CULTURAL ASPECTS OF TELECOMMUTING

Does individualism affect telecommuting outcomes?

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Objectives

The main objective of this study was to find out if there is a significant correlation between individualism and collectivism and telecommuting outcomes. It does this by finding the most prominent telecommuting outcomes in the literature review and then comparing them to individualists and collectivists in a survey.

Summary

The text is divided into six main sections (Introduction, Literature Review, Methodology, Findings & Analysis, Discussion, and Conclusion). Throughout these sections telecommuting, specifically its outcomes, and culture, specifically individualism and collectivism, are analyzed through secondary data. Additionally, primary data gathered through a survey is examined to see if the objectives and hypothesis of this thesis are supported.

Conclusions

The objective was achieved and, thus, the hypothesis was not supported. Individualism and collectivism of a person does not predict the telecommuting outcomes that a person experiences. However, age did correlate with some telecommuting outcomes and gender did play a role in their significance. Also, some telecommuting outcomes correlated significantly with each other.

Key Words: telecommuting, remote working, individualism, collectivism, culture

Language: English

Grade:

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ABSTRACT

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1. INTRODUCTION

1.1. Background

Telecommuting has been steadily and strongly growing in recent years. In the past 15 years, the share of US labor force that is working from home has tripled. Furthermore, 2020 is seeing a huge spike in telecommuting since companies such as Amazon, Apple, Google, Twitter, and Airbnb are asking employees to stay at home due to the coronavirus (COVID-19). (Thompson, 2020) Before starting to even think about this thesis, I was fascinated by how telecommuting works and how it affects people; by how it can offer employees a choice on how and when they wish to work, creating more time for things that are more important such as family. Now, millions are not only choosing but are forced to stay home and try to write reports at their home office and attend all of their meetings through video call or even email. Advertisements have also changed to take COVID-19 and people's circumstances into consideration. This shift will be revolutionary and possibly already next year we can be seeing the pandemic's permanent effect on the work force.

The cultural aspect of this thesis is inspired by my personal experience living in many cultures as well as, once again, a fascination on how culture changes the way people behave. In my experience, people from the same or similar cultures act and think in a similar way so I wanted to see if I could find quantitative data to support this. At Aalto University, we learn a lot about culture, its effects, and specifically Hofstede in classes such as Global Business Environment and Intercultural Management. Therefore, I chose to study culture through Hofstede's dimension of Individualism vs Collectivism as it is a prominent area of research in the field. Overall, telecommuting and individualism and collectivism can be significantly linked to one another.

1.2. Research Problems

Telecommuting has been researched for a long time but most of the data is actually quite mixed and does not represent confidence for the field. This is due to the many ways that telecommuting can be researched as well as many aspects that can be researched. Naturally, there is the additional concern of how different cultures, languages, and industries react to it. So, it is no wonder that researchers cannot agree on how telecommuting affects people.

Culture and its effects on people is also a topic that has never been agreed upon. There is research which suggest that each nation contains their own culture (Hofstede, 1980) but then there is research which suggests that each person in the world has their own individual personality (Nathan, 2015). Nonetheless, people's attitudes (whether they be cultural or not) affect their decisions and actions in their daily lives.

This thesis will try and combine much of the vital secondary research that has been published and analyze the differences and similarities found in telecommuting and cultural fields. Additionally, primary data from a survey will help guide the analysis. The survey will try to see if culture, specifically Hofstede's (1980) Individualism and Collectivism dimension, can predict the ramifications of telecommuting on a personal and organizational level. This research should help managers and employees alike to make the right choices regarding telecommuting and especially it should push companies to give all employees the choice to telecommute at least some amount.

1.3. Research Questions

The following research questions are formed based on the background and the research problems stated above:

- How does a different cultural attitude affect a person's perception towards telecommuting?
- What kind of outcomes does a person experience due to telecommuting?

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- Does a person's cultural origin predict the outcomes that the person would experience due to telecommuting?

1.4.   Research Objectives

The following research objectives are formed based on the research questions stated above:

- To explore how people telecommute
- To determine what kinds of outcomes telecommuters experience
- To determine whether these outcomes are affected by cultural attitudes

2. LITERATURE REVIEW

2.1. Introduction to the Literature Review

This literature review will greatly explain the specific background information and previous research that has gone into telecommuting and culture along with similar topics. Through this, the reader will be able to understand the thoughts and ideas of the thesis as well why certain questions will be asked. Specifically, the reader will understand what telecommuting is and how, why, and why not it is implemented around the world. Its advantages and disadvantages will also be discussed according to the organizational outcomes and the individual outcomes. Subsequently, culture and, most importantly, Hofstede's individual vs collectivism dimension will be discussed, in addition to a critique of Hofstede. Then the hypothesis of the thesis will be given. Finally, the literature review will close with a conceptual framework and a conclusion.

2.2. Telecommuting

2.2.1. Definition

The very first official telecommuter was bank president in Boston who installed a phoneline between his home and his office in 1877 (Gibson et al., 2002). Telecommuting is actually a term coined by Nilles in 1973 when he was stuck in traffic in Los Angeles (Kurkland and Bailey, 1999) and he defined it as ""all work-related substitutions of telecommunications and related information technologies for travel" (Nilles, 1998). Another official definition comes from The European Framework Agreement on Telework of 2002 that defines it in Article 2 as: "a form of organizing and/or performing work, using information technology, in the context of an employment contract/relationship, where work, which could also be performed at the employer's premises, is carried out away from those premises on a regular basis" (European

Social Partners, 2006). There are many lexical alternatives for telecommuting. Examples of these are "remote work", "work at home", "home-based work", "telework", "distributed work", "mobile work", "flexiplace", and "nomadic work". One can see that the European Social Partners (2006) prefer the term telework. Likewise, some studies use these words to describe different working environments (Aguilera et al., 2016) while some use them interchangeably (Gibson et al., 2002). For this thesis, I will use the terms interchangeably.

Essentially, telecommuting is about working anywhere except for at the traditional workplace with a connection through any device. Some examples include home-based telework, mobile telework, hot-desking, telecottages, virtual teams, satellite offices, and co-working spaces. (Bahri, 2002; Workman et al., 2003, Peters et al., 2016). Telecommuting is largely used by knowledge workers, especially in "professional, scientific, and management-related sectors and in industries that involve information, finance and insurance, and services" (Lister & Harnish, 2011). Knowledge work is defined by the VTT Technical Research Centre of Finland (2012) as "the creation, distribution or application of knowledge by highly skilled, autonomous workers using tools and theoretical concepts to produce complex, intangible and tangible results." It can also consist of 100% of an employee's professional hours or simply a few days or even hours a month or week (Allen et al., 2015). According to some studies, a part-time telecommuting arrangement can result in a better balance of work and life (Bélanger, 1999) compared to fully being at the office or elsewhere. In an organization, it can be arranged through a contract or telecommuting can also be implemented informally through a mutual agreement.

2.2.2. Telecommuting Around the World

Since around the 1980s, telecommuting has slowly but steadily increased around the world. In 1971, AT&T even declared that all Americans would become teleworkers (Aguilera et al., 2016). All Federal agencies in the USA are now also obligated by law to have a telecommuting policy in place (Sikes et al., 2011). However, it isn't growing

as quickly as it was predicted to. In the European Union 7% of workers were telecommuters in 2007 compared to 5% in 2000. Nonetheless, Finland is one of the leading countries for telecommuting and has even celebrated National Remote Workday (Kansallinen etätyöpäivä) (Jouhkimo et al., 2019). In China, Multinational Enterprises (MNEs) are starting to implement a telecommuting plan. Unfortunately, telecommuting may not be as successful in China as Chinese management styles are not fully compatible with telecommuting due to their offices' high power distance, high-context culture, and hierarchical structure (Raghuram & Fang, 2014). Nevertheless, due to the coronavirus crisis, people have been forced to stay at home and also work from there. Some Chinese nationals are staying on vacation and working from there or attending all of their meetings through video chat (Banjo et al., 2020).

2.2.3. Studies on Telecommuting

Studies on telecommuting have shown mixed results. This could be due to many factors. Most studies focus on the individual and sometimes compare them to a supervisor or non-telecommuting colleague (Bailey & Kurland, 2002). Biron and van Veldhoven (2016) claim that telecommuting studies would produce similar results if these studies could be done on the same employees before and after starting to telecommute. This, naturally, does take up a considerable amount of time and so cannot be done for this thesis. This thesis will be analyzing past studies for the literature review and conducting a survey on a smaller scale instead. It should also be noted that the most significant telecommuting studies have been done in the 90s (Klopotek, 2017) and the world has evolved a lot since then and so has telecommuting. Additionally, it is adapting to each culture and presents itself differently. The local, national, and corporate culture all affect the way that employees work and live.

2.2.4. Prerequisites for teleworking

Teleworking is not for every company and so there need to be certain set of circumstances for telecommuting considered. Peters et al. (2016) call this certain set

of circumstances "fit" as "the level of formal telework practices" and "particular extra and interorganizational factors" need to fit together. First of all, the tasks for the job have to have the ability to be done remotely. Knowledge-work is the best candidate for telecommuting while jobs concerning physical tasks can be ruled out. In Brittany, France, according to a survey conducted by Aguilera et al. (2016) the main reason for employees not to telecommute is the non-compatibility with their work, and by companies, the required physical presence of employees on site (88%). Another reason is that the company's management practices don't match with telecommuting. It should be possible to get the work done through different forms of technology. Nowadays, with greater and greater technological innovation accompanied, work can be done basically anywhere one wishes whether that be through a phone on a bus or a desktop at home. Companies that use ICT (Information and Communications Technology) intensively are more suitable for telecommuting than companies that use ICT less intensively (Bahri, 2002). Location is also a significant factor as telecommuting happens more in big cities. According to Bahri (2002), these following features are more inclined to telecommute:

- A more developed, thus a more populated area.
- More female workers.
- More workers that are single or married but without children. This is possibly because for them there is no disturbance at home.
- More numbers of young workers who are more open and exposed to new method of working.
- Workers have to travel longer distance to the workplace.
- Workers prefer not to use their cars and motorcycles to travel to work because they feel that the traffic situation to their workplace is congested or highly congested.
- The workers and their organization are highly wired by local area network, wide area network, Intranet, Extranet, and Internet (Bahri, 2002)

These factors create a good base of practical prerequisites that need to exist inside a company that wishes to telecommute.

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Telecommuting usually involves work with people from different cultures around the world so there needs to be a culturally friendly environment. Cross-cultural interaction could happen through one's local co-workers or co-workers that are stationed in another city or country. Multinational teams can be challenging to manage. So, for cross-cultural interactions to go smoothly, the employees should have a good amount of Cultural Intelligence (CQ), specifically metacognition (Chua et al., 2002). According to Earley et al. (2006), cultural intelligence is a person's capability for successful adaptation to new cultural settings, that, for unfamiliar settings attributable to cultural context. Metacognition, as described by Langer (1990), is thinking about thinking especially about how one acts and thinks and learns. Cultural metacognition isn't just about knowing facts about another person's culture. According to Chua et al. (2002) "cultural metacognition increases intercultural effectiveness by promoting (a) contextualized thinking (i.e., heightened sensitivity to the fact that individuals' motivations and behaviors are invariably shaped by the cultural contexts in which they are embedded) and (b) cognitive flexibility (i.e., discriminative use of mental schemas and behavioral scripts when interacting across cultures)." Both of these help employees better understand each other as they are more self-aware, especially when communicating and resolving issues within the teams. In an environment like this, innovation will arise much more easily (Hargadon & Becky, 2006) and even strangers, with a little bit of personal conversation, experienced greater idea sharing and creative performance (Chua et al., 2002) In an environment with low metacognition, managers are less likely to share new ideas (ibid). According to Wilton et al. (2011), social interactions play an extremely important part in telecommuting decisions. However, there are telecommuting roles where the task is independent from co-workers and in this case, the employees have a greater need for a clear evaluation criterion (Raghuram & Fang, 2014). Nonetheless, companies should encourage and facilitate courses for their employees, and specifically managers, to become more metacognitively culturally intelligent (Chua et al., 2002; Gertsen & Søderberg, 2010) and thus can work better.

A corporate culture is always important for a company and that should not change when a company allows its employees to telecommute. However, new employees are not be good candidates for telecommuting as they are not familiar with the intricacies of the specific company nor have they created strong informal bonds with their co-workers. In view of this, organizations that telecommute should select employees that have been with the company for a while, have a strong social network, and understand its goals and focuses (Peters et al., 2016). Firm size is also always a considered factor, but it does not correlate with a company's tendency to telecommute (Bailey & Kurland, 2002). If all of these are implemented, then a company has a pretty good chance of starting a telecommuting plan.

2.2.5. Concerns About Its Implementation

A common reason between companies to not start teleworking is that its implementation would be expensive (DeSanctis, 1984) and affect the whole corporate culture as well as the companies' subcultures (Harrington & Santiago, 2006) However, while its implementation can be costly, only a small percentage of companies who have begun telecommuting (7.8%) have said that it involved a reorganization of work. This reorganization also resulted in greater job autonomy for the employees. Nonetheless, if some employees would not be present at the office on a daily basis then the culture could be weakened. On the other hand, this might also strengthen the culture as the employees become more independent, flexible, and results-oriented (Gainey et al., 1999). Gainey et al. (1999) also state that "(a) those cultures without procedural guidelines that depend on close supervision by a central manager would be most weakened by telecommuting, (b) those cultures that are procedure oriented and have procedures in place would be strengthened, and (c) those cultures where the employees are independent and can independently accomplish their work would be strengthened" (Gainey et al., 1999). Furthermore, tradition-conscious, hierarchical organizations might take longer to adjust their culture and people to the teleworking activities (Harrington & Santiago, 2006). Additionally, some employees might not want to telecommute when their colleagues are not as they don't wish to be the first ones to

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try a new experience (Wilton et al., 2011). If these concerns can be addressed properly then the company will most likely be able to implement a telecommuting arrangement.

2.3. Advantages & Disadvantages of Telecommuting

Telecommuting can help and hinder a company and its employees. This can happen in many ways and differs from one company to the next and from one employee to the next for many reasons. These consequences can also change over time (Workman et al., 2003). The following sections describe and analyze the organizational and social advantages and disadvantages followed by an individual's personal advantages and disadvantages.

2.3.1. Advantages for Organizations

For organizations, telecommuting has been able to provide significant benefits. Employees tend to stay longer in their employ as they feel more committed (Khan et al., 1997; Bailey & Kurland, 2002; Gibson et al., 2002; Peters & den Dulk, 2003; Gajendran & Harrison, 2006; Raghuram & Fang, 2014; Allen et al., 2015). Hunton and Norman (2010) created an experiment where they tested the level of organizational commitment between employees in a standard work arrangement and telecommuters. The results showed telecommuters who could choose to work at another location or at the office had higher levels of organizational commitment compared to the standard employees. However, telecommuters who were only permitted to work from another location did not show any differences between the standard employees. This also strengthens the claim that the possibility to choose where to work is important for a beneficial telecommuting arrangement. Moreover, recruitment agencies note that employees are about 85% more likely to stay with the employer if they offer a telecommuting plan (Grant et al., 2013).

Since people stay longer at one company, the company does not need to worry about hiring new employees and saves money from the hiring and training processes

(DeSanctis, 1984; Peters and den Dulk, 2003) Pacific Bell has estimated these costs to be as much as $100,000. AT&T's estimated total savings were about $150 million in 2003 (Kitou & Horvath, 2008). Financial savings are also possible through real estate costs (DeSanctis, 1984; Khan et al., 1997; Bailey & Kurland, 2002; Navarrete and Pick, 2003; Peters & den Dulk, 2003; Harrington & Santiago, 2006; Sikes et al., 2011; Aaltonen, 2012; Aguilera et al., 2016; Biron & van Velhdoven, 2016) and energy costs (Navarrete & Pick, 2003; Kitou & Horvath, 2008; Aaltonen, 2012; Aguilera et al., 2016). AT&T reportedly saved $550 million in real estate costs from 1991 to 2005. IBM reportedly saved about $700 million in real estate costs when almost 25% of its employees telecommuted (Kitou & Horvath, 2008). Yet another financial as well as professional benefit of telecommuting is the improved productivity of the organization's employees (DeSanctis, 1984; Gibson et al., 2002; Gajendran & Harrison, 2006; Aguilera et al., 2016; Biron & van Velhdoven, 2016). AT&T, IBM, and American Express reported productivity increases of 15-50%. AT&T says that these productivity increases resulted in savings of $100 million, while some studies suggest that the increased productivity would save at least $5000 per employee per year (Kitou & Horvath, 2008). These savings can also come from employees not needing to commute as long. During the 2008 Olympics, the Beijing municipal government asked the state-owned enterprises (SOEs), institutions, and social groups to work online and arrange telecommuting possibilities if feasible so that the city would reduce traffic and increase productivity (http://en.people.cn).

Companies with a telecommuting possibility are also much more attractive in the eyes of a jobseeker (Bailey & Kurland, 2002; Peters & den Dulk, 2003). Companies are not limited to the hiring of locals but instead can search globally. It also opens many new doors of possibilities to people who are disabled, unwilling to relocate, and not able to adhere to traditional working hours and arrangements (Gibson et al., 2002). It also enhances the professional relationships that employees have with their managers (Aguilera et al., 2016). Thus, the managers trust their subordinates more which will in turn decrease the costs of the managers keeping tabs on their employees. If trust is low, then the company could add formal rules for specified job descriptions and

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performance standards. Rules such as this could include "soft" HRM (Human Resource Management) mechanisms such as selection and recruitment, extensive training, and teamwork and/or "hard" HRM mechanisms such as performance-related pay. (Peters et al., 2016) When these kinds of rules are implemented, employees feel that the company is fairer with its rewards and punishments (Kurland & Egan, 1999). This also creates a less stressful work environment (DeSanctis, 1984; Gajendran & Harrison, 2006: Aguilera et al., 2016). Additionally, employees are less likely to take sick days as if an employee is sick they can stay at home (Harrington & Santiago, 2006). According to Nilles (1998) teleworkers take an average of two days less of sick leave per year than traditional employees. Through all of these aforementioned advantages, organizations would greatly benefit professionally, financially, psychologically, and reputationally from implementing a telecommuting arrangement.

2.3.2. Disadvantages for Organizations

Despite all of the advantages, there are also plenty disadvantages for organizations that appear when implementing a telecommuting arrangement. Actually, even before a telecommuting arrangement can be implemented, middle managers are the ones trying to stop it from happening (DeSanctis, 1984). They fear that telecommuting will make their own work more complicated since monitoring employees could be become harder which could result in managers over-monitoring their subordinates. Also, managers might fear that their jobs will become unnecessary (Peters & den Dulk, 2003). Also, the previously mentioned better relationships between employees and managers could actually be hurt by high intensity telecommuting (Gajendran & Harrison, 2006). Huws et al. (1990) surveyed 4000 European managers and found that most of them would not like to implement a telecommuting plan. Naturally, this was in 1990 and times have changed. Managers from different companies and different cultures will have different opinions on this as well. Companies that are more traditional and are accustomed to having all of their employees under one roof and their work monitored will not, at least quickly, allow employees to telecommute (Navarrete & Pick, 2003; Peters & den Dulk, 2003; Sikes et al., 2011).

Additional impediments of telecommuting that organizations have had to deal with are troubles in the ICT systems that are used to connect all of the employees. Some studies suggest that the "ambiguous, solitary, and less externally structured nature of an environment in which electronic media is used for collaboration" hinders teleworkers commitment (Workman et al., 2003) and can result in teleworkers acting opportunistically (Peters et al., 2016) and consequently decreasing their productivity. Yahoo's CEO, Marissa Meyer, actually abolished telework as a possibility (Weise & Swartz, 2013). Telecommuting heavily, and more or less solely, relies on technology to work. Without the ability for employees to remotely communicate with each other, no company would implement such a plan. Still, technology can create ambiguity in certain situations (Workman et al., 2003; Wilton et al., 2011; Raghuram and Fang, 2014). A telephone can only transmit about 37% of the sound frequency that the human voice can emit (Carr & Snyder, 1997). Therefore, during phone calls, some verbal cues and subtle emotive nuances can be confused or even go unnoticed. Differences such as sizes and resolutions of computer screens and digital lag times could result in information loss and misconception. Additionally, when employees are using their laptops and other devices in many different unsecured locations, the whole company's data security levels are decreased (Klopotek, 2017). Overall, there are significant downsides that can happen if a company switches to a telecommuting plan.

2.3.3. Advantages for Individuals

There are a lot of advantages and disadvantages of telecommuting for organizations but there are even more for individual employees. The most talked about advantage of telecommuting for employees is job satisfaction (Bailey & Kurland, 2002; Navarrete & Pick, 2003; Peters and den Dulk, 2003, Gajendran & Harrison, 2006; Harrington & Santiago, 2006; Aaltonen, 2012; Azarbouyeh & Naini, 2014; Raghuram & Fang, 2014; Klopotek, 2017). Fonner and Roloff (2010) found that high-intensity teleworkers were more satisfied than office-based employees. On the other hand, the literature review from Allen et al. (2015) reports that those who telecommute a moderate amount

compared to those who telecommute at a low or high intensity would be happier. Nonetheless, researchers can agree that job satisfaction is increased. According to the Office of Information Resource Management (2000) when employees are placed in a telecommuting plan, they show increased signs of job satisfaction and higher work-life quality:

- o 93% achieved greater balance between their professional and personal lives
- o 88% experienced a lower level of stress
- o 82% reported their morale improved
- o 59% were more motivated while telecommuting (Office of Information Resource Management, 2000)

This is mostly due to the flexible schedule that employees can achieve (DeSanctis, 1984; Bélanger, 1999; Navarrete & Pick, 2003; Peters & den Dulk, 2003; Gajendran & Harrison, 2006; Harrington & Santiago, 2006; Fonner & Roloff, 2010; Aaltonen, 2012; Sikes et al., 2011; Wilton et al., 2011; Raghuram and Fang, 2014; Hamsa et al., 2016; Clark et al., 2017; Klopotek, 2017; Jouhkimo et al., 2019). Employees can work efficiently during their own peak times, but they can also focus on something else that might be important at that particular time. It reduces work-family conflict (Peters & den Dulk, 2003, Aguilera et al., 2016) and stress (Allen et al., 2015; Klopotek, 2017), especially for managers, employees commuting long hours or distances, employees who work long shifts, and women. According to Clark et al. (2017) women are actually more likely than men to respond positively with increased job satisfaction due to their flexible schedules. However, this many not be due to family situations. Huws et al (1990) state that couples with no children are more likely to telework than couples with one or two children. This is also in agreement with Kinsman (1987) who states that telecommuters with small children feel that trying to balance their work and family life is troublesome, most likely due to the constant need to take care of the child. Employees have control of their schedule, but they also have control over other important factors (Bélanger, 1999; Peters & den Dulk, 2003; Raghuram & Fang, 2014; Klopotek, 2017). They can make some professional decisions (Peters & den Dulk,

2003) and choose their own professional atmosphere such as location, temperature, furniture, music, snacks, and drinks (Klopotek, 2017).

With increased job satisfaction, employees are also experiencing a greater quality of work-life balance (DeSanctis, 1984; Navarrete & Pick, 2003; Gajendran & Harrison, 2006; Sikes et al., 2011; Aaltonen, 2012; Klopotek, 2017). Since employees can choose where to work they will save money and time from commuting to the office (DeSanctis, 1984; Bélanger, 1999; Gibson et al., 2002; Navarrete & Pick, 2003; Peters & den Dulk, 2003; Sikes et al., 2011; Wilton et al., 2011; Hamsa et al., 2016; Klopotek, 2017) and reducing travel-related fatigue (Aguilera et al., 2016) and can use it do anything they wish. This is most evident in employees whose commute is an hour or longer as they are much more likely to wish and actually stay at home (Peters & den Dulk, 2003; Aguilera et al., 2016). They can also recover from work much quicker than traditional worker (Biron & van Veldhoven, 2016). Another important aspect of the work-life quality is the improved productivity (Khan et al., 1997; Bélanger, 1999; Bailey & Kurland, 2002; Navarrete & Pick, 2003; Gajendran & Harrison, 2006; Wilton et al., 2011; Raghuram & Fang, 2014; Aguilera et al., 2016; Klopotek, 2017). This is due to the freedom from interruptions when working somewhere else than at the office since co-workers are not asking professional as well as social questions (Bélanger, 1999; Peters & den Dulk, 2003; Harrington & Santiago, 2006; Wilton et al., 2011; Aaltonen, 2012; Klopotek, 2017). Bloom, Liang, Roberts, and Ying (2014) conducted an experiment with Chinese call-center employees by randomly assigning them to telecommute and they found that the telecommuters were more productive. However, according to Dutcher (2012), increased productivity is actually only seen with creative tasks while tedious tasks report a lowered productivity. Additionally, telecommuters save money by not needing to buy work outfits (DeSanctis, 1984; Navarrete & Pick, 2003; Bélanger, 1999) due to the informal atmosphere of telecommuting (Klopotek, 2017). Quality of work-life is also increased with telecommuting's environmental benefits as pollution and urban congestion is decreased (Bailey & Kurland, 2002; Kitou & Horvath, 2008; Sikes et al., 2011; Navarrete & Pick, 2013, Aguilera et al., 2016; Biron & van Velhdoven, 2016; Hamsa et al., 2016). In 1996, California's air quality had been

improved most likely due to increased telecommuting (Khan et al., 1997). Overall, all of these advantages help and persuade employees to choose to become and stay a telecommuter.

2.3.4. Disadvantages for Individuals

Telecommuting also has many disadvantages that happen on an individual level. The most prominent one is professional and social isolation (DeSanctis, 1984; Navarrete & Pick, 2003; Workman et al., 2003; Gajendran & Harrison, 2006; Harrington & Santiago, 2006; Aaltonen, 2012; Allen et al., 2015; Klopotek, 2017). This is because most informal conversations happen at the office in between tasks and usually these are not sent as often through digital communications such as email. This can also result in decreased relationship quality with co-workers (Gajendran & Harrison, 2006; Allen et al., 2015), occasionally due to the jealousy and negativity from those that are not allowed to telecommute (DeSanctis, 1984; Gajendran & Harrison, 2006; Wilton et al., 2011). In some cases, any job satisfaction gained through the advantages described beforehand could be offset by the amount of isolation. This could possibly be combatted with low intensity telecommuting since the employees would not miss as much.

Another significant disadvantage of telecommuting is that work-life's and family-life's lines will blur too much (Navarrete & Pick, 2003; Aaltonen, 2012; Biron & van Velhdoven, 2016; Klopotek, 2017; Jouhkimo et al., 2019). Telecommuters are not able to focus on their work because their home duties are too prominent and then when telecommuters are trying to be with their family then the work duties are too prominent. As a matter of fact, according to Golden et al. (2006), high intensity telecommuters reported fewer work interruptions in the family-life, but more family interruptions in their work-life. This then considerably lowers the productivity of the telecommuters (Navarrete & Pick, 2003). Then the consequence of this is that telecommuters work longer hours (Peters & den Dulk, 2003; Allen et al., 2015; Peters et al., 2016; Klopotek, 2017), canceling out the saved time from not commuting to work. A survey conducted

by Olson (1985) showed that 67% of people who work from home reported that their productivity had increased. Yet, among those 67%, 40% reported that they had been working longer hours as well. Managers are aware of this vicious cycle and, naturally, are worried if their subordinates are simply procrastinating on their work, especially since they can't check up on them at the office as well the telecommuter's environment becoming more informal and less structured (Workman et al., 2003). This worry and untrustworthiness can slow promotions and other rewards (DeSanctis, 1984; Peters & den Dulk, 2003; Biron & van Velhdoven, 2016). According to the experiment done by Bloom, Liang, Roberts, and Ying (2014) done in Chinese call-centers, telecommuters are a lot less likely to be promoted or receive a type of reward than their traditional colleagues even if their productivity levels are the same. Through these, one can see the implicit bias that telecommuters deal with in their lives. Additionally, there may be some negative health effects such as musculoskeletal problems due to not moving enough during the day since employees are not commuting nor are they walking as much at home compared to the office (Tavares, 2017). Overall, these disadvantages of telecommuters are something that telecommuters will have to seriously consider before agreeing on a telecommuting plan.

2.4.   Culture and Individualism vs Collectivism

Culture is a set of beliefs, norms, shared core values, and traditions. It sometimes appears inside a nation's borders, but it can also be something beyond a nation's border as it is connected through the people. The culture's values become the person and can influence a person's actions. The cross-national differences are significant enough indicating that a culture can favor or prevent the implementation of a telecommuting plan. (Aguilera et al., 2016)

Geert Hofstede (1980) studied culture and created four dimensions of culture which were power distance ("the extent to which the less powerful members of organizations and institutions (like the family) expect and accept that power is distributed unequally"), uncertainty avoidance ("intolerance for uncertainty and ambiguity"), masculinity vs

femininity ("assertiveness and competitiveness versus modesty and caring"), and individualism vs collectivism ("the extent to which individuals are integrated into groups") (Hofstede, 1980; Hofstede, 1991). Later on, Hofstede (2001, 2010) added two new dimensions: long-term vs short-term orientation ("the fostering of virtues oriented towards future rewards versus virtues related to the past and present") and indulgence vs self-restraint ("relatively free gratification of basic and natural human desires versus controlled gratification of needs regulated by means of strict social norms"). These he constructed from questionnaires that were sent to out to IBM's offices around the globe. This belief that the world is built up of different cultures is commonly known as essentialism which Hofstede has significantly contributed to.

For this thesis, I will be concentrating on the individualism vs collectivism dimension. Specifically, how employees' individualism or collectivism dimension relates to telecommuting and what kinds of outcomes they witness. Hofstede (2001) defines the two sides of the dimension as follows: "Individualism stands for a society in which the ties between individuals are loose: Everyone is expected to look after her/his immediate family only. Collectivism stands for a society in which people from birth onwards are integrated into strong, cohesive in-groups, which throughout people's lifetime continue to protect them in exchange for unquestioning loyalty". Hofstede's dimensions are widely used in academic research to study culture and commonly taught in courses at many universities such as Aalto University, so it is reliable enough to be used for my thesis as well. Hofstede (1980) used this dimension as a scale (I-C Scale), but some studies used individualism and collectivism as two separate entities. In the survey, I will be using it as a scale. People can become individualistic or collectivist usually through the culture and environment that they are raised in. Consequently, rich people are usually more individualistic while poor people are more collectivist. Naturally, this is due to rich people having met their lower- and middle-level needs and are reaching for the higher-level while poor people are fighting for the lower-level everyday (Maslow, 1943). (Brewer & Venaik, 2011)

Strong individualistic values are also connected to advantages of telecommuting or "smart telework outcomes" and that strong collectivist values are connected to disadvantages of telecommuting or "dark telework outcomes" (Peters et al., 2016). In the Netherlands, the employment contracts and work environments are becoming more individualistic and less collectivist (Leede et al., 2004). Individualistic and collectivist values are always evolving with time and that is why Hofstede kept updating his studies. This kind of change could be happening around the world in the professional world, but evolution of nations' cultures is much slower.

2.4.1. Individualism

Inside an organization, individualism presents itself through emotional independence from the organizations (Hofstede, 1980; Parkes et al., 2001; Navarrete & Pick, 2003) and the actions of employees caused by self-interest and self-preservation. It can also sometimes appear as taking care of ones closest to you but not the whole. Essentially, individualist teleworkers would be working longer hours so that they would produce the most results as they may feel that their job is a competition between their colleagues (Peters et al., 2016). In most companies, one needs to have been a loyal and strong employee to be able to telecommute so their ability to do so already offers some status and prestige. The increase in professional autonomy would also motivate and attract employees to show their value since in individualist organizations the rewards are usually personal. (ibid)

2.4.2. Collectivism

Inside an organization, collectivism presents itself through emotional dependence of the organization and the belief that people are a part of a group and that they should look after the group (Navarrete & Pick, 2003). There is also trust, traditions, and benevolence involved and with these factors the employees would understand and help each other despite some having and some not having a telecommuting plan. This would increase the quality of relationships (while decreasing the jealousy) at work

between colleagues and between managers as they would receive company-wide benefits (Parkes et al., 2016) and employees would be more committed to the organization (Parkes et al., 2001). It could also decrease the employees' likelihoods of suffering from its disadvantages such as social and professional isolation. However, according to some studies, collectivistic attitudes simply don't match with telecommuting (Peters & den Dulk, 2003; Peters et al., 2016). This might be because of the independence of work that telecommuting largely consists of and collectivists could also expect more from the employers than an individualist would (Parkes et al., 2001; Navarrete & Pick, 2003).

2.4.3. Critique of Hofstede

Geert Hofstede's ideas are not always regarded as the right way to examine cultures. Despite being widely used in academic research to study culture and commonly taught in many universities such as Aalto University, some studies completely disqualify his dimensions of culture and advise not to use it in any research (McSweeney, 2002). The first issue is that Hofstede only sent questionnaires to a single company, IBM, and also as jobs at IBM were extremely sough after it would not simply hire the average employee which then could not signify a national average (Fernandez et al., 1997; McSweeney, 2002). However, this was done purposefully. This way there would be no organizational differences and since the respondents were largely limited to people working in the marketing-plus-sales sector there would no occupational differences either (Hofstede, 1980). This way the only difference left would national. Yet, nowadays as people and culture are more mixed than ever before, national and cultural similarities and differences are decreasing and, ultimately, other factors than culture could affect individual behavior. Hofstede's definition of national is also questioned as, for example, he uses Great Britain as one nation even though its citizens might feel that there at least four (England, Wales, Scotland, North Ireland).

Hofstede's measurements and analysis are also questioned. The usage of criterion validity, which Hofstede uses, is said by Borsboom, Mellenbergh, and van Heerden

(2004) to be "one of the most serious mistakes ever made in the theory of psychological measurement theory," especially since that is his main basis for validating the measures of a construct (Brewer & Venaik, 2011). Also, Fernandez et al (1997) noted that the indicators of certain dimension were based on Hofstede's personal beliefs and that at least one indicator was used in more than one scale. In Hofstede's second edition of his book, he strongly reassures that he conducted thorough research and work into his study and that those who found critical mistakes in his work were using the wrong levels of analysis, measures, treatment of time, and dimensions themselves. Nevertheless, some studies even created their own dimensions such as Brewer and Venaik's (2011) Individual vs Collectivism replacement called Self-orientation vs Work-orientation. There are also studies for a belief called non-essentialism which, essentially, tries to say that there is no such thing as culture because every person is unique (Nathan, 2015).

2.5. Hypotheses

All of these can predict how the individualism vs collectivism of a nation and thus the individual affect their telecommuting outcomes, yet it cannot predict how a person's own I-C beliefs strengthen or weaken these outcomes. Therefore, the questionnaire and its analysis will try to answer that. It will do that by first finding out if a person is more individualistic or collectivistic through a question bank and then finding out how people are reacting to their telecommuting through different sets of question banks for different types of outcomes (job attractiveness, organizational commitment, job satisfaction, productivity, and work-life balance). By juxtaposing the I-C of employees and their outcomes, one can see if their circumstances create more positive or more negative outcomes of telecommuting or, possibly, does it even affect the individuals at all.

H_1: I-C Scale of an individual will affect the individual's telecommuting outcomes

H_0: I-C Scale of an individual will not affect the individual's telecommuting outcomes

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2.6. Conceptual Framework

The following conceptual framework sets the scene for how national and individuals I-C ideologies can affect telecommuting outcomes. It is inspired by a few different sources. The strongest impacts are from the job demand-control (JD-C) model (Karasek, 1979), the job demands-resources (JD-R) model (Demerouti et al., 2001), and a framework from Bélanger and Collins (1998) to measure distributed work arrangements. A diagram of this conceptual framework can be seen below (Figure 1).
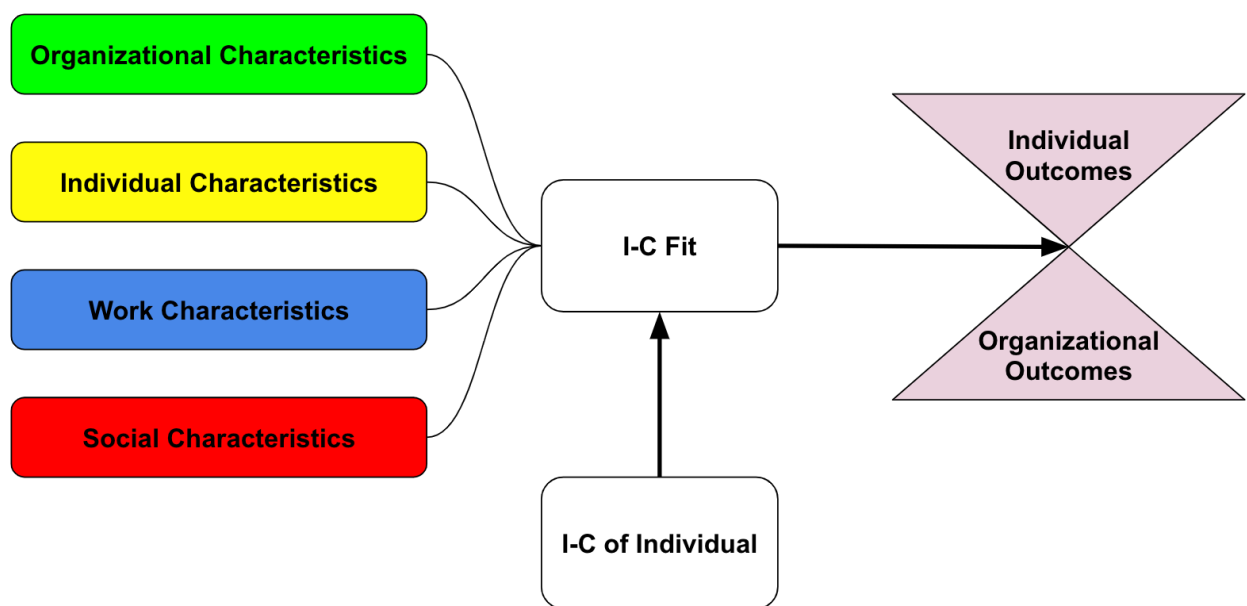
Figure 1: Conceptual Framework

Starting from the left, these boxes are inspired by the framework created by Bélanger and Collins (1998) which has the same characteristics except for the "Social Characteristics" as Bélanger and Collins used "Technological Characteristics." I changed this because nowadays most people have access to similar technologies, especially inside an organization. "Social Characteristics" refers to the social atmosphere created by the individual as well as colleagues and supervisors. "Work Characteristics" refers to the position of the individual, tasks that they need to perform, and the role that they have inside the organization. "Individual Characteristics" refers

to personality of the individual. "Organizational Characteristics" refers to the professional atmosphere and level of bureaucracy in the organization. These are all then connected to the "I-C Fit" box. It draws its "fit" inspiration from Peters et al. (2016) and it is about the Individualism-Collectivism Fit that the individual expects depending on the I-C of the individual. "I-C Fit" then connects to the outcomes which are separated into individual and organizational outcomes. I used vibrant colors for the Characteristics boxes to show that each of the four are crucial factors. The I-C boxes are white because white is the presence of all colors and I-C scales are comprised of a lot of variables. Finally, I used pink for the Outcomes because one can see that it is affected by the Characteristics boxes but mostly by the I-C as it is a lighter color.

2.7. Conclusion to the Literature Review

This literature review was meant to help the reader understand telecommuting and how culture and, specifically, individualism vs collectivism can impact an individual's and an organization's telecommuting outcomes. One can see that telecommuting has significant advantages such as increased productivity and time saved and disadvantages such as decreased employee relationships and feelings of isolation concerning both the organization and the individual. These are also affected by culture as individualism and/or collectivism can enhance the probability of certain outcomes happening. These factors are all interconnected in many ways and have evolved and will continue to evolve.

3. METHODOLOGY

3.1. Survey Structure

3.1.1. Survey Building

For my thesis, I created a survey from which the data will corroborate or contradict my hypothesis. The survey was created in Webropol due to it being simple to use. It was divided into four parts. The first one asked about the respondent's telecommuting habits, the second asked about their individuality/collectivity, the third asked about their telecommuting outcomes, and the final one asked about their demographics. The questions that the survey comprised of (Appendix 1) were either directly taken from previous studies, slightly edited to create a better fit, or then the answers I needed were simple enough, so I created the questions myself. The responses will be analyzed in IBM's SPSS Statistics software due to it consisting of necessary features for data analysis.

3.1.2. Section 1 of the Survey: Telecommuting Habits

In this section, I asked the survey's respondents about their telecommuting habits. These habits include when, how often, where, and in what role the respondent telecommuted. I did not ask about the company's size, industry, or location as they are not significant factors (Khan et al., 1997). I created all of these questions myself. Through these responses, I can see if these habits could possibly affect telecommuting outcomes.

3.1.3. Section 2 of the Survey: Individualism vs Collectivism

In this section, I asked the survey's respondents if they were more individualistic or collectivistic. Naturally, I did not ask this directly. I used Reduced Auckland

Individualism Collectivism Scale (AICS) Questionnaire from LeFebvre and Franke (2013). This questionnaire consists of 14 different statements where the respondent needs to choose from the following five options: Strongly Agree, Agree, Disagree, Strongly Disagree, and Don't Know. For this section, I did not edit any of the questions. However, the Cronbach's alpha for this scale was 0.52 so it is not that reliable. This is most likely due to the "Don't Know" choice which was labeled as a system missing value. Because of this, SPSS ignored all of the answers from all of the 14 different statements if even one included a system missing value which resulted in only 54 responses being valid for this scale. Through these responses, I will be able to see if the respondent is more individualistic or collectivistic.

3.1.4. Section 3 of the Survey: Telecommuting Outcomes

In this section, I asked the survey's respondents what kind of outcomes they were experiencing due to telecommuting. This section was divided into five sub-sections which were Job Attractiveness, Organizational Commitment, Productivity, Job Satisfaction, and Work-Life Balance.

The questions for job attractiveness were created by me and these were made to directly ask the respondent if they would more interested in a job if it offered telecommuting with a five-point Likert scale of Strongly Agree to Strongly Disagree. Cronbach's alpha for this scale was 0.42 so it is not that reliable. However, the low reliability score can be explained it being really short. Yet, these questions are straightforward so the answers can be trusted.

The questions for organizational commitment consisted of nine statement with a five-point Likert scale of Strongly Agree to Strongly Disagree (which was changed from the original seven-point Likert scale). This subsection was created originally by Mowday et al. (1979) but the shortened version that I used can be found in Fields (2002). Cronbach's alpha for this scale was 0.86 so it is reliable.

The questions for productivity were taken and slightly edited (by adding the word "telecommuting" accordingly in the phrases) from Bélanger et al. (2001). In their survey, Bélanger et al. (2001) created two different sections for Productivity and Performance with eight statement in total answered through a seven-point Likert scale. They adapted these two sections from three different sources (Ramsower, 1985; Venkatesh & Vitalari, 1992; Becker et al., 1996). However, I edited this into one section with five statements answered through a five-point Likert scale using the statements that I felt were relevant to my survey. Cronbach's alpha for this scale was 0.81 so it is reliable.

The questions for job satisfaction I used were also from Bélanger et al. (2001) which they edited from Venkatesh and Vitalari (1992). It originally had a seven-point Likert scale, but I utilized a five-point scale. Finally, the questions for work-life balance I used were taken from Dex and Bond (2005) which used the short form of their questionnaire with a three-point Likert scale from the original seven-point inspired by the short-scale for measuring loneliness (Hughes et al., 2004). Cronbach's alpha for this scale was 0.77 so it is reliable. For all of the scales, I felt that all of these edits were necessary to create a survey that flowed smoothly. Through these responses, I will be able to see what kind of telecommuting outcomes the respondents experienced.

3.1.5. Section 4 of the Survey: Demographics

In this section, I asked the survey's respondents about their personal demographics. This consisted of gender, age, and nationality. Through these responses, I will be able to see if the respondent's demographics affect their responses.

3.2. Sample

This survey was distributed through my network of friends and colleagues as well as some of their friends and colleagues. At first I emailed it to my class and the classes below and above me. Also, I shared it on my social media. Then my father sent it out

to his colleagues at his office and also my mother posted it on her social media. I knew that my father's office is a good source for telecommuters as he telecommuted often as well as many others. Through these methods, I found enough participants to have a solid base for my results section and to see if individualism and collectivism affect a person's telecommuting outcomes. In my introduction to the survey I explained that this survey should only be answered if they have telecommuted for a job and not for school. They could have also used a job in the past as long as they responded to the questions through the lens of that one job. According to Wheeler et al. (2014), student-recruited samples are comparable in terms of personal and work-related characteristics to adult-recruited so the age of my respondents nor the fact that I just used my personal network is not be a problem.

The final number of respondents was 79. There was more than double the number of female (70.89%, N=56) respondents than male (27.85, N=22) and one who answered Prefer Not to Answer (1.27%). This is most likely due to the fact that there is a larger percentage of females at my father's workplace and that my mother has more female friends on her social media. However, the mean age between the two genders is almost the same. The comparison between gender and age can be seen in the table below (Table 1).

	Gender	N	Mean	Std. Deviation	Std. Error Mean
Age:	Male	22	38.0909	14.29588	3.04789
	Female	56	38.0536	14.44792	1.93069

Table 1: Gender vs Age

Another way to look at the respondents is through how often they telecommuted for their job. The answer choices for their telecommuting frequency were: More than once a week, Once a week, More than once a month, and Less than once a month. The comparisons between the frequency of telecommuting and gender (Table 2). One can

see that the respondents did telecommute quite often in their job since about 81% (N=64) telecommuted more than once a month.

		How often did you telecommute for the job that you are using for this survey?					
		More than once a week	Once a week	More than once a month	Once a month	Less than once a month	Total
Gender	Male	5	3	4	5	5	22
	Female	18	19	14	2	3	56
	Prefer not to say	0	1	0	0	0	1
Total		23	23	18	7	8	79

Table 2: How often did you telecommute for the job that you are using for this survey vs Gender

	How often did you telecommute for the job that you are using for this survey?	N	Mean Rank
Age:	More than once a week	23	33.67
	Once a week	23	42.65
	More than once a month	18	44.22
	Once a month	7	34.64
	Less than once a month	8	45.75
	Total	79	

Table 3: How often did you telecommute for the job that you are using for this survey vs Age

In Table 3, the comparison between telecommuting frequency and age can be seen to show no significance between the two. Also, in Table 4, it shows the nationalities of the respondents. Clearly most of the respondents are from Finland (75.95%, N = 60). From the list below, only Bosnia, Colombia, India, South Korea, Portugal, Russia, Serbia, and Vietnam are considered collectivist nations. Consequently, most of the respondents are from individualistic nations and make up 86.08% (N=68) of the responses compared to the 13.92% (N=11) from collectivistic nations.

Nationality

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bosnia Herzegovina	1	1.3	1.3	1.3
	Canada	1	1.3	1.3	2.5
	Colombia	1	1.3	1.3	3.8
	Finland	60	75.9	75.9	79.7
	France	1	1.3	1.3	81.0
	India	2	2.5	2.5	83.5
	Italy	2	2.5	2.5	86.1
	Korea South	1	1.3	1.3	87.3
	Portugal	1	1.3	1.3	88.6
	Russian Federation	1	1.3	1.3	89.9
	Serbia	3	3.8	3.8	93.7
	Spain	1	1.3	1.3	94.9
	United Kingdom	1	1.3	1.3	96.2
	United States	2	2.5	2.5	98.7
	Vietnam	1	1.3	1.3	100.0
	Total	79	100.0	100.0	

Table 4: Nationality of Participants

4. FINDINGS & ANALYSIS

The most important objective of the questionnaire was to examine if the hypothesis that was proposed earlier is supported or not. The subsequent findings will discuss if one the following is supported:

H_1: I-C Scale of an individual will affect the individual's telecommuting outcomes

H_0: I-C Scale of an individual will not affect the individual's telecommuting outcomes.

This section is divided into seven parts. Each of these parts will investigate if a significance can be witnessed between variables. The first five will examine the telecommuting outcome subsections that were created for the questionnaire (Job Attractiveness, Organizational Commitment, Productivity, Job Satisfaction, and Work-Life Balance). After that, the role of gender and age is examined. Finally, all of the subscales are examined together.

4.1. Telecommuting Outcome Subscales vs the I-C Scale

I ran correlation tests between the telecommuting outcome subscales (Job Attractiveness, Organizational Commitment, Productivity, Job Satisfaction, and Work-Life Balance) against the I-C subscale. All of these turned out to be insignificant since the Sig. (2-tailed) values were 0.891, 0.469, 0.853, 0.745, and 0.596 and their Pearson Correlation values were 0.019, 0.101, -0.026, -0.045, and -0.074, respectively (Table 5). Since the Sig. (2-tailed) values are larger than 0.05 and the Pearson Correlation values are smaller than 0.1 (save for one) then one can conclude that the relationships between the I-C subscale and the telecommuting outcome subscales are not significant. Thus, the data agrees more with the H_0 instead of the H_1.

Correlations

		average of 2 job att items	average of 4 job sat items	average of 14 I–C items	average of 8 work–life balance items	average of 5 prod items	average of 9 org commit items
average of 2 job att items	Pearson Correlation	1	.305**	.019	.086	.418**	−.077
	Sig. (2–tailed)		.006	.891	.453	.000	.497
	N	79	79	54	79	79	79
average of 4 job sat items	Pearson Correlation	.305**	1	−.045	−.162	.678**	.129
	Sig. (2–tailed)	.006		.745	.153	.000	.257
	N	79	79	54	79	79	79
average of 14 I–C items	Pearson Correlation	.019	−.045	1	−.074	−.026	.101
	Sig. (2–tailed)	.891	.745		.596	.853	.469
	N	54	54	54	54	54	54
average of 8 work–life balance items	Pearson Correlation	.086	−.162	−.074	1	−.164	−.197
	Sig. (2–tailed)	.453	.153	.596		.148	.082
	N	79	79	54	79	79	79
average of 5 prod items	Pearson Correlation	.418**	.678**	−.026	−.164	1	.160
	Sig. (2–tailed)	.000	.000	.853	.148		.159
	N	79	79	54	79	79	79
average of 9 org commit items	Pearson Correlation	−.077	.129	.101	−.197	.160	1
	Sig. (2–tailed)	.497	.257	.469	.082	.159	
	N	79	79	54	79	79	79

**. Correlation is significant at the 0.01 level (2–tailed).

Table 5: Correlations between telecommuting outcomes

4.2. Gender

I also examined for significant details that could be hidden inside the data. One such is the role that gender might have on the relationship between the I-C subscale and telecommuting outcome subscales. In Table 6, one can see the correlation tests that I ran for only the female respondents and only the male respondents in Table 7.

Correlations

		average of 9 org commit items	average of 5 prod items	average of 8 work–life balance items	average of 14 I–C items	average of 4 job sat items	average of 2 job att items
average of 9 org commit items	Pearson Correlation	1	.281[*]	–.125	.137	.279[*]	.067
	Sig. (2–tailed)		.036	.357	.400	.037	.624
	N	56	56	56	40	56	56
average of 5 prod items	Pearson Correlation	.281[*]	1	–.177	–.051	.723[**]	.356[**]
	Sig. (2–tailed)	.036		.191	.754	.000	.007
	N	56	56	56	40	56	56
average of 8 work–life balance items	Pearson Correlation	–.125	–.177	1	–.057	–.212	.054
	Sig. (2–tailed)	.357	.191		.728	.116	.692
	N	56	56	56	40	56	56
average of 14 I–C items	Pearson Correlation	.137	–.051	–.057	1	–.049	.031
	Sig. (2–tailed)	.400	.754	.728		.762	.850
	N	40	40	40	40	40	40
average of 4 job sat items	Pearson Correlation	.279[*]	.723[**]	–.212	–.049	1	.291[*]
	Sig. (2–tailed)	.037	.000	.116	.762		.030
	N	56	56	56	40	56	56
average of 2 job att items	Pearson Correlation	.067	.356[**]	.054	.031	.291[*]	1
	Sig. (2–tailed)	.624	.007	.692	.850	.030	
	N	56	56	56	40	56	56

*. Correlation is significant at the 0.05 level (2–tailed).

**. Correlation is significant at the 0.01 level (2–tailed).

Table 6: Correlations between telecommuting outcomes for females

In the female correlation tests, there are three significant relationships at the 0.05 level (2-tailed) and two significant relationships at the 0.01 level (2-tailed). The first three are between Productivity and Organizational Commitment, Job Satisfaction and Organizational Commitment, and Job Attractiveness and Job Satisfaction while the other two are between Job Satisfaction and Productivity, Job Attractiveness and Productivity. These significant relationships show that females exhibit particular telecommuting outcomes simultaneously with another outcome. However, the I-C subscale was once again not significant.

Correlations

		average of 9 org commit items	average of 5 prod items	average of 8 work–life balance items	average of 14 I-C items	average of 4 job sat items	average of 2 job att items
average of 9 org commit items	Pearson Correlation	1	−.051	−.476*	−.039	−.298	−.428*
	Sig. (2–tailed)		.822	.025	.895	.178	.047
	N	22	22	22	14	22	22
average of 5 prod items	Pearson Correlation	−.051	1	−.071	.146	.567**	.501*
	Sig. (2–tailed)	.822		.755	.618	.006	.018
	N	22	22	22	14	22	22
average of 8 work–life balance items	Pearson Correlation	−.476*	−.071	1	−.163	.020	.253
	Sig. (2–tailed)	.025	.755		.577	.931	.256
	N	22	22	22	14	22	22
average of 14 I-C items	Pearson Correlation	−.039	.146	−.163	1	−.026	−.027
	Sig. (2–tailed)	.895	.618	.577		.930	.927
	N	14	14	14	14	14	14
average of 4 job sat items	Pearson Correlation	−.298	.567**	.020	−.026	1	.322
	Sig. (2–tailed)	.178	.006	.931	.930		.144
	N	22	22	22	14	22	22
average of 2 job att items	Pearson Correlation	−.428*	.501*	.253	−.027	.322	1
	Sig. (2–tailed)	.047	.018	.256	.927	.144	
	N	22	22	22	14	22	22

*. Correlation is significant at the 0.05 level (2–tailed).

**. Correlation is significant at the 0.01 level (2–tailed).

Table 7: Correlations between telecommuting outcomes for males

In the male correlation tests, there are three significant relationships at the 0.05 level (2-tailed) and one significant relationship at the 0.01 level (2-tailed). The first three are between Organizational Commitment and Work-Life Balance, Organizational Commitment and Job Attractiveness, and Productivity and Job Attractiveness while the other one is between Productivity and Job Satisfaction. These significant relationships show that males exhibit particular telecommuting outcomes simultaneously with another outcome. However, the I-C subscale was once again not significant.

4.3.   Age

Another hidden detail that I examined into was age. I ran a similar correlation test as above between age and the telecommuting outcome subscales (Table 8). Through this test, I could see three significant relationships at the 0.01 level (2-tailed). These were between Age and Productivity (Figure 2), Age and Job Satisfaction (Figure 3), and Age and Job Attractiveness (Figure 4). In the graphs below, all of the graphs include a

trendline that is clearly increasing which means that productivity, job satisfaction, and job attractiveness all increase as age increases.

Correlations

		average of 2 job att items	average of 4 job sat items	average of 14 I–C items	average of 8 work–life balance items	average of 5 prod items	average of 9 org commit items	Age:
average of 2 job att items	Pearson Correlation	1	.305**	.019	.086	.418**	−.077	.294**
	Sig. (2–tailed)		.006	.891	.453	.000	.497	.008
	N	79	79	54	79	79	79	79
average of 4 job sat items	Pearson Correlation	.305**	1	−.045	−.162	.678**	.129	.307**
	Sig. (2–tailed)	.006		.745	.153	.000	.257	.006
	N	79	79	54	79	79	79	79
average of 14 I–C items	Pearson Correlation	.019	−.045	1	−.074	−.026	.101	.145
	Sig. (2–tailed)	.891	.745		.596	.853	.469	.295
	N	54	54	54	54	54	54	54
average of 8 work–life balance items	Pearson Correlation	.086	−.162	−.074	1	−.164	−.197	−.128
	Sig. (2–tailed)	.453	.153	.596		.148	.082	.262
	N	79	79	54	79	79	79	79
average of 5 prod items	Pearson Correlation	.418**	.678**	−.026	−.164	1	.160	.331**
	Sig. (2–tailed)	.000	.000	.853	.148		.159	.003
	N	79	79	54	79	79	79	79
average of 9 org commit items	Pearson Correlation	−.077	.129	.101	−.197	.160	1	−.050
	Sig. (2–tailed)	.497	.257	.469	.082	.159		.660
	N	79	79	54	79	79	79	79
Age:	Pearson Correlation	.294**	.307**	.145	−.128	.331**	−.050	1
	Sig. (2–tailed)	.008	.006	.295	.262	.003	.660	
	N	79	79	54	79	79	79	79

**. Correlation is significant at the 0.01 level (2–tailed).

Table 8: Correlations between telecommuting outcomes and age

34
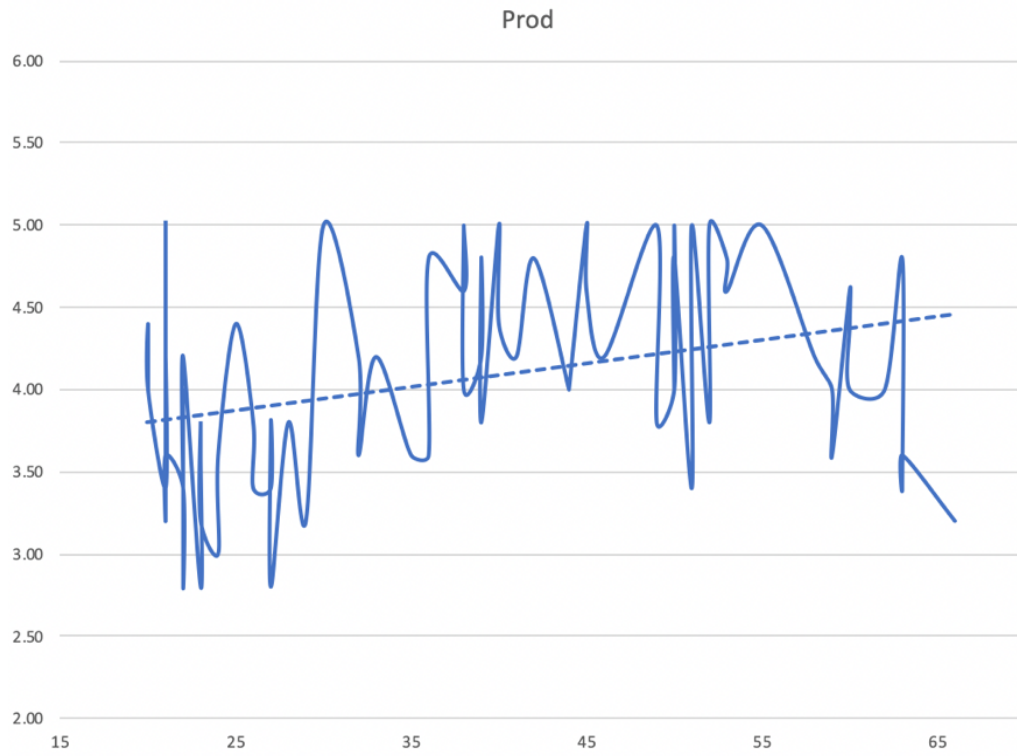
Figure 2: Productivity vs Age
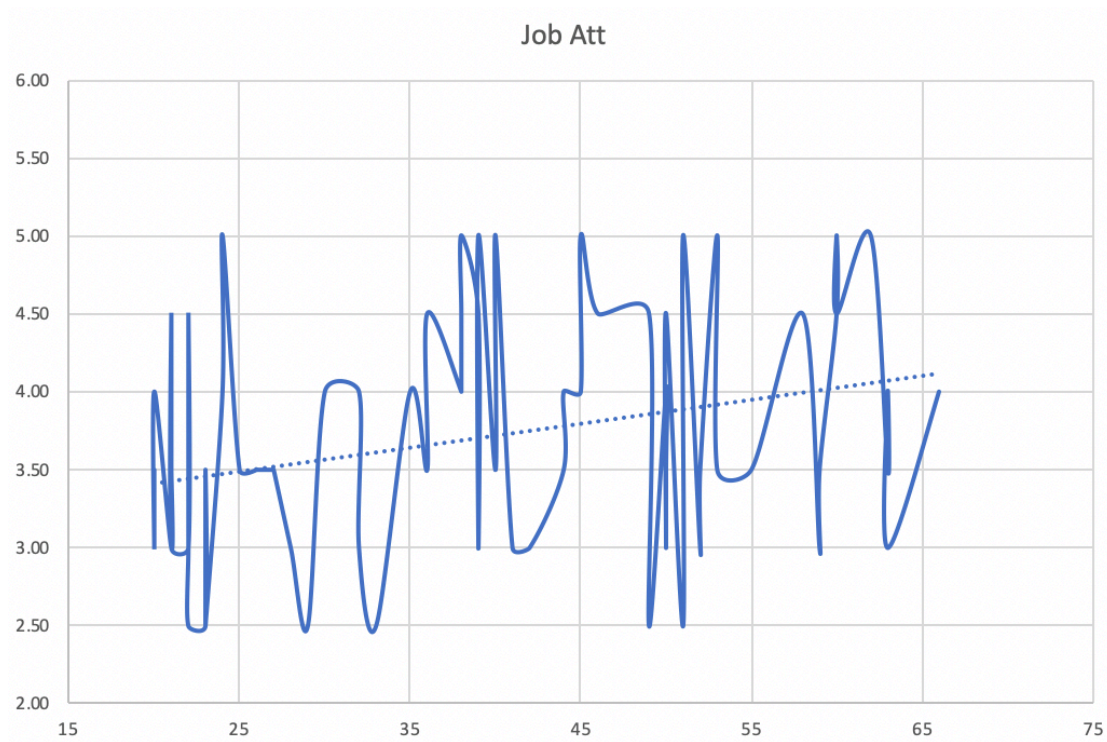
Figure 3: Job Attractiveness vs Age

35

Figure 4: Job Satisfaction vs Age

4.4.   Combined Subscales

Sometimes to find the hidden details, one needs to put everything together and simply see what happens (Table 9). That is what I did when I combined all of the scales I used into one correlation test to see if any of them could have significant relationships. Through this test, one could see three significant relationships at the 0.01 level (2-tailed). These relationships were between Productivity and Job Satisfaction, Productivity and Job Attractiveness, and Job Satisfaction and Job Attractiveness. These significant relationships show that all genders and ages exhibit particular telecommuting outcomes simultaneously with another outcome. For example, a person will be satisfied working in an attractive job and thus will be productive in it.

36

Correlations

		average of 2 job att items	average of 4 job sat items	average of 14 I–C items	average of 8 work–life balance items	average of 5 prod items	average of 9 org commit items
average of 2 job att items	Pearson Correlation	1	.305**	.019	.086	.418**	−.077
	Sig. (2–tailed)		.006	.891	.453	.000	.497
	N	79	79	54	79	79	79
average of 4 job sat items	Pearson Correlation	.305**	1	−.045	−.162	.678**	.129
	Sig. (2–tailed)	.006		.745	.153	.000	.257
	N	79	79	54	79	79	79
average of 14 I–C items	Pearson Correlation	.019	−.045	1	−.074	−.026	.101
	Sig. (2–tailed)	.891	.745		.596	.853	.469
	N	54	54	54	54	54	54
average of 8 work–life balance items	Pearson Correlation	.086	−.162	−.074	1	−.164	−.197
	Sig. (2–tailed)	.453	.153	.596		.148	.082
	N	79	79	54	79	79	79
average of 5 prod items	Pearson Correlation	.418**	.678**	−.026	−.164	1	.160
	Sig. (2–tailed)	.000	.000	.853	.148		.159
	N	79	79	54	79	79	79
average of 9 org commit items	Pearson Correlation	−.077	.129	.101	−.197	.160	1
	Sig. (2–tailed)	.497	.257	.469	.082	.159	
	N	79	79	54	79	79	79

**. Correlation is significant at the 0.01 level (2–tailed).

Table 9: Correlations between telecommuting outcomes

5. DISCUSSION

   5.1.   Connecting the data to the Literature Review

The sections from the Literature Review that can be connected to the data are the advantages and disadvantages of telecommuting, culture and individualism vs collectivism, and the conceptual framework. These all can be seen in the data even though they may be hidden.

The advantages and disadvantages / outcomes that I felt were the most prominent and most talked about were the ones I questioned respondents about in the survey (Job Attractiveness, Organizational Commitment, Productivity, Job Satisfaction, and Work-Life Balance). On one hand, all of these turned out to be insignificant in relation to the I-C scale as the H_0 turned out to be supported (*I-C Scale of an individual will not affect the individual's telecommuting outcomes).* In other words, a person's home nation or how they were raised in it did not predict how they viewed telecommuting. This can be an important fact for firms as it will help them understand that every employee has their own circumstances and will react in their own way.

On the other hand, some of the outcomes turned out to be significant in relation to each other. Firms can use this information to clearly see that if an employee is working in an attractive job and is happy in it then they will be productive in that role. This could help firms emphasize some of their efforts into activities such as team building and employee perks. Anyhow, studies on telecommuting consistently derive mixed results due to the way that they are studied. Despite Biron and van Veldhoven's (2016) recommendation to use the same people before and after they start telecommuting for the best results, that was, unfortunately, an experiment that would have exceeded the resources that was available to us at this time.

Extrapolating straight from the data shows that culture, especially individualism and collectivism, does not have that great of an effect as first thought. It can be possible

that McSweeney (2002) was right when he recommended that Hofstede (1980) should never be used in studies. It is also possible that Nathan (2015) holds a part of the truth in his studies on non-essentialism, believing that people cannot be grouped into nations but can only be viewed as individuals. Yet, it is also possible, the results in this study are skewed as they heavily rely on responses from individualistic countries. This could also have been another driver for insignificant correlations as Hofstede (1980) found that collectivists tend to acquiesce more than individualist which would have increased the probability of significant correlations.

All in all, the results indicate that my conceptual framework is not entirely supported. According to the secondary data in the literature review, the first four parts (Organizational Characteristics, Individual Characteristics, Work Characteristics, and Social Characteristics) do affect the end result which in this case are the outcomes of telecommuting and I believe that is still the case since it was not specifically questioned in the survey. However, the I-C of the individual and the I-C fit do not have significant impacts on the telecommuting outcomes. So, a modified conceptual framework would look like this (Figure 5):
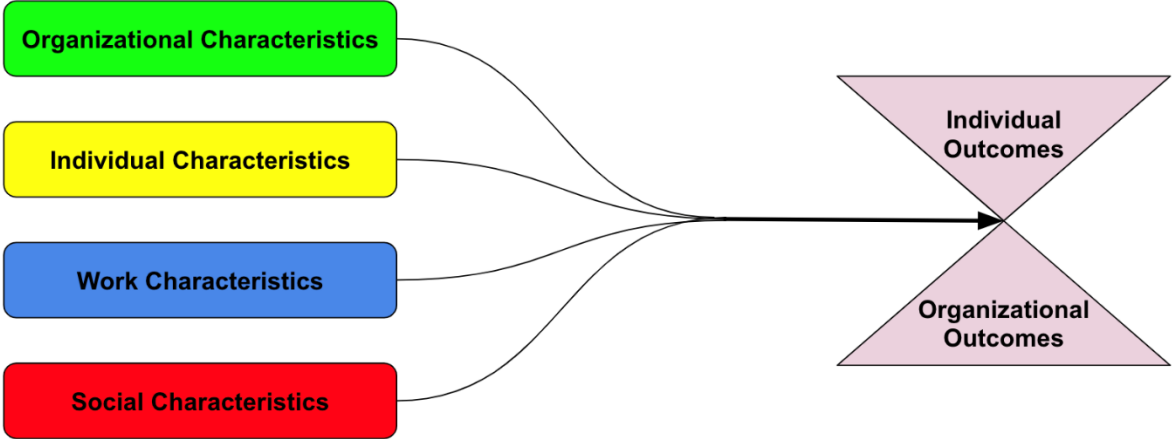
Figure 5: Revised Conceptual Framework

5.2. Other connections

One of the first questions in the survey was "What was your role for the job that you are using for this survey?" and the answers are quite diverse. One side of the spectrum consists of interns and trainees (such as Business and Community Development Trainee) while the other consists of directors and senior advisors so the roles of people actively telecommuting is quite wide. This is also increasing in the 21st century with access to better technology especially in 2020 with the ongoing COVID-19 crisis. I'm sure that if I would have sent out this survey a year from now there would have been many more that would have qualified to answer my survey since I only used responses from people who had telecommuted professionally.

Respondents for this survey consisted of more than double the number of females than males. This could mean that women are telecommuting more than men and it could also simply be due to women usually responding to surveys more than men (Smith, 2008). Nonetheless, research has shown that women are less likely than men to negotiate with their managers (Babcock et al., 2003). Thus, these results could also open up communication channels between managers and employees for them to talk more directly about how they both feel about each other's telecommuting or about the chance to telecommute.

6. CONCLUSION

6.1. Main Findings

The purpose of this thesis was to examine the relationship between culture, specifically individualism and collectivism, and telecommuting, specifically its outcomes. This relationship was examined through secondary research discussed in the literature review section which offered many different arguments and points of view and primary research through the survey I created and analyzed in the methodology, findings, and discussion section.

The secondary research first discussed telecommuting prerequisites and concerns, then discussed advantages and disadvantages of telecommuting for individuals and organizations. The most prominent ones were the ones which were eventually used in the survey as dependent variables (Job Attractiveness, Organizational Commitment, Productivity, Job Satisfaction, and Work-Life Balance). Subsequently, culture was discussed. First, through a general viewpoint and then through the dimension which I eventually used in the survey as an independent variable (Individualism and Collectivism). Overall, most of the secondary data agreed that parts of culture affect the way people react when telecommuting.

The primary data, however, did not directly agree with the results of the secondary data. The I-C subscale had no significance in relation to the telecommuting outcomes used which meant that H_1 was not supported. Nonetheless, insignificance is significant, and managers can use this information help them choose whether to adopt a telecommuting plan at the office. Furthermore, the data did show some correlations between the telecommuting subscales as well as age; specifically, these correlations were: Productivity and Job Satisfaction, Productivity and Job Attractiveness, Job Satisfaction and Job Attractiveness, Age and Productivity, Age and Job Satisfaction, and Age and Job Attractiveness. Also, gender played a role with the telecommuting outcomes since the females showed correlations between Productivity and

Organizational Commitment, Job Satisfaction and Organizational Commitment, Job Attractiveness and Job Satisfaction, Job Satisfaction and Productivity, and Job Attractiveness and Productivity while males showed correlations between Organizational Commitment and Work-Life Balance, Organizational Commitment and Job Attractiveness, Productivity and Job Attractiveness, and Productivity and Job Satisfaction. These correlations can also help managers make the right choices when considering implementing a telecommuting plan.

6.2. Implications for International Business

In the world, there are many cultures and many of these may affect the way people think about life and work. Also, companies have gone global with offices in every corner of the world with employees from around the world and hiring employees who don't even live in the same country as their office. Managers may think that all of these employees are managed differently. However, with this study, one can see that maybe the world is a little more similar after all. This could help bring management to a more streamlined way of thinking.

6.3. Limitations

There are also some limitations present in this study. Firstly, the I-C scale could have had a better reliability score than 0.52 as it should preferably be at least 0.75. This could have been done by deleting the "Don't Know" option as a response for the statements and therefore SPSS would have included all of the answers in the I-C subscale instead of the 54 responses that are currently included. Additionally, people who are unskilled in a certain area, such as in this case the statements that the I-C scale asked about, usually lack awareness of this fact so an external measure of the respondents' answers could strengthen the result (Chua et al., 2002).

Secondly, the I-C scale was not reliable nor valid while most of the telecommuting outcomes were reliable but still not valid. The lack of validity of this research is mostly

due to where these respondents were from culturally and professionally. Most of the respondents were from Finland, an individualistic country and were either young students in a Finnish university (Aalto University) or then they were middle-aged workers from a Finnish office. Due to this, respondents answered much more individualistically which can be seen from the frequency graph below (Figure 6). This is why this data may not be reflective of the whole world since it should have contained more responses from collective nations.
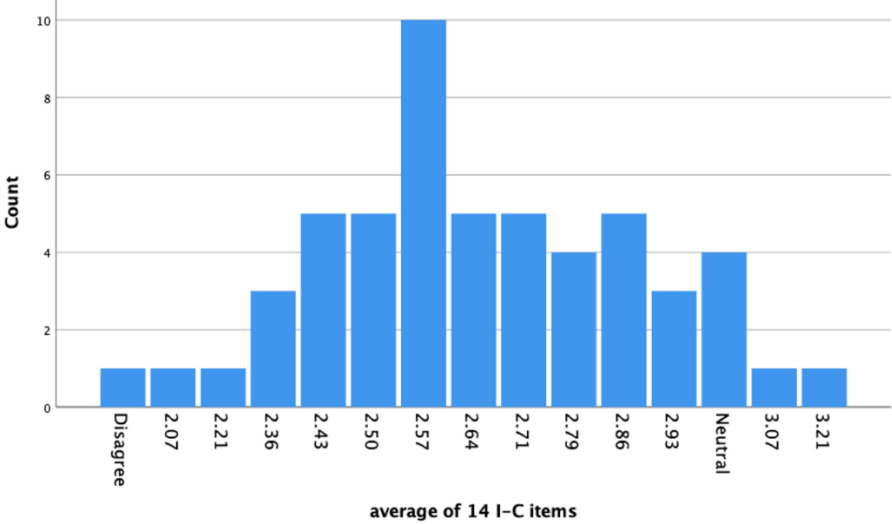
Figure 6: Frequency bar chart of responses for the I-C Scale

6.4. Suggestions for further studies

Along with the changes that could have been made from the list of limitations, there are also some suggestions for further studies. Firstly, the I-C scale could be measured in two separate subscales; one for individualism and one for collectivism. This way one could find if there is a significance between one of these and telecommuting outcomes. Secondly, the telecommuting outcomes could be split up as, for example, there might be some aspects of organizational commitment that I-C really affects. Thirdly, the survey could have started with a question such as "Have you every telecommuted for a job (not for school/university)?" If the respondent would answered yes they would have continued forward in the survey and if they would have responded no then the survey would have ended there. This way the survey could have been sent much more liberally through other medias as I would not have needed to explain that this is only

for professional telecommuters. Finally, a further study can be created in a year or two which would investigate the effect of COVID-19 on the telecommuting industry and how people feel about it.

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APPENDIX

APPENDIX 1: Full Survey

Telecommuting Outcomes

Total number of respondents: 79

1. When did you telecommute last for the job that you are using for this survey?

Number of respondents: 79

	n	Percent
This week	38	48.1%
This month	25	31.65%
This year	2	2.53%
Even further in the past	14	17.72%

2. How often did you telecommute for the job that you are using for this survey?

Number of respondents: 79

	n	Percent
More than once a week	23	29.11%
Once a week	23	29.11%
More than once a month	18	22.79%
Once a month	7	8.86%
Less than once a month	8	10.13%

3. What country did you telecommute in for the job that you are using for this survey?

Number of respondents: 79

	n	Percent
Afghanistan	0	0%
Albania	0	0%
Algeria	0	0%
Andorra	0	0%
Angola	0	0%
Antigua & Deps	0	0%
Argentina	0	0%
Armenia	0	0%
Australia	0	0%
Austria	0	0%
Azerbaijan	0	0%
Bahamas	0	0%
Bahrain	0	0%
Bangladesh	0	0%
Barbados	0	0%
Belarus	0	0%
Belgium	1	1.26%
Belize	0	0%
Benin	0	0%
Bhutan	0	0%
Bolivia	0	0%
Bosnia Herzegovina	0	0%
Botswana	0	0%
Brazil	0	0%
Brunei	0	0%
Bulgaria	0	0%
Burkina	0	0%

Burundi	0	0%
Cambodia	0	0%
Cameroon	0	0%
Canada	1	1.26%
Cape Verde	0	0%
Central African Rep	0	0%
Chad	0	0%
Chile	0	0%
China	2	2.53%
Colombia	1	1.26%
Comoros	0	0%
Congo	0	0%
Congo {Democratic Rep}	0	0%
Costa Rica	0	0%
Croatia	0	0%
Cuba	0	0%
Cyprus	0	0%
Czech Republic	0	0%
Denmark	0	0%
Djibouti	0	0%
Dominica	0	0%
Dominican Republic	0	0%
East Timor	0	0%
Ecuador	0	0%
Egypt	0	0%
El Salvador	0	0%
Equatorial Guinea	0	0%
Eritrea	0	0%
Estonia	0	0%
Ethiopia	0	0%

Fiji	0	0%
Finland	61	77.21%
France	2	2.53%
Gabon	0	0%
Gambia	0	0%
Georgia	0	0%
Germany	0	0%
Ghana	0	0%
Greece	0	0%
Grenada	0	0%
Guatemala	0	0%
Guinea	0	0%
Guinea-Bissau	0	0%
Guyana	0	0%
Haiti	0	0%
Honduras	0	0%
Hungary	0	0%
Iceland	0	0%
India	1	1.26%
Indonesia	0	0%
Iran	0	0%
Iraq	0	0%
Ireland {Republic}	0	0%
Israel	0	0%
Italy	2	2.53%
Ivory Coast	0	0%
Jamaica	1	1.27%
Japan	0	0%
Jordan	0	0%
Kazakhstan	0	0%

Kenya	0	0%
Kiribati	0	0%
Korea North	0	0%
Korea South	0	0%
Kosovo	0	0%
Kuwait	0	0%
Kyrgyzstan	0	0%
Laos	0	0%
Latvia	0	0%
Lebanon	0	0%
Lesotho	0	0%
Liberia	0	0%
Libya	0	0%
Liechtenstein	0	0%
Lithuania	0	0%
Luxembourg	0	0%
Macedonia	0	0%
Madagascar	0	0%
Malawi	0	0%
Malaysia	0	0%
Maldives	0	0%
Mali	0	0%
Malta	0	0%
Marshall Islands	0	0%
Mauritania	0	0%
Mauritius	0	0%
Mexico	0	0%
Micronesia	0	0%
Moldova	0	0%
Monaco	0	0%

Mongolia	0	0%
Montenegro	0	0%
Morocco	0	0%
Mozambique	0	0%
Myanmar, {Burma}	0	0%
Namibia	0	0%
Nauru	0	0%
Nepal	0	0%
Netherlands	0	0%
New Zealand	0	0%
Nicaragua	0	0%
Niger	0	0%
Nigeria	0	0%
Norway	0	0%
Oman	0	0%
Pakistan	0	0%
Palau	0	0%
Panama	0	0%
Papua New Guinea	0	0%
Paraguay	0	0%
Peru	0	0%
Philippines	0	0%
Poland	0	0%
Portugal	1	1.27%
Qatar	0	0%
Romania	0	0%
Russian Federation	1	1.27%
Rwanda	0	0%
St Kitts & Nevis	0	0%
St Lucia	0	0%

Saint Vincent & the Grenadines	0	0%
Samoa	0	0%
San Marino	0	0%
Sao Tome & Principe	0	0%
Saudi Arabia	0	0%
Senegal	0	0%
Serbia	1	1.27%
Seychelles	0	0%
Sierra Leone	0	0%
Singapore	0	0%
Slovakia	0	0%
Slovenia	0	0%
Solomon Islands	0	0%
Somalia	0	0%
South Africa	0	0%
South Sudan	0	0%
Spain	0	0%
Sri Lanka	0	0%
Sudan	0	0%
Suriname	0	0%
Swaziland	0	0%
Sweden	0	0%
Switzerland	0	0%
Syria	0	0%
Taiwan	0	0%
Tajikistan	0	0%
Tanzania	0	0%
Thailand	1	1.27%
Togo	0	0%
Tonga	0	0%

Trinidad & Tobago	0	0%
Tunisia	0	0%
Turkey	0	0%
Turkmenistan	0	0%
Tuvalu	0	0%
Uganda	0	0%
Ukraine	0	0%
United Arab Emirates	0	0%
United Kingdom	0	0%
United States	1	1.27%
Uruguay	0	0%
Uzbekistan	0	0%
Vanuatu	0	0%
Vatican City	0	0%
Venezuela	0	0%
Vietnam	1	1.27%
Yemen	0	0%
Zambia	1	1.27%
Zimbabwe	0	0%

4. Read each statement and select how often this applies to you. Do not spend too much time on any statement. Answer quickly and honestly.

Number of respondents: 79

	Strongly Agree	Agree	Disagree	Strongly Disagree	Don't know	Average	Median
I define myself as a competitive person.	10.13%	68.35%	17.72%	0%	3.8%	2.19	2

Before I make a major decision I seek advice from people close to me.	21.52%	64.56%	12.66%	0%	1.26%	1.95	2
I believe that competition is part of human nature.	15.19%	72.15%	8.86%	0%	3.8%	2.05	2
I consider my friends' opinions before taking important actions.	10.13%	54.43%	26.58%	5.06%	3.8%	2.38	2
I like to be accurate when I communicate.	34.18%	56.96%	5.06%	0%	3.8%	1.82	2
It is important to consult close friends and get their ideas before making a decision.	8.86%	48.1%	31.65%	6.33%	5.06%	2.51	2
I ask the advice of my friends before	13.93%	32.91%	35.44%	11.39%	6.33%	2.63	3

making career related decisions.						
I sacrifice my self-interest for the benefit of my group.	5.06%	53.16%	31.65%	1.27%	8.86%	2.56	2
I prefer using indirect language rather than upset my friends.	10.13%	48.1%	29.11%	7.6%	5.06%	2.49	2
I take responsibility for my own actions.	50.63%	45.57%	2.53%	1.27%	0%	1.54	1
My personal identity independent of others is very important to me.	26.58%	60.76%	7.59%	1.27%	3.8%	1.95	2
Winning is very important to me.	5.06%	43.04%	41.77%	6.33%	3.8%	2.61	3

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Average	Median
I see myself as "my own person."	29.11%	58.23%	5.06%	1.27%	6.33%	1.97	2
I consult my family before making an important decision.	39.24%	40.51%	15.19%	3.8%	1.26%	1.87	2

5. Job Attractiveness

Number of respondents: 79

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Average	Median
I am more interested to work for a company which offers telecommuting.	50.63%	39.24%	10.13%	0%	0%	1.59	1
I will not consider a job which does not offer telecommuting.	12.66%	20.25%	22.79%	39.24%	5.06%	3.04	3

6. Organizational Commitment

Number of respondents: 79

	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree	Average	Median
I am willing to put in a great deal of effort beyond what is normally expected in order to help this organization be successful.	20.25%	50.63%	24.05%	5.07%	0%	2.14	2
I talk up this organization to my friends as a great organization to work for.	10.13%	45.57%	34.18%	7.59%	2.53%	2.47	2
I would accept almost any type of job assignment in order to keep working for this organization.	1.27%	15.19%	24.05%	48.1%	11.39%	3.53	4

I find that my values and the organization's values are very similar.	12.66%	54.43%	24.05%	7.59%	1.27%	2.3	2
I am proud to tell others that I am part of this organization.	25.31%	49.37%	18.99%	6.33%	0%	2.06	2
This organization really inspires the very best in me in the way of job performance .	11.39%	35.44%	35.44%	16.46%	1.27%	2.61	3
I am extremely glad that I chose this organization to work for, over others I was considering at the time I joined.	15.19%	51.9%	26.58%	5.06%	1.27%	2.25	2

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Average	Median
I really care about the fate of this organization.	24.05%	50.63%	16.46%	8.86%	0%	2.1	2
For me this is the best of all possible organizations for which to work.	13.92%	22.79%	39.24%	21.52%	2.53%	2.76	3

7. Productivity

Number of respondents: 79

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Average	Median
I feel that I am not productive while telecommuting	2.53%	10.13%	12.66%	41.77%	32.91%	3.92	4
Telecommuting allows me to complete a large number of tasks each day.	26.58%	51.9%	18.99%	2.53%	0%	1.97	2
Telecommuting allows me to meet the expectations of	26.58%	50.63%	21.52%	1.27%	0%	1.97	2

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Average	Median
my supervisor in performing my job.							
Telecommuting allows me to do high quality work.	30.38%	51.9%	15.19%	2.53%	0%	1.9	2
Telecommuting allows me to complete work in a timely and effective manner.	36.71%	51.9%	6.33%	5.06%	0%	1.8	2

8. Job Satisfaction

Number of respondents: 79

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Average	Median
I am satisfied while telecommuting.	45.57%	37.97%	15.19%	1.27%	0%	1.72	2
Telecommuting allows me to get help from coworkers when needed.	13.92%	56.96%	17.72%	10.13%	1.27%	2.28	2
Telecommuting allows me to get help from	12.66%	56.96%	21.52%	6.33%	2.53%	2.29	2

my supervisor when needed.						
Telecommuting allows me to feel as if I belong to the office team.	15.19%	26.58%	39.24%	12.66%	6.33%	2.68	3

9. Work-Life Balance

Number of respondents: 79

	Agree	Sometimes	Disagree	Average	Median
I usually work long hours.	26.58%	55.7%	17.72%	1.91	2
There isn't much time to socialise/relax with my partner/see family and friends during the week.	22.78%	36.71%	40.51%	2.18	2
I often work late or at weekends to deal with paperwork.	12.66%	27.85%	59.49%	2.47	3
Relaxing and forgetting about work issues is hard to do.	16.46%	37.97%	45.57%	2.29	2
I worry about the effect of work stress on my health.	18.99%	29.11%	51.9%	2.33	3
Finding time for hobbies, leisure activities, and/or maintaining friendships and extended family relationships is difficult.	21.52%	32.91%	45.57%	2.24	2

I would like to reduce my working hours and stress levels, but feel I have no control over the current situation.	18.99%	24.05%	56.96%	2.38	3
I often feel left out from my coworkers	5.06%	20.25%	74.69%	2.7	3

10. Gender

Number of respondents: 79

	n	Percent
Male	22	27.85%
Female	56	70.89%
Other	0	0%
Prefer not to say	1	1.26%

11. Age

Number of respondents: 79

	Min value	Max value	Average	Median	Sum	Standard Deviation
	20	66	37.86	38	2991	14.33

12. Nationality

Number of respondents: 79

	n	Percent
Afghanistan	0	0%
Albania	0	0%
Algeria	0	0%

Andorra	0	0%
Angola	0	0%
Antigua & Deps	0	0%
Argentina	0	0%
Armenia	0	0%
Australia	0	0%
Austria	0	0%
Azerbaijan	0	0%
Bahamas	0	0%
Bahrain	0	0%
Bangladesh	0	0%
Barbados	0	0%
Belarus	0	0%
Belgium	0	0%
Belize	0	0%
Benin	0	0%
Bhutan	0	0%
Bolivia	0	0%
Bosnia Herzegovina	1	1.26%
Botswana	0	0%
Brazil	0	0%
Brunei	0	0%
Bulgaria	0	0%
Burkina	0	0%
Burundi	0	0%
Cambodia	0	0%
Cameroon	0	0%
Canada	1	1.26%
Cape Verde	0	0%
Central African Rep	0	0%

Chad	0	0%
Chile	0	0%
China	0	0%
Colombia	1	1.26%
Comoros	0	0%
Congo	0	0%
Congo {Democratic Rep}	0	0%
Costa Rica	0	0%
Croatia	0	0%
Cuba	0	0%
Cyprus	0	0%
Czech Republic	0	0%
Denmark	0	0%
Djibouti	0	0%
Dominica	0	0%
Dominican Republic	0	0%
East Timor	0	0%
Ecuador	0	0%
Egypt	0	0%
El Salvador	0	0%
Equatorial Guinea	0	0%
Eritrea	0	0%
Estonia	0	0%
Ethiopia	0	0%
Fiji	0	0%
Finland	60	75.95%
France	1	1.26%
Gabon	0	0%
Gambia	0	0%
Georgia	0	0%

Germany	0	0%
Ghana	0	0%
Greece	0	0%
Grenada	0	0%
Guatemala	0	0%
Guinea	0	0%
Guinea-Bissau	0	0%
Guyana	0	0%
Haiti	0	0%
Honduras	0	0%
Hungary	0	0%
Iceland	0	0%
India	2	2.53%
Indonesia	0	0%
Iran	0	0%
Iraq	0	0%
Ireland {Republic}	0	0%
Israel	0	0%
Italy	2	2.53%
Ivory Coast	0	0%
Jamaica	0	0%
Japan	0	0%
Jordan	0	0%
Kazakhstan	0	0%
Kenya	0	0%
Kiribati	0	0%
Korea North	0	0%
Korea South	1	1.27%
Kosovo	0	0%
Kuwait	0	0%

Kyrgyzstan	0	0%
Laos	0	0%
Latvia	0	0%
Lebanon	0	0%
Lesotho	0	0%
Liberia	0	0%
Libya	0	0%
Liechtenstein	0	0%
Lithuania	0	0%
Luxembourg	0	0%
Macedonia	0	0%
Madagascar	0	0%
Malawi	0	0%
Malaysia	0	0%
Maldives	0	0%
Mali	0	0%
Malta	0	0%
Marshall Islands	0	0%
Mauritania	0	0%
Mauritius	0	0%
Mexico	0	0%
Micronesia	0	0%
Moldova	0	0%
Monaco	0	0%
Mongolia	0	0%
Montenegro	0	0%
Morocco	0	0%
Mozambique	0	0%
Myanmar, {Burma}	0	0%
Namibia	0	0%

Nauru	0	0%
Nepal	0	0%
Netherlands	0	0%
New Zealand	0	0%
Nicaragua	0	0%
Niger	0	0%
Nigeria	0	0%
Norway	0	0%
Oman	0	0%
Pakistan	0	0%
Palau	0	0%
Panama	0	0%
Papua New Guinea	0	0%
Paraguay	0	0%
Peru	0	0%
Philippines	0	0%
Poland	0	0%
Portugal	1	1.27%
Qatar	0	0%
Romania	0	0%
Russian Federation	1	1.27%
Rwanda	0	0%
St Kitts & Nevis	0	0%
St Lucia	0	0%
Saint Vincent & the Grenadines	0	0%
Samoa	0	0%
San Marino	0	0%
Sao Tome & Principe	0	0%
Saudi Arabia	0	0%
Senegal	0	0%

Serbia	3	3.8%
Seychelles	0	0%
Sierra Leone	0	0%
Singapore	0	0%
Slovakia	0	0%
Slovenia	0	0%
Solomon Islands	0	0%
Somalia	0	0%
South Africa	0	0%
South Sudan	0	0%
Spain	1	1.27%
Sri Lanka	0	0%
Sudan	0	0%
Suriname	0	0%
Swaziland	0	0%
Sweden	0	0%
Switzerland	0	0%
Syria	0	0%
Taiwan	0	0%
Tajikistan	0	0%
Tanzania	0	0%
Thailand	0	0%
Togo	0	0%
Tonga	0	0%
Trinidad & Tobago	0	0%
Tunisia	0	0%
Turkey	0	0%
Turkmenistan	0	0%
Tuvalu	0	0%
Uganda	0	0%

Ukraine	0	0%
United Arab Emirates	0	0%
United Kingdom	1	1.27%
United States	2	2.53%
Uruguay	0	0%
Uzbekistan	0	0%
Vanuatu	0	0%
Vatican City	0	0%
Venezuela	0	0%
Vietnam	1	1.27%
Yemen	0	0%
Zambia	0	0%
Zimbabwe	0	0%