. *Journal Of The American Society For Information Science*, 49(12), 1115-1134. doi: 10.1002/(sici)1097-4571(1998)49:12<1115::aid-asi7>3.0.co;2-y
- MOM. (2020). Hours of work, overtime and rest day. Retrieved 29 September 2020, from <https://www.mom.gov.sg/employment-practices/hours-of-work-overtime-and-rest-days>
- Moore, R. (2009). *Towards the sociology of truth*. London: Continuum.
- Moretti, A., Menna, F., Aulicino, M., Paoletta, M., Liguori, S., & Iolascon, G. (2020). Characterization of home working population during COVID-19 emergency: A cross-sectional analysis. *International Journal Of Environmental Research And Public Health*, 17(17), 6284.
- Morgan, R. (2004). Teleworking: an assessment of the benefits and challenges. *European Business Review*, 16(4), 344-357. doi: 10.1108/09555340410699613

- Morganson, V., Major, D., Oborn, K., Verive, J., & Heelan, M. (2010). Comparing telework locations and traditional work arrangements. *Journal Of Managerial Psychology*, 25(6), 578-595. doi: 10.1108/02683941011056941
- Morrison, E. (1996). Organizational citizenship behaviour as a critical link between HRM practices and service quality. *Human Resource Management*, 35(4), 493-512. doi: 10.1002/(sici)1099-050x(199624)35:4<493::aid-hrm4>3.0.co;2-r
- Nadler, J., Cundiff, N., Lowery, M., & Jackson, S. (2010). Perceptions of organizational attractiveness. *Management Research Review*, 33(9), 865-876. doi: 10.1108/01409171011070297
- Nakrošienė, A., Bučiūnienė, I., & Goštautaitė, B. (2019). Working from home: characteristics and outcomes of telework. *International Journal Of Manpower*, 40(1), 87-101. doi: 10.1108/ijm-07-2017-0172
- Neuman, W. (1997). *Social research methods* (3rd ed.). Boston: Allyn and Bacon.
- Newton, S., Blanton, J., & Will, R. (2008). Innovative Work and Citizenship Behaviors from Information Technology Professionals. *Information Resources Management Journal*, 21(4), 27-48. doi: 10.4018/irmj.2008100102
- Nilles, J. (1991). Telecommuting and urban sprawl: mitigator or inciter?. *Transportation*, 18(4), 411-432. doi: 10.1007/bf00186567
- Norman, G. (2010). Likert scales, levels of measurement and the “laws” of statistics. *Advances In Health Sciences Education*, 15(5), 625-632. doi: 10.1007/s10459-010-9222-y
- North, W., & Schmid, J. (1960). A Comparison of Three Ways of Phrasing Likert-Type Attitude Items. *The Journal Of Experimental Education*, 29(1), 95-100. doi: 10.1080/00220973.1960.11010673
- Obilor, E., & Amadi, E. (2018). Test for Significance of Pearson’s Correlation Coefficient (r). *International Journal Of Innovative Mathematics, Statistics & Energy Policies*, 6(1), 11-23.
- O'Brien, T., & Hayden, H. (2008). Flexible work practices and the LIS sector: balancing the needs of work and life?. *Library Management*, 29(3), 199-228. doi: 10.1108/01435120810855322
- Offstein, E., Morwick, J., & Koskinen, L. (2010). Making telework work: leading people and leveraging technology for competitive advantage. *Strategic HR Review*, 9(2), 32-37. doi: 10.1108/14754391011022244
- Olafson, L., Schraw, G., & Vander Veldt, M. (2010). Consistency and development of teachers’ epistemological and ontological world views. *Learning Environments Research*, 13(3), 243-266. doi: 10.1007/s10984-010-9078-3
- Olson, M. (1983). Remote office work: changing work patterns in space and time. *Communications Of The ACM*, 26(3), 182-187. doi: 10.1145/358061.358068
- Oly Ndubisi, N., & Kahraman, C. (2005). Teleworking adoption decision-making processes. *Journal Of Enterprise Information Management*, 18(2), 150-168. doi: 10.1108/17410390510579891

- Onchoke, S., & Akash, S. (2012). Human Asset Managing and Traffic Jam Control. *SCMS Journal Of Indian Management*, 9(1), 104-110.
- Ongaki, J. (2019). An examination of the relationship between flexible work arrangements, work-family conflict, organizational commitment, and job performance. *Management*, 23(2), 169-187. doi: 10.2478/manment-2019-0025
- Organ, D. (1988). *Organizational citizenship behaviour* (1st ed.). Lexington, Mass.: Lexington Books.
- Ormerod, R. (2006). The History and Ideas of Pragmatism. *The Journal Of The Operational Research Society*, 57(8), 892-909. doi: 10.2139/ssrn.2742062
- Oundjian, A. (2020). Commentary: COVID-19 could make remote working a permanent feature. That has several implications for firms. Retrieved 3 May 2020, from <https://www.channelnewsasia.com/news/commentary/covid-19-remote-flexi-working-hot-desk-office-space-12683206>
- Oxford. (2020). Oxford Learner's Dictionaries | Find definitions, translations, and grammar explanations at Oxford Learner's Dictionaries. Retrieved 30 September 2020, from <https://www.oxfordlearnersdictionaries.com/>
- Pahuja, S., & Ramesh, C. (2012). Achieving Competitive Advantage through HR Practices A Case Study. *Journal Of Strategic Human Resource Management*, 1(2), 35-43.
- Palagolla, N. (2016). Exploring the Linkage between Philosophical Assumptions and Methodological Adaptations in HRM Research. *Journal Of Strategic Human Resource Management*, 5(1), 10-15. doi: 10.21863/jshrm/2016.5.1.020
- Pearlson, K., & Saunders, C. (2001). There's no place like home: Managing telecommuting paradoxes. *Academy Of Management Perspectives*, 15(2), 117-128. doi: 10.5465/ame.2001.4615008
- Peters, P., den Dulk, L., & de Ruijter, J. (2010). May I work from home? Views of the employment relationship reflected in line managers' telework attitudes in six financial-sector organizations. *Equality, Diversity And Inclusion: An International Journal*, 29(5), 517-531. doi: 10.1108/02610151011052799
- Peters, P., Poutsma, E., Van der Heijden, B., Bakker, A., & Bruijn, T. (2014). Enjoying New Ways to Work: An HRM-Process Approach to Study Flow. *Human Resource Management*, 53(2), 271-290. doi: 10.1002/hrm.21588
- Petrescu, A., & Simmons, R. (2008). Human resource management practices and workers' job satisfaction. *International Journal Of Manpower*, 29(7), 651-667. doi: 10.1108/01437720810908947
- Pfeffer, J. (1996). *Competitive advantage through people*. Boston: Harvard Business School Press.
- Pliskin, N. (1998). Explaining the paradox of telecommuting. *Business Horizons*, 41(2), 73-78. doi: 10.1016/s0007-6813(98)90037-4
- Poelmans, S., Chinchilla, N., & Cardona, P. (2003). The adoption of family-friendly HRM policies. *International Journal Of Manpower*, 24(2), 128-147. doi: 10.1108/01437720310475394

- Rasmussen, E., & Corbett, G. (2008). Why Isn't Teleworking Working?. *New Zealand Journal Of Employment Relations (Online); Auckland*, 33(2), 20-32.
- Rau, B., & Hyland, M. (2002). Role conflict and flexible work arrangements: The effects on applicant attraction. *Personnel Psychology*, 55(1), 111-136. doi: 10.1111/j.1744-6570.2002.tb00105.x
- Regan, H., George, S., McKenzie, S., & Vera, A. (2020). January 27 coronavirus news - CNN. Retrieved 28 January 2020, from <https://edition.cnn.com/asia/live-news/coronavirus-outbreak-01-27-20-intl-hnk/index.html>
- Renee Baptiste, N. (2008). Tightening the link between employee wellbeing at work and performance. *Management Decision*, 46(2), 284-309. doi: 10.1108/00251740810854168
- Reynolds, J., Kizito, J., Ezumah, N., Mangesho, P., Allen, E., & Chandler, C. (2011). Quality assurance of qualitative research: a review of the discourse. *Health Research Policy And Systems*, 9(1), 1-10. doi: 10.1186/1478-4505-9-43
- Richardson, J. (2009). The Manager and the Flexworker: An Interpretive Interactionist Perspective. *Management Revu*, 20(1), 34-52. doi: 10.5771/0935-9915-2009-1-34
- Richardson, J. (2010). Managing flexworkers: holding on and letting go. *Journal Of Management Development*, 29(2), 137-147. doi: 10.1108/02621711011019279
- Riege, A. (2003). Validity and reliability tests in case study research: a literature review with "hands-on" applications for each research phase. *Qualitative Market Research: An International Journal*, 6(2), 75-86. doi: 10.1108/13522750310470055
- Rompho, N. (2017). HC and financial performance with two HRM strategies. *International Journal Of Productivity And Performance Management*, 66(4), 459-478. doi: 10.1108/ijppm-12-2015-0184
- Russ-Eft, D. (1999). Critique: One way to improve theory and practice in human resource development. *Human Resource Development Quarterly*, 10(2), 101-104. doi: 10.1002/hrdq.3920100202
- Rust, R., Stewart, G., Miller, H., & Pielack, D. (1996). The satisfaction and retention of frontline employees. *International Journal Of Service Industry Management*, 7(5), 62-80. doi: 10.1108/09564239610149966
- Ruth, G. (1998). A narrative approach to groups. *Clinical Social Work Journal*, 26(1), 23-37.
- Ruth, S., & Chaudhry, I. (2008). Telework: A Productivity Paradox?. *IEEE Internet Computing*, 12(6), 87-90. doi: 10.1109/mic.2008.132
- Saka, A. (2003). Internal change agents' view of the management of change problem. *Journal Of Organizational Change Management*, 16(5), 480-496. doi: 10.1108/09534810310494892
- Salas-Vallina, A., Alegre, J., & Fernandez, R. (2017). Happiness at work and organisational citizenship behaviour. *International Journal Of Manpower*, 38(3), 470-488. doi: 10.1108/ijm-10-2015-0163

- Saldana, J. (2016). *The coding manual for qualitative researchers* (3rd ed.). Los Angeles, Calif: Sage.
- Saltzstein, A., Ting, Y., & Saltzstein, G. (2001). Work-Family Balance and Job Satisfaction: The Impact of Family-Friendly Policies on Attitudes of Federal Government Employees. *Public Administration Review*, 61(4), 452-467. doi: 10.1111/0033-3352.00049
- Sánchez-Hernández, M., González-López, Ó., Buenadicha-Mateos, M., & Tato-Jiménez, J. (2019). Work-Life Balance in Great Companies and Pending Issues for Engaging New Generations at Work. *International Journal Of Environmental Research And Public Health*, 16(24), 5122. doi: 10.3390/ijerph16245122
- Sarma, S. (2015). Qualitative Research Examining the Misconceptions. *South Asian Journal Of Management*, 22(3), 176-191.
- Sartori, R., & Pasini, M. (2006). Quality and Quantity in Test Validity: How can we be Sure that Psychological Tests Measure what they have to?. *Quality & Quantity*, 41(3), 359-374. doi: 10.1007/s11135-006-9006-x
- Sasvári, P. (2010). An Empirical Study of the Development of Information and Communication Technology in Hungary. *Theory, Methodology, Practice*, 5(1), 51-57.
- Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (5th ed.). Harlow: Pearson.
- Sawitri, D., Suswati, E., & Huda, K. (2016). The impact of job satisfaction, organization commitment, organization citizenship behaviour (OCB) on employees' performance. *International Journal Of Organizational Innovation*, 9(2), 24-45.
- SBR. (2012). Retrieved 5 May 2020, from <https://sbr.com.sg/hr-education/news/8-in-10-singapore-employers-allow-their-staff-work-home>
- Scandura, T., & Lankau, M. (1997). Relationships of gender, family responsibility and flexible work hours to organizational commitment and job satisfaction. *Journal Of Organizational Behaviour*, 18(4), 377-391. doi: 10.1002/(sici)1099-1379(199707)18:4<377::aid-job807>3.0.co;2-1
- Schnake, M., & Dumler, M. (2003). Levels of measurement and analysis issues in organizational citizenship behaviour research. *Journal Of Occupational And Organizational Psychology*, 76(3), 283-301. doi: 10.1348/096317903769647184
- Scholefield, G., & Peel, S. (2009). Managers' Attitudes to Teleworking. *New Zealand Journal Of Employment Relations*, 34(3), 1-13.
- Schultze, U. (2000). A Confessional Account of an Ethnography about Knowledge Work. *MIS Quarterly*, 24(1), 43-79. doi: 10.2307/3250978
- Schwartz, D. (1996). The impact of work-family policies on women's career development: boon or bust?. *Women In Management Review*, 11(1), 5-19. doi: 10.1108/09649429610109280
- Semlali, S., & Hassi, A. (2016). Work-life balance: how can we help women IT professionals in Morocco?. *Journal Of Global Responsibility*, 7(2), 210-225. doi: 10.1108/jgr-07-2016-0017

- Sengupta, S. (2011). An exploratory study on job and demographic attributes affecting employee satisfaction in the Indian BPO industry. *Strategic Outsourcing: An International Journal*, 4(3), 248-273. doi: 10.1108/17538291111185467
- Siha, S., & Monroe, R. (2006). Telecommuting's past and future: a literature review and research agenda. *Business Process Management Journal*, 12(4), 455-482. doi: 10.1108/14637150610678078
- Silva, L. (2007). Post-positivist Review of Technology Acceptance Model. *Journal Of The Association For Information Systems*, 8(4), 255-266. doi: 10.17705/1jais.00121
- Singapore Economic Development Board. (2019). Singapore Economic Development Board. Retrieved 3 May 2020, from <https://www.edb.gov.sg/en/news-and-events/insights/talent/why-the-worlds-software-engineers-are-moving-to-singapore.html>
- Singh, K. (2015). Creating Your Own Qualitative Research Approach: Selecting, Integrating and Operationalizing Philosophy, Methodology and Methods. *Vision: The Journal Of Business Perspective*, 19(2), 132-146. doi: 10.1177/0972262915575657
- Solanki, K. (2013). Flextime Association with Job Satisfaction, Work Productivity, Motivation&Employees Stress Levels. *Journal Of Human Resource Management*, 1(1), 9. doi: 10.11648/j.jhrm.20130101.12
- Solís, M. (2016). Telework: conditions that have a positive and negative impact on the work-family conflict. *Academia Revista Latinoamericana De Administración*, 29(4), 435-449. doi: 10.1108/arla-10-2015-0289
- Solomon, N., & Templer, A. (1993). Development of Non-traditional Work Sites: The Challenge of Telecommuting. *Journal Of Management Development*, 12(5), 21-32. doi: 10.1108/02621719310038944
- Spector, P. (1997). *Job Satisfaction: Application, Assessment, Causes and Consequences..* Thousand Oaks: Calif: Sage Publications.
- Spector, P. (1992). *Summated rating scale construction.* Newbury Park, Calif.: Sage Publications, Inc.
- Spinelli, M., & Canavos, G. (2000). Investigating the Relationship between Employee Satisfaction and Guest Satisfaction. *Cornell Hotel And Restaurant Administration Quarterly*, 41(6), 29-33. doi: 10.1177/001088040004100604
- Stanworth, C. (1998). Telework and the Information Age. *New Technology, Work And Employment*, 13(1), 51-62. doi: 10.1111/1468-005x.00038
- Stavrou, E., & Ierodiakonou, C. (2011). Flexible Work Arrangements and Intentions of Unemployed Women in Cyprus: A Planned Behaviour Model. *British Journal Of Management*, 22(1), 150-172. doi: 10.1111/j.1467-8551.2010.00695.x
- Sudarmi, N., Sapta, I., & Mareni, P. (2019). Role of Employee Loyalty in Mediating the Impact of Leadership and Motivation of Work toward Performance of Employee at Bidadari Private Villas & Retreat Gianyar. *Journal Of Advanced Research In Dynamical And Control Systems*, 11(12-SPECIAL ISSUE), 1335-1346. doi: 10.5373/jardcs/v11sp12/20193344

- Suh, A., & Lee, J. (2017). Understanding teleworkers' technostress and its influence on job satisfaction. *Internet Research*, 27(1), 140-159. doi: 10.1108/intr-06-2015-0181
- Taylor, F. (1911). *The Principles of Scientific Management*. New York: Harper and Brothers.
- Teo, T., & Lim, V. (2000). Factorial dimensions and differential effects of gender on perceptions of teleworking. *Women In Management Review*, 13(7), 253-263. doi: 10.1108/09649429810237105
- Thulin, E., Vilhelmson, B., & Johansson, M. (2019). New Telework, Time Pressure, and Time Use Control in Everyday Life. *Sustainability*, 11(11), 3067. doi: 10.3390/su11113067
- Tillman, L. (2009). Comments on Howe: The Never-Ending Education Science Debate: I'm Ready to Move On. *Educational Researcher*, 38(6), 458-462. doi: 10.3102/0013189x09344346
- Tiney, C. (2004). Job share: can this work in management?. *International Journal Of Retail & Distribution Management*, 32(9), 430-433. doi: 10.1108/09590550410549301
- TODAY online. (2017). 42,000 IT professionals needed over next 3 years. Retrieved 3 May 2020, from <https://www.todayonline.com/singapore/42000-ict-professionals-needed-over-next-3-years-yaacob>
- Torten, R., Reaiche, C., & Caraballo, E. (2016). Teleworking in the new milleneum. *The Journal Of Developing Areas*, 50(5), 317-326. doi: 10.1353/jda.2016.0060
- Tsoukas, H. (1989). The Validity of Idiographic Research Explanations. *The Academy Of Management Review*, 14(4), 551-561. doi: 10.2307/258558
- Tsui-Hsu Tsai, T., & Jing Lin, A. (2014). Do psychological contract and organizational citizenship behavior affect organizational performance in non-profit organizations?. *Chinese Management Studies*, 8(3), 397-417. doi: 10.1108/cms-05-2013-0090
- Tustin, D. (2014). Telecommuting academics within an open distance education environment of South Africa: More content, productive, and healthy?. *The International Review Of Research In Open And Distributed Learning*, 15(3). doi: 10.19173/irrodl.v15i3.1770
- Vaismoradi, M., & Snelgrove, S. (2019). Theme in Qualitative Content Analysis and Thematic Analysis. *Forum : Qualitative Social Research*, 20(3).
- Van Dyne, L., Kossek, E., & Lobel, S. (2007). Less need to be there: Cross-level effects of work practices that support work-life flexibility and enhance group processes and group-level OCB. *Human Relations*, 60(8), 1123-1154. doi: 10.1177/0018726707081657
- Van Meel, J. (2011). The origins of new ways of working. *Facilities*, 29(9/10), 357-367. doi: 10.1108/02632771111146297
- Vega, A., & Gilbert, M. (1997). Longer Days, Shorter Weeks: Compressed Work Weeks in Policing. *Public Personnel Management*, 26(3), 391-402. doi: 10.1177/009102609702600308

- Vega, R., Anderson, A., & Kaplan, S. (2014). A Within-Person Examination of the Effects of Telework. *Journal Of Business And Psychology*, 30(2), 313-323. doi: 10.1007/s10869-014-9359-4
- Wadhawan, S. (2019). Impact of flexible working arrangements on employee satisfaction in IT sector. *BVIMSR'S Journal Of Management Research; Mumbai*, 11(1), 59-65.
- Wall, T., Michie, J., Patterson, M., Wood, S., Sheehan, M., Clegg, C., & West, M. (2004). On the validity of subjective measures of company performance. *Personnel Psychology*, 57(1), 95-118. doi: 10.1111/j.1744-6570.2004.tb02485.x
- Watad, M., & DiSanzo, F. (2000). Case Study: The Synergism of Telecommuting and Office Automation. *Sloan Management Review*, 41(2), 85-96.
- Wang, M., & PHwang, K. (2012). The Impact of Employee Perceptions of Human Resource Management Systems on Job Satisfaction and Organizational Commitment during Privatization the Transformations of Privatization: An Empirical Study of Telecommunications Corporations in Taiwan. *Asia Pacific Management Review*, 17(3), 321-342.
- Watad, M., & Will, P. (2003). Telecommuting and organizational change: a middle-managers' perspective. *Business Process Management Journal*, 9(4), 459-472. doi: 10.1108/14637150310484517
- Weideman, M., & Hofmeyr, K. (2020). The influence of flexible work arrangements on employee engagement: An exploratory study. *SA Journal Of Human Resource Management*, 18. doi: 10.4102/sajhrm.v18i0.1209
- Wheatley, D. (2012). Work-life balance, travel-to-work, and the dual career household. *Personnel Review*, 41(6), 813-831. doi: 10.1108/00483481211263764
- WHO. (2020). Retrieved 8 June 2020, from <http://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/news/news/2020/3/who-announces-covid-19-outbreak-a-pandemic>
- Wiedmer, T. (2015). Generations Do Differ Best Practices in Leading Traditionalists, Boomers, and Generations X, Y, and Z. *Delta Kappa Gamma Bulletin*, 82(1), 51-58.
- Wiesenfeld, B., Raghuram, S., & Garud, R. (1993). Managers in a Virtual Context: The Experience of Self-threat and its Effects on Virtual Work Organizations. *Journal Of Organizational Behavior, Suppl. Trends In Organizational Behavior*, 6, 31-44.
- Williams, L., & Anderson, S. (1991). Job Satisfaction and Organizational Commitment as Predictors of Organizational Citizenship and In-Role Behaviors. *Journal Of Management*, 17(3), 601-617. doi: 10.1177/014920639101700305
- Williams, M., & Moser, T. (2019). The Art of Coding and Thematic Exploration in Qualitative Research. *International Management Review*, 15(1), 45-55.
- Williams, S., & Shiao, W. (1999). Mood and Organizational Citizenship Behavior: The Effects of Positive Affect on Employee Organizational Citizenship Behavior Intentions. *The Journal Of Psychology*, 133(6), 656-668. doi: 10.1080/00223989909599771

- Willits, F., Theodori, G., & Luloff, A. (2016). ANOTHER LOOK AT LIKERT SCALES. *Journal Of Rural Social Sciences*, 31(3), 126-139.
- Yaneva, M. (2018). Z GENERATION IN CORPORATE ENVIRONMENT. HOW TO ADDRESS IT. *Economic And Social Development: Book Of Proceedings*, 739-745.
- Yap, C., & Tng, H. (1990). Factors associated with attitudes towards telecommuting. *Information & Management*, 19(4), 227-235. doi: 10.1016/0378-7206(90)90032-d
- Zacher, H., & Schulz, H. (2015). Employees' eldercare demands, strain, and perceived support. *Journal Of Managerial Psychology*, 30(2), 183-198. doi: 10.1108/jmp-06-2013-0157

Annex 1- Online Questionnaire

Survey questions:

1. Sex (please choose)
 - a) Male
 - b) Female
 - c) Prefer not to disclose

2. Age group
 - a) 20-29
 - b) 30-39
 - c) 40-49
 - d) 50-59
 - e) 60 and above

3. Marital Status
 - a) Single
 - b) Married
 - c) Divorced
 - d) Others

4. Do you have family commitments like dependents needing care? (You may select more than 1 option)
 - a) Young dependents requiring adult attention
 - b) Elderly dependents requiring attention i.e. Medically unfit
 - c) Other dependents at home requiring physical and/or mental intervention or care.
 - d) No commitments at home which require your presence

5. What is the size of the organization that you are working for?
 - a) Local enterprise <249 employees

- b) Local enterprise > 250 employees
 - c) Multinational MNC <249 employees
 - d) Multinational MNC >250 employees
6. Are you a manager of a work team? (If this is a Yes, participant will be shown question 7, the rest of participants will jump to question 8)
- a. Yes
 - b. No
7. Would you be willing to participate in an interview to allow the researcher to understand more about your view on this topic? If yes, please leave your contact email address in the field below.
- c. Yes
 - d. No

Telecommuting

8. Are you aware of telecommuting; commonly known in Singapore as "work from home" Or "working remotely" with secure IT connection back to office (remote working)
- e. Yes
 - f. No
9. My company adopts telecommuting practices (employees working from home)
- Official telecommuting** openly allows employees to telecommute with necessary notification to the managers.
- Unofficial telecommuting** assumes all employees to be in office but leave the telecommute requests from employees to managers on a case by case basis.
- 1. Officially
 - 2. Unofficially
 - 3. Not sure

10. I am satisfied with my current work arrangement, without telecommuting option.

Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

11. I am satisfied with flexible work arrangement: able to telecommute

Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

12. When applying for any new jobs or assignments in a new organization, I am inclined to look for an organization that has telecommuting in practice.

Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

13. Telecommuting is a valuable corporate initiative for employee satisfaction even if there is no present need for it.

Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

14. The convenience of telecommuting is an important factor to employees.

Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

15. Telecommuting should be adopted as a standard practice.

Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

16. Whenever I telecommute, I experienced productivity loss due to domestic activities such as attending to the door or performing household chores.

Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

17. Whenever I telecommute, I lost important interaction with office coworkers.

Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

18. Because of telecommute, I may be passed over for promotion.

Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

Employee Satisfaction

19. I experience job satisfaction due to the convenience of telecommuting.

Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

20. Telecommuting do NOT drive more job satisfaction.

Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

21. I feel this organization really brings out the very best in me by trusting me to perform my work in a responsible manner remotely unsupervised.

Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

22. I am glad that I chose this company for the flexibility in work arrangements.

Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

23. I am happy with the management for their support in promoting work life balance.

Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

Organization citizenship behaviour

24. Without telecommuting in the company, I am less likely to go beyond my normal scope of work to participate in non-paid work.

Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

25. With the availability of telecommuting in the company, even when I am busy, I am willing to take time to share information on with new colleagues.

Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

26. Without telecommuting in the company, I am less likely to actively participate in corporate events organized in and/or by my company

Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

27. With the availability of telecommuting in the company, I volunteer for projects, endeavours or events that improve ongoing issues in my organization.

Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

28. Without telecommuting in the company, I am less likely to weigh the consequences of my actions before doing something that could affect the business.

Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

29. With the availability of telecommuting in the company, I make suggestions to my colleagues about ways to work more effectively, even when it is not my direct responsibility.

Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

30. Without telecommuting in the company, I am not likely to be proud to tell others that I am part of this company and I will not hesitate to promote the company brand to others.

Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
(5)	(4)	(3)	(2)	(1)

Annex 2- Semi-Structured Interview Questions

To investigate the influences of telecommuting policies on employee satisfaction and organizational citizenship behaviour in IT industry in Singapore

A brief explanation of the terms “Telecommuting/ employee satisfaction and Organizational Citizenship behaviour” will be provided to subjects before commencing the interview.

1. What is your view of telecommuting? Some commonly discussed topics below
 - a. Promote work life balance?
 - b. Lower chance of career promotion?
 - c. retains talent and attract new talents?
 - d. Telecommuters have lower productivity
2. What is your view of companies that provide telecommuting i.e. the perception of management and HR of the companies?
3. How do you feel about companies that has no form of alternate work arrangements i.e. no telecommuting or limited telecommuting?
4. Why is telecommuting important for you?

Employee satisfaction

5. What is your view on increasing employee satisfaction by the company introducing family friendly policies?
6. Would you think telecommuting contribute to employee satisfaction? Or what other factors are more important for employee satisfaction in your opinion?
7. How can a company increase employee satisfaction?

OCB

8. Would you be feeling privileged by the availability of telecommuting? Why?
9. What is your view on employees performing beyond their duties due to the availability of telecommuting?
10. If the organization, you work for were to remove the telecommuting option? What would be your thoughts?
11. Do you have any other thoughts on the topics discussed today? E.g. Telecommute, Employee satisfaction and Organizational Citizenship Behaviour.

To investigate the influences of telecommuting policies on employee satisfaction and organizational citizenship behaviour in the IT industry in Singapore

My name is Neo Hong Tat and I am a doctoral student from the School of Business at Edinburgh Napier University. As part of my DBA course, I am undertaking a research project for my DBA thesis. The title of my project is: **To investigate the influences of telecommuting policies on employee satisfaction and organizational citizenship behaviour in the IT industry in Singapore**

This study will explore:

- The effects of telecommuting in IT organizations in Singapore with regards to employee satisfaction and organizational citizenship behaviour.

The findings of the project will be valuable to better inform senior management of organisation on the effects of telecommuting on employee satisfaction and organizational citizenship behaviour.

I am looking for volunteers to participate in the project. There are no criteria (e.g. gender, age, or health) for being included or excluded – everyone is welcome to take part

If you agree to participate in the study, you will be asked to participate in a data collection process through an online survey which should take no longer than 15 minutes. You have the full rights to withdraw from the study at any stage and no reason would be required. Any data collected upon your withdrawal will be destroyed immediately.

All data will be anonymised as much as possible, but you may be identifiable from tape recordings of your voice. Your name will be replaced with a participant number or a pseudonym, and it will not be possible for you to be identified in any reporting of the data gathered. All data collected will be kept in a secure place (specify e.g. stored on a pc that is password protected) to which only the authorized has access. These will be kept till the end of the examination process, following which all data that could identify you will be destroyed.

If you would like to contact an independent person, who knows about this project but is not involved in it, you are welcome to email the researcher supervisors at g.matthews-smith@napier.ac.uk

If you have read and understood this information sheet, any questions you had have been answered, and you would like to be a participant in the study, please now see the consent form.

Edinburgh Napier University Research Consent Form

To investigate the influences of telecommuting policies on employee satisfaction and organizational citizenship behaviour in the IT industry in Singapore

Edinburgh Napier University requires that all persons who participate in research studies give their written consent to do so. Please read the following and sign it if you agree with what it says.

1. I freely and voluntarily consent to be a participant in the research project on the **investigation on the influences of telecommuting policies on employee satisfaction and organizational citizenship behaviour in the IT industry in Singapore** to be conducted by Neo Hong Tat who is a postgraduate student at Edinburgh Napier University. The research project aim is to **investigate the effects of telecommuting in the IT industry in Singapore with regards to employee satisfaction and organizational citizenship behaviour.**
2. The broad goal of this research study is:
 - To review the literature on the influence of telecommute policies on employee satisfaction and organizational citizenship behaviour
 - To explore the views of managers and workers perceptions of telecommuting practices
 - To provide recommendations to managers on the association of telecommuting, employee satisfaction and organization citizenship behaviour

Specifically, I have been asked to participate in an online survey.

3. I have been told that my responses will be anonymised. My name will not be linked with the research materials, and I will not be identified or identifiable in any report subsequently produced by the researcher.
4. I also understand that if at any time during the survey I feel unable or unwilling to continue, I am free to leave. That is, my participation in this study is completely voluntary, and I may withdraw from it without negative consequences. However, after data has been anonymised or after publication of results it will not be possible for my data to be removed as it would be untraceable at this point.
5. In addition, should I not wish to answer any particular question or questions, I am free to decline.
6. I have been given the opportunity to ask questions regarding the survey and my questions have been answered to my satisfaction.
7. I have read and understand the above and consent to participate in this study. My signature is not a waiver of any legal rights. Furthermore, I understand that I will be able to keep a copy of the informed consent form for my records.

Participant's Signature

Date

I have explained and defined in detail the research procedure in which the respondent has consented to participate. Furthermore, I will retain one copy of the informed consent form for my records.

Researcher's Signature

Date