



HELLENIC OPEN UNIVERSITY

SCHOOL OF SOCIAL SCIENCES

Master in Business Administration (MBA)

DISSERTATION

**Teleworking and its effects among employees at the
Telecommunication sector in Greece during the Covid-19
pandemic**

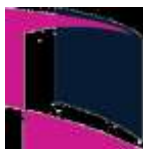
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Patras, July 2021

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Πρόγραμμα Μεταπτυχιακών Σπουδών στη Διοίκηση Επιχειρήσεων (MBA)

ΔΙΠΛΩΜΑΤΙΚΗ ΕΡΓΑΣΙΑ

**Η Τηλεργασία και οι Επιδράσεις της στους Εργαζόμενους στον
Τομέα των Τηλεπικοινωνιών στην Ελλάδα κατά τη διάρκεια
της Πανδημίας Covid-19**

ΦΟΙΤΗΤΡΙΑ: ΔΗΜΗΤΡΑ ΑΣΗΜΙΝΑ ΚΑΣΙΔΩΝΗ

ΕΠΙΒΛΕΠΩΝ: ΠΡΟΔΡΟΜΟΣ Δ. ΧΑΤΖΟΓΛΟΥ

Πάτρα, Ιούλιος 2021



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Περίληψη

Η πανδημία Covid-19 επιτάχυνε το μετασχηματισμό της εργασίας σε παγκόσμιο επίπεδο. Πολλοί εργαζόμενοι αναγκάστηκαν να δουλέψουν από το σπίτι τους. Πριν την πανδημία η χρήση της τηλεργασίας αποτελούσε την εξαίρεση, αλλά στο μέλλον οι εργαζόμενοι θα εργάζονται από το σπίτι τους τουλάχιστον για λίγες μέρες την εβδομάδα.

Η παρούσα μελέτη ασχολείται με η σχέση μεταξύ των οφελών της τηλεργασίας στους εργαζόμενους του τηλεπικοινωνιακού τομέα στην Ελλάδα κατά τη διάρκεια της πανδημίας. Πιο συγκεκριμένα, η μελέτη εξετάζει τη σχέση μεταξύ της εργασιακής ευελιξίας, της εργασιακής ικανοποίησης, της οργανωσιακής αφοσίωσης, της εξισορρόπησης εργασιακής – προσωπικής ζωής και της παραγωγικότητας των εργαζομένων.

Τα αποτελέσματα της μελέτης έδειξαν ότι υπάρχουν θετικές σχέσεις μεταξύ των παραπάνω αποτελεσμάτων της τηλεργασίας.

Η παρούσα μελέτη στοχεύει να συμβάλει στην αύξηση της επιστημονικής γνώσης γύρω από την τηλεργασία και να κινητοποιήσει τις εταιρείες να αναθεωρήσουν τις στρατηγικές τους για την τηλεργασία, δημιουργώντας και εφαρμόζοντας αποδοτικά προγράμματα τηλεργασίας στο μέλλον.

Λέξεις κλειδιά: Τηλεργασία, εργασιακή ευελιξία, εργασιακή ικανοποίηση, οργανωσιακή αφοσίωση, εξισορρόπηση εργασιακής – προσωπικής ζωής, παραγωγικότητα, πανδημία Covid-19

Abstract

The Covid-19 crisis accelerated the transformation of work worldwide. Many employees were obligated to stay home and work remotely. Prior to the Covid-19 pandemic, teleworking may have been the exception, but in the future employees would like to spend at least a few days a week working from home.

This study is engaged with the relationship between the outcomes of teleworking among teleworkers at telecommunication sector in Greece during the pandemic Covid-19. More specifically, the study examines the relationship between work flexibility, job satisfaction, organizational commitment, work-life balance and productivity.

The research's finding showed that there are positive relationships between the above outcomes of teleworking.

This study aims to support the existing knowledge about teleworking concept and to motivate organizations to reconsider teleworking policies and practices creating and implementing efficient teleworking programs for the future.

Keywords: teleworking, work flexibility, job satisfaction, organizational commitment, work-life balance, Covid-19 pandemic



Acknowledgements

I would like to thank my supervisor Dr. Prodromos Chatzoglou for his support and guidance during the conduct of my study.

In addition, I thank my family for their support and patience during my studies.



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CHAPTER 1: INTRODUCTION

1.1 Research Context

In the past, humanity came up against severe pandemics with millions of deaths and important economic, political and social consequences. Smallpox, Spanish flu, HIV virus, H1N1 flu are some of the pandemics which harassed the world during the 20th century. At the end of 2019, the first cases of corona virus appeared in China. The virus expanded rapidly worldwide provoking dramatic economic and social changes. Up to date 72, 8 millions of cases and 1, 62 millions of deaths have been recorded (Coronavirus Research Center, 2021).

One of these changes, that the covid-19 crisis brought, was that teleworking increased exponentially. With several parts of the world locked down, workers cannot commute and are forced to work from their home.

Teleworking is a flexible work design which allows employees to work outside their conventional workplace (usually at their home) using telecommunication tools. According to the 2nd article of the European Framework Agreement on Telework of 2002 (EFILWC, 2010) “Telework is 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”.

The concept of teleworking was invented by Nilles in 1975. Nilles considered that employees would be productive and efficient when they work from home using their computer (Nilles, 1976). Since 1970 more and more companies have implemented teleworking programs.

Many studies have shown that teleworking is beneficial to employees. Some of these benefits are the improved work-life balance, the increased productivity, the higher morale and job satisfaction, the increased organizational commitment and the increased flexibility and autonomy (Verbere et. al., 2008, Di Martino, 2001, Ryan, 2000, Beauregard et. al., 2019).

This study is engaged with the benefits of teleworking and the relationship between them among teleworkers at the telecommunication sector in Greece. More

specifically, the relationship between work-flexibility, job satisfaction, organizational commitment, productivity and work-life balance is examined.

Productivity refers to one's output using specific skills, handling priorities and keeping the ordered work schedule. Neufeld and Fang (2005, p.1038) describe productivity as "an individual's effectiveness with which he or she applies talents and skills and uses resources to perform work within a specific timeframe".

Work –life balance refers to employees' harmony between their work and personal needs and responsibilities. Clark (2000, p.748) defines work-life balance as the "satisfaction and good functioning at work and at home with a minimum of role conflict".

The term job satisfaction refers to employees' feelings about their job. According to George and Jones (2008, p.75) job satisfaction is "the collection of feelings and beliefs that people have about their current jobs.

Organizational commitment refers to employees' psychological bond with organizations. Aydin et.al., (2011, p.628) refer that "organizational commitment is a definite desire to maintain organizational membership, identification with the purpose, successes of organization, the loyalty of an employee, and a willingness to exert considerable effort on behalf of the organization".

Work flexibility is described as employees' ability to choose the place, the time and the duration, they work and it facilitates them to counterbalance their work and personal life obligations (Hill et. al., 2008).

This study focuses on Greece because teleworking was never a popular working method. However the lockdown circumstances impacted the conventional work conditions and companies were dealing with large remote work for the first time.

The telecommunication sector is chosen because it is one of the sectors which support considerably the economy and impact directly the social-cultural level of population in Greece. Also the companies of this sector proved to be strong towards the covid-19 crisis and they reacted directly offering plenty of free services and discounts to consumers and businesses.



This study expects to underline the usefulness of teleworking based on its benefits. It is hoped that its results will motivate more organizations to adopt teleworking as an alternative work form, and help them to understand in depth teleworking impact on their employees. Additionally, it is believed that the research's outcomes will help organizations to create and implement efficient teleworking programs for the future.

1.2 Research Purposes- Method Analysis

This study aims to conduct and present a research about relationship between work-flexibility, job satisfaction, organizational commitment, productivity and work-life balance among teleworkers at the telecommunication sector in Greece.

Specifically, this study's goal is to examine and reach important outcomes on the following:

- Whether work flexibility affects on teleworkers' work-life balance
- Whether work flexibility affects on teleworkers' job satisfaction
- Whether work flexibility affects on teleworkers' organizational commitment
- Whether work-life balance has a direct impact on teleworkers' job satisfaction
- Whether work-life balance has a direct impact on teleworkers' organizational commitment
- Whether job satisfaction has a direct impact on teleworkers' organizational commitment
- Whether job satisfaction has a direct impact on teleworkers' productivity
- Whether organizational commitment has a direct effect on teleworkers' productivity

In order to achieve these targets, quantitative approach will be adopted. A structured questionnaire will be used to collect data. The sample will consist of teleworkers at the Telecommunication sector.

1.3 Dissertation's Framework

The study includes six chapters. The chapters have the following content:



Chapter 1: Introduction. It covers the dissertation's summary. It introduces the topic, highlights the key areas and identifies the primary aims and objectives.

Chapter 2: Literature Review Analysis. It analyzes thoroughly the relevant ideas and theories about teleworking, productivity, work-life balance work flexibility, job satisfaction and organizational commitment will be included.

Chapter 3: Theoretical Framework and Hypotheses. It presents all the research questions which will be addressed providing all the necessary theoretical support. Also a diagrammatic representation of the proposed model is included.

Chapter 4: Research Analysis. It presents the research tool (structure questionnaire), the research design and the way that this study was conducted.

Chapter 5: Research Results. It presents the main finding deriving from the analysis of the questionnaires after utilizing the appropriate statistical analysis.

Chapter 6: Discussion and Conclusion. It links data analysis with fundamental ideas presented in the literature review analysis chapter by providing evidence from the extant literature. It evaluates the research's effectiveness and presents recommendations for further research on the field.

CHAPTER 2: Literature Review Analysis

2.1 Preface

In this chapter, the relevant theories and ideas about teleworking, productivity, work-life balance, work flexibility, job satisfaction and organizational commitment are presented. Further an illusion to the Covid-19 pandemic is included.

2.2 Teleworking

Teleworking is a flexible work design which allows employees to work outside their conventional workplace (usually at their home) using telecommunication tools. Teleworking is also known as telecommuting. The term telecommuting was created by Nilles's in 1975. Nilles argued that telecoworking, through the usage of technological tools, allows employees to perform their job tasks from their home avoiding commuting to their conventional workplace. (Nilles, 1975).

Teleworking is almost four decades old and it was born in reply to oil crisis believing that it could be a way to reduce the extensive use of oil, commuting and traffic problems (Bailey & Kurland, 2002). Since the 1970s, teleworking has evolved rapidly. Johns and Gratton cited that during the 1980's a new category of workers was appeared. This category was called virtual workers and it consisted of self-employed and competent employees who were able to work remotely (Johns & Gratton, 2013). The extensive growth of technology in the 1990s created new opportunities for teleworking. As Jones and Gratton (2013) stated that e-mails replaced the personal contact between employees giving them the opportunity to be at different places at any time. In the 1990s, telecommuting was strongly formed by the further development of ICT. From the 2000s to the present another change has occurred. Virtual workers have been appeared who have differences compared to teleworkers. Teleworkers keep a desk in their workplaces, while virtual workers can work from anywhere (Torraco, 2005).

2.2.1 Theories related to teleworking

Undoubtedly the changes in the organization and operation of companies vary the characteristics of work and work design rapidly. Work design refers to content and organization of job activities at different levels of a company (Torracco, 2005). Sociotechnical systems theory (Trist & Bamforth, 1951) and adaptive structuration theory (DeSanctis & Poole, 1994) are some of work-design theories, which are connected with telework.

Sociotechnical systems theory attends to relationship between employees, technology and workplace to determine how job productivity and job satisfaction can be raised (Emery & Trist, 1969). According to this theory, a work system includes four components: technical, employees, organizational frame and environmental subsystems. These subsystems contain factors, such as technology, employees' demographic data, decision-making processes, internal and external environmental characteristics, which determine how work tasks can be performed. Moreover the sociotechnical subsystems, which contribute to the redesign of work, are relevant to teleworking. Based on Sociotechnical systems theory, the outcomes of teleworking and its effect on individuals and organizations can be analyzed (Belanger et. al., 2013). For example, a survey was conducted in 2007 among 100 companies in order to examine teleworking's influences on their sociotechnical systems. The survey's findings showed that in a working environment where teleworking is dominant, it is necessary communication between teleworkers and non-teleworkers to be raised in order sociotechnical system challenges to be reduced (Watson & Belanger, 2007).

Adaptive structuration theory (AST) refers to work circumstances, where technology transforms a conventional workplace in order to adopt a teleworking program. AST determines the interaction between technology, social structure and human interplay. According to AST, there are four components of framework: technology, job activities, environment, and personnel that influence social communication (DeSanctis & Poole, 1994). AST clarifies that technology causes changes that affect on organizations' workplace. These changes lead to organizational transformation and spread of teleworking. According to Harmer and Pauleen (2012), a company may or may not have the appropriate structure to accept rapidly the changes of technology at work. In 2016, a survey was conducted to evaluate teleworking's effects based on the Adaptive Structuration Theory (Consolata et.al., 2016). The survey assured that

technology influences the information infrastructure and personnel decisions about teleworking. The survey concluded that the implementation of telaworking can lead to higher productivity, competency and job quality.

2.2.2 Teleworking outcomes

Telework can be beneficial to employees and organizations. Teleworking contributes to the increase of productivity, the reduction of accommodation cost, the decline of absenteeism rate and the improvement of customer services (Jackson & van der Wielen 1998). According to Hill et. al., (2003) employees' work-life balance can be improved by avoiding the commute. Also, employees have more autonomy during their working day, they are more concentrative and they are able to work intensively to perform their tasks in order to have the opportunity to spend more time with their families (Tietze & Musson, 2005). Additional advantages are the higher morale and job satisfaction, the increased organizational commitment and the increased flexibility (Verbere et. al., 2008; Di Martino, 2001; Ryan, 2000; Beauregard et. al., 2019).

Productivity is one of the most significant gains of telework (Durbin, 1991). Teleworkes have the opportunity to perform their work tasks during their most productive time without distractions from their colleagues (Golden & Veiga, 2008; Martinez-Sanchez at al., 2008; Tremblay & Genim, 2007). According to Johns and Gratton, a company examined the effects of teleworking on productivity implementing a pilot teleworking program. More specific, the company separated its team of engineers into teleworkers group and non-teleworkers group. During the program, the company recorded the participants' productivity. The results showed that employees who worked from their home appeared high levels of productivity (Johns and Gratton, 2013). Moreover, a research, that took place at Florida State University in 2012 to examine how remote work influences on productivity, found that employees' productivity increased by 11-20% (Dutcher, 2012).

On the other hand, there are some disadvantages. The blurred connection between home and workplace (Green, 2005), social isolation (Sparrowe et. al., 2001), difficulties to handling layoff (White et. al., 2003), increased stress (Hardill & Green, 2003; Wheatley et. al., 2008) are some of them. Another black mark on teleworking is that many companies implement teleworking programs without having an established formal policy. These effects are more noticeable among women because they have

more probabilities to work under unconventional work agreements (Hoque & Kirkpatrick, 2003). Many organizations have not made a formal policy about teleworking. In UK, where 73% of companies offer the chance to their employees to work from home, less than half of them implement a formal policy (Flexibility.co.uk, 2011). In addition, particular interest presents a study by Peters et. al., (2010), which was conducted between managers at finance sector. This study's finding showed that employers and managers have a skeptical attitude toward teleworking and its benefits.

2.2.3 Teleworking and Covid-19

Before the covid-19 pandemic, teleworking was not a popular work form. In Europe the rate of teleworking ranged from 30% or more in Denmark, the Netherland and Sweden to 10% or less in the Czech Republic, Greece, Italy and Poland. In the USA the rate was 20%, in Japan 16% and in Argentina just in 1, 6% (Eurofound and ILO, 2017).

According to the World Health Organization, Covid-19 is a new virus, which was first recognized in China at the end of 2019 (WHO 2020). The entire world yielded the covid-19 crisis that brought regulatory measures in order to movements and activities be restricted and the expanding distribution of the virus to be reduced. Carrol and Conboy (2020) refer that covid-19 is the most distinctive crisis that humanity has faced during the last five decades and has a huge impact on individuals and organizations. The lockdown regulations, which have been imposed in order the pandemic to be handled, forced organizations to implement teleworking programmes to maintain their business alive. According to Davison and Richter, Covid-19 led almost the majority of employees to modify their job pattern worldwide (Davison, 2020; Richter, 2020).

As Covid - 19 begun to expand rapidly all over the world, countries forced organizations to shut their operations down and to implement teleworking programs, wherever it was possible. Recent studies found that economic developed countries reacted directly towards the pandemic adopting teleworking practices (Hatayama et. al., 2020; ILO 2020h). In countries where sectors such as ICT, professional services, finance and public administration are dominant, organizations can motivate more employees to work remotely. On the other hand, in countries where the economy

bases on sectors such as manufacturing, agriculture, construction and tourism, organizations are less willing to adopt teleworking.

In Europe, 40% of employees started to work from home (Eurofound, 2020b). Countries with a high rate of cases and countries with advanced teleworking practices presented the most important raise in teleworkers. For example in Finland, 60% of employees started to work from home. In Luxembourg, the Netherlands, Belgium and Denmark over 50% of employees, in Ireland, Austria, Italy and Sweden close to 40% of employees. In Europe, 24% of employees worked from home for the first time, while 56% of employees had worked from home before the pandemic.

In Greece, the first covid-19 case was identified on 26 February 2020 (SEV, 2020). The government reacted immediately introducing social distancing and isolation measures and restriction to all non-necessary movements throughout the country from 23 March 2020. The majority of companies (95%) adjusted the work arrangements with their employees using teleworking and there was a great rise of employees who started teleworking. More specifically 73% of the companies have adopted teleworking arrangements immediately and 81% of companies in less than a week. Concerning employees, 26% of them started home-based work and 83% of them work exclusively from their home.

2.3 Productivity

Productivity is a clear index which is defined as a ratio of outputs to inputs within a specific timeframe. Also it is connected with efficiency, effectiveness, quantity, time, quality and goal expectations (Bosch-Sijtsema et. al., 2009). Concerning its measurements, there are some difficulties as workers' outputs and inputs and production processes may be ranged and they are not easily measurable. However researches have investigated the factors defining and determining outputs, inputs and production processes.

Concerning output, constituents such as quantity, quality and customer satisfaction can be met (Laihonen et. al., 2012). According to Laihonen and his colleagues (2012), output can be measured using various methods such as weighting output model, monetary output measurement, customer value and completion rate of defined performance goals. As far as input is concerned, Laihonen et.al., address several

productivity factors such as innovativeness, employee satisfaction and motivation, knowledge management, working environment, information technologies and tools organizational culture and structure. In addition related to process or productivity, Laihonon et. al., indicate factors such as work organization, professional efficacy, quality of interaction, knowledge sharing, learning, goal management and knowledge acquisition.

Ray and Sahu (1989) have proposed a multi-factor productivity measure model for routine and non-routine operations where productivity is related with organizational aspects. Also, they believe that for routine operations, productivity is determined both by operational time and factors such as group activities and multi-facility arrangements. On the other hand, for non-routine operations productivity is determined by job variability, interaction with outsider participants and coordination between different organizational units.

Moreover Bosch-Sijtsema et. al., (2009) proposed a multi-layer framework of productivity factors. According to them productivity is defined from the perspective of efficiency and effectiveness. Also, productivity is affected by 4 factors: organizational context, workplace, team process and structure, team task and mode of working.

Achievement method and value added or professional time utilization methods are two more productivity measurement strategies (Ray & Sahu, 1989). According to the achievement method, productivity can be measured by evaluating what extent of what has been planned was completed, using a ratio of the total amount of tasks relative to the total amount of the set tasks. The advantage of this method is that the quality aspect is not been concluded.

According to the value added method, productivity can be measured as a ratio of total time spent on useful or value added tasks and total spent time on work (Ramirez & Nembhard, 2004). This method also does not include the aspects of quality and time efficiency.

Finally, there are some subjective methods, such as interviews, surveys or self-assessment survey forms, which can be used for measuring productivity. In this case, productivity is referred to as perceived productivity and is related with the self-assessment responses by employees. Perceived productivity can give a general and comparable measure as it can measure the impact on productivity by individual, team

and organizational facts and it can enclose different productivity measurement strategies.

2.4 Work-life balance

The term work-life balance (WLB) is used when a person can handle successfully his/her work and non-work responsibilities. Hill and his colleagues define work life balance as “the degree to which an individual is able to simultaneously balance the temporal, emotional and behavioral demand of both work paid and family responsibilities” (Hill et. al., 2001, p.52).

The increasing job requirements, job insecurity, the turbulent economic situation and the extensive competition between organizations led work-life balance to emerge as a significant issue during the last twenty years (AlHazemi & Wasif, 2016). Everyday employees have to face a lot of challenges in their workplace and their home and they aspire to keep a harmony between them. The lack of balance could have severe consequences for employees and organizations such as high level of stress, decreased life satisfaction, restricted time with family and friends and increased employees’ fatigue. Furthermore it affects negatively on employees’ productivity and job satisfaction and it increases absenteeism and turnover rate. Additionally employees feel less loyal and committed to their organizations (Delecta, 2011).

Researchers’ interest in work-life balance was born after the Second World War. The reason was the fact that more women begun to seek paid work outside the home (Roberts, 2017). According to Gatterel et. al., (2013), it was necessary for these women to attain a balance between their role as caregivers and their role as employees. Since the 1970’s, the scientific interest in work-life balance focused on working women among dual career couples (Gilbert & Rachlin, 1987). Nowadays, researchers’ attention has turned into the negative influences of job intensification and technology on work life balance (Campbell & van Wanrooy, 2013; Sommerland, 2016; Besseyere Des Horts et. al., 2012; ILO, 2017).

The literature includes several definitions of work-life balance. Researchers have different opinions about definitions, terminology, measurements and research’s methods of work-life balance (Grzywacz & Carlson, 2007).

For example, Frone (2003) and Greenhaus et. al., (2003) use the term “work-family balance”. Similarity, Clarke et. al., (2004) describes work-life balance as “work-

family fit". Furthermore, Kirchmeyer (2000, p.80) defines work-life balance as "achieving satisfying experiences in all life domains and to do so requires personal resources such as energy, time and commitment to be well distributed across domains". In addition, Clark (2000, p.75) determines work life balance as "satisfaction and good functioning at work and at home with a minimum of role conflict".

2.4.1 Theories related to work-life balance

Several theories have been suggested to clarify the concept of work-life balance. These are a) Compensation, b) Spillover and c) the Border theory.

a) The Compensation theory

According to this theory, when employees feel dissatisfied with their job, they try to increase their life satisfaction and vice-versa (Lambert, 1990). The compensation theory suggested that employees try to counterbalance the shortage of satisfaction in one area (work or home) by trying to find more satisfaction in the other (Lambert, 1990). This means that if employees deal with difficulties at their work, they try to have positive experiences at their home in order to counterbalance their negative experiences.

b) The spillover theory

According to the spillover theory, employees bring emotions (negative or positive), attitudes, behaviors and difficulties that they experience at work to their home and family and vice-versa (Belsky et al., 1985; Crouter, 1984; Piotrkowski and Crits-Christoph, 1981).

c) The work/Family Border Theory

This theory was invented by Clark and it focuses on work and family areas. Work and family areas consist of different domains which affect each other. According to this theory, employees try to handle work and family areas and their border in order to achieve a balance between them Clark (2000).

2.4.2 Work-life balance antecedents

According to researchers there are many factors that could influence the WLB. Telework is a factor that can improve WLB (Felstead et. al., 2002; Hilbrecht et. al., 2008; Morganson et. al., 2010). A research, which was conducted by International Business Machines (IBM) in 1996, concluded that teleworking programs can increase employees' work-life balance (Hill, 2006). In addition a study which was conducted by Deery and Dahiya claimed that teleworking provides job flexibility, which can improve work-life balance (Deery & Jago, 2009).

Another significant factor is emotional intelligence. Researches in India and Malaysia concluded that emotional intelligence can lead to a satisfactory work-life balance for women (Ramaninthilagam & Ramanigopal, 2012; JothiSree & Jyothi, 2012; Kumarasamy et. al., 2016).

Organizational support is also related with WLB because it can facilitate employees to handle work and non work tasks successfully (McCarthy et. al., 2013). Several studies have shown that organizational support is positively associated with work-life balance. In a supportive working environment, employers care about their employees' needs and provide them the appropriate support (Nasurdin & Driscoll, 2012; Kunmarasamy et. al., 2016). According to Molla (2015), supportive workplaces increase job and life satisfaction, employees' commitment and their productivity.

One more significant factor is advanced technology. On the one hand it can enable employees to have flexibility about the time and the location they work. On the other hand it provides easy accessibility to work and this may force employees to work all day deteriorating their work-life balance (Lester, 1991). Several researches have showed that the use of e-mails and tablets influences negatively work-life balance (Stephens et. al., 2007; Waller & Ragsdell, 2012). Furthermore, job requirements (Chiang et. al., 2010) and work overload (Virick et. al., 2007) are negatively related with work-life balance According to the study of Macky and Boxall (2008), overwork reduces employees' work-life balance. Additionally, factors that affect more or less work-life balance are the kind of job, wage, globalization and the organizational changes (Cortes & Pan, 2016).

2.4.3 Work-life balance outcomes

Work life balance plays an important role both for employees and organizations. Greenhaus and Powell (2006) argue that, it is a significant priority for employees to attain a satisfactory work-life balance because it possibly affects not only their working environment but also their family and private life. Work-life balance can increase employees' job satisfaction, their organizational commitment and productivity, while it reduces their stress and turnover rate (Bloom & Van Reenen, 2006; Kanwar et. al., 2009; Thompson et. al., 2003; Eaton, 2003).

Clark's study has shown that workplace flexibility influences positively employees' well-being and work-life balance. Employees with satisfactory work-life balance have higher job satisfaction and lower role conflicts (Clark, 2000). Work-life strategies reduce costs, negative spill-over and overwork. In addition according to Vlems (2005), through work-life balance policies, employees feel that their organization cares about them and they feel more valuable.

2.5 Organizational Commitment

The term organizational commitment is used to describe employees' emotional connection with organizations. Organizational commitment has particular importance not only for employees and organizations but also for researchers. It is considered an important element that ascertains employees' attitudes in organizations (Meyer et. al; 2002).

Organizational commitment has been defined in many different ways. According to Porter et.al, (1974, p.604), commitment is "the strength of an individual's identification with and involvement in a particular organization". In addition Meyer and Allen (1991) describe commitment as emotional condition that determines employee's relationship with the organization, and influences employees to decide if they remain in the organization or if they leave it. Moreover, Aydin et.al., (2011, p.628) refer that "organizational commitment is a definite desire to maintain organizational membership, identification with the purpose, successes of organization,

the loyalty of an employee, and a willingness to exert considerable effort on behalf of the organization”.

2.5.1 Organizational Commitment components

Organizational commitment may take different forms. According to Meyer and Allen (1991, 1997), organizational commitment consists of three components i.e affective commitment, normative commitment and continuance commitment.

Affective commitment. Affective commitment describes an employee’s willingness to remain at an organization because he/she feels emotionally connected with it (Allen and Meyer, 1990). According to English et. al., (2010, p.395), affective commitment is “a psychological state that characterizes an employee’s relationship with their organization”. High levels of affective commitment lead employees to be emotionally related with company and more committed achieving their objectives (Darolia et.al; 2010). Also they work in the organization willingly (Meyer and Allen, 1997). Several studies have showed that affective commitment is associated with job satisfaction, involvement and job performance and their relationship is positive. Also effective commitment provides more chances to employees to improve their competencies. Moreover, turnover and absenteeism rates fall and stress decreases (Meyer, et. al; 2002, Meyer & Allen, 1997; Morrow, 1993).

Normative commitment. Normative commitment describes an employee’s willingness to remain at an organization because he/she feels obligated to it (Allen & Meyer, 1990). According to Meyer and Herscovitch (2001, p. 316), normative commitment is “the mind-set that one has an obligation to pursue a course of action of relevance to a target”. Colquit et. al., (2010) argue that normative commitment exist when employees feel that they do the “right” or “moral” thing remaining in the organization. When organizations invest in their employees providing them opportunities to develop their knowledge and skills, employees feel obligated to be loyal and remain at organizations. In addition organizations, which are engage which charities, make employees to feel satisfied with them (Colquit et. al., 2010).

Continuance commitment. Continuance commitment describes an employee's willingness to remain at an organization taking the loss related with leaving it into account (Allen & Meyer, 1990). According to Meyer and Herscovitch (2001, p.316), continuance commitment is defined as "the perception that it would be costly to discontinue a course of an action". Continuance commitment exists when employees believe that they will have gains remaining in the organization, whereas they will incur cost leaving it (Meyer & Allen, 1991).

2.5.2 Organizational commitment antecedents

Several researches have investigated the antecedents of the organizational commitment. More specific, Steers (1997), Mathieu and Zajac (1990), Meyer et.al., (2002) and Frones et. al., (2008) have concluded that the following factors have impact on organizational commitment. These factors are namely:

- Demographic characteristics
- Job features
- Job experiences
- Organizational features
- Relationships between employees and supervisors
- Equity and fairness
- Work autonomy
- Job empowerment and recognition
- Investments in human resources

2.5.3 Organizational commitment outcomes

Organizational commitment is positively with many approving work outcomes. It is the factor that boosts companies' performance (Suliman & Iles, 2000 p.408). Studies have concludes that organizational commitment is positively related with job performance (Chughtai & Zafar, 2006), job satisfaction (Chughtai & Zafar, 2006; Meyer et. al., 2002; Pool & Pool, 2007), motivation (Mathieu & Zajac, 1990) and organizational citizenship behavior (Riketa, 2002). On the contrary, organizational commitment is negatively related with absenteeism and turnover rate. High levels of

organizational commitments lead to lower levels of absenteeism (Angel & Perry, 1981; Farrel & Stamm, 1988) and turnover rate (Angle & Perry, 1981; Chughtai & Zafar, 2006).

2.6 Job Satisfaction

The term job satisfaction describes how employees feel about their job. Their feeling may be negative or positive. According to Smith et al (1969, p.6), job satisfaction is “the feelings a worker has about his job”. George and Jones (2008, p.75) describe job satisfaction as “the collection of feelings and beliefs that people have about their current jobs. People levels or degrees of job satisfaction can range from extreme satisfaction to extreme dissatisfaction”.

Several factors can have influences on job satisfaction. The current literature states that job satisfaction has two prominent characteristics namely intrinsic satisfaction and extrinsic satisfaction (Abu Raddaha et.al., 2012; George & Zakkariya, 2015). Intrinsic satisfaction refers to internal job factors (motivators) that create job satisfaction. These motivators are recognition, achievement, work itself, responsibility, advancements and growth (Ning-Kuang et. al., 2009; Mikramalia & Thanib, 2011). When employees are satisfied with these factors, there are motivated to work effectively and efficiently. On the contrary, when there are dissatisfied with these factors, they are demotivated and their work is inefficient and ineffective.

On the contrary, extrinsic satisfaction is related with external job factors (hygiene factors) and working environment. These elements are compensation, corporate policy, organizational support, interpersonal relationships, employment terms, wage, and job security (George & Zkkariya, 2015). When employers provide a satisfactory workplace, employees tend to be motivated and satisfied with their job. Failing that, employees feel unhappy with their job. (Ning-Kuang et. al., 2009; Randeree & Chaudhry, 2012; Mikramalia & Thanib, 2011). In addition, Purwanto (2018) states that job satisfaction can be influenced by psychological factors (interests, attitudes, and skills), social factors, physical factors and financial factors (salary, social security, benefits, and promotions). Moreover Yadav and Yadav (2014) suggest that job satisfaction is associated with factors such as age, education, gender, economic situation, and company’s climate.

2.6.1 Job Satisfaction outcomes

Job satisfaction is an extraordinary issue both for employees and organizations. George and Jones (2008, p.84) argue that job satisfaction “has the potential to affect a wide of behaviors in organizations and contribute to employees’ levels of wellbeing”. Several researches have concluded that job satisfaction contributes substantially to the retention of experienced, trained and competent employees in the organizations (Abu Raddaha et.al., 2012; Fiorillo & Nappo, 2014; Chih-Cheng et. al., 2015). Furthermore job satisfaction improves employees’ motivation and the quality of their job (Arif & Ilyas, 2013; Arndt et. al., 2015). Moreover, job satisfaction contributes to the improvement of employees’ loyalty, confidence and commitment to organizations (Randeree & Chaudhry, 2012). Further, it increases employees’ productivity and decreases absenteeism and turnover rates (Duxbury & Halinski, 2014). Researches findings suggest that job satisfaction has impact on employee’s well-being (George & Jones, 2008; Schmitt & Bedeian, 1982). According to George and Jones, the extent to which an employee is happy, healthy and successful may be an outcome of job satisfaction. Also, job satisfaction is positive associated with voluntary work behaviors. According to Bies (1989), organizational citizenship behaviors refers to an employee who helps others on the job without expecting rewards.

2.7 Work Flexibility

Work flexibility is a significant issue both for employees and organizations since it can influence employees’ attitudes towards to their job. Many researchers describe job flexibility as employees’ ability to handle their job programs to organize and complete their work and life obligations (Hill et. al., 2010; Rubery, 2015).

Current literature highlights that there are two kinds of job flexibility namely organizational perspective and worker perspective (Hill et. al., 2008). Regarding the organizational perspective, work flexibility refers to what extent companies can integrate flexibility, that permit them to adjust to changes in their environment (Dastmalchian & Blyton, 2001). Flexibility aims to facilitate organizations to adjust rapidly any changes are caused from internal or external forces (Hill et. al., 2008). On the contrary, the worker perspective conceptualizes work flexibility as the extent to

which employees can decide the location, the time and the duration, they work (The Center on Aging & Work at Boston College, 2007), The objective of work flexibility from this perspective is to improve employees' ability to handle their personal, occupational, family and society responsibilities (Hill et. al., 2008).

Work flexibility can be implemented in the workplace in many ways. First of all, employees have the ability to decide the place, the time and the duration they perform their job tasks. This option is described as schedule flexibility. Schedule flexibility gives the opportunity to employees to determine their work schedule using several formalized policies such as flextime and compressed work weeks. Flextime allows employees have flexible working hours during the day. Compressed work weeks allow employees to do their forty hours in fewer days during the week (Baltes et. al., 1999). Secondly employees have the ability to choose the place they perform their job tasks. This option is referred as flexplace. Location flexibility is implemented through telecommuting and virtual office (Hill et. al., 2001). Finally employees have the ability to choose the duration they perform their job tasks. One way is the part-time arrangements (Baltes et. al., 1999). Another way is organizations to offer to employees the annual leave during the year (Hayghe, 1988).

2.7.1 Work Flexibility outcomes

Work flexibility is positively related with several employees' working attitudes. It can balance the discrepancies between employees' work and non work responsibilities increasing their job and life quality, quality, attendance rate and work performance (Carlson & Grzywacz, 2010). In line with this, the Resource Theory (COR) highlights that work flexibility allows employees to handle their life's needs and work's obligations decreasing disagreements between their work and personal life (Ma, 2018). In addition, studies have found that work flexibility facilitates employees to decrease their stress increasing their job satisfaction (Lu et. al., 2008). Furthermore researchers have concluded that work flexibility can be a motivator for employees' job satisfaction improvement. Employees with work flexibility tend to be more cooperative, show more organizational citizenship behaviors and feel happier about their jobs (Michel & Michel, 2015).

CHARTER 3: Theoretical Framework and hypotheses

3.1 Preface

In this chapter, the theoretical framework, the proposed research model and the hypotheses are analyzed.

3.2 Theoretical Framework

Teleworking is a flexible work design which allows employees to work outside their conventional workplace (usually at their home) using telecommunication tools. Bailey and Kurland (2000, p384) define teleworking as “working outside conventional workplace and commuting communicating with it by way of telecommunications or computer-based technology”. Productivity is one of the beneficial outcomes of teleworking. According to Belanger (1999) and Baruch (2000) teleworking increases productivity because employees have the opportunity to work during their most productive time without interruptions. Another reason is that they have the chance to work in a place where they can be more concentrated. Also they present lower absenteeism rate while teleworking. Martin and MacDonell (2012) have concluded through their meta-analysis research that teleworking is positively connected with productivity. In line with this, Aboelimag and El Subbaugh (2012) have mentioned that teleworking is positively associated with productivity. Particular interesting presents a survey that was conducted at Florida State University in 2012. This survey showed that employees’ productivity increase by 11-20% through teleworking (Dutcher 2012). Moreover Jone and Gratton (2013) mentioned that teleworkers presented greater productivity levels than non-teleworkers.

Teleworking affects on employees’ work-life balance. According to Sparrow (2000) teleworking implementation decreases work pressure and enhances balance between work and life. Several researches have concluded that teleworking facilitate employees to fulfill work-life balance needs (Hillbrecht et. al., 2008; Hill et. al., 1998; Sullivan & Lewis, 2001). More specific, teleworking offers employees flexibility to balance their job and family life responsibilities. Thus, employees succeed to meet their household obligations, improve the relationships between their family members and manage their time (Hillbrecht et. al., 2008; Hill et. al., 1998). Furthermore, a

research by Hill et. al., (2003) showed that teleworkers reported high level both of work-life and work-family balance.

Teleworking is related with job satisfaction (Bailey & Kurland, 2003; Golden & Veiga, 2005). The fact that ,teleworking provides employees autonomy and flexibility to handle their job and personal life needs, it is likely to predict job satisfaction (Golden & Veiga, 2005). Empirical researches and current meta-analysis studies have concluded that teleworking is positively associated with job satisfaction and teleworkers feel happy about their job (Hill et. al., 2003; Gajendran & Harrison, 2007). Finally, according to Choi (2018) there is an association between teleworking and organizational commitment and the contribution of teleworking in reducing turnover intentions has been proven. In addition current studies have shown that organizational commitment is one of the benefits of teleworking (Martin et. al., 2012).

3.3 Research's Model and hypotheses

The research's model consists of five factors namely work flexibility, work-life balance, job satisfaction, organizational commitment and productivity. These factors were chosen because they have particular importance both for employees and organizations.

Work flexibility is described as employees' ability to choose the place, the time and the duration they work and it facilitates employees to succeed a harmony between their job and personal life obligations (Hill et. al., 2008). According to Powell et. al., (2009) and Zhang et. al., (2012) work-life differences can be handled through job flexibility. Furthermore Istrate and Caragea (2008) revealed that job flexibility raises employees' productivity, their commitment and improves their work-life balance. Thus it is hypothesized that:

H₁: Work flexibility is positively related to work-life balance.

Present researches have concluded that work flexibility affects positively on employees' working attitudes increasing their job satisfaction (Carlsoln & Grzywacz, 2010). In line with this, researchers have found that work flexibility is a motive that can improve job satisfaction (Michel & Michel, 2015). When employees adopt flexible working practices, they cooperate better with their colleagues, show more organizational citizenship behaviors and they feel satisfaction with their jobs.

Furthermore employees who have the opportunity to design and handle their job with autonomy and share the company's vision and objectives have more possibilities to be happy about their job (Unanne et. al., 2017). Thus it is hypothesized that:

H₂: Work-flexibility is positively related to job satisfaction.

Besides job satisfaction, work flexibility is associated with organizational commitment. Through work flexibility employees enjoy employers' support and this should generate employees' perception of a qualitative relationship between them and the organization (Ng et. al., 2005). In addition work flexibility includes autonomy on the job and this has an impact on organizational commitment. Increased autonomy is linked with job satisfaction that can increase organizational commitment (Hackman & Vedman, 1980). Thus it is hypothesized that:

H₃: Work-flexibility is positively related to organizational commitment.

Work – life balance describes the successful equilibrium between job and personal life responsibilities. According to Schermehorn (2013) work-life balance refers to a person's ability to achieve a harmony between the obligations of work and private life. Empirical researches have shown that work-life balance is connected with job and life satisfaction, and organizational commitment (Allen et. al., 2010). Kanwar et. al., (2009) found that work-life balance is positively correlated with job satisfaction. A study by Adikaram and Jayatilake (2016) concluded that there is an important association between work-life balance and job satisfaction. Furthermore Nurendra and Saraswati (2016) reported that work-life balance can improve job satisfaction while work-life imbalance can decrease it because it can increase work stress. Additionally, Haar et. al., (2014) conducted a study that concluded that improved work-life balance has a positive relationship with job and life satisfaction. Moreover according to Yutaka (2012) when employees have balance between their work and life they feel more satisfied with work and family. Thus it is hypothesized that:

H₄: Work-life balance has a direct impact on job satisfaction.

Besides job satisfaction, work-life balance enhances organizational commitment (Sirgy & Lee, 2018). The relationship between work-life balance and organizational commitment is explained by social exchange theory. This theory mentions that work-life practices increase employees' involvement in an organization to the extent that

employees feel obligated to work harder in order to gain extra benefits. Employees' extra effort is willingly and beneficial for the organization and it is one more sign of their organizational commitment (Lambert, 2000). Sakthivel (2011) argued that work-life balance and organization commitment are positively associated. Furthermore Noor (2011) found that work-life balance is positively correlated with job satisfaction and organizational commitment while it is negatively correlated with turnover rate. Moreover a study by Azeez and Akutar (2014) concluded that there is a strong and important association between work-life balance, job satisfaction and organizational commitment. More specific their research's findings revealed that by increasing work-life balance and job satisfaction the impact on organizational commitment was 37%. Thus it is hypothesized is:

H₅: Work-life balance has a direct impact on organizational commitment.

Employees who are satisfied are likely to be involved to the organization which could increase their level of commitment (Aryee, Srinival & Tan, 2005; Rhoades & Eisenberger, 2002). According to Adikaran and Jayatilake (2016) job satisfaction has a direct impact on organizational commitment. When employees feel satisfaction with their job they are loyal and committed to the organization. Also many researches, which have investigated the association between job satisfaction and organizational commitment, concluded that job satisfaction is highly associated with organizational commitment (Catoline et. al., 2015; Jonathan et. al., 2010; Hyenjin et. al., 2012; Miguel et. al., 2014). Thus it is hypothesized that:

H₆: Job satisfaction has a direct impact on organizational commitment.

Several researchers have revealed that job satisfaction and productivity are connected (Bockerman a& Ilmakunnas, 2010). According to Lim and Teo (2000) job satisfaction is one of the significant elements that are connected with teleworking productivity. Furthermore Hartman et. al., (1992) referred that job satisfaction has strong relationship with teleworking productivity. Insufficient working environment, difficult relationships with colleagues and inappropriate equipment may lead to teleworkers' job dissatisfaction (Belanger, 1999). On the other hand when teleworkers enjoy the gains of teleworking such as reducing commuting time and cost and enjoy leisure activities they feel more satisfied improving their productivity (Abdul Azzez & Supian, 1996). Thus, it is hypothesized that:

H₇: Job satisfaction has a direct impact on productivity.

Researchers have found that committed employees have increased performance and productivity (Carver & Candela, 2008; Meer & Ringdal, 2009). According to Meer and Ringdal (2009) great level of commitment affects positively on employees' productivity. In line with this, Golded (2006) referred that commitment is positively correlated with employees' productivity while it is negatively correlated with employees turnover. Furthermore, Westover et. al., (2010) revealed that commitment is a significant element that improves productivity and performance. Also, Hunton and Norman (2010) stated that there is a positive connection between teleworkers' organizational commitment and performance. In addition, Batool (2013) has concluded that when job stress decreases, performance will improve and employees are more committed with the organization increasing their productivity. Thus, it is hypothesized that:

H₈: Organizational commitment has a direct effect on productivity.

The following figure presents schematically the research model.

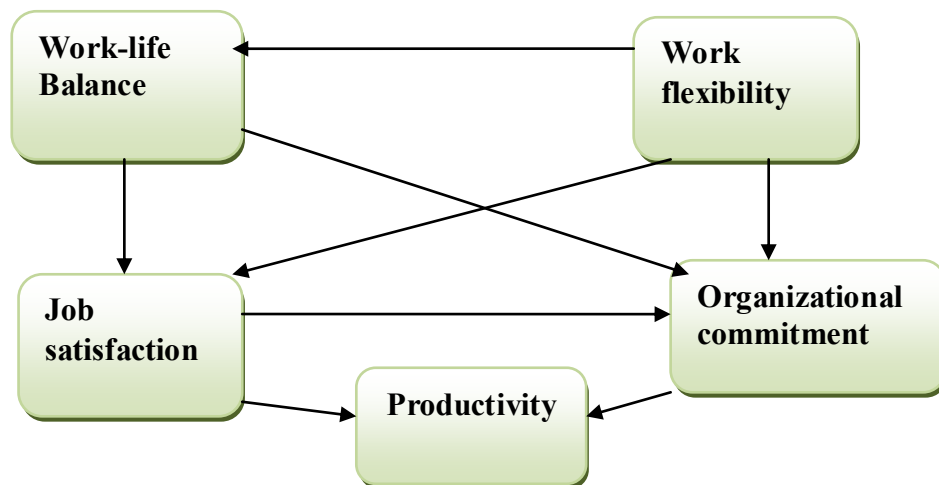


Figure 3.1: Research model

CHAPTER 4: Research Analysis

4.1 Preface

This chapter is engaged with the research analysis. More specific, the research instrument (structure questionnaire), the research design and the way that this study was conducted are analyzed. The questionnaire is presented in Appendix A.

4.2 Research Approaches

When a study is going to be conducted, it should be decided which research approach will be followed. There are two main research approaches, the positivism and the phenomenology.

Positivism approach uses the quantitative research approach. The quantitative method confirms a theory by testing relevant hypotheses. It collects and analyzes measurable data through statistical and mathematical tools. Questionnaires and experiment are usually used for collecting data. Data Analysis is an easy and quick process and the results are objective because researcher does not take part in the procedure.

Furthermore the result can be generalized to larger populations. Moreover quantitative method assures the anonymity of respondents. On the contrary, quantitative method is not engaged with complex issues. Also it does not examine the reason and the meaning behind a phenomenon.

Phenomenology uses the qualitative research method. Qualitative method investigates individuals' opinion, feelings and thoughts about a phenomenon. Observation and interview are usually used for collecting data. Qualitative method try to reveal the meaning behind a phenomenon and data focus on details. On the other hand researcher is involved to the process and results are subjective. Furthermore data cannot be measured and the process can be time-consuming (Maylor & Blackmon, 2005; Saunder et. al., 2009).

This research employs the quantitative research. The study's purpose is to specific questions to be answers accepting or rejecting relevant developed hypotheses.

4.3 Questionnaire structure

This research was conducted by employing a structure questionnaire. The usage of questionnaire allows a large amount of data to be gathered in limited time frame with low cost. Also it allows researcher to control the research procedure (Saunders et al., 2009). Finally it doesn't need long time to be completed and the anonymity offers the opportunity to participants to answer sincerely (Karagiorgos, 2002).

The questionnaire structure was based on the factors of the research model. The questionnaire is accompanied by an introductory letter which explains the research's objectives to the participants. The questionnaire includes six sections. More specific:

- **Section A** includes six questions about demographic data and the working position of the participants. The first five questions are associated with demographic data such as gender, age group, level of education and marital status whether the position is perceived as managerial or non-managerial position.
- **Section B** refers to work-life balance and includes seven items.
- **Section C** refers to productivity and includes three items.
- **Section D** refers to work flexibility and includes five items.
- **Section E** refers to job satisfaction and includes four items. Section F refers to organizational commitment and includes eight items.

The following table includes the questions of the research model and their source from the literature:

Factor	Items	Sources
Work-life balance	5	Syrek et al., 2013; Gudep, 2019
Productivity	3	Belanger, 1999; Teo & Lim, 1998
Work flexibility	5	Grover & Goslar, 1993
Job satisfaction	4	Belanger, 1999; Watson-Fritz et al., 1996
Organizational commitment	8	Meyer & Allen, 1997

Table 4.1: Questionnaire questions and their source

The majority of the questions are measured using the Linkert five point scale in a range from (1) to (5). (1) corresponds to 'Strongly Agree', (2) to 'Agree', (3) to 'Neither Agree Nor Disagree', (4) to 'Disagree' and (5) to 'Strongly Disagree'. Furthermore, the research complies with the ethical codes which are required for the research conduction. These issues refer to the privacy and anonymity of participants, their voluntary participation, the objectivity and quality of research (Saunders et. al., 2009).

4.3 Sample

This study was based on data from employees who work at the telecommunication sector in Greece. This sector was chosen because it dominates the Greek economy and contributes significantly to its growth. Also, it reacted directly to the covid-19 pandemic. According to the latest data of the Hellenic Telecommunications and Post Commission the sector's turnover was raised to 5.0 billion Euros, while its contribution to Greece's Gross Domestic Product (GDP) was 2.7% in 2019, displaying a rise by 1,5% compared to 2018. The history of telecommunications in Greece has begun in the middle of 19th century. More specific, in 1859 the first system of telegraphy was established and the immersion of the first underwater cable, which connected Athens with the island of Syros, took place while the telephony service has been provided later. Until 1941 several steps have been accomplished in managerial and technological level and the connection with bordering countries has been held. In 1949 the Hellenic Telecommunications Organization is founded from the merger of the Postal, Telegraph and Telephony Directorate, the Greek Telephony Company Limited and the Rhodes Electrical Company Limited undertaking the monopolistic provision of all telecommunications services. The growth of the modern telecommunications has begun at the end of 1950s. During the decades 1960-1970 the Hellenic Telecommunications Organization presented important achievement such as the high growth rate, the high quality of telephone and the low telecommunication costs. During the 1990s the level of investments has been tripled, the net digitalization accelerated importantly and the quality of communication improved noticeably. In 1992 the first mobile communication company is founded and since 1994 market has

been liberalized accessing alternative providers gradually. Today the providers of mobile communications are three and four providers of fixed communications (EET, 2019).

4.4 Survey Procedure Analysis

The survey was taken place during April and May 2021. The questionnaire was constructed in Greek language and it was accompanied by a brief introduction which presented the research and its objective. According to Dillman (2007), the questionnaires' first page contributes to achievement of a great response rate.

The online questionnaire was created employing the Survs.com platform. The link of questionnaire was distributed to recipients via e-mail. Time efficiency, reduced cost and accessibility to unique populations are some important advantages in using online surveys (Wright, 2005). Online questionnaires can be sent at the same time to many recipients and enable the clarification of the results.

The survey's population was determines as employees of Telecommunication sector who were teleworkers.

To choose a sample, two sampling techniques are implemented. These techniques are the probability sampling and the non-probability sampling. In probability sampling, sample is randomly selected and all individuals have the same opportunity to be selected. Probability sampling technique includes five sampling methods namely:

- Simple random sampling
- Systematic sampling
- Stratified random sampling
- Cluster sampling
- Multi-stage sampling

On the contrary, in non-probability sampling, sample is not randomly selected but it is based on researcher's subjective judgment and individuals' opportunity to be selected is unknown. Non-probability sampling technique includes five sampling methods namely:

- Quota sampling
- Purposive sampling
- Snowball sampling



- Self-selection sampling
- Convenience sampling (Saunders et al., 2009)

The sample was created mainly by the author's personal contacts using the snowball sampling. This means that the author prompted the respondents to forward the questionnaire to other potential respondents. The process of data gathering lasted 7 weeks. The questionnaire was sent to 300 employees. Finally, 104 employees participated in the research and responded. The response rate was 34,6% which can be considered adequate.

CHAPTER 5: Research Findings

5.1 Preface

This chapter presents and evaluates the research's results. First of all, the demographic data of participants are presented, followed by descriptive statistics. Next, the factor analysis, the correlation and ANOVA analysis results are introduced. Finally the Structural Equation Model is presented.

5.2 Demographic Data

Demographic data are examined in order to describe the participants' profile of the survey. The studied characteristics are gender, age, education, marital status and number of children and occupational position.

Gender

104 employees took part in the study. The 31 (29.8%) of them were male, while the 73 (70.2 %) of them were female.

Table 5.1: Sample distribution according to gender

	Frequency	Percentage
Male	31	29.8
Female	73	70.2

Age

The age distribution of the sample is presented in the Table 6.2. The majority of the participants (57.7%) were in age category of 31 - 40 years old. A small percentage was in age category 20-25 years old (1%) and older than 60 years old (1 %).

Table 5.2: Sample distribution according to age

	Frequency	Percentage
20-25	1	1
26-30	14	13.5
31-40	60	57.7
41-50	20	19.2
51-60	8	7.7
>60	1	1

Education

The 63.5% of the participants are university alumni, 23,1% hold a Master degree, while only 1% hold a Phd Degree. From the 104 participants, only 13 (12,5%) of them do not hold an academic title. The distribution of the sample according to education is presented in the Table 5.3.

Table 5.3: Sample distribution according to education

	Frequency	Percentage
High school	13	12.5
Bachelor	66	63.5
Master	24	23.1
PhD	1	1

Marital status

The majority of participants (51.9%) are single, while a small percentage (1.9%) belongs to other situation. The distribution of the sample according to marital status is presented in the Table 5.4.

Table 5.4: Sample distribution according to marital status

	Frequency	Percentage
Single	54	51.9
Married	48	46.2
Other	2	1.9

Number of children

The majority of participants (62.5%) have no children, while a small percentage has three children (1%). The distribution of the sample regarding to number of children is presented in the Table 5.5.

Table 5.5: Sample distribution according to number of children

	Frequency	Percentage
No children	65	62.5
1 child	19	18.3
2 children	17	16.3
3 children	1	1
4 children	2	1.9

Occupational position

The 73.1% of the participants hold a non-managerial position, while the 26,9% hold a managerial position. The distribution of the sample regarding occupational position is presented in the Table 5.5.

Table 5.5: Sample distribution according occupational position

	Frequency	Percentage
Non-managerial position	76	73.1
Managerial position	28	26.9

5.3 Descriptive Statistics

This section is associated to the main subject of the research. The collected data characteristics are represented using descriptive statistics. The mean value of each item is used as an indicator in order to reveal each item's assessment by the respondents. The research includes five parts i.e work-life balance, productivity, work-flexibility, job satisfaction and organizational commitment.

5.3.1 Work –life Balance

This section includes questions regarding work-life balance and contains five items. According to the table 5.6 the respondents perceive that “working in this institution has an impact on my family life” (mean= 2,45). They consider that “work pressure and other role requirements sometimes emerge as source of stress” (mean=2,25). Furthermore, they state that they “sometimes think about the work requirement” (mean 2,05). In addition they believe that “I am able to balance both work and family requirements in a successful manner” (mean=2,58). Finally they state that they get

“opportunities to spend quality time with my friends and family on weekends”
(mean=2,13).

From the above, we can assume that the satisfaction of the respondents regarding the factors of work life balance is mediocre not very satisfied as all means are around and below 2.5 which is the average score of the scale. Mostly are satisfied but neutrally regarding the balance between work and family. The other factors score below average (2.5) which means that the feeling is mostly neutral to negative.

	Mean	Median	Mode	St.Deviation
Working in this institution has an impact on my family life.	2,45	2,00	2	1,032
Work pressure and other role requirements sometimes emerge as source of stress.	2,25	2,00	2	1,012
I sometimes think about the work requirement.	2,05	2,00	2	0,896
I am able to balance both work and family requirements in a successful manner.	2,58	3,00	3	0,932
I get opportunities to spend quality time with my friends and family on weekends	2,13	2,00	2	1,049

Table 5.6: Work-life Balance Statistics

5.3.2. Productivity

This section consists of questions regarding productivity and contains three items. According to the table 5.7 results, the respondents believe that they can finish a large number of tasks daily while teleworking (mean=2,23). Furthermore they state that teleworking allows them to be more productive (mean=2,73). On the other hand they do not believe that they are not productive in their work environment (mean=3,84).

In this group of questions we can realize that the majority of the respondents are satisfied by their productivity in their work environment as the score is close to 4 and also they cannot be productive in the frame of teleworking as the scores are around the neutral 2.5.

	Mean	Median	Mode	St. Deviation
I am not productive in my work environment	3,78	4,00	4	1,025
Teleworking allows me to be more productive	2,73	3,00	3	1,063
I can finish a large number of tasks daily while teleworking	2,23	2,00	2	1,045

Table 5.7: Productivity Statistics

5.3.3 Work Flexibility

This section consists of questions regarding work flexibility and contains five items. According to the table 5.8 results, the respondents state that their firm allows them to organize their own working time (mean= 2,68). They consider that they have their permission by their firm to have full control over their work (mean= 2,83).

Furthermore they have a balanced work-family relationship. In addition they state that they can work off-site during their working day (mean=2,61). Furthermore, they consider that their work environment is flexible (mean=2,48).

Generally, the respondents seem to have a neutral to positive attitude towards work flexibility. This could be explained by the flexible work schedules that telecommunication companies offer to their employees. The majority agrees that their firm give them the control of their work with score 2.83 which is the most positive, while the lowest is still over 2.5 (neutral) and it refers to their ability to work off-site during their working day (2.53).

	Mean	Median	Mode	St. Deviation
My firm allows me to organize my own working time	2,68	3,00	2	1,007
My firm allows me to have full control over my work	2,83	3,00	3	0,980
My work-family relationship is balanced	2,61	3,00	3	0,989
I can work offsite during my working day	2,53	2,00	2	1,140
My work environment is flexible	2,48	2,00	2	1,024

Table 5.8: Work Flexibility Statistics

5.3.4 Job Satisfaction

This section includes questions regarding job satisfaction and contains four items. According to the table 5.9 results, the respondents feel satisfied with their job (mean=2,63). They believe that they have supportive co-workers (mean=2,20). Furthermore, they perceive that their supervisor supports them (mean=2,23). Moreover, they feel that they are member of a team (mean=2,36).

From these results, it can be concluded that the respondents are quite satisfied with their jobs. It seems that the supportive relationship with colleagues and supervisors

increase the respondents' job satisfaction. However, the team spirit scores below 2.5 which means that the cooperation among co-workers and supervisors is not at its best.

	Mean	Median	Mode	St.Deviation
I am satisfied with my work	2,63	2,00	2	1,025
My co-workers support me in my work	2,20	2,00	2	0,907
My supervisor supports me in my work	2,23	2,00	2	0,988
I feel like I belong to the office team in my work	2,36	2,00	2	1,088

Table 5.9: Job Satisfaction Statistics

5.3.5 Organizational Commitment

This section consists of questions regarding organizational commitment and contains eight items. According the table 5.10 results, the respondent respect the vision of their firm (mean=2,37). The emotionally attach with the firm received a positive but weak mean value (2,59). The results in the questions “I would be very happy to spend the rest of my career with this firm” (mean=2,54), “This firm has a great personal meaning for me” (mean=2,77) and “I feel a strong sense of belonging to my firm” (mean=2,74) are perceived as positive but weak. Furthermore the results in the questions “I feel like “part of the family” at my firm” and “This firm is like my second home” are marginally neutral (mean= 2,80 and 2,93 respectively). On the other hand, the result in the question “I really feel as if this firm’s problems are my own” (mean=3,06) is perceived as weak.

From these results, it can be concluded that the respondents are not quite committed to their organizations. This could be explained by the current unsafe working environment and the possible lack of organizational support from companies to employees. Additionally, it is worth to be mentioned that the results indicates a deficit of trust from employees to organizations.

	Mean	Median	Mode	St.Deviation
I feel “emotionally attached” to this firm	2,59	2,00	2	1,179
This firm has a great personal meaning for me	2,77	3,00	3	1,192
I feel like “part of the family” at my firm	2,80	3,00	3	1,177

This firm is like my second home	2,93	3,00	3	1,185
I respect my firm's vision	2,37	2,00	2	1,107
I feel a strong sense of belonging to my firm	2,74	3,00	3	1,157
I really feel as if this firm's problems are my own	3,06	3,00	3	1,148
I would be very happy to spend the rest of my career with this firm	2,54	2,00	3	1,114

Table 5.10: Organizational Commitment Statistics

5.4 Factor Analysis

Factor analysis examines how valid and reliable are the variables. For this purpose the following indicators were used and calculated:

- Factor loadings
- Total Variance Explained (TVE)
- Kaiser-Meyer-Olkin (K.M.O.)
- Cronbach Alpha

The results of the factor analysis are presented in Table 5.11

Factor	Items	KMO	TVE	Factor Loadings	Cronbach α
Work Life Balance	1-5	,729	53,357	,611 - ,798	,774
Productivity	2, 3 [1]	,500	82,969	,911 - ,911	,795
Work Flexibility	1-5	,844	60,641	,646 - ,850	,831
Job Satisfaction	1-4	,817	76,149	,831 - ,850	,918
Organizational Commitment	1-8	,928	79,022	,810 - ,933	,962

Table 5.11. Factor Analysis

Factor Loadings

Factor loadings measure the influence of a factor on a variable (Son, 2011). Factor loadings should be greater or equal than 0.600 in order a variable to be included in the factor analysis

The majority of factor loadings in this study ranged above 0,600. This mean that no item was excluded from further examination.

Kaiser-Meyer-Olkin (KMO)

The Kaiser-Meyer-Olkin (KMO) test was used to examine adequacy of the sample. KMO results range between 0 and 1, with values closer to 1 being

considered more adequate. The limited value for a sample to be considered valid is 0,600.

The lowest KMO value calculated was 0,500, while the rest ranged from 0,729 to 0,928. This indicates that the sample is very adequate for the purpose of this research.

Total Variance Explained (TVE)

Total Variance Explained (TVE) relates to the importance of the factors, measuring the extent to which the factor can explain the variance in the set of items studied.

In this study, the majority of the factors are above 60% and they can be considered important. Only one factor is below but has value close to the limited value to be considered acceptable.

Cronbach Alpha

Cronbach Alpha indicator takes values from 0 to 1. Values greater than 0.7 suggest well-accepted consistency and reliability in the way the factors were measured (de Vellis, 2003) In case that Cronbach's indicator takes values closer to the unit then the analysis is considered significant reliable.

In this study, Job Satisfaction and organizational commitment hold values greater than 0,900 (0,918 and 0,962 respectively) which means that they have both excellent consistency and reliability. The other factors hold values up to 0, 70 implying positively reliability. In total, all factors selected, appear to be valid and reliable.

5.5 Correlation Analysis and ANOVA Analysis

Correlation Analysis is used to identify any relationship and connection among the factors. The instruments of correlation analysis are the Sig (2-tailed) test and the correlation coefficient. Sig. test examines if a relationship between two factors exists and correlation coefficient examines how strong this relationship is. Sig. test values should be lower than 0,05, which is the limit value for the existence of a relationship, in order a significant relationship exist. Regarding correlation coefficient, it takes values from -1 to +1. Higher values indicate stronger relationships.

Tables 5.12a and 5.12b present the correlation analysis results. Regarding the demographics data and occupational position, it can be seen that there is a strong positive relationship between marital status and Number of children. Additionally, no relationship was found between Age and Gender as well as between Age and Occupational position. Furthermore, it can be seen that between education and age there is a slight negative relationships.

Regarding the demographic data and the main factors of the research model, a strong negative relationship was found between organizational commitment and age. Furthermore, there is a strong negative relationship between job satisfaction and number of children. This is a reasonable finding because it is quite possible employees with many and increasing responsibilities feel less satisfied with their job. In addition a negative relationship exists between education and productivity. This may happen because less-educated employees feel less efficient and productive than their more-educated counterparts. Moreover, correlation analysis showed that there is no relationship between gender and job satisfaction. The opposite result showed Anova Analysis.

Table 5.12a: Correlation Analysis Results

		Q1: Gender [A1]	Q2: Age [A2]	Q3: Education [A3]	Q4: Marital Status [A4]	Q5: Number of children [A5]	Q6: Occupation al position [A6]
Q1: Gender [A1]	Spearman's rho	1,000					
	Sig. (2-tailed)	.					
Q2: Age [A2]	Spearman's rho		1,000				
	Sig. (2-tailed)		.				
Q3: Education [A3]	Spearman's rho	-,258	-,200	1,000			
	Sig. (2-tailed)	,008	,042	.			
Q4: Marital status [A4]	Spearman's rho		,268		1,000		
	Sig. (2-tailed)		,006		.		
Q5: Number of children [A5]	Spearman's rho		,270		,776	1,000	
	Sig. (2-tailed)		,006		,000	.	
Q6: Occupational position [A6]	Spearman's rho		,204				1,000
	Sig. (2-tailed)		,038				.
B. Work Life Balance	Spearman's rho						
	Sig. (2-tailed)						
C. Productivity	Spearman's rho			-,139			
	Sig. (2-tailed)			,159			
D. Work Flexibility	Spearman's rho						
	Sig. (2-tailed)						
E. Job Satisfaction	Spearman's rho					-,320	
	Sig. (2-tailed)					,001	
F. Organizational Commitment	Spearman's rho		-,334			-,268	
	Sig. (2-tailed)		,001			,006	

The table 5.12b shows the correlation analysis results between the factors of the research model. It can be referred that the factors are correlated. There is only one exception, work-life balance, which is not related to other factors.

Regarding productivity a low but positive relationship was found with work-life balance (,266). As far work flexibility is concerned, a positive correlation was found with work-life balance (,491). Furthermore, a low but positive relationship, as well was found between work flexibility and productivity (,312). In regard to job satisfaction, a positive relationship was found with work-life balance (,448). Additionally job satisfaction is correlated with productivity (,269). Furthermore a significant positive relationship was found between job satisfaction and work flexibility (,634). The last score reveals that as work flexibility is getting increased, employees are more satisfied with their job.

Finally, a positive correlation was found between organizational commitment and work life balance (,345). In addition, a very positive correlation was found between

organizational commitment and productivity (,311). Furthermore, organizational commitment is strongly and positively correlated at a significant level with work flexibility (,611). Moreover, a significant positive relationship was found between organizational commitment and job satisfaction (,696). From the above, it can be concluded that, as satisfaction through work is getting increased, organizational commitment is getting increased, as well. In addition, the more satisfied with their job are employees, the more committed with the organization they are.

		Work Life Balance	Productivity	Work Flexibility	Job Satisfaction	Organizational Commitment
Work Life Balance	Spearman's rho	1,000				
	Sig. (2-tailed)	.				
Productivity	Spearman's rho	,266	1,000			
	Sig. (2-tailed)	,006	.			
Work Flexibility	Spearman's rho	,491	,312	1,000		
	Sig. (2-tailed)	,000	,001	.		
Job Satisfaction	Spearman's rho	,448	,269	,634	1,000	
	Sig. (2-tailed)	,000	,006	,000	.	
Organizational Commitment	Spearman's rho	,345	,311	,611	,696	1,000
	Sig. (2-tailed)	,000	,001	,000	,000	.

Table 5.12b: Correlation Analysis Results

In the below table (5.13) one-way ANOVA between several factors of work balance and the dependent variables of the respondents are depicted. As we can see, regarding the gender, the significance value is 0.050 (i.e., $p = .050$), which is equal to 0.05 and therefore, there is a statistically significant difference in the job satisfaction between men and women. The results show that men (2.61) have more job satisfaction than women (2.21). This may happen because women have a disadvantaged position in the job market regarding salary, career prospects and benefits. Moreover, we can also assume that the significance is 0.037 (i.e., $p = .037$), which is less than 0.05 and, therefore, there is a statistically significant difference in the organization commitment between the different age groups. The results show that young employees are more committed than older employees. This may happen because young employees have more career objectives and desire to work as well organizations invest to their development.

In the rest ANOVA tests we can assume that there are no statistically significant differences among groups.

	Q1: Gender [A1]	Q2: Age [A2]	Q3: Education [A3]	Q4: Marital Status [A4]	Q5: Number of children [A5]	Q6: Occupational position [A6]
B. Work Life Balance						
C. Productivity						
D. Work Flexibility						
E. Job Satisfaction	M:2.61, F:2.24 (.050)					
F. Organizational Commitment		1:2.50, 2:3.10, 3:2.89, 4:2.27, 5:2.09, 6:1.62 (.037)				

Table 5.13: ANOVA Analysis Results

5.6 Structural Equation Modeling

Structural modeling (SEM) is used in order to test the proposed model. For this purpose, six measures have been used:

- Minimum Sample Discrepancy/Degrees of Freedom (CMIN/DF)
- Goodness-of-Fit Index (GFI)
- Comparative Fit Index (CFI)
- Normed Fit Index (NFI)
- Root Mean Square Residual (RMR)
- Root Mean Square Error of Association (RMSEA)

The above measures, the acceptable values and the calculated values are presented in Table 5.14.

Fit Index	Acceptable Value	Model 1: Calculated Value	Model 2: Calculated Value
Minimum Sample Discrepancy/Degrees of Freedom (CMIN/DF)	<5	0,979	2,470
Goodness-of-Fit Index (GFI)	>0,900	1,000	0,911
Comparative Fit Index (CFI)	>0,900	0,985	0,894
Normed Fit Index (NFI)	>0,900	0,985	0,860
Root Mean Square Residual (RMR)	<0,70	0,15	0,058
Root Mean Square Error of Association (RMSEA)	<0,100	0,000	0,095

Table 5.14: SEM measures

The results indicate that the model is valid, since the calculated values are within the limits. The model relations are presented in Figure 5.1a and 5.1b

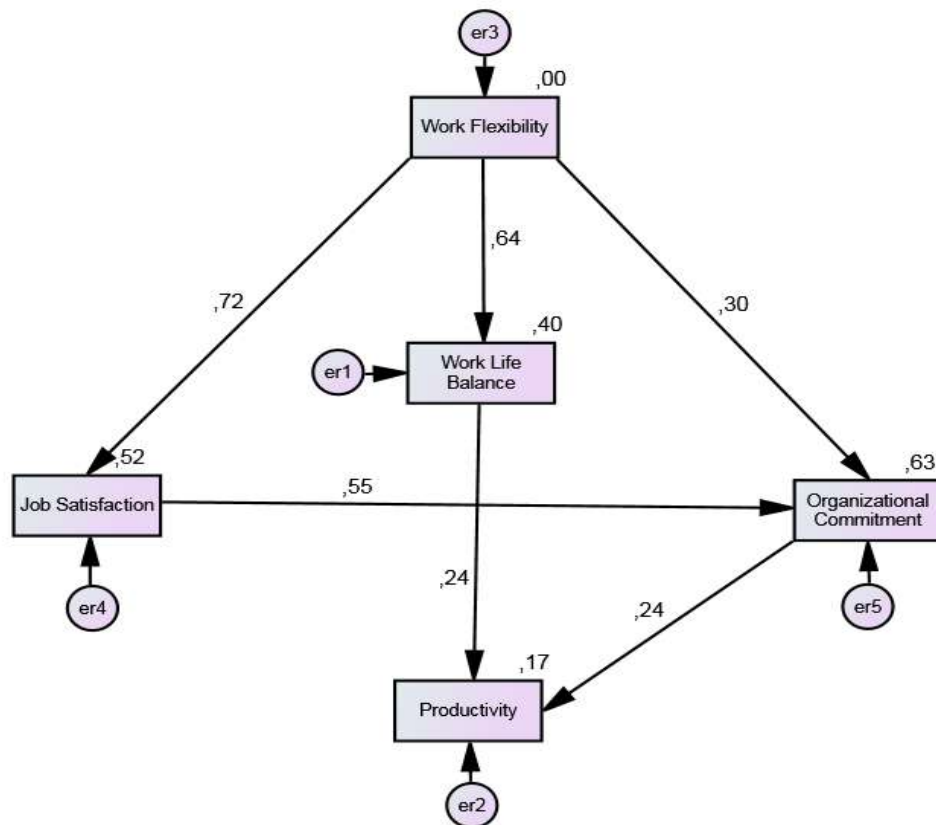


Figure 5.1a: SEM Model 1

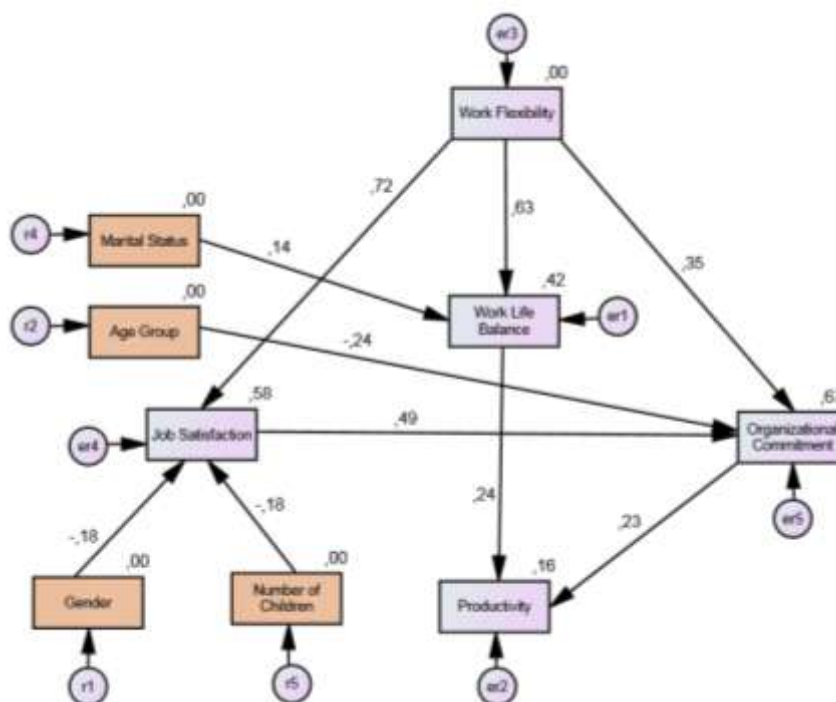


Figure 5.1b: SEM Model 2

The predictive power of the model is very satisfactory, explaining 63% of organizational commitment, 52% of job satisfaction, 42% of work life balance and 17% of productivity.

Work flexibility is significant affecting Job satisfaction (72%), work-life balance (63%) and organizational commitment (35%). Furthermore job satisfaction affects organizational commitment (49%) and organizational commitment affects productivity (23%). In addition it can be seen that work –life balance affects productivity (24%).

Based on figure 5.1b, it can be seen that some demographic factors, which were not included in the initial research model, affect the main factor of the model. Marital status affects work-life balance (24%). Age affects organizational commitment negatively (-24%). Furthermore gender and number of children affect job satisfaction negatively (-18%).

Moreover the tables 5.15, 5.16 and 5.17 present the Direct, Indirect and Total effect of each factor. It is necessary to be mention that factor D (work flexibility) has the highest total and direct effect on job satisfaction (72,1%).

Table 5.15: Standardized Total Effects

	D	E	B	F
E	,721	,000	,000	,000
B	,635	,000	,000	,000
F	,695	,552	,000	,000
C	,321	,132	,244	,239

Table 5.16: Standardized Direct Effects

	D	E	B	F
E	,721	,000	,000	,000
B	,635	,000	,000	,000
F	,298	,552	,000	,000
C	,000	,000	,244	,239

Table 5.17: Standardized Indirect Effects

	D	E	B	F
E	,000	,000	,000	,000
B	,000	,000	,000	,000
F	,398	,000	,000	,000
C	,321	,132	,000	,000

The Structural Equation Model consisted of eight hypotheses. Five hypotheses were accepted, three hypotheses were rejected while five new hypotheses can be proposed. The table 5.18 presents the results of the hypotheses testing.

Hypotheses	Path Coefficient	Result
H1: Work flexibility → work-life balance	0,63	Accepted
H2: Work flexibility → satisfaction	0,72	Accepted
H3: Work flexibility → organizational commitment	0,35	Accepted
H4: Work-life balance → job satisfaction	-	Rejected
H5: Work-life balance → organizational commitment	-	Rejected
H6: Job satisfaction → organizational commitment	0,49	Accepted
H7: Job satisfaction → productivity.	-	Rejected
H8: Organizational commitment → productivity	0,23	Accepted
H9: Work life balance → productivity	0,24	New
H10: Marital status → work-life balance	0,14	New
H11: Age → organizational commitment	-0,24	New
H12: Gender → job satisfaction	-0,18	New
H13: Number of children → job satisfaction	-0,18	New

Table 5.18: Hypotheses Testing Results

CHAPTER 6: Summary and Conclusions

6.1 Brief Summary of the Followed Steps

This study describes the concept of teleworking demonstrating its organizational outcomes for employees and organizations. Additionally it attempts to examine the relationship between these organizational outcomes among teleworkers of the telecommunication sector in Greece during the pandemic Covid-19.

A literature review was conducted in order to examine the concept of teleworking, its antecedents and outcomes. Also an illusion to the pandemic Covid-19 was made. Furthermore a research model was constructed based on previous researches with the appropriate set of hypotheses.

A survey was conducted using a structured questionnaire based on statements from previous studies. The questionnaire was delivered online via email to participants. The sample consisted of 104 respondents who were teleworkers.

Following a statistical analysis took place using the SPSS statistic tool. Descriptive statistics is used to examine the demographic data of the sample. Through factor analysis, it is appraised the reliability, the adequacy and the validity of the factors. Furthermore, correlation and ANOVA analysis was used to identify any relationships within the model. Finally, Structural Equation Model was used to evaluate the research's model consistency and its hypotheses.

The last section includes a discussion of the research outcomes and its managerial implications. Also it contains the research's limitations and recommendations for future research.

6.2 Discussion

The results of the factor, correlation and ANOVA analysis were particularly satisfactory. The factor analysis examined how reliable, adequate and valid were the factors. The K.M.O test suggested that the sample was adequate since values varied quite above the accepted limited value. According the T.V.E test, the majority of the factors was acceptable since their value was greater than 60%. Furthermore, the Cronbach Alpha test indicated that all the factors were valid and reliable. Correlation

analysis examined the existence of relationship between the factors of the model. Regarding the demographic factors and the factors of the proposed model, few relationships existed. On the contrary, positive correlations between the basic factors of the model were observed. More specific, a positive correlation was found between work flexibility and work-life balance. A significant positive relationship was observed between job satisfaction and work flexibility. Furthermore, a very positive correlation was found between organizational commitment and productivity. Additionally, organizational commitment was strongly and positively correlated at a significant level with work flexibility. Also, a significant positive relationship was found between organizational commitment and job satisfaction. Subsequently, ANOVA analysis showed that there was a significant difference in the job satisfaction between men and women. The results indicated that men have more job satisfaction than women. This is confirmed by previous studies (Mora & Ferrer-i-Carbonell, 2009; Amune, 2014). Moreover, ANOVA analysis showed a statistically significant difference in the organizational commitment between the different age groups. The results indicated that younger employees are more committed than older employees. The structured Equation Model examined the consistency of the research's model testing its hypotheses. According to the SEM, 5 hypotheses were accepted, 3 hypotheses were rejected and 5 new hypotheses can be proposed.

The first hypothesis H1 proposed that work flexibility is positively related to work-life balance, which was accepted. This result comes in support with the conclusions of previous studies (Hill et. al., 2008, Powell et. al., 2009; Zhang et. al., 2012, Istrate & Caragea, 2008). The second hypothesis H2 suggested that Work flexibility is positively related to job satisfaction, this hypothesis was accepted confirming past researches (Carlson & Grzywacz, 2010; Michael & Michael, 2015; Unanne et. al., 2017). The third hypothesis H3 proposed that work flexibility is positively related to organizational commitment. This hypothesis was also accepted. This result comes in support of the outcomes of previous studies (Ng et. al., 2005; Hackman & Vedman, 1980). The fourth H4 and fifth H5 hypotheses suggested that work-life balance has a direct impact on job satisfaction and work-life balance has a direct impact on organizational commitment were rejected, because no evidence was found to support them. Additionally, the sixth hypothesis H6 proposed that job satisfaction has a direct effect on organizational commitment, which was accepted. Previous studies confirm this result (Catoline et. al., 2015; Jonathan et. al., 2010; Hyenjin et. al., 2012; Miguel

et. al., 2014). The seventh hypothesis H7 suggested that job satisfaction has a direct effect on productivity, which also rejected. Finally the eighth hypothesis H8 proposed that organizational commitment has a direct effect on productivity. This hypothesis was accepted confirming the past researches (Carver & Candela, 2008; Meer & Ringdal, 2009). The new proposed hypotheses refer to the relationship of demographic data and some of the main factors of the initial research model. Marital status is positively related with work-life balance as well as age is positively related to organizational commitment. On the other hand, gender and number of children are negatively related with job satisfaction.

6.3 Managerial Implications

This study came to same important conclusions which can be useful for telecommunications organizations. First of all, the research concluded that there are differences between organizational commitment and age groups as well between job satisfaction and gender. The research found that younger employees feel more committed than their older colleagues. Undoubtedly, organizations invest mainly in younger employees because they are skillful and they want to work hard in order to achieve their career objectives. This may cause insecurity to older employees who feel neglected from their organizations. Organizations should support and encourage older employees. Through appropriate learning programs organizations can develop employees' skills and competencies in order to remain employable and increase their commitment (Maurer, 2003).

Regarding job satisfaction, the research concluded that women have less satisfaction than men. This is a usual phenomenon due to the condition of the job market and the position of women employees within the market. Organizations should enhance women job satisfaction taking appropriate measures. They should balance the pay inequality between genders. They should promote women professional development providing them career opportunities. Furthermore they should offer them an appropriate working environment without discriminations and harassments. Additionally, implementing work-life policies, women have the opportunity to counterbalance their business and caregiver roles (ILO, 2020).

Further, this study's results can drive organizations to rethink their teleworking strategies improving them in order to enjoy teleworking's positive outcomes.

As it was mentioned previously, many researchers have concluded that teleworking increases work flexibility, employees' productivity, job satisfaction, organizational commitment and improves their work-life balance.

The study's results showed that work flexibility has an important positive influence on work-life balance, job satisfaction and organizational commitment. Enhancing work flexibility through appropriate teleworking programs, organizations will increase their employees' job satisfaction and organizational commitment and improve their work-life balance. This conclusion has been confirmed by Deery and Jago (2009) research. Furthermore, the results showed the organizational commitment is positively connected with productivity. Organizations should support and encourage employees. When employees feel that they are part of organizations, they feel more committed and this lead to an increase of their productivity.

6.4 Research Restrictions

In each research, it should be taken account of several restrictions which may be arisen and have impact on the research's results. This study faces with the following restrictions:

- **Sample size:** The sample size is quite small (104 participants) in comparison with the total number of employees in the telecommunication sector.
- **Business field:** The study is engaged only with the companies of the telecommunication sector because the telecommunication sector dominates the Greek economy and contributes significantly to its growth.
- **Subjectivity of responses:** The questions are subjective and it is possible respondents have overestimated or underestimated a question.



6.5 Recommendation for Future Research

There is no doubt that teleworking will remain as an alternative work form after the end of the pandemic Covid-19.

Teleworking was an unexampled experience both for organizations and employees in Greece. Thus it is suggest an extended research of employees' attitudes towards teleworking and its benefits both at private and public sector.

Furthermore, it is proposed a research about the disadvantages of teleworking. Negative factor such as social isolation, emotional exhaustion and excessive workloads should be examined in order organizations takes the appropriate measures for their treatment.

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Appendix A. Questionnaire

A. Demographic data and occupational position

A.1. What is your gender?

Male ☐

Female ☐

A.2. Which is your age group?

20-25 ☐

26-30 ☐

31-40 ☐

41-50 ☐

51-60 ☐

61+ ☐

A.3. Which is the highest level of education that you have completed?

Primary school ☐

High school ☐

Bachelor degree ☐

Master degree ☐

Doctoral ☐

A.4. Which is your marital status?

Single ☐

Married ☐

Other (Please specify) ☐

A.5. Which is the number of children in the home?

None ☐

One ☐

Two ☐

Three ☐

More than three (Please specify)

A.6. Which is your occupational position?

Non-managerial position ☐

Managerial position ☐

B. Work-life Balance

		Strongly agree	agree	Neither agree/nor disagree	disagree	Strongly disagree
		1	2	3	4	5
B.1	Working in this institution has an impact on my family life.					
B.2	Work pressure and other role requirements sometimes emerge as source of stress.					
B.3	I sometimes think about the work requirement.					
B.4	I am able to balance both work and family requirements in a successful manner.					
B.5	I get opportunities to spend quality time with my friends and family on weekends					

A. Productivity

		Strongly agree	agree	Neither agree/nor disagree	disagree	Strongly disagree
		1	2	3	4	5
C.1	I am not productive in my work environment					
C.2	Teleworking allows me to be more productive					
C.3	I can finish a large number of tasks daily while teleworking					

B. Work flexibility

		1	2	3	4	5
D.1	My firm allows me to organize my own working time					
D.2	My firm allows me to have full control over my work					
D.3	My work-family relationship is balanced					
D.4	I can work offsite during my working day					
D.5	My work environment is flexible					

C. Job satisfaction

		1	2	3	4	5
E.1	I am satisfied with my work					
E.2	My co-workers support me in my work					
E.3	My supervisor supports me in my work					
E.4	I feel like I belong to the office team in my work					

D. Organizational commitment

		1	2	3	4	5
F.1	I feel “emotionally attached” to this firm					
F.2	This firm has a great personal meaning for me					
F.3	I feel like “part of the family” at my firm					
F.4	This firm is like my second home					
F.5	I respect my firm’s vision					
F.6	I feel a strong sense of belonging to my firm					
F.7	I really feel as if this firm’s problems are my own					
F.8	I would be very happy to spend the rest of my career with this firm					

ΕΡΩΤΗΜΑΤΟΛΟΓΙΟ

A. Δημογραφικά στοιχεία και επαγγελματική θέση

A.1. Ποιό είναι το φύλλο σας;

Ανδρας ☐

Γυναίκα ☐

A.2. Σε ποια ηλικιακή ομάδα ανήκετε;

20-25 ☐

26-30 ☐

31-40 ☐

41-50 ☐

51-60 ☐

61+ ☐

A.3. Ποιό είναι το επίπεδο των σπουδών σας;

Δημοτικό ☐

Λύκειο ☐

Πτυχίο ΑΕΙ/ΤΕΙ ☐

Μεταπτυχιακό ☐

Διδακτορικό ☐

A.4. Ποιά είναι η οικογενειακή σας κατάσταση;

Άγαμος/η ☐

Παντρεμένος/η ☐

Άλλο (παρακαλώ διευκρινίστε)

A.5. Πόσο παιδιά έχετε;

Κανένα ☐

Ένα ☐

Δύο ☐

Τρία ☐ Περισσότερα από τρία (παρακαλώ διευκρινίστε)

A.6. Ποια είναι η επαγγελματική σας θέση;

Μη διοικητική θέση ☐

Διοικητική θέση ☐

B. Εξισορρόπηση επαγγελματικής-προσωπικής ζωής (work-life balance)

		Συμφωνώ απόλυτα	Συμφωνώ	Ούτε συμφωνώ \ ούτε διαφωνώ	Διαφωνώ	Διαφωνώ απόλυτα
		1	2	3	4	5
B.1	Η εργασία μου σε αυτό τον οργανισμό/επιχείρηση έχει επίδραση στην οικογενειακή μου ζωή.					
B.2	Η πίεση της δουλειάς και οι απαιτήσεις της θέσης μου «λειτουργούν» ως πηγή άγχους.					
B.3	Μερικές φορές σκέφτομαι τις απαιτήσεις της δουλειάς.					
B.4	Μπορώ να εξισορροπώ τα δυο, τις απαιτήσεις και της δουλειάς και της οικογενειακής μου ζωής, με επιτυχημένο τρόπο.					
B.5	Έχω ευκαιρίες να περνάω ποιοτικό χρόνο με τους φίλους και την οικογένειά μου τα σαββατοκύριακα.					

Γ. Παραγωγικότητα (Productivity)

		Συμφωνώ απόλυτα	Συμφωνώ	Ούτε συμφωνώ \ ούτε διαφωνώ	Διαφωνώ	Διαφωνώ απόλυτα
		1	2	3	4	5
Γ.1	Δεν είμαι παραγωγικός/η στο εργασιακό μου περιβάλλον.					
Γ.2	Η τηλεργασία μου επιτρέπει να είμαι περισσότερος παραγωγικός/η.					
Γ.3	Μπορώ να ολοκληρώνω ένα μεγάλο όγκο δουλειάς καθημερινά ενώ τηλεργάζομαι.					

Δ. Εργασιακή ευελιξία (work flexibility)

		1	2	3	4	5
Δ.1	Ο οργανισμός/επιχείρηση, μου επιτρέπει να οργανώνω το χρόνο εργασίας μου.					
Δ.2	Ο οργανισμός/επιχείρηση μου επιτρέπει να έχω τον πλήρη έλεγχο της εργασίας μου.					
Δ.3	Η σχέση μεταξύ της εργασίας και της οικογένειάς μου είναι ισορροπημένη.					
Δ.4	Μπορώ να εργάζομαι εκτός γραφείου κατά τη διάρκεια της μέρας.					
Δ.5	Το εργασιακό μου περιβάλλον είναι ευέλικτο.					

Ε. Εργασιακή ικανοποίηση (Job satisfaction)

		1	2	3	4	5
E.1	Είμαι ικανοποιημένος/η με τη δουλειά μου.					
E.2	Οι συνάδελφοι μου με υποστηρίζουν στη δουλειά μου.					
E.3	Ο προϊστάμενος μου με υποστηρίζει στη δουλειά μου.					
E.4	Αισθάνομαι ότι ανήκω σε ομάδα στη εργασία μου					

Ζ. Οργανωσιακή δέσμευση (Organizational commitment)

		1	2	3	4	5
Z.1	Αισθάνομαι «συναισθηματικά δεμένος/η» με την εταιρεία.					
Z.2	Αυτή η εταιρεία έχει σπουδαία προσωπική σημασία για μένα.					
Z.3	Αισθάνομαι ως «μέλος της οικογένειας» στην εταιρεία μου.					
Z.4	Αυτή η εταιρεία είναι σαν τα δεύτερο σπίτι μου.					
Z.5	Σέβομαι το όραμα της εταιρείας μου.					
Z.6	Νιώθω ότι ανήκω στην εταιρεία.					
Z.7	Αισθάνομαι τα προβλήματα της εταιρείας σαν δικά μου.					
Z.8	Θα ήμουν χαρούμενος/η να περάσω το υπόλοιπο της καριέρας μου σε αυτή την εταιρεία.					



Υπεύθυνη Δήλωση Συγγραφέα:

Δηλώνω ρητά ότι, σύμφωνα με το άρθρο 8 του Ν.1599/1986, η παρούσα εργασία αποτελεί αποκλειστικά προϊόν προσωπικής μου εργασίας, δεν προσβάλλει κάθε μορφής δικαιώματα διανοητικής ιδιοκτησίας, προσωπικότητας και προσωπικών δεδομένων τρίτων, δεν περιέχει έργα/εισφορές τρίτων για τα οποία απαιτείται άδεια των δημιουργών/δικαιούχων και δεν είναι προϊόν μερικής ή ολικής αντιγραφής, οι πηγές δε που χρησιμοποιήθηκαν περιορίζονται στις βιβλιογραφικές αναφορές και μόνον και πληρούν τους κανόνες της επιστημονικής παράθεσης.



Dimitra Asimina Kasidi, Teleworking and its effects among employees at the Telecommunication sector in Greece during the Covid-19 pandemic