

The Influence of Working from Home on Employees' Productivity

Comparative document analysis between the years 2000 and 2019-2020

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Abstract

More public and private organisations offer working from home as an alternative way of working for their employees. Working from home (WFH) has both benefits and drawbacks for the employees when it is compared to the office working. While some of the researchers, such as Shafizadeh et al. (2000) claim that working from home increases the productivity of the employees, other researchers, such as Monteiro et al. (2019) claim the opposite. This study analysed five research articles published in year 2000 and five research articles published in years 2019 and 2020 to discover the factors having an influence on the productivity of the employees who work from home, whether the influence of these factors have on the productivity is positive or negative and whether the factors have changed from year 2000 to the recent years (2019 and 2020).

The study results indicate that working from home has an influence on productivity of the employees. While influences of some of the factors are either positive or negative, the influence of some of the factors depend on the characteristics and attitude of the employees and the circumstances.

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1. Introduction

In this chapter, the background to the influence of working from home on employees' productivity is addressed. Purpose of the essay is described and the intended target group for the essay is defined. Problem formulation and delimitations are also addressed. The outline of the essay including the content is presented.

1.1 Problem background

It is getting more common for organisations to offer their employees the option to work from home for various reasons, such as decreasing office rent costs, balancing work life for the employees and saving time on commuting. Working from home alternative has gained importance with the quarantine period during pandemic Covid-19 as many countries apply physical distancing strategy to avoid the pandemic. Therefore working from home has become the only alternative for some employees. As one of the most important business factors for organisations is the productivity of their employees, it is important to find out whether working from home has an influence on productivity, whether the influence is positive or negative and whether there has been a change in the factors since 2000.

1.2 Purpose and intended target group

The purpose of this essay is to have a broader understanding of the connection between working from home practice and productivity of the employees and to discover whether there has been a change in the productivity factors for the last 20 years.

The target group is primarily both public and private organisations, which offer or consider offering their employees to work from home and employees who work from home or consider working from home.

1.3 Problem formulation

The research questions are:

- Does working from home have an influence on productivity of the employees?
- What are the factors influencing productivity positively for the employees working from home?
- What are the factors influencing productivity negatively for the employees working from home?
- Has there been a change in the productivity factors between year 2000 and years 2019-2020.

1.4 Delimitations

Several delimitations are set to define the content and scope of the essay. The article search for the academic articles included these keywords: "productivity", "working from home", "telecommuting", "teleworking", "remote work", "virtual organisations" and combinations of these keywords. As these terms are used interchangeably, it is aimed to access as many sources as possible by the usage of these keywords. Only academic articles were included in the search in order to exclude texts including personal opinions which were not supported by any research. The language of the articles was limited to only English. Moreover only relevant articles with the richest content written in years 2000, 2019 and 2020 were included in the study. The details of the delimitations can be found in the section 3.1 Selection of The Material.

1.5 Outline of the essay

Chapter 2 presents Literature Review, which consists of selection of the literature, definitions of the concepts relevant to the subject, the reasoning behind preferring working from home practices and finally benefits and drawbacks of working from home. Chapter 3 presents the methodology of the essay, which includes method design for data collection and for data analysis. It also includes selection of the material. Chapter 4 presents results and findings of articles published in 2000 and articles published in 2019 and 2020. Chapter 5 is the Analysis and Discussion chapter, which presents the thematic analysis for year 2000 and for years 2019 and 2020. An overview of the themes and differences between them for the abovementioned years are given. Chapter 6 presents Conclusions, which includes the themes written about in year 2000 and years 2019 and 2020. Differences in themes are also presented.

2. Literature review

In this chapter, the selection of the literature is specified, definitions of the keywords are given and the benefits and the drawbacks of working from home are explained. Definitions of the keywords for accessing the relevant academic articles are given to explain why different words and phrases are used in different articles to refer to the same concept. The benefits and the drawbacks of working from home are discussed separately from both the employees and the organizations' point of view.

2.1 Selection of the Literature

The selection of literature is limited to the academic articles which are available in the online library of Karlstad University and Google Scholar. Moreover only the relevant articles published in years 2000, 2019 and 2020 are included.

2.2 Definitions

As mentioned in section 3.2 Method Design for Data Collection, several keywords and key phrases were used to access relevant academic articles. Some of the keywords need to be defined to clarify the reason behind usage of several different words in different articles. These keywords are: "working from home", "telecommuting", "teleworking" and "remote work". Baker et al. (2007:38), who prefer the phrase "remote working", explain this problem as follows: "Reasons include that remote working has been studied under various names (e.g., teleworking, telecommuting, working from home), with no generally accepted definitions; terms are used differently and interchangeably from study to study; and data gathering methods and definitions vary."

The definition of "telework" proposed by the International Labor Organization (ILO) in 1990 seems to be the most accepted definition: "A form of work in which (a) work is performed in a location remote from a central office or production facilities, thus separating the worker from personal contact with co-workers there; and (b) new technology enables this separation by facilitating communication" (Ruiz and Walling 2005, as cited in Beňo 2018:27). Blackwell et al.. (2002:76) point out an issue, which is important for this essay. They quoted The International Telework Association and Council (ITAC) as follows: "Telework is a much broader term that means using telecommunications to work wherever you need to in order to satisfy client needs; whether it be from a home office, telework center, satellite office, a client's office, an airport lounge, a hotel room, the local Starbucks, or from your office to a colleague 10 floors down in the same building—wherever (ITAC 2001, as cited in Blackwell et al. 2002:76). In other words, not all teleworkers are necessarily employees working from home.

Thus, some of the articles on teleworking were excluded as they were concerned with employees working out of the office, but not necessarily from home. The same exclusion process was also valid for the term telecommuting. Shafizadeh et al. (2000:2-3) explain the two types of telecommuting: home-based telecommuting and center-based telecommuting. Articles on center-based telecommuting, which involve work from a local or regional satellite office, were excluded in the search process for the data collection. They define home-based telecommuting as "working from home with communication to the office" (Shafizadeh et al. 2000:2-3). Blackwell et al. (2002:76) also indicate that telecommute and telework are used interchangeably. Therefore, all these terms were among the keywords and phrases and all the articles written about employees working from home were viewed as relevant to the subject.

In this paper, the phrase "working from home" is used as it is precisely what the study is concerned with. The terms "telework" and "remote work" are not preferred, as they can be performed in any location except the office of the organisation and not necessarily at home. The term "telecommuting" is not preferred, either, as it has two types, only one of which is concerned with this study.

2.3 Benefits and Drawbacks of WFH

Both organisations and their employees have several motivations for preferring the practice of working from home. There are also drawbacks of the practice for both the organisations and the employees. These benefits and drawbacks are explained in the sections below:

2.3.1 The motivations of the organisations preferring WFH

As some of the countries have been applying full compulsory quarantine due to Covid-19 pandemic, the only alternative organisations have in these countries is working from home. However, even when there was no pandemic, some of the organisations preferred working from home practice for their employees. The motivations of the organisations preferring working from home are as follows:

Lupu (2017:696) mentions the reduced expenses of organisations, such as "rent, maintenance, computers, telephones, offices, utilities, equipment, etc". Ford and Butts (1991:20) also make further explanations about office space costs and indicate that companies can avoid leasing additional offices through a telecommuting program. Beňo (2018:26) also mentions the reduced costs of parking space for the employees' cars. Another factor organisations have as a motivation is increased workforce productivity. Both Lupu (2017:696) and Ford & Butts (1991:20) mention productivity factor and suggest that the reason behind it, is long periods of uninterrupted time for concentration on their tasks and "lack of interruptions, increased concentration, increased motivation, employee satisfaction, a better employee dedication, increased work energy by reducing time and disruptive elements" (Lupu 2017:696). The third factor is related to the possibility to employ people who may otherwise not be able to travel to the office, such as mothers, the handicapped, employees who live far away from the office and do not want to be relocated (Ford and Butts 1991:20). The fourth factor is concerned with reducing absenteeism. Lupu (2017:696) claims that these factors reduce absenteeism: "diseases, family events, adverse weather conditions, nervous breakdown". Wienclaw (2019:2) adds the factor of caring for sick children or elders easily without having to take time off from work into the list of factors reducing absenteeism. The fifth factor motivating the organisations for preferring working from home practice is "reducing the spreading of contagious diseases among employees, which causes interruptions in the working process and additional expenses" (Lupu 2017:696). The sixth factor is related to reducing employee stress of the employees.

Lupu (2017:696) claims that the stress may be manifested by reduced concentration levels, work-related mistakes, insubordination, creating dissatisfaction among the members of the team and developing diseases which are related to the occupation, such as stroke and heart attack.

2.3.2 Benefits of WFH for Employees

Some of the employees prefer working from home rather than working at an office and there are various reasons for this preference, which are explained below:

One of the most influential reasons for preferring working from home is the flexible scheduling options. Lupu (2017:695) states that flexible scheduling enables employees to have a certain autonomy in planning their daily lives, including both employee and family activities according to their needs, such as taking their children to school or go to the doctor. Ford and Butts (1991:20) mention the possibility of the employees to modify their working schedule daily or even hourly. Wienclaw (2019:2) lists the benefits of flexible scheduling option as follows: being free to sleep in and work late, starting and ending early, working forty hours in four days instead of five or six days a week, scheduling personal appointments (e.g. physician, dentist, hairdresser) during office work-hours and completing the work later in the evening without using vacation days.

Another benefit of working from home for the employees is saving time in commuting to the office, avoiding rush-hour traffic. Ford and Butts (1991:20) claim that eliminating the stresses of driving in rush hour traffic may represent the most important advantage for many employees. Wienclaw (2019:2) indicates that by not commuting, employees will have more free-time to spend with their families.

There is also a financial benefit from many aspects for the employees working from home. They can save money "by dispensing with the commute to the office" (Wienclaw 2019:2), such as "savings in gasoline and vehicle wear" (Ford and Butts 1991:20), "costs for parking or other transportation" (Wienclaw 2019:2). Employees can also save money by eliminating costs of appropriate office clothing and lunches (Ford and Butts 1991:20). Another financial benefit they have is decreased cost with "babysitting/kindergartens/nurses" (Lupu 2017:695) and "not having to pay for afterschool programs" (Wienclaw 2019:2).

Working from home has benefits particularly for "new mothers or the physically handicapped who find travel burdensome or are unable to leave the home but need or want to stay in the workforce" (Ford and Butts 1991:20). Option of providing care to sick children or elders while working is another benefit (Beňo 2018:26), (Wienclaw 2019:2). Moreover, working from home makes it possible for people living in isolated areas to be employed (Lupu 2017:695), it reduces the chances of getting sick, fatigue and work-related stress (Lupu 2017:695).

2.3.3 Drawbacks of WFH for Employees

There are also several drawbacks of working from home for employees. Lupu (2017:696) mentions these drawbacks: "the technical problems that cannot be solved remotely, the unequal salaries between employees working in the office and teleworkers; employee isolation, limitation of normal interaction with the colleagues and difficulties in organizing union activities".

Another important drawback for the employees is the hindrance of career advancement. Ford and Butts (1991:21) claim that the saying "out of sight, out of mind" is valid for employees working from home when it is time for promotions of the personnel. They claim that co-workers remaining in the office have a higher chance to be known and get promoted quicker, as the management does not know about the interpersonal communication skills and relationships of the employee working from home. This situation affects his or her future employment as well, as the present employer or the supervisors do not have a clear picture about the employee working from home and therefore have doubts about making recommendations.

The final drawback of working from home for the employees is concerned with lacking opportunity to have informal communication network with the colleagues. When the employees do not have such interactions, they may feel alienated from the colleagues and company goals and values (Ford and Butts 1991:21).

2.3.4 Drawbacks of WFH for Organizations

Although working from home practice has become more common in many countries due to the benefits mentioned above, organizations still have reluctancy to adopt this form of working because of the drawbacks.

Ford and Butts (1991:21) claim that drawbacks of working from home practice are based on perceived or actual loss of control of the organization. Organizations fear that employees may give priority to personal errands over work or may "farm out the work to somebody else" decreasing the control of the organisation even further. This may lead to data security problems, which Peters et al. (2004:471) claim to the major drawback, ranking first among many other drawbacks according to their study. Ford and Butts (1991:21) claim that security risks are caused mainly by "allowing outside computer terminal connections and external access to company databases" when the employees are allowed to work from home. They indicate that there is a risk of unauthorized access to the system and privileged company data which can be used by their competitors.

Peters et al. (2004:471) state that productivity and work quality problems are ranked second among the drawbacks of working from home for organisations according to their study. Greer et al. (2014:98) mention distractions in the home environment of the employees, which was reported as a drawback by supervisors. They also reported "lack of adequate work-related resources including technological equipment and files stored at the main worksite that are required to perform work-related tasks while teleworking" (Greer et al. 2014:98). Another reported drawback by supervisors was "managing and monitoring teleworker performance" (Greer et al. 2014:98). One of the reasons creating this problem is the "limited accessibility of employees" by the organisation (Lupu 2017:696). Even when the employees are accessed by their colleagues and supervisors, "lack of face-to-face communication and the benefits associated with face-to-face communication" creates a drawback for the employees (Greer et al. 2014:98). Efficient communication is especially important for working from home practices as the team members are interdependent on each other and it is a challenge for the supervisors to coordinate them, as each of them are physically in different places (Greer et al. 2014:98). Peters et al. (2004:471) mention a survey conducted with 66 managers who were against working from home as they think the practice increases the burden of the managers with additional responsibilities and decreases the interaction between employer and employee. As mentioned above, being away from the colleagues and the office may lead to "lack of identity with the company's culture and the absence of team spirit", which has a negative impact on the productivity (Ford and Butts 1991:22).

Other drawbacks of working from home for the organisation are technical, such as "the maintenance and control of computer equipment placed in employee homes" (Ford and Butts 1991:21). The drawback for the company is not only concerned with the damage or abuse of the office equipment, but also the insurance problem which arises as the office equipment is off site (Ford and Butts 1991:21). Repairing and transporting of the broken office equipment, determining the responsible party (either the organisation or the employee) for the repair and how the broken equipment should be replaced can be listed as the other drawbacks (Ford and Butts 1991:21).

3. Methodology

The methodology chapter contains method design for data collection and data analysis. The method design for data collection of the essay is document analysis. As source of data collection some academic articles are used.

The method design for data analysis of the essay is thematic analysis in order to compare determining factors of the employees' productivity when they work from home and how these factors have changed over time. The analysis is based on academic articles to cover the years between 2000 and 2019-2020.

3.1 Selection of The Material

The article search for primary academic articles with the keywords mentioned in Section 2.2 Definitions, generated over 1000 results on the online library of Karlstad University. Approximately 70% of the results disappeared after refining the results by applying the necessary filters. The filters that were applied were limiting the time interval of the publication dates between 1990 - 2020, including only academic articles as the source type and excluding magazines, trade publications, news, books and reviews and choosing only English as the language of the article.

The time interval of the publication was selected between 1990 and 2020 in order to detect the year, in which the maximum number of articles were written. Only academic articles were selected as the source type in order to exclude texts including personal opinions which were not supported by any research. After ensuring that all the results were academic articles that were published in English between 1990 and 2020, more articles were excluded to ensure selecting the most relevant articles by reviewing the titles, abstracts, introduction, and conclusions of the articles, which limited the number of articles with total of 80.

All the relevant articles which remained after the second exclusion process, were added into the articles list according to the year they were published. As a result, a full list of relevant articles was created, which also indicated how many relevant articles were published in each year between 1990 and 2020. According to the list, it was year 2000, in which maximum number of articles were produced. The average number of articles published each year is 2.6 and 7 articles were published in year 2000. Thus year 2000 was selected as the starting point of the comparison and 6 of the articles with the richest content were included in the study.

Almost as many articles (6) were published in 2012; which produced the second highest number of articles. However, comparing the year 2000 with the year 2012 and discovering whether the factors having an influence on the productivity of the employees who work from home have changed between these years would not create any meaningful or useful information. Therefore, the ending point of the comparison was selected as the recent years (2019 - 2020) to demonstrate

the changes in the factors. Articles published in 2019 were also selected, as the number and content of the relevant articles published in 2020 do not offer sufficient material for a comparative study. Therefore 2 articles published in year 2019 and 3 articles published in year 2020 are included into the study.

3.2 Method design for data collection:

Study for the data collection started with a literature review to be able to identify the factors which have an influence of working from home on employees' productivity and how these factors changed over the specified years. Relevant academic articles in the subject were searched and accessed via the online library of the Karlstad University and Google Scholar. Searches were made with the keywords and key phrases "productivity", "working from home", "telecommuting", "telecommute", "teleworking", "remote work", "virtual organisations" and combinations of these keywords. Many relevant articles were found. Some of these articles included relevant quotes from other articles, which were accessed via the same search sources mentioned above.

3.3 Method design for data analysis (thematic analysis):

As the data analysis method, thematic analysis was adopted, which is defined as follows by Braun and Clarke (2006:79): "Thematic analysis is a method for identifying, analysing and reporting patterns (themes) within data."

All the data sources mentioned above were read and the relevant codes were created by extracting some sentences and phrases in these data sources, which later were put into various groups. Similar groups were combined together to form the subcategories which are listed under two main categories: Organizational and Employee-related. There were also Home-related factors which formed another main category without any subcategories. The other factors which do not belong to any of the three categories mentioned above were listed under Others.

After all the factors are listed under the relevant subcategories which are listed under the relevant main categories, an overall chart is created (Chart 1). The chart displays the information about under what subcategories the factors are mentioned in year 2000 and years 2019 and 2020. The chart also displays whether these factors affect the productivity of the employee positively or negatively.

4. Results of Data Collection

This chapter presents summaries of all the selected articles for both year 2000 and years 2019 and 2020.

4.1 Articles published in 2000

In this section, summaries of the five articles published in 2000 are given with the important aspects:

Adjustment to Telecommuting: Role of Self-efficacy and Structuring

In their article "Adjustment to Telecommuting: Role of Self-efficacy and Structuring", Raghuram et al. (2000) write about the new demands telecommuting places on employees and the role of self-efficacy of the employees in adjusting to these demands by structuring their behavior according to the new working circumstances. They suggest that the likelihood of

adjustments is higher if the organizations prefer employees with high self-efficacy for telecommuting (Raghuram et al. 2000:5). They also suggest that organizations can increase the adjustment for employees with lower self-efficacy by developing appropriate training programs, such as specifying the rules the employees should adopt while working from home. These rules are mostly concerned with having a boundary between work and non-work time and ensuring there is an office set-up at home, where the employee can work without distractions (Raghuram et al. 2000:5).

Changing Times: The Meaning, Measurement and Use of Time in Teleworking

In her article with the title "Changing Times: The Meaning, Measurement and Use of Time in Teleworking" (2000), Barbara Steward explores the telework experience in terms of calculation and use of time of the employees working from home. She made in-depth interviews and a longitudinal survey of 44 teleworkers to examine whether teleworking increases productivity and work satisfaction via autonomous time management (Steward 2000:57). The study focuses on especially issues about teleworking hours, keeping the work time and private-life separate, adapting to the schedule of the colleagues working in the office, limiting the teleworking days and making new calculations for justifying time worked at home. According to the findings of her study, teleworkers were influenced by the old office conventions, managerial demands and individual work ethics (Steward 2000:72). Teleworkers make new time calculations and new time management for teleworking, which their managers are not aware of. This new calculation is for the advantage of the employer as the teleworkers appear to have the tendency to work longer hours to be able to compensate for the privilege of working from home.

Exploring the Telecommuting Paradox

In their article "Exploring the Telecommuting Paradox" Davidson and Khaifa (2000) explores the reasons behind the paradox of low percentage of teleworkers despite the high percentage of companies encouraging it. They describe telecommuters' beliefs toward telecommuting and also identify the important factors influencing their decision to telecommute by conducting semi-structured interviews with 28 telecommuters. The interviews were based on Triandis model and intended to explain telecommuters' intention of telecommuting (Davidson and Khaifa 2000:29). Triandis model integrates four domains of factors: behavioral attitudes toward telecommuting, perceived consequences of telecommuting, relevant social factors, and facilitating conditions.

"Perceived consequences, social factors, and facilitating conditions are all found to be significant in explaining the respondents' intentions regarding the level of future telecommuting" (Davidson and Khaifa 2000:30). According to the findings of the study, self-efficacy is the most influential factor for the intention to telecommute. They found that the key factor of perceived consequences is productivity and there are other important factors, such as "increased economic benefits; improved quality of home, work, and social life; and an increase in work production." They also found that the key social factor is peer influence and there are other important social factors, such as the influence of family, peers, superiors, and subordinates. Finally, the key factors of facilitating conditions are "the suitability of work space at home, self-efficacy, access to the appropriate technology, and the availability of technical and logistic support" (Davidson and Khaifa 2000:30).

Managing a Virtual Workplace

Managing a virtual workplace (Cascio, 2000) is an article, which is concerned with virtual workplaces, drawbacks of working from home from both organisation and employees perspectives and how to eliminate these drawbacks to be effective and productive. Cascio also

discusses the business reasons for virtual workplaces, such as reduced real estate expenses, higher profits and increased productivity (2000:81) and potential disadvantages of virtual workplaces, such as setup and maintenance costs, loss of cost efficiencies and cultural issues (2000:82). After discussing when virtual work arrangements are appropriate, Cascio writes about virtual teams and the importance of training these teams. Another important part of the article is the information about teleworking, types of it and challenges for the managers to facilitate the teleworkers' performance.

Teleworking: Benefits and Pitfalls as Perceived by Employees and Managers

In his article "Teleworking: Benefits and Pitfalls as Perceived by Employees and Managers" (2000), Yehuda Baruch explores how employees perceive teleworking compared to office based employment and investigate the expected mixed effects on productivity and satisfaction as perceived by employees who experienced teleworking (2000:38). He conducted a semi-structured interview survey with 62 teleworkers, examining the influence of effectiveness, quality of working and family life. The study focused especially on past career development, future career perceptions, performance, work attitudes, and stresses encountered in relation to work and family life (Baruch 2000:38). Respondents identified factors which have positive or negative influence on their effective and productive teleworking.

According to the findings of the study, teleworking had a positive impact on family life and home proved to be better than the office environment from the relationships and support aspect. Both managers and teleworkers reported that they got better performance because of lack of interruptions. Study results also indicated that teleworking had a negative impact on future career perceptions. While time management skills were found to be crucial for productivity, technical skills were not seen as an important factor by the respondents. Respondents also reported that they felt greater satisfaction, higher performance and reduced stress (Baruch 2000:43-44).

4.2 Articles published in 2019 - 2020

In this section, summaries of the five articles published in 2019 and 2020 are given with the important aspects:

Working from Home Phenomenon as an Effort to Prevent Covid-19 Attacks and Its Impacts on Work Productivity

The aim of the article Working from Home Phenomenon as an Effort to Prevent Covid-19 Attacks and Its Impacts on Work Productivity by Akbar et al. (2020) is to explore the influence of working from home on the productivity of the employees. They used a qualitative method with an exploratory approach (Akbar et al. 2020:15). 50 respondents were interviewed in-depth via phone calls or video calls due to Covid-19 pandemic. The questions were concerned with work-life balance, flexibility, saving time, quality time, comfort, multitasking, decreased work motivation, additional cost, distraction and limited communication.

According to the results of the study, working from home has both benefits and drawbacks for both the employees and their organizations. They claim that working from home is not a fully-acceptable practice for all organizations as some parts of the business are not suitable to be performed from home and it decreases the productivity of the employees.

Mechanisms to Improve Labor Productivity by Performing Telework

Kazekami (2020) studies the mechanisms having an influence on productivity of the employees working from home. Several factors are examined in particular: the stress of balancing work and domestic chores, life satisfaction, work satisfaction and decreasing time spent on commuting during rush hours (Kazekami 2020:14). The article also lists the drawbacks of teleworking, such as concentrating on work while caring for children or another family member.

According to the study results, there is a positive correlation between telework hours and productivity. She claims that telework increases life satisfaction and work satisfaction; however while life satisfaction improves labor productivity, work satisfaction does not have an influence on productivity of the employees. The stress of balancing work and domestic chores decreases the productivity indirectly, through decreasing the life satisfaction. Another factor increasing productivity according to the study is the chance to avoid commuting to work more than 1 hour by public transportation in rush hours.

Improving Remote Employees' Organisational Productivity – Practical Guidelines for Identifying and Managing Bottlenecks in Today's World

Alghaithi (2020) investigates the drawbacks of the working from home in terms of the productivity of the employees in his article "Improving Remote Employees' Organisational Productivity – Practical Guidelines for Identifying and Managing Bottlenecks in Today's World". The study is based on other peer-reviewed journal articles and published reports. According to the article, working from home increases the productivity, if their organizations offer them the necessary support, such as enhanced communication and the provision of support services. It is claimed that the productivity is mainly a result of the work-life balance of the employees and flexibility of the work hours (Alghaithi 2020:72). Alghaithi (2020:73) claims that there are also drawbacks of the working from home. These drawbacks are concerned with "the nature of an organisation, the personality of an employee, family demands" (Alghaithi 2020:63). The study offers a guideline in 5 steps for eliminating the mentioned drawbacks.

Telework: Outcomes and Facilitators for Employees

Beauregard et al. (2019) review the academic articles written on teleworking in their article Telework: Outcomes and Facilitators for Employees. They analyse articles about teleworking, performance, job attitudes and being isolated professionally. After reviewing how teleworking affect the well-being of the employees, they list the factors for successful teleworking as follows: "characteristics of the job, characteristics of the employee, and characteristics of the employee's manager(s)" (Beauregard et al. 2019:26). They list the conditions for successful teleworking and categorize them as technical conditions and teleworker-related conditions. They claim that "job responsibilities must be able to be performed away from the office, and work spaces at employees' homes should be safe, secure, and reasonably distraction-free" (Beauregard et al. 2019:34). They suggest that "successful teleworkers need to be able to work without close supervision, should be able to separate their work from their personal lives, and must be capable of overcoming the threats posed by working in isolation" (O'Neill et al. 2009, as cited in Beauregard et al. 2019:34). They recommend some guidelines for the organizations regarding selecting and preparing their employees for working from home and giving support to the employees to increase productivity.

Does Remote Work Improve or Impair Firm Labour Productivity?

In their article "Does Remote Work Improve or Impair Firm Labour Productivity?", Monteiro et al. (2019) explore whether remote work increases the labour productivity or not. They use rich sample data from firms over the period 2011-2016 to determine the effect of remote work

on productivity empirically. They claim that although it is empirically proven by many previous studies, the hypothesis of "working remotely contributes to job satisfaction and motivation of the employees" needs to be reviewed again. Therefore, they used "a longitudinal panel dataset of firms in a sample that is representative of the whole economy, including manufacturing and services industries" to broaden the analysis scope (Monteiro et al. 2019:25). They claim that their findings change when they included time-invariant factors and non-observable constant characteristics of the firm. According to the findings, remote work affects the average productivity negatively, which may depend on the "substantial degree of heterogeneity across different categories of firms". They claim that non-exporting small firms with below-average skill level employees are more inclined to be affected by remote work negatively (Monteiro et al. 2019:1).

5. Analysis/Discussion

This chapter presents thematic analysis for both year 2000 and years 2019 and 2020. It gives details about how the factors are grouped under subcategories and main categories and how the charts are structured. Each category is exemplified with some sample important factors. Charts displaying all the factors can be found as appendix.

5.1 Thematic Analysis for year 2000

After extracting all the factors from the articles written in year 2000, two charts were created: one chart for the factors having a positive influence on the productivity (Chart 2) and another chart for the factors having a negative influence on the productivity (Chart 3). Both charts can be found in the appendix. Each of the factors is listed under a subcategory, which is under a main category. Both charts have the same main categories: Organisational Factors, Employee-related Factors, Home-related factors and Others. However subcategories under each main category vary for Chart 2 and Chart 3.

Chart 2, displaying the factors having positive influence on productivity has four subcategories under Organisational Factors: Organisation-related, Management-related, Office-related and Technical. There are two subcategories under Employee-related Factors: Characteristics of the employee and Sense & perception of the employee. There are no subcategories under the Homerelated factors and Others.

Among the most important organizational factors, training offered by the organization for the employees can be mentioned. Good project management, which eliminates roadblocks to successful performance and provides adequate resources to get a job done right and on time is another important organizational factor. Elimination of office-related issues, such as not wasting time for social interaction at work and being able to work and finish a task without being interrupted are also among important organizational factors. Finally availability of technical and logistic support and access to appropriate productivity tools need to be added to the most important organizational factors. Characteristics of the employee is a determining factor, especially being fit of teleworking with personal attitude, values, norms, qualities and needs, such as having self-efficacy, inner motivation and time management skills. Sense and perception of the employee for working from home practice is also vital in determining the productivity of the employee. These factors are concerned with sense of freedom and sense of accomplishment. See chart 2 in the appendix to see all the factors having positive influence on productivity, which are found in articles published in 2000.

Chart 3, displaying the factors having negative influence on productivity has three subcategories under Organisational Factors: Organisation-related, Distance-related and Technical. Although the factors are not divided into various subcategories under Employee-related main factors, the factors listed there, are psychological. There are no subcategories under the Home-related factors and Others.

Some of the most important organization-related factors are unsuccessful project management and lack of trust between the organisation and the employee. There are many distance-related factors and some of the most important ones are concerned with absence of a team environment, and having difficulty to access people for cooperation. Final subcategory of Organizational Factors are technical and they are concerned with lack of productivity tools and outdated equipment or technology. Employee-related factors are related to the psychology of the employees and this category includes factors, such as inability to establish a work rhythm, feeling of isolation and feeling tempted to relax instead of work. Home-related factors are mainly concerned with spending time on non-work related issues, demands from the family members and presence of young children. See Chart 3 in the appendix to see all the factors having negative influence on productivity, which are found in articles published in 2000.

5.2 Thematic Analysis for years 2019 – 2020

After extracting all the factors from the articles written in year 2019 and 2020, two charts were created: one chart for the factors having a positive influence on the productivity (Chart 4) and another chart for the factors having a negative influence on the productivity (Chart 5). Each of the factors is listed under a subcategory, which is under a main category.

While both charts have Organisational Factors and Employee-related Factors among the main categories, Chart 5 has also Home-related factors and Others. Subcategories under each main category vary for Chart 4 and Chart 5.

Chart 4, displaying the factors having positive influence on productivity has two subcategories under Organisational Factors: Organisation-related and Transportation-related. There are four subcategories under Employee-related Factors: Work-Life balance and flexibility, Characteristics of the employee, Psychological and Communicational.

Organization-related factors include factors such as support from the organisation, higher wages and work benefits. They also include transportation-related factors, such as reduction in transportation costs and time and putting more hours into work as employees working from home have more time than office-based employees, as they do not travel to the office. Employee-related factors are larger in quantity. Some of these factors are concerned with work-life balance and flexibility, such as employees being more comfortable and relaxed at home (access tea, lunch and toilets with ease), determining the time and place of work by themselves and being able to handle their personal issues during office work-hours. Characteristics of the employee plays a role in determining the effects on the productivity, for instance if an employee has resilience, efficacy and optimism, the productivity increases. Other psychological factors, such as intrinsic motivation, job and leisure satisfaction and overall happiness of the employee has an influence, too. Finally, communicational factors need to be mentioned, too. Sufficient communication, especially having video calls is one of the most important communicational factors. See Chart 4 in the appendix to see all the factors having positive influence on productivity, which are found in articles published in 2019 and 2020.

Chart 5, displaying the factors having negative influence on productivity has no subcategories under Organisational Factors. Employee-related factors were divided into four subcategories: Distractions, Multitasking, Psychological and Communicational. There are no subcategories under the Home-related factors and Others. Some of the important factors among Organizational factors are not being ready to conduct working from home practice and having higher levels of task interdependence between the employees working from home and in-office employees. Distractions have a considerable negative influence on the employees' productivity. There are many different types of distractive factors, such as decision to engage in other activities during the working hours, unexpected visitors, smartphone use, social media and urgent family issues. Multitasking is another challenge for the employees working from home, which has become a serious issue particularly due to Covid-19 pandemic. Many employees need to take care of their children and elderly at home without any help. Stress of balancing work and domestic chores is another multitasking factor. Among the psychological factors, fear of the Covid-19 outbreak, feeling saturated because of being in the same environment in a relatively long time, social and professional isolation and feeling of disconnectedness because of social isolation can be listed. The last subcategory of Employee-related factors is concerned with communication. Some of the most important factors are less face-to-face interactions with colleagues, which increases the sense of feeling out of touch with others in the workplace and lack of advantages of team work, including spillover effects from high-performing workers on other workers. There are also home-related factors, such as additional cost for the employee (electricity, internet, and communication costs). See Chart 5 in the appendix to see all the factors having negative influence on productivity, which are found in articles published in 2019 and 2020.

5.3 Overview of The Factors for years 2000 and years 2019 – 2020

Each main category (Organizational, Employee-related, Home-related and Others) has at least one factor, influencing the productivity of the employee positively and negatively written in the selected articles both in year 2000 and years 2019 and 2020.

5.3.1 Differences in the factors

While Organization-related and Transportation-related factors are mentioned in both time frames (meaning both year 2000 and years 2019 and 2020), Technical, Management-related, Office-related and Distance-related factors are not mentioned in years 2019 and 2020 under the main category of Organizational.

While Characteristics of the employee and Psychological factors are mentioned in both time frames under the main category of Employee-related; Sense and perception of the employee is mentioned only in the articles written in 2000. On the other hand, there are subcategories in which factors are mentioned in the articles written in 2019 and 2020 and not in 2000. These factors are Communicational, Work-life balance & Flexibility, Distractions and Multitasking. Both Home-related factors and Other factors are mentioned in articles written in both years.

Only organization-related subcategory has both factors having positive and negative influence on the employees' productivity in both time frames. Among other Organizational categories, Technical factors have been mentioned with both positive and negative influences in year 2000, however they are not mentioned in any aspect in the second time frame. Both Management-related and Office-related factors having a positive influence are listed in the articles written in 2000 without being listed in the articles written in 2019 and 2020. Distance-related factors are listed only with their negative influence in the first time frame; without being mentioned in the

second time frame. Transportation-related factors are mentioned with their negative influence in 2000, while they are mentioned with their positive influence in the second time frame.

Characteristics of the employee is the only factor which is mentioned in both time frames only with its positive influence on the productivity. Sense of perception of the employee is mentioned with its positive influence in year 2000 but not mentioned in either aspect in the second time frame. The negative influences of the Psychological factors are mentioned in both time frames, however the positive influences are mentioned only in the articles written in 2019 and 2020. Although Communicational factors are not mentioned in the first time frame, both positive and negative influences are listed in the second time frame. Work-Life balance and flexibility factors are only mentioned with their positive influence in the first time frame. Distractions and Multitasking factors are not mentioned in the first time frame and neither are they mentioned as positive factors in the second time frame. Home-related and Other factors are mentioned in both aspects in year 2000 and are also mentioned with their negative influence in the years 2019 and 2020.

Chart 1 presents all the categories and subcategories of the factors mentioned in year 2000 and years 2019-2020. "+" and "-" signs represent factors having positive and negative influences, respectively. Blue boxes indicate that factors listed under the subcategory are mentioned in the related time frame either having a positive or negative influence depending on the placement of the box, while "n/a" indicates that the factors are not mentioned in the related time frame either as a positive or negative influence.

Chart 1: Overview of categories and sub-categories

Category	Sub-category	Year 2000		Years 2019 - 2020	
		+	-	+	-
	Organization-related				
	Technical			n/a	n/a
Organizational	Management-related		n/a	n/a	n/a
Organizationar	Office-related		n/a	n/a	n/a
	Distance-related	n/a		n/a	n/a
	Transportation-related	n/a			n/a
	Characteristics of the employee		n/a		n/a
	Sense&perception of the employee		n/a	n/a	n/a
Employee- related	Psychological	n/a			
	Communicational	n/a	n/a		
	Work-life balance and flexibility	n/a	n/a		n/a
	Distractions	n/a	n/a	n/a	
	Multitasking	n/a	n/a	n/a	
Home-related	Home-related			n/a	
Others	Others			n/a	

6. Conclusions

As a result of the thematic analysis of ten selected articles, it can be concluded that working from home has an influence on productivity of the employees. While some of the factors of working from home practice have positive influences on the productivity, some other factors have negative influences. Moreover, there are some other factors, the influences of which depend on the characteristics and attitude of the employees and the circumstances. All of these factors can be found in general in the Section 6.1 below and all the factors can be found listed in the four charts attached in the appendix.

6.1 Factors having an influence on productivity

The attitude and policy of the organisations towards WFH affect the productivity of their employees. The productivity increases if the employees feel that their organization trusts and cares about them and provides them with training, good project management and adequate resources to get their job done in time. It influences the productivity of the employees positively when the employees do not have to waste time, money and energy on transportation between home and office.

If there is a suitable work space at home, employees work more productively when they can focus on their work and finish their tasks without being interrupted and distracted by their colleagues in the office. On the other hand, lacking face-to-face communication with the colleagues may have an adverse effect on the productivity of the employers. It becomes more difficult to access people for help and cooperation in the absence of a team environment, which may lead to delays in receiving critical information. It complicates the situation even further if there is a high level of task interdependence and colleagues work with sequential tasks and need to wait for each other to complete their tasks. Being in the same home environment in a relatively long time causes feeling of social and professional isolation and disconnectedness, which affect productivity negatively. Video calls are reported higher levels of job satisfaction and performance than those using messaging or e-mail and therefore increasing productivity.

As working from home greatly depends on technology and technical equipment, technical factors can influence the productivity, too. If the employees have access to the appropriate technology, equipment, productivity tools and technical and logistic support, their productivity increases. If there are electrical power restrictions, disruption of the internet network and having difficulty sending work data and information between employees, their productivity decreases.

Not all the factors have clearly positive or negative influences. Influences of some of the factors depend on the personality of the employees and/or circumstances. The aspect of flexibility is one of the examples. If there is no restrictions on the working hours and the employees have the freedom to determine the time and place of work and if they have control over their schedule, it will have a positive influence on the productivity, under the condition that the employees have self-discipline and self-efficacy, time management skills, ability, willingness, and inner motivation to work remotely. If the employees lack motivation and work discipline at home and if they need some external pressure to be structured and to establish a work rhythm, their productivity will decrease drastically.

The aspect of work-life balance is another example of factors, influences of which depend on the preferences of the employees and/or circumstances. As WFH gives more freedom to the employees about their work times, they can spend more time with their families, which reduces work-life conflicts and increases job satisfaction levels, which in turn increases their productivity. On the other hand, the same factor can decrease their productivity, if it becomes stressful to balance work and domestic chores with the demands from the family members and presence of young children at home. The influences of working in a comfortable home environment depends on the employees, too. If they perceive home only as a place to rest and if they are tempted to spend time on non-work related issues, such as doing household chores, watching movies, playing computer games, using their smartphones and spending time on social media, their productivity will be low.

6.2 Differences in the factors between year 2000 and years 2019-2020

As a comparison of the thematic analysis of five selected articles published in year 2000 and five selected articles published in years 2019 and 2020, it can be concluded that although most of the factors have remained the same, there have been some changes in the productivity factors in the last 20 years. Those factors are mostly concerned with technology as there have been a considerable progress in that field, which caused a change in the business processes between the years 2000 and 2020.

While technical factors, such as having access to the appropriate equipment and technology, appropriate productivity tools and fast internet are listed among factors having a positive influence on the productivity in the articles published in the first time frame, such factors are not mentioned in the articles published in the second time frame. It can be claimed that such technical factors are seen as a norm and taken for granted for anyone working from home at the end of the second decade of the 21st century. There is only one technical factor listed with its positive influence on the productivity in years 2019 and 2020, which was not common in 2000: having video calls as a means of business communication instead of e-mails. Other technical factors published in the second time frame were listed with their negative influence on the productivity: being distracted by smartphone use, popular social media platforms and frequent information and communication both from managers and colleagues. It is not surprising that these factors were not mentioned in year 2000, as they are either non-existent or uncommon, considering the fact that smart phone use has increased drastically between 2000 and 2020 and current popular social media platforms did not even exist in year 2000 (Facebook 2004, Twitter 2006 and Instagram 2010).

Another different factor mentioned in articles published in year 2020 is concerned with Covid-19 pandemic started in 2020. It affects the employees' psychology and daily life adversely, which has a negative influence on their productivity. Employees are afraid of Covid-19 outbreak and being infected. Most of them feel disconnected because of social isolation and being in the same home environment in a relatively long time. Their work-life balance is also disturbed as they cannot receive household support services from their cleaners, babysitters, caregivers because of Covid-19 prevention quarantine period to apply social distancing. Therefore they need to do the household chores and take care of their children and elderly themselves in their work environment, which leads to low levels of productivity.

References

Akbar, MA, Bauw, A, Hamid, MA, Irawan, A, Mustajab, D and Rasyid, A (2020), 'Working From Home Phenomenon As an Effort to Prevent COVID-19 Attacks and Its Impacts on Work Productivity', TIJAB (*The International Journal of Applied Business*), 4(1), pp. 13–21.

Alghaithi, A (2020), 'Improving Remote Employees', Organisational Productivity – Practical Guidelines for Identifying and Managing Bottlenecks in Today's World." IOSR Journal of Business and Management (IOSR-JBM),22(2), 63-74.

Baker, E, Gayle, CA and John, C (2007), 'Satisfaction and perceived productivity when professionals work from home', Research and Practice in Human Resource Management, 15(1), 37–62.

Baruch, Y (2000), 'Teleworking: Benefits and pitfalls as perceived by professionals and managers', *New Technology, Work & Employment*, 15(1), p. 34.

Beauregard, TA, Basile, KA and Canónico, E (2019), 'Telework: Outcomes and facilitators for employees', In R. N. Landers (Ed.), *The Cambridge handbook of technology and employee behavior* (pp. 511-543). Cambridge: Cambridge University Press.

Beňo, M (2018), 'Working in the Virtual World - an Approach to the "Home Office" Business Model Analysis', Ad Alta: *Journal of Interdisciplinary Research*, 8(1), pp. 25–36.

Blackwell, CW, Demerath, N, Dominicis, P and Gibson, JW (2002), 'Telecommuting in the 21st Century: Benefits, Issues, and a Leadership Model *Which Will Work'*, *Journal of Leadership & Organizational Studies*, 8(4), pp. 75–86.

Braun, V and Clarke, V (2006), 'Using thematic analysis in psychology', Qualitative Research in Psychology, 3(2), 77-101.

Cascio, WF (2000), 'Managing a virtual workplace', *Academy of Management Executive*, 14(3), pp. 81–90.

Ford, RC and Butts, MA (1991), 'Is Your Organization Ready for Telecommuting?', SAM Advanced Management Journal (07497075), 56(4).

Greer, TW and Payne, SC (2014), 'Overcoming telework challenges: Outcomes of successful telework strategies', *Psychologist-Manager Journal (American Psychological Association)*, 17(2) 87-111.

Kazekami, S (2020), 'Mechanisms to improve labor productivity by performing telework', *Telecommunications Policy*, 44(2).

Lupu, VL (2017), 'Teleworking and Its Benefits on Work-Life Balance', *International Multidisciplinary Scientific Conference on Social Sciences & Arts SGEM*, p. 693.

Monteiro, NP, Straume, OR and Valente, M (2019), 'Does remote work improve or impair firm labour productivity? Longitudinal evidence from Portugal', NIPE Working Papers 14/2019, NIPE - Universidade do Minho.

Peters, P, Tijdens, KG and Wetzels, C (2004), 'Employees' opportunities, preferences, and practices in telecommuting adoption', *Information & management*, 41(4), pp. 469–482.

Raghuram, S, Wiesenfeld, B and Garud, R. (2000), 'Adjustment to Telecommuting: Role of Self-Efficacy and Structuring', *Academy of Management Proceedings & Membership Directory*, pp. C1–C6.

Shafizadeh, KR, Mokhtarian, PL, Niemeier, DA and Salomon, I (2000), 'The Costs and Benefits of Home-Based Telecommuting', *UC Berkeley: California Partners for Advanced Transportation Technology*. Retrieved from https://escholarship.org/uc/item/49c1n7hg

Steward, B (2000), 'Changing Times: the meaning, measurement and use of time in teleworking', *TIME AND SOCIETY*, p. 57. Available at: https://search-ebscohost-com.bibproxy.kau.se/login.aspx?direct=true&db=edsbl&AN=RN075430954&lang=sv&site=eds-live (Accessed: 9 May 2020).

Wienclaw, RA (2019), 'Telecommuting', *Salem Press Encyclopedia*. Available at: https://search.ebscohost.com/login.aspx?direct=true&db=ers&AN=89185784&lang=sv&site=eds-live (Accessed: 2 May 2020).

APPENDIX

Chart 2: Codes for positive factors (year 2000)

Factors having positive influence on productivity Articles published in 2000	
	Organization-related • trust of the organization • supportive business culture to home-working arrangements • training offered by the organization • Adequate capital resources, material resources, and human resources
Organizational Factors	Management-related good project management and coordination management with open, positive attitude that focuses on solutions results-oriented management style effective communications skills, both formal and informal an ability to delegate effectively following up to ensure that work is accomplished monitoring the progress of the overall project and the usefulness of the final product providing honest feedback to group members about their individual behaviors defining, facilitating, and encouraging performance eliminating roadblocks to successful performance providing adequate resources to get a job done right and on time sufficient rewards in a timely and fair manner willingness and ability to trust teleworkers having productive team norms Office-related not wasting time and energy on commuting not wasting time for social interaction at work being more focused elimination of distractions ability to work and finish a task without interruptions
	Technical
Employee- related Factors	Characteristics of the employee • self-efficacy (comfort and confidence while working without assistance) • time management skills • self-discipline • ability, willingness, and inner motivation to work remotely • fit of teleworking with personal attitude, values, norms, qualities and needs • ability to keep in social contact through the net • suitability to the job
	Sense & perception of the employee • sense of freedom • autonomy • a voluntary decision • sense of accomplishment • feeling less stressed
Home-related factors	 less sick leave suitability and availability of work space at home flexibility to balance the work & life applying conventional office hours at home as a structure and as a benchmark
Others	keep in touch with the colleagues

Chart 3: Codes for negative factors (year 2000)

Factors having negative influence on productivity Articles published in 2000	
Organizational Factors	Organization-related • lack of trust • unsuccessful project management and coordination • inefficient design of work processes
	Distance-related • more difficult to access help • more difficult to access people for cooperation • lack of contact with decision makers • lack of physical interaction with its associated verbal and nonverbal cues • absence of work cues from the office surrounding • absence of a team environment • delays in receiving critical information
	Technical lack of productivity tools outdated equipment or technology
Employee- related Factors	Psychological • motivational problems • inability to establish a work rhythm • less pressure to be structured • self-limiting behaviors • feelings of isolation • temptation to relax instead of work
Home-related factors	 spending time on non-work related issues demands from the family members non-work demands that exist in a home environment (temptation to complete household chores) presence of young children
Others	more work days home

Chart 4: Codes for positive factors (years 2019-2020)

Factors having positive influence on productivity Articles published in 2019 - 2020	
Organizational Factors	Organization-related • support from the organisation • knowledge sharing • cross- functional cooperation • inter-organizational involvement • innovation (new products, new services, new work processes) • higher wages • work benefits
	 Transportation-related reduction in transportation costs and time avoiding commuting more than 1 h or commuting by trains or buses during rush hours putting more hours into work they have more time than office-based workers (as they do not travel to the office)
	Work-Life balance and flexibility • being more relaxed (access tea, lunch and toilets with ease) • being comfortable • determining the time and place of work • no restrictions on the working hours • appropriate telework hours • perceived increase in job autonomy • having control over their schedule • enabling work outside normal office hours • not feeling supervised directly by managers • handling their personal issues during office hours • spending more time with families which reduce work-life conflicts • flexibility to better manage the demands of jobs and private lives • lower levels of work-to-life conflict
Employee- related Factors	Characteristics of the employee • efficacy • optimism • hope • resilience • higher educational level
	Psychological If if e satisfaction Job and leisure satisfaction happiness Intrinsic motivation creative tasks cognitive tasks
	Communicational sufficient communication richness of the communication media used video calls with the colleagues, leading to higher levels of job satisfaction and performance

Chart 5: Codes for negative factors (years 2019-2020)		
	Factors having negative influence on productivity Articles published in 2019 - 2020	
Organizational Factors	 not being ready to conduct WFH demanding too long telework hours full-time telework working with sequential tasks through in-office and remote work collaborations having higher levels of task interdependence 	
Employee- related Factors	Distractions technical distractions:	
	 Communicational limited communication less face-to-face interactions with colleagues, increasing the sense of feeling out of touch with others in the workplace need to redo the work in the case the management mandates changes that do not reach them on time less opportunity to interact with co-workers and acquire and accurately interpret and use information that may be essential to performing the job well. decrease in the possibility of synergies and peer effects lack of advantages of team work, including spillover effects from high-performing workers on other workers Multitasking self-management of time work-life conflicts 	
	 work-life conflicts stress of balancing work and domestic chores taking care of children and elderly, cooking and other tasks 	

	Psychological • feeling saturated because of being in the same environment in a relatively long time • fear of the Covid-19 outbreak • feeling of disconnectedness because of social and professional isolation • feeling of being left out (feel that a management team does not include them in the relevant decision-making processes) • feeling that organisation does not care about them • psychological well-being in general • decreased work motivation • the perception of the home as place to rest • dull, routine, manual and repetitive tasks
Home-related factors	 additional cost (electricity, internet, and communication costs) lack of facilities to support work such as computers, internet networks
Other Factors	failing to come across important opportunities such as collaborative learning, instructing and social networking