

Office Space Development and Respective Effects on Productivity and Work-Life Balance

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AFFIDAVIT

I hereby affirm that this Master's Thesis represents my own written work and that I have used no sources and aids other than those indicated. All passages quoted from publications or paraphrased from these sources are properly cited and attributed.

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ABSTRACT

Recently, authorities in the European Union have directed their focus on the changing way, in which work is being conducted around the world. The outbreak of Covid-19 has then further increased the public's interest into new forms of work and has challenged current work systems along with working times, office spaces and more. This thesis has been guided by the vision of confirming, denying, and finding existing and new information in order to provide decision makers in the European Union with a baseline for future research. These findings are then expected to yield to policy changes that impact millions of people in the European Union.

Qualitative data analysis in form of in-depth interviews and a case study have been identified as appropriate tools to uncover and challenge basic assumptions that are present in an actual, real business environment, which may not yet have been identified through quantitative measures.

This thesis provides the reader with an opportunity to travel through the post-war era in order to experience how office spaces have changed as a result of macro-environmental, especially socio-cultural developments. Productivity, work-life balance, knowledge flows and office space environments are shifted into the center of attention in order to showcase how theoretical concepts are (mis-)used, which may help highlight points of improvements.

ACKNOWLEDGEMENTS

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LIST OF ABBREVIATIONS

WHO – World Health Organization

OECD – Organisation for Economic Co-operation and Development

WLB – Work-Life Balance

EU – European Union

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1 INTRODUCTION

“Better work-life balance for men and women is not only the fair, but also the smart thing to do in order for the European economy to gain,” EU-commissioner Marianne Thyssen (2019) said following a policy change that saw an improvement in work-life balance for workers in the EU, who have children. This statement, along with numerous accompanying EU-funded studies about changing work environments, is an indicator for the European Union’s overall aim of incorporating new policies to develop labour contract laws, work and office environments with the ultimate goal of improving work-life balance across all member states (Wilkens et al., 2018). Their efforts around this issue have increased over the recent years with a vast amount of work-related studies to be conducted in order to provide new evidence as to how work conditions are changing along with effects on social standards and effects on respective domestic economies (Valendruc & Vendramin, 2016). One such study that has been initiated by the European Commission, which backs the prior claims, is an in-depth report about the changing nature of work and skills in the digital age (Vazquez et al., 2019).

Work-life balance and productivity will be two factors that are put into the center of attention, as these concepts will guide the flow of this thesis. The prior has been chosen due to the continuous emphasis from the European Union and the factors’ close correlation with satisfaction levels on and off the job (Mas-Machuca, Berbegal & Alegre, 2016). Beyond that, work places have proven to be an ideal area, in which governing bodies have the capability to implement changes, as people feel less violated in comparison to policies that are aimed at changing people’s way of life outside of work. Contrary to that, productivity has been chosen due to the importance it plays in today’s business world. In one of the world’s most relevant management books, *The Goal*, Eliyahu M. Goldratt (2004) describes productivity of a system to be valued beyond any other measurements in an office environment. Here, productivity is described as any form of action or effort that actively contributes towards a company’s fulfillment of its goals.

Fluctuating satisfaction levels of employees have given European governing bodies further reason to investigate drivers of on-job dissatisfaction. According to Vazques et al (2019), satisfaction levels on the job were highly dependent on working spaces and were proven to have significant effects on employees’ work-life balance. Differing working hours, office space environments and contractual conditions between members of the EU have provided authorities to believe that there might be a feasible solution for regulating working conditions to improve work satisfaction levels. Hence, the goal is to create a paradigm shift through newly defined policies, which are expected to endow member states with tools and concepts to increase on-job productivity to satisfy employers, but also work-life balance to improve employees’ mental well being.

Scandinavia has been the golden child of job satisfaction and work-life balance rates, which has been commonly associated with those countries' low average weekly working hours, which account for some of the lowest numbers in the entire European Union, where the average is just above 40.3 hours a week. Danish workers work for 37.8 hours per week on average (Eurostat, 2018). Sweden is another well-known example for ideal work conditions, as figures show that not even 1% of Swedish employees work more than 50 weekly hours. Working culture is oriented towards flexible working, along policies, which are family focused and allow for generous parental leave and supported childcare (Savage, 2019). However, Swedish governing bodies see a worrying shift towards on-job exhaustion, which can be set equal with clinical burnout. Over the last 6 years, cases of such burnout have increased by 144% among 25-29 year olds in Sweden alone. Perceiving such concerning changes provides European governing bodies with additional reasons as to why research into the field of work and workspaces is of such relevance.

The era of industrialization and the current era of technological revolution have been the key drivers of changes to work and its respective office spaces (Starr, Starr & Worzala, 2018). Similar to the question of whether the chicken or the egg came first, work and office spaces have influenced and developed beside each other. From Henry Ford's assembly line, to box offices, to open-plan offices and further flexible workspaces, there have been dozens of changes with continuous attempts to shift to a human/employee-centered solution in order to reach a pareto optimality, where employee productivity and employees' work-life balance is maximized (Swann, 2017).

Ultimately, the goal of this Master Thesis is to provide the reader with valuable information, which may challenge current assumptions about employer-employee relationships but also contribute towards the ongoing process of collecting valuable data that may provide further insides to ensure an ideal policy making across member states of the European Union. The qualitative nature of this thesis aims to provide new insights into real life situations. As a result, it is expected that the outcome of this thesis enables decision makers to visualize how existing theoretical concepts about work and life are mirrored in a real business context.

The thesis attempts to equip the reader with an in-depth understanding of how office spaces have developed throughout the ages of industrialization and digitalization along with the explanation of numerous effects it had on businesses and their employees. Real life business cases will be used to establish a common understanding of how office spaces have transformed including the effects it had on a business level and macro-environmental level within an industry. A conceptual framework, which is expected to be supported by existing literature, will guide the structure of the thesis due to this research' attempt of validating existing concepts, theories and beliefs.

At first, this Master Thesis will present a conceptual framework that provides an overview of all topics, principles and theories that have been identified to be relevant for the analysis of the core topic. This will then be followed by a careful analysis of these relevant concepts with a focus on providing depth and theoretical insights. Literature beyond the European Union will be used to broaden the scope of available literature and to gain insights into work-related studies from any part of the world.

Qualitative research will be used as a key instrument to gain deeper insights into office spaces. Initially, case studies will be used to explore office spaces throughout recent history along with its effects on business performance and employee perceptions. Initially, expert interviews with renowned Austrian decision-makers and employees are expected to yield valuable information considering the Austrian business scape and CEO's perceptions regarding the importance of office spaces and their approach towards work-life balance and productivity. The inclusion of CEO's and employees is expected to provide depth in terms of the different viewpoints that are considered. This will then be followed by a case study that elaborates on two real life scenarios, in which office space changes have taken place, where one was perceived as positive, the other as negative. The comparison of the two events is expected to yield additional information about the necessary considerations that need to be made in today's fast-paced world of business, in which office space changes occur rapidly, also due to the increased focus of the EU.

In the last section of this thesis, results of primary research will be combined to explore the validity of existing literature and its appropriateness and occurrence in the real world. There will also be a clarification concerning the types of work/industries may be targeted by any new EU-policy. Finally, there will be an exploration of new concepts in order to answer the thesis' research question of *'How have office spaces changed in the past and what will happen in the future along with respective effects on and of productivity and work-life balance?'*

2 LEGISLATIVE PROCEDURES IN THE EUROPEAN UNION

The European Union represents a key stakeholder in this master thesis, as this research aims to provide new, innovative insights to authorities, potentially decision-makers, in the EU. Hence, it is crucial to establish a basic understanding of how policy setting works in the European Union, specifically, the path an idea, issue or problem has to go through until being worked on by EU executives. The following section will provide the reader with an overview of these matters with an emphasis on the EU's first point of contact with any new concept along with the information that is required at this stage. This will contribute to further grasp the relevance and necessity of this thesis.

Appendix 1 shows the legislative process. There are three institutions that play a key role in this process including the Commission, the Parliament and the Council. The European Commission represents the starting point, as it is the executive body that proposes legislations. Beyond that, the Commission functions as the EU's operating arm and consists of 27 commissioners from each member state, who have all had a political background in their respective country. Nevertheless, the Commission is an independent entity that is required to work in the best interest of the Union without any active interference of national bodies. It is the only European institution that holds the 'right of initiative', which refers to its responsibility of proposing new European legislation to the Parliament and Council.

Once the legislative procedure has started and the Commission has proposed a new legislation, the Parliament and Council then have to jointly accept the legislation with any amendments that have been added throughout the process by either party. If there is no joint agreement by the third reading, then an act will not be adopted, as shown by the Appendix 1. To clarify, the European Parliament is elected by citizens of the EU, while the Council consists of 27 national ministers, who may switch according to the topic of matter, and also represent the interests of their nation.

Most relevant for this thesis, however, is the work of the Commission and the process surrounding its 'right of initiative'. In order to propose new legislations, the members of the Commission have to increase their respective awareness levels of any new situations, issues, threats or problems that may have developed globally, and whether the EU might be impacted as a result. Then, as a follow up, there needs to be further consideration whether EU legislation is the best way to deal with a given situation, which would lead to the initiation of a legislative procedure.

In order to increase the connectivity with citizens in the EU along with any form of issues or concerns, the Commission collaborates with numerous interest groups and advisory bodies.

Domestic governments and parliaments are also included in the problem-finding process, which also broadens the scope of potential information collection. A hierarchy in the commission is established through the President, who has the power and responsibility to allocate policy areas to commissioners – making it 26 commissioners that are responsible for respectively allocated policy areas and 1 President. Commission members meet once a week and make democratic decisions – where 14 out of 27 have to approve any proposal – about policy issues raised by individual commissioners (European Union, 2020a).

3 LITERATURE REVIEW

3.1 The concept of Productivity

Sauermann (2016) defines productivity based on its interaction between input and output. He argues that productivity is a worker's output on the basis of the input that has been provided by given worker, whether it is time or effort. In one of Management's most influential books, *The Goal*, by Eliyahu M. Goldratt (2004, p.27) productivity is defined as the "act of bringing a company closer to its goal." Herewith, the author does not provide a clear definition or equation that can be used by any organisation in any industry, but engages companies and people to define productivity for themselves on the basis of what efforts and outputs are wanted from an employee

Productivity is said to be the key factor to sustainable business for all organisations. Historically, authorities, who are responsible for or in charge of a business unit of any size, have always strived to make improvements to productivity (Rahman & Ismaili, 2004). Entire theories have been established surrounding this issue of restricted productivity. Hereby, it is crucial to differentiate between individual and enterprise productivity (also called the productivity of the system) (Bai, Li & Wang, 1997).

3.1.1 Individual Productivity

In Young-Ho et al.'s study (2019) about personal productivity, they emphasize the fact that people's productivity depends on a number of factors along the lines of motivators and distractors, however, they establish the assumption that individuals have an accurate estimation for whether a task they did was productive or not. For this, they have used a scale approach to provide participants of the study with a range that they could choose from. These assumptions allow a move into the scientific field of psychology, specifically the topic of consciousness and self-awareness. Kashyap (2018) claims that self-awareness is a key factor and necessary base for productivity. This argument is based on the fact that a lack of self-awareness, on the one hand, makes it difficult for an individual to estimate one's productivity, and on the other hand decreases their entire capacity, as a lack of self-awareness limits a person's ability to ideally use their strengths and weaknesses. Mansouri and Tajrobehkar (2015, p.134) define self-awareness as the foundation of behaviour and personality, and argue that it is a key skill "in order to enhance job satisfaction and job performance", whereas job performance, here, can be set equal with individual productivity, due to the shared meaning.

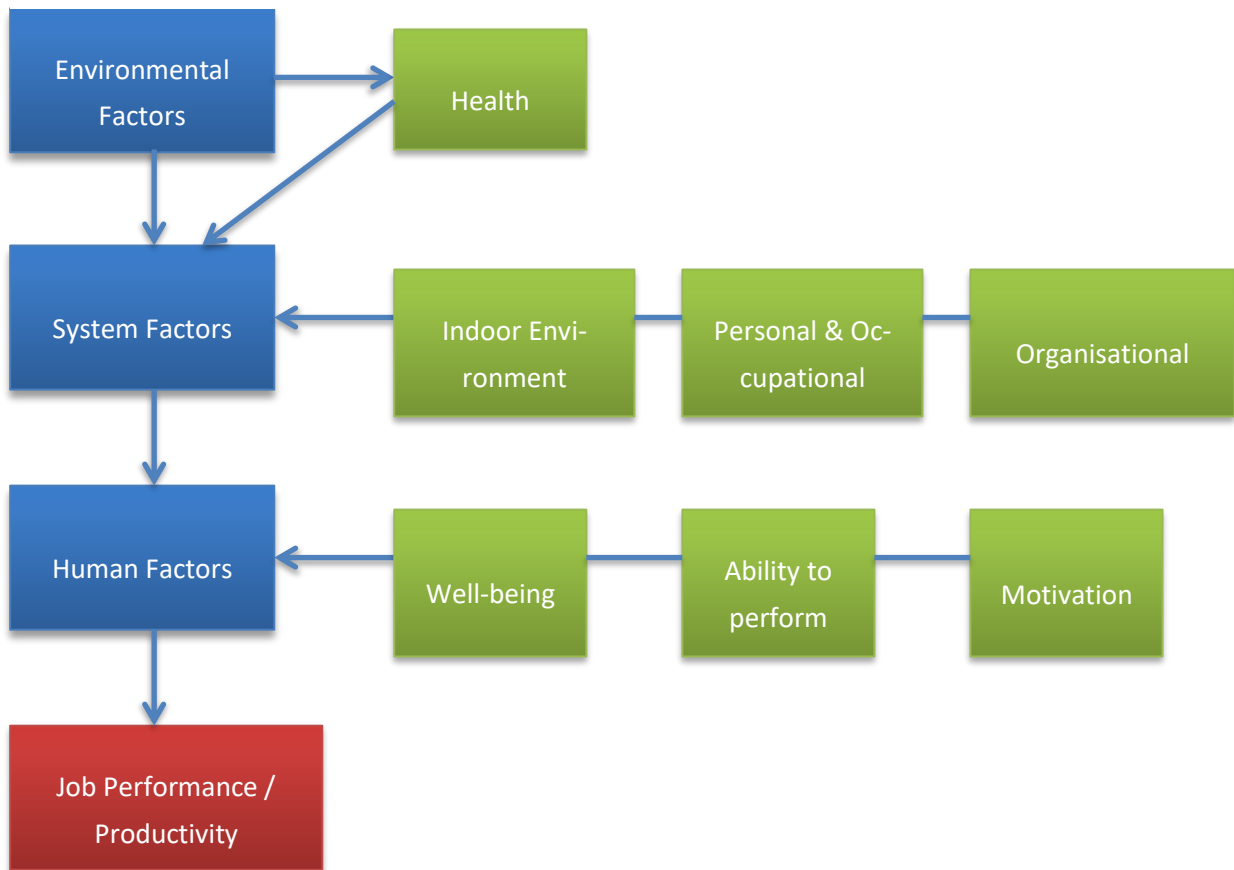
The ability to measure such productivity and quantify it depends on the work that is being done. There is consensus among researchers that productivity becomes difficult to manage once the field of knowledge work is concerned. As long as there is no quantifiable output – such as units produced – a worker’s productivity needs to be measured on the basis of industry or business-related measures. Section 3.1.4. will take a more detailed look into measures that are being used in real business environments, which enable managers or individuals to track individual productivity. However, even without adequate or entirely accurate measures of productivity, there should be a constant focus on improving productivity at all levels of the firm. Hence, there needs to be awareness about the factors, which influence individual productivity.

Binnewies et al. (2010) found that on-job productivity is not a stable construct and may undergo fluctuations over time. Especially time, in terms of time spent on a specific job, plays a crucial role as diminishing motivation may be the result of repetitive or long-lasting tasks, which decrease the performance of an individual worker. Contrary to that, there is another factor, the learning effect, which often outweighs task-fatigue, as “high performance is always the result of greater understanding towards the specific job instead of greater effort to the job” (Frese & Zapf, 1994, p.271). Intrinsic factors and intra-individual variability, which is an individual’s “short-term change that is construed as more or less reversible”, are issues that can rapidly occur due to changes that are not related to work (Nesselrode & Baltes, 1979, p.271) (Ram et al., 2011). Hence, intrinsic, psychological and time concerns are the key reasons as to why job performance is ever-changing and may vary based on the time of observation.

Clements-Croome and Kaluarachchi (2000) summarize the entirety of factors that influence productivity using the terms of concentration, effective organisation and management, a responsive environment and a good sense of well-being. Even though, these terms seem to be straight forward and easy to understand, they include numerous variables, which are of human, but also environmental nature. Emphasis was put onto working environments, which they found to be the source of sensory pleasure, the ability to cooperate and well being. Technical competence, which describes the skill set of a worker, turned out to be not significant factors, due to the influence of learning effects and on-job training, given that it is executed in an appropriate manner.

In their research Clements-Croome and Kaluarachchi (2000) ended up with a structured list of human factors, system factors and environmental factors, which they then analyzed in order to identify the level of influence that they had respectively. Their approach is shown in Figure 1. It shows that there is a significant correlation between each factor, whereas each factor has its own effects respectively.

FIGURE 1 - THE CONCEPT OF PRODUCTIVITY



(Source: Clements-Croome & Kaluarachchi, 2000)

3.1.1.1 Human Factors

Human factors consist of another three variables, which the data showed to have a significant influence on productivity. Hereby, the factor of ‘well-being’ was the key driver of job performance. Here, the long coming assumption is that mental health is a key to an individual’s productivity. Moreover, further research strengthens this point of linkage between employee well-being at work and its impact on job performance, due to the “impact a person’s mental well-being can have not only on themselves, but also on those around them, affecting, therefore, the productivity of an organisation as a whole” (Haddon, 2018).

‘Ability to perform’ and ‘motivation’ are the other two crucial factors, which have significant impacts on productivity (Clements-Croome & Kaluarachchi, 2000). Here, the prior variable relates to one’s physical ability to carry out a task, whereas the latter refers to enthusiasm and mental drive towards an assigned task. Motivation has been of academic interest since the early days of management in the 20th century. Renowned researchers, such as Maslow or Smith have attempted to tackle this issue, which resulted in content and process theories

(Bawa, 2017). While the former involved an in-depth assessment of what motivates people along with individual strengths and needs, the latter focused on dynamic variables and how behaviour should be initiated in order to create enthusiasm or motivation. Therefore, the interest in this topic suggests that there is common consensus about the connection between motivation and respective on-job performance, however, with the given factor of being able to perform given task accordingly in the first place (Srivastava & Barmola, 2012).

3.1.1.2 System Factors

Initially, the research suggested a number of variables, which they included in their quantitative analysis in order to arrive at a result that showed only those factors that have a significant impact on the human factors. The 'indoor environment' was identified to be the factor with the biggest weight, while 'personal', 'occupational' and 'organisational factors' were also identified as relevant variables. Importantly, the issue of indoor environment, here, refers to employees' immediate workspace¹. Vimalanathan and Babu (2014) strengthen the importance of interior design in office spaces and argue that indoor environmental quality is an essential necessity for performance and productivity improvements. Illumination, room temperature levels and satisfaction with design are additional key elements of most studies related to this issue (Danielsson & Bodin, 2009) (Vischer, 2007). Parsons (2000) found that higher illumination is a driving factor that has a significant effect on task performance, as a result of improving a worker's well being.

Moreover, there is one additional point, which emphasizes the role of an office space environment on the basis of employees' sensory perceptions. In 1990, Cooper and Robertson explored the nature of work and raised a suggestion that those, who were dissatisfied with an office's indoor environment would also be dissatisfied in their job, which would then negatively impact mental well being and job performance. Clements-Croome & Kaluarachchi (2000) counter argue this in their study, in which they confirm that dissatisfaction with a working space may be a reason for low job satisfaction, but that there is no significant correlation meaning that there are a number of satisfied workers, who are unhappy about their indoor office environment. Nevertheless, in named study the majority of participants, who were working in their actual job environment, "considered the office physical environment as a major factor in enhancing well-being and productivity" (Clements-Croome & Kaluarachchi, 2000, p.150).

¹ *Clements-Croome & Kaluarachchi do not analyze the direct relationship between office spaces and productivity, but focus on its effects on mental health issues. Even though, this is also highlighted in this thesis, it leaves out the aspects of knowledge flows, cooperation and flexibility, which are tackled in the further process of this thesis.*

Personal factors play on a person's demographics and socio psychological nature, basically anything in an individual's off-job surrounding, which may have an impact on mental well being or levels of motivation. Boumans, de Jong & Janssen (2012) conducted a study on Dutch division workers with the aim to analyze key differences between workers on the basis of age. They found that a motivational shift occurs when people grow older, which needs to be recognized by authorities in managerial positions in order to prevent diminishing motivational levels among workers. This shift emphasizes a change away from career-oriented goals, towards intrinsic motivators, such as personal fulfillment or self-actualization, when expressed using Maslow's Hierarchy of Needs (Boumans, de Jong & Janssen, 2012) (Betz, 1984). This already links to occupational factors, which relate to extrinsic and intrinsic motivators, such as salary, bonuses or career prospects in a job.

Lastly, organisational factors fall under the category of those variables that impact human factors, which in turn influence job performance. From organisational structure to a CEO's managing style, these characteristics should be of major concern to leading figures due to their ability of impacting them. Esha & Yadav (2017) build on this approach and claim that it is a CEO's responsibility to ensure maintenance of high awareness of internal and external threats and opportunities in order for top-level management to grasp the scope of what is possible and what could be done. It is clear that certain factors will be predefined based on the industry of given company, however, managers are put into the role of doers, as they are given authority and responsibility to act, based on this theory (Basit, Sebastian & Hassan, 2017).

The late stages of the 20th century saw a literal hype about leadership styles with many studies being conducted and showing that a democratic leadership style was often the ideal way to guarantee relatively high performance outcomes from employees (Dahl, 1989) (Fishkin, 1991). White and Lippitt saw the cause for this in the ideal balance between deliberation, encouragement and the ability to form group decisions (Choi, 2007). Clements-Croome & Kaluarachchi's study (2000) emphasizes this important role of CEO's due to the impact their decisions have on human factors along with their common task of furthering and developing employee productivity.

3.1.1.3 Health and Environmental Factors

Those factors are the reason for any impacts on the system factors discussed in the previous section. Structural and inter-human relationships in office spaces will be discussed in section 3.4, however, this paragraph takes a closer look at those environmental factors that impact the indoor environment along with potential health effects. The WHO has emphasized health promotion in workplaces and has constructed entire campaigns around this issue. Authorities in the European Union have defined these workplace health promotions "as the combined efforts of employers, employees and society to improve health and well-being at work" (WHO, 2020). On-job work issues range from physical to mental illnesses, while the latter is often a

result of an unstable work-life balance causing mental stress. The prior is often in close relationship with environmental factors in office spaces. Clements-Croome and Kaluarachchi (2000) describe these as respiratory problems that affect a person's physical health and shows symptoms, such as "dryness, hoarseness, dry/sore throat, wheezing" (Clements-Croome & Kaluarachchi, 2000, p. 136).

3.1.2 Enterprise Productivity

Enterprise productivity, also referred to as organisational productivity, is based on similar concepts as individual productivity. Definitions across literature vary; however historically, they have mostly incorporated the perceived synergy of combined individual productivity levels along with an emphasis on a firm's capabilities. Nevertheless, organisational productivity has experienced a shift away from a committed output-oriented approach and has begun to concentrate on the term of 'improvements'. Focusing on those parts that fall under the category of making current activities and tasks better, which in turn make the organisation function better, is part of such enterprise productivity efforts. To managers, these concerns are likely to take top priority due to its impact on all parts along a company's value chain. David Alman (2012, p.) elaborates on this in his claim that "there is not one top priority [in an organisation] that cannot be tracked back to the search for productivity".

Similar to the field of motivation, organisational performance has been pushed into the center of attention from researchers in the late 20th century. Factors that influence organisational performance consist of company internal and external factors. The latter can be described with the ESTEMPLE framework, as each respective macro-environmental factor has the potential to significantly impact a company in either direction, good or bad. The ESTEMPLE framework represents an extension of the commonly used PESTE framework, and refers to all company-external factors that can have an influence on a company including environmental, social, technological, economical, media, political, legal and ecological factors. Internal factors are manifold due to the depth of each respective variable. Individual performance stands out as a key factor, however, it goes along with group norms, knowledge flows, organisational culture/climate, and the strategic decisions made in an organisation.

The biggest challenge, as perceived by managers, lies in the understanding of linkages between individual and organisational productivity. Here, linkages refer to the connection of parts of a bigger system, which makes up a company. The organisational structure is shaped by such connections, no matter whether they are of technological, organisational or social nature. Once again, this field has undergone drastic changes. Historically, linear models or hierarchical pyramid concepts were used to show linkages within a company. The advent of technologies, which enabled the implementation of feedback loops in such systems, and a move towards flatter hierarchies, both brought the shift away from linear models to more complex ones. As a result, measurement of any kind of change on an individual unit becomes more difficult to

measure due to the complexity and amount of linkages. Even if one manages to trace back the effects of changes made to a single unit, whether it is an employee, a technology or something else, practice has shown that the net effect of such changes does not always lead to increases in overall productivity. This is where opinions differ in the literature, which leads to the arise of several questions along the lines of a unit's weight and importance in a system, whether individual productivity should be a concern and whether there needs to be a new approach towards productivity measurements as false measures might be the reason for missing improvements (Goodman, Lerch & Mukopadhyay, 1994).

3.1.3 Productivity Paradox

This idea has been established in the 1970s, but finds its applicability in today's business environment. The paradox arose following the United States industrialization efforts between 1965 and 1985. Even though, the U.S. both publicly and privately, invested billions of dollars in technologies of all kind, research showed that the domestic labour force experienced a declining rate of productivity in regards to the world economy. A study by Weiner and Brown (1989) points out this misalignment as they found that an increase of 12% towards data processing budget in U.S. corporations only lead to an almost 2% increase in productivity from said investments. Ultimately, this shows that complex systems, no matter whether it is a nation or a company, have to find a level of understanding as to which effort of what size is necessary to make changes on a broader scale than just individually.

In the book 'Organizational linkages' published by the U.S. National Research Council (1994), Schneider and Klein argue that an organisation's complexity and the accompanying inertia make it almost impossible – at least very unlikely – that changing a single aspect results in any substantial change in organisational performance. An unsuccessful implementation of a new system, false use by employees and insufficient performance of a new system are some issues pointed out in the prior research, which play on design and execution errors in a change process.

Hence, it is necessary to address more than just one level of an organisation in order to make improvements to the overall performance of an organisation. Schneider and Klein, therefore, warn that those in responsible positions should not focus on just one facet, such as individual performance or organisational strategies, but all or most levels, due to the linkages present between them. Linking this with the topic of the thesis, the EU's attempt to make changes to the way of modern work along with this thesis' focus on new contractual agreements and an appropriate office space design may be such an effort of incorporating various facets of a business in order to make changes, which will have a positive impact on business performance in the long run.

3.1.4 Measuring Productivity

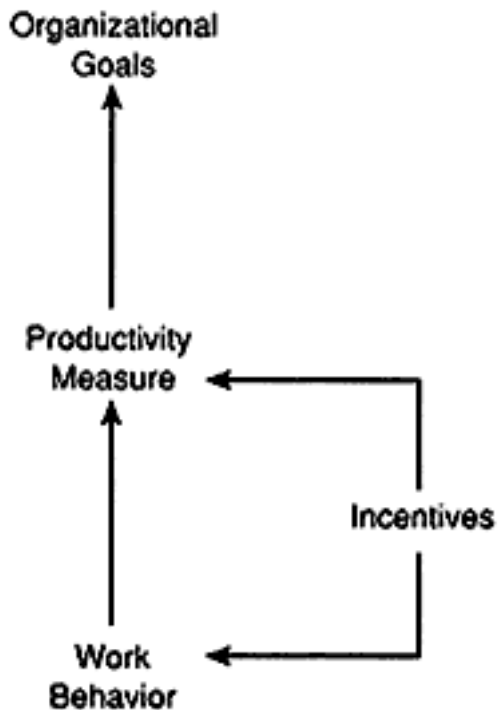
So far, this thesis has established an in-depth understanding concerning productivity and its influence and importance in today's business world. The following section, combines some of those earlier aspects and attempts to explore existing literature on the basis of how productivity has been measured so far including available concepts, frameworks and reports about how it has been implemented in an actual business environment.

Research into the field of individual productivity and how to measure it reveals literature, which shows differing results and suggestions. William Ruch blames "the complexity of relationships between the productivity of the individual worker and the total performance of the organisation" for this inaccuracy in the modern literature (National Research Council, 1994, p. 105). Previous sections have shown that organisational productivity is not necessarily the total amount of individual performances, which is another factor that aggravates a determination of one's productivity.

Productivity measures have several functions. Individual performances are monitored and evaluated, which provides feedback to both the worker but also some higher authorities. As a result, people in an organisation have the capability to track progress of certain projects or tasks along with an estimation of how fast progress is made. Given that some form of time management has occurred in advance, problems can be diagnosed and corrected. Hence, productivity measures serve as an indicator for how well an existing project is executed and provides managers or individuals with the opportunity to make adjustments in order to advance individual productivity through some form of intervention.

However, there needs to be an emphasis on measurement factors with regard to the firm's overall objectives. Ruch provides an example of a waitress, whose performance is measured on the lines of customer served per hour. The waitress' behaviour would follow along the lines of this measurement, which emphasizes on speed and customer turnover. Hence, a waitress that scares off most of her customers after one order would be perceived as more productive in such system than a waitress, who focuses on customer service and satisfied visitors. Hence, it is important to set standards in a way so that they align with an organisation's broader goals. Nevertheless, managers are still free to install certain measurements to track certain characteristics. Customers served may therefore not be a good way of determining a waitress' productivity, but it may help a manager to understand how engaged they are with customers. Werther et al. (1986) illustrates this necessity to align workers' behaviour with organisational goals, and management's task to shape both behaviour and measurements along these lines in the following figure.

FIGURE 2 – ALIGNING WORKERS' BEHAVIOUR WITH ORGANISATIONAL GOALS



(Source: Werther et al., 1986, p.230)

In order to measure productivity, even though it differs depending on job and industry, a unit of output and a unit of input need to be determined in order to calculate what is called a productivity index, which is a meaningful value attributed to an individual. Considering outputs, managers often need to have a clear understanding of objectives at all levels of the business along with important process parameters. Even though, there is no best practice approach that serves as an umbrella function for all industries, the top-to-bottom approach of aligning organisational goals and measures with business goals and measures is the recommended approach in current literature.

Time is often used as productivities' most used input measure for workers. Hours worked has proven to be a somewhat useful measure as it can be attributed to any worker in a firm. Commonly, this measure is exchanged with hours paid in order to incorporate a firm's financial contribution into the calculation. Buchanan and Settles (2018) challenge this view, and ultimately provide further reason for conducting this master thesis, as they argue that working hours are not an ideal measure, as it may undermine some worker's true capabilities. They claim that a move away from time constraints may increase a worker's flexibility to take control over their work schedule making them more productive in a shorter amount of time. The study uses consulting agencies as an example for a culture that promotes excessive working hours, and the image of being better the longer one stays at work. As a result, they argue that

working hours are wasted with diminishing efforts in order to fulfill a given amount of working hours as they have to be worked off.

In an article released in 1988, the former Harvard associate professor, Bruce Chew (1988) assessed the effectiveness and feasibility of productivity measurement systems. He argued that an enterprise productivity measurement only makes sense if it is used accordingly. Productivity indexes have to be used in the right way in order for the values to make sense. Then, comparisons and other business relevant judgements can be made from this point onwards. Chew continues to emphasize the relevance of managers having complete awareness surrounding this issue as they are required to select methods, which align with a company's strategy. Similar to the connection between individual and organisational productivity, there needs to be an overarching link between all measures used in a company. Earlier this was described to be a top-to-bottom approach meaning that the initial decision of how enterprise productivity will be measured is of key importance for future decisions along a company's value chain. Ultimately, such measurements may follow the lines of effects on customers, the business' bottom-line, sales, profits and more. This then only needs to be communicated accordingly across all departments in an organisation by top level management in order to establish an environment, which allows for a high performing workforce that is able to work towards the goals set out by the company leaders.

3.2 The concept of Work-Life Balance

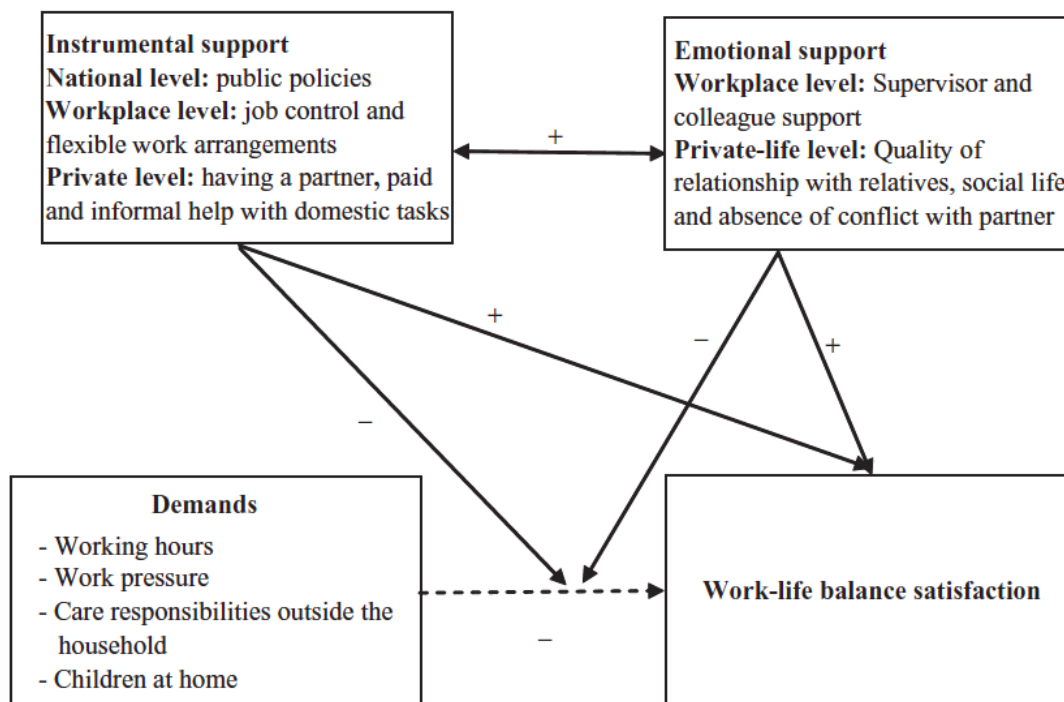
Previous sections have pointed out the various factors that influence humans on the job. Sensory influences, pressure to perform, health concerns or working space environment were just some of the key terms that the previous exploration into the field of productivity has revealed. The concept of work-life balance takes all of those work-related issues and pairs them with the social, off-the-job component of individuals. Hence, work-life balance, as the name already suggests, integrates working life and private life, and the term is commonly used to describe an individual's desire to balance this relationship in order to arrive at equilibrium. Even though, there is no clear definition of how it is measured, the OECD (2018) uses hours spent at work and hours spent for leisure as a rule of thumb to receive a nation-wide indicator. This is based on the assumption that a trade-off between working hours and time spend on other activities has to be made, along with diminishing utility when there is too much of one. The state of equilibrium will be different for each person, and even vary on a daily basis according to people's priorities.

In politics, work-life balance is a common term, which is used in regards to family policies and how such components of society's everyday life may be lifted to higher standards. Frone (2003, p.145), therefore, describes work-life balance "as 'a lack of conflict or interference between work and family roles". Greenhaus and Beutell (1985) provide a similar viewpoint and draw on the two-directional relationship between work and social life. While the discussion of

productivity has already pointed out the effect of a person’s social life on job performance, the effect is reversible, meaning that work does affect an individual’s private life.

Valcour (2007) raises an important point in his studies, claiming that work-life balance is more of a subjective concept, rather than an all-including theory, which can be transferred to anyone. He emphasises this point of subjectivity in his argumentation that work-life balance is a level of satisfaction, which is based on one’s own preference of meeting goals demanded by work and private roles. Hence, satisfaction is a crucial component that can be used as an umbrella term to describe all aspects of work-life balance. On- and off-job satisfaction, ultimately, result in what Abendroth and Dulk (2011) describe as work-life balance satisfaction, with an emphasis on the last term. In their research about the levels of support that can be provided to individuals at different contact points, the authors draw on the importance of satisfaction in both areas, on- and off-the-job. Their conceptual model of support factors on work-life balance satisfaction, seen in Figure 3, which was later confirmed as appropriate in their quantitative research, highlights the most significant factors, along with their respective effect on work-life balance. Hereby, all levels of support, can impact the dependent variable in two-ways, positive and negative.

FIGURE 3 INFLUENCE OF SUPPORT FACTORS ON WORK-LIFE BALANCE SATISFACTION



(Source: Abendroth and Dulk, 2011)

Instrumental and emotional support find their presence both on- and off-the job and draw on contact points with other people or confrontations with regulations, such as public policy, which may have an impact on an individual’s state of mind. Demands also rely on this dual connection between work and life, but include the component of roles to which an individual

generally feels pressured to live up to (Soltani et al., 2013). Given that multiple roles are not necessarily harmful to anyone, as they can be equally beneficial, they still put some form of expectations on people, which they then have to fulfill or trade-off for others.

3.2.1 Job Satisfaction as indicator for WLB

Izvercian et al. (2016) have taken a similar but more detailed approach to the topic of work-life balance in their analysis of job satisfaction and the factors influencing it. Figure 4 shows their honeycomb approach with six encompassing main factors, which again are influenced by some sub-categories. The six main factors are motivation, social interaction, employee characteristics, organisational environment characteristics, organisational perception, and disturbing factors.

Motivation, both intrinsic and extrinsic, have already been drawn on in the previous section about productivity. Once again, the pure existence of motivation as a factor for work-life balance is another indicator for the complexity and magnitude of the topic of discussion. The majority of academic papers suggest that motivation has an impact on job satisfaction, however, there is a fluctuating significance level dependent on an individual's perception and understanding of given variables and weighted importance. For managers, this concept is of importance, as their understanding of employees' motivational drive may give them the opportunity to tailor incentives to their needs to further motivate them. Even though, research has shown that motivation and satisfaction do not correlate perfectly, which is why not every motivated worker is satisfied with their job and vice versa, academics such as Herzberg (1986) promote the use of motivators, especially of intrinsic nature.

Social interaction signifies the second factor and plays on the social influence that an employee is exposed to in their daily work life. From communication over teamwork to the way in which social norms are exercised in a work group, all these things have an impact on an individual and their respective job satisfaction. Studies across several industries have shown equal results confirming a positive relationship between work environment – including social interaction with coworkers – and work satisfaction (Salunke, 2015) (Raziq & Maulabakhsh, 2015). From a managerial point of view a positive work environment also results in lower employee turnover as high satisfaction levels incentivize employees to stay on the job.

The factor 'employee characteristics' takes a human resource approach and once again puts a level of subjectivity onto the concept of job satisfaction. It serves as a reminder that each worker has their own unique skills, traits, values, experiences, etc. As a result different time frames may be needed to integrate new employees into the office culture or to familiarize long time employees with new approaches or systems. The human resource side of business is often confronted with the principle of need fulfillment, which is why a consideration needs to be given to each employee's respective set of skills. Huang draws on this linkage and argues that

an employee's ability to use their skill variety "produce a sense of meaningfulness of work, which reflects the extent the work tasks fit in the employees' value and beliefs" (Huang, 2019).

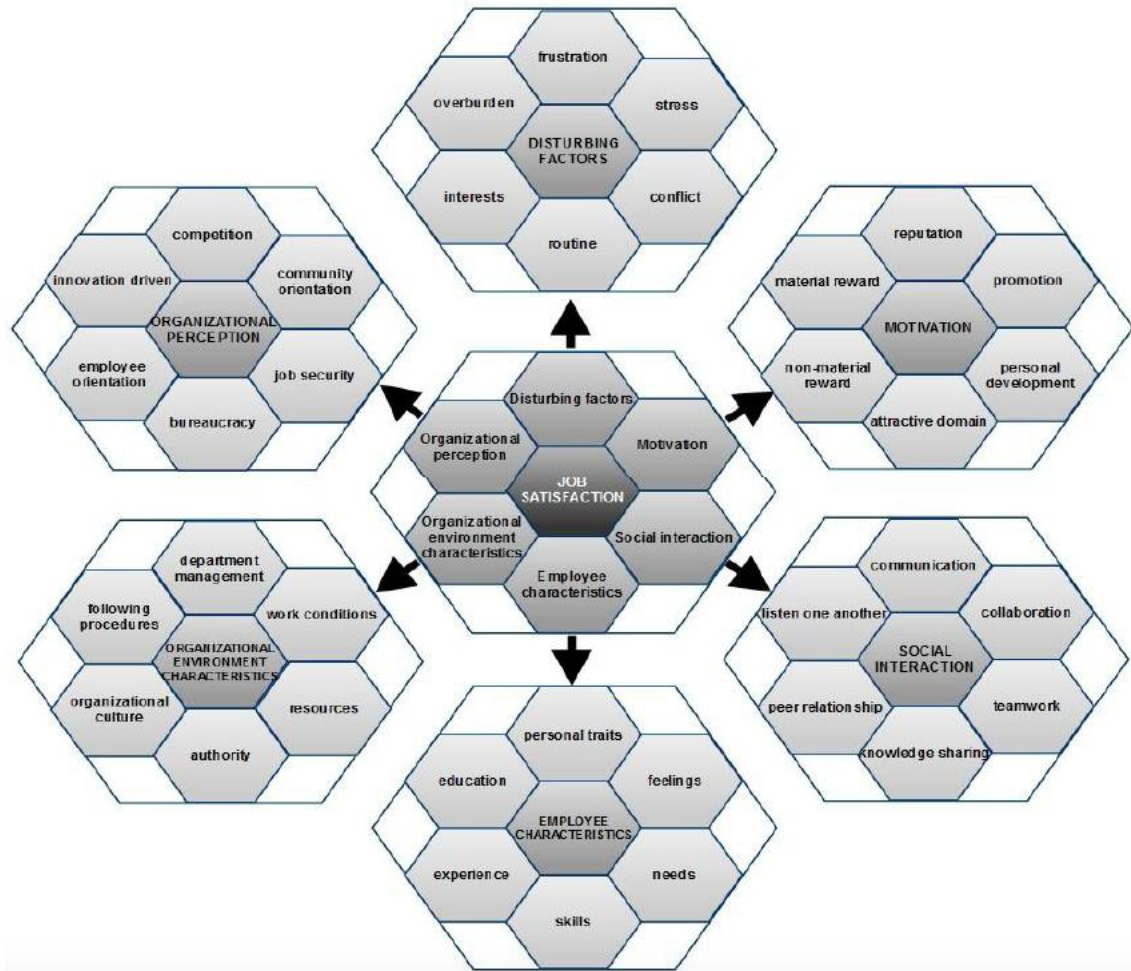
Organisational environment characteristics find general acceptance concerning its impact on job satisfaction across literature, however, there is little consideration in regards to how findings are executed in an actual business environment and whether businesses' management have awareness regarding this field of interest. Steijn (2002) draws on the importance of resource provision on the job, as the work environment needs to fulfill a level of physical resources, which support employees in their daily problems. Beyond that, similar to the previous elaboration on productivity, work conditions including office space size, design and other environmental determinants, such as temperature or lighting, can impact a person's current mental and physical state influencing their satisfaction level.

Organisational perception refers to an individual's subjective view of the company. Figure 4 provides six sub-factors that shape people's perception of their respective organisation. The different types of orientations an organisation might have, has significant effects on such perception, as it shapes an organisation's approach towards certain issues that may arise on the job. Izvercian, Potra and Ivascu (2015) argue that an employee oriented company is most likely to profit from such good image due to the fact that action taken by company leaders are expected to align with their employees' needs and expectations. Overall business objectives and processes also fall under this segment, as they outline a company's decision making along certain issues. Therefore, the authors argue that drive for innovation would have sustainable long term benefits for a firm's image and its workers' job satisfaction, as this future-oriented approach can be expected to strengthen the culture of and cooperation within the firm.

Disturbing factors may occur in various activities and have the potential to create harm to an individual and their close work environment if nobody attends to it quickly. Hereby, stress is the most important term, which has had major impacts on people, especially since the beginning of the 21st century. In an article published by Forbes, Victor Lipman (2019) argues that stress levels at work have been growing increasingly, 20% alone in over the last three decades. Hereby, pressure to perform and job security were highlighted as the two main influencers of growing stress levels. Beyond that, however, there are other – often personal – factors, which may create discomfort as a result of misalignment to what is demanded at work. Besides factors such as frustration or fatigue due to monotonicity, role conflicts between an individual's work self and off-work self may have even bigger repercussions. Siegal & Cummings (1995) found that stress levels are based on the subjective perception of risk in a given situation. Strain between different viewpoints is then often the missing spark to lead to a role conflict that generates stress. Adiguzel & Kucukoglu (2019) provide a different viewpoint in their research about the effects of work stress and role conflicts, as they discuss that each individual has its own stress barrier to which stress and work pressure is considered to be natural and healthy. They perceive stress as a necessary factor in order for an organisation to function.

Here the authors raise the point of a competing firm, which encourages other businesses to perform better as a result of that winning spirit.

FIGURE 4 - THE THEORETICAL MODEL OF JOB SATISFACTION VARIABLES



(Source: Izvercian et al., 2016)

3.2.2 Working Hours

Similar to the connection highlighted by the OECD regarding hours spent at work and work life balance, numerous further investigations have been made into this field of business (Tucker & Folkard, 2012) (Caruso et al., 2006). Research has commonly focused on two main variables, which are hours worked and ability to control work time. The prior outweighs the latter, as control over work time may only serve as a means of fixing certain unwanted time conflicts, however, it cannot serve as a universal remedy against the perception of long working hours (Jansen et al., 2004) (Brauner et al., 2019). Even though, previous exploration into the literature has shown a bi-directional relationship between working hours and job satisfaction, it is the balance of those two variables, which makes up the concept of work-life balance. Caruso et al. (2006) emphasize this connection and attempt to raise awareness concerning the issue of

over time and the respective move away from the equilibrium of work-life. Low recovery time, physically and mentally, as a result of longer working hours are expected to strain an individual's state of health.

As part of the EU's Working Time Directive, studies have been conducted and funded by legislative bodies of the Union. The Eurofound has been established as a governmental agency and is responsible in the areas of living and working conditions in the European geographic area with a focus on data collection and suggestions for improvements. Studies are decreed on the assumption that the work-life relationship is impacted by working hours, while employers use it as an important measure for costs, productivity and competitiveness (Eurofound, 2017). As a result of such global interest, a vast amount of academic efforts have been dedicated towards this field of research. Antilla et al. (2015) direct their focus on flexibility of working hours and find that flexible working hours allow to predict workers' perceived work-life balance, as flexibility has become an essential component and instrument for people to manage their time between work and family. Building on this concept, Kelliher and Anderson (2008) argue that high autonomy on the job, which enables employees to choose their working hours freely are inclined to invest additional effort in their work, as a result of the gained flexibility. Hence, some literature suggests that working hours as a stand-alone term are not valid to measure work life balance, as it does not take the employee's perception of that time into perspective. Gallie and Russel (2009) build on this concept and argue that it is unsocial working hours in combination with long working times have negative effects on work-life balance due to the negative attitude towards that time (Grzywacz & Marks, 2000).

Research from different sources support the presumption of the European Union as an entity, which is shaped by countries with differences in their political, national and social systems (Gallie & Russel, 2009). Hence, it is reasonable to suggest that each variable may have an impact on the countries performance, whether the measure is GDP, happiness of citizens or living standards (Bosch, Rubery & Lehndorff, 2007). Working hours account as such a variable that impacts various social factors including work-life balance. Anxo and O'Reilly support this claim arguing that "working-time regimes are highly dependent on the cultural, institutional, and regulatory environment of the society" (Anxo & O'Reilly, 2000, p.15). There is also conformity in the literature that work-life balances vary significantly among EU members (Antilla et al., 2015) (Maruyama & Tietze, 2012). Hence, satisfaction levels between countries in the European Union differ, however, cluster can be formed among countries that are close both geographically, but also (socio-)politically. Matilla-Santander et al. (2019) found that Nordic welfare regime countries including Sweden have the highest satisfaction levels regarding their working time as a result of the high level of working condition in Scandinavian countries. Moreover, the study emphasized the complexity of the issue when it addressed the reasons for dissatisfaction in work-life balance, which are manifold and vary between sex and country.

3.2.3 Wellbeing & Health

The perception of an individual towards the balance between personal life and work serves as a predictor for psychosocial wellbeing (Gröpel & Kuhl, 2009). A study concerning this issue has been conducted on South Korean workers, which were likely to suffer of such issues to their wellbeing, as the OECD has ranked this country third to last in terms of work-life balance (Yang et al., 2018). Results of the study show that factors that have a negative effect on job satisfaction and work-life balance, are in turn the root cause for poor wellbeing. All the factors mentioned in the study align with previous literature mentioned in earlier sections of this thesis and include a low level of autonomy and support at work, office space environment, etc. Lunau et al. (2014) confirm this notion in their research at a European level and add the dimension of gender, as they state that men have reported more imbalances between work and life, which may be a result of the industries they work in. Beyond that the study shows a pattern similar to the one found in the previous discussion about working hours, which is that cultural and political context needs to be a considerate factor in the analysis of work-life balance and the effects on a nation's society. Again, Scandinavian countries have shown lower imbalances than Southern and Eastern European countries (Lunau et al., 2014).

The WHO (2020) feature a list of work-life balance and mental health related articles and books on their website and warn of the risks that may accompany an imbalanced work life. Governments become increasingly more aware of this situation. As a result, European governments spent an average of US\$22 per capita. Effects of mental disorders stretch beyond the individual level and have impacts on society and a country's economy. The WHO (2020) found that mental ill health has caused a lack of productivity, which accounted for costs of US\$ 140 billion per year, in the European Region alone. Issues to individuals are mostly expressed in the form of physical and mental health problems and a tendency to substance abuse. The OECD (2018) reports that 84 million people across EU countries suffer from some kind of mental health disorders with the most frequent symptoms being depression, anxiety, physical health related issues, such as headaches, and suicidal thoughts.

3.3 The Concept of Knowledge Management

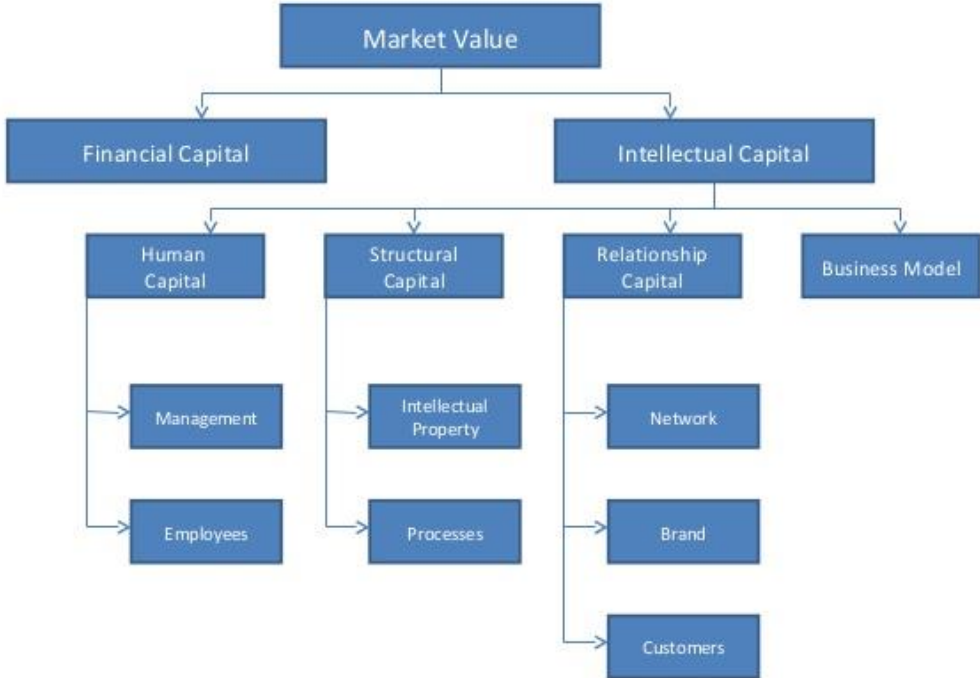
In his textbook about an integrated approach towards knowledge management, Ashok Jashapara describes the concept as "the effective learning processes associated with exploration, exploitation and sharing of human knowledge (tacit and explicit) that use appropriate technology and cultural environment to enhance an organisation's intellectual capital and performance" (Jashapara, 2004, p.12). Here, it is important to depict the opportunities that one has when it comes to knowledge, especially in regards to human capital. Exploration refers to the finding of new knowledge, which may exist in areas currently unknown to an individual, while exploitation is concerned with the refinement and improvement of existing processes and knowledge. March (1991) based his research on this issue that companies often have, and

found that exploration efforts are necessary to ensure sustainability concerning a firm’s future business targets, while exploitation is equally important to ensure a short-term fulfillment of objectives. Nevertheless, companies have to find an appropriate balance regarding the focus of their company given the respective industry (Levinthal & March, 1993) (Ganzaroli et al., 2016). Moreover, it is crucial for company’s to understand the importance of decisions concerning their knowledge, no matter in which form of capital it is stored, as decisions may have long-lasting effects on the company’s ability to stay competitive. A business’ drive towards innovation or its ability to manage current business activities may depend on the way, in which they distribute exploration and exploitation efforts.

3.3.1 Types of Capital

Before exploring further concepts that relate to the field of knowledge management, further insights into any firm’s capital need to be provided. Ultimately, the analysis of a firm’s capital – beyond finances and physical capital – gives information whether a company has sufficient capabilities. Hence, the following section will explore the literature on the basis of capital that is used by firms to leverage knowledge. Hereby, the focus will be directed towards intellectual capital including human, social and organisational capital. Commonly, it refers to the ability of taking knowledge and other forms of intangible assets in order to produce value to a firm.

FIGURE 5 - ADAMS & OLESAK’S CONCEPT OF INTELLECTUAL CAPITAL



(Source: Adams & Oleksak, 2010)

There is consensus in the literature that intellectual capital has the ability to serve as an ideal source for wealth creation in a firm. It belongs to a firm's intangible assets and occurs in the form of hidden assets, which are dispersed in a company. Unraveling these centers of knowledge is a manager's task. Interestingly, there are differences in the boundaries of intellectual capital that can be found in existing research papers. Here, the main difference lies in the association of what accounts as such intellectual capital. Stewart (2001) and Lönnquist & Mettanen (2003) combine numerous perspectives in their research and shift from a stakeholder approach to a fixed definition, which entails the claim that human, social and organisational capital belong to intellectual capital. Before that, Rastogi (1999) argued that stakeholders, such as investors had the decision power as to what accounted for an important asset in a firm, however, this perspective has shifted with the arise of new findings suggesting that human, social and organisational capital are all crucial components for businesses' success, no matter the industry.

3.3.2 Human Capital

As an essential component of a firm's intellectual property, human capital, has become companies' most important and valuable assets throughout recent centuries. Following the rise of employee power the management of such human resources has taken on a major role in businesses of all size. Concerning the definition of human capital in the context of knowledge management, it refers to the knowledge that is embodied in humans that are part of the company. Pasban & Nojede (2016) highlight the importance of human capital based on the argument that it is the source of a sustainable competitive advantage and organisational efficiency. Garavan et al. (2001) support this notion and add that no other form of capital has this sustainable nature, as new technologies and products become easier and cheaper to produce, which fastens, but shortens their life cycles. From a managerial point of view, human capital, therefore, is the investment in humans to gain potential long-term advantages, whether they are of competitive or organisational nature (Burund & Tomolo, 2004).

Pasban & Nojede (2016) list 5 key components of human capital and argue based on assisting literature that these are the most relevant features and benefits of human capital to a firm. 'Creativity and innovation' link into the concepts of knowledge exploration and exploitation and emphasize a workforce's ability to find new ways of handling issues, which may arise at any stage and level of a firm. 'Knowledge and skill' refer to humans as a valuable resource that incorporates a vast amount of input that may be used to create value for a firm. Bukowitz & Williams (2000) support this claim and argue that knowledge management has the biggest impact on this component of human capital through various human resource approaches in a firm starting at hiring new employees and ending at conserving leaving employees' knowledge. 'Value added' refers to the nature of human thinking and how it can be of value to an organisation at different levels. Forecasts, predictions, and further tasks fall under this consideration of providing important input. 'Competitive advantage' has already been mentioned in the pre-

vious paragraph, however, Groves (2002) adds that human capital along with its advantages should be seen as an economic resource, which has a direct impact on the competitive market environment of a firm/industry. 'Customer satisfaction' is based on the assumption that employees interact with customers, at least in the service sector, thus have the ability to make significant impacts on this front.

3.3.3 Social Capital

This form of capital can be seen as an extension of human capital as it is concerned with the human relationships that endow an organisation. There is no common and clear definition of what social capital is in a business context, which is why respective definitions depend on the discipline and field of interest (Robison et al., 2002). Belliveau et al. (1996, p. 1572) briefly define social capital to be "an individual's personal network and elite institutional affiliations". Hereby, and similar to all other definitions found in the literature, the authors refer to the social interactions that occur company internal and external and therefore have an effect on a person's mind- and skill-set. Social scientists including Schuller (2001) describe social capital as the relationships within and between networks along with cultural norms that define them. He argues that the benefits of understanding social capital lie in one's ability to profit from the establishment of trusting relationships that are good for social cohesion and economic, monetary success. Concerning the topic of knowledge flows, this form of capital is of major importance as the level of a firm's social capital positively correlates with the quality of knowledge flows in a company. There is common agreement among literature that there are three dimensions of social capital including the structural dimension, relational dimension and cognitive dimension (Krause, 2007).

The structural dimension refers to the interactions and connections of people inside of a firm on the basis of the organisational hierarchy. Employees' respective skill-sets will have an impact on their networks as their position in a firm is likely to determine the people that they frequently interact with. Carrie (2006) describes this pattern of people sharing information and knowledge with their network, which consists of people that are likely to remain as members of such network for the long term, as a key component of providing the company with benefits, which may support the creation of a competitive advantage. The relational dimension refers to the nature of interactions between individuals in a firm. Based on the history in terms of past interactions a culture has been formed determining values, norms and expectations. The cognitive dimension relates to the shared meanings, interpretations and the accompanying alignment of views among employees in a firm. This dimension emphasizes the importance of language used in a firm along with the involvement of employees (Nahapiet, 1998).

Social capital has numerous effects on a business. Cohen & Prusak (2002) argue that if social capital is managed correctly, these effects will be of beneficial nature as weaknesses of a badly sustained social capital are banished. Especially the trust among employees, which can be

raised to a high level if a work environment enables it, has the ability to have a significant impact on the quality of knowledge flows in a firm (Salajegheh & Pirmoradi, 2013). Furthermore, transaction and turnover rates are expected to decrease as a result of appropriate management of social capital. Additionally, based on the cognitive dimension, firms are expected to experience organisational stability and a shared, common understanding of employees, which increases the coherence of actions and decision making (Cohen & Prusak, 2002).

3.3.4 Organisational Capital

Organisational capital is another extension of human capital and involves a tangible and non-tangible dimension. The tangibility is expressed through physical capital, which includes basically any tangible possession of a company once employees clock off. The intangible part includes numerous social concepts including value that is created in a company as a result of on-job socialization. Lev et al. (2016) describe organisational capital as the key component that ultimately enables all other forms of capital in a firm to be used to their full extent. Awareness of organisational capital including the issues of its definition but also of its measurement are important concerns for sustainable future business conduct. There is academic consensus about organisational capital's influence and importance in businesses. Hulten & Hao's study (2006) emphasize this viewpoint and describe it as an asset that not only provides major value to a firm but can also be seen as the root of competitive advantage. As a result, Lev et al. (2006) highlight the importance of management's interest and understanding in this field in order to radiate confidence in the areas of future internal operations, decision-making, investments and possible M&A-efforts.

3.3.5 Organisational Learning & The Learning Organisation

Previous sections have explored the components of a company through the analysis of different forms of capitals. The concept of organisational learning, now, takes those elements and combines them in order to identify how organisations including their systems and processes learn and attempt to improve over time. The Learning Organisation, a concept developed by MIT Professor Peter Senge, represents the idealized end state of what an organisation can achieve in terms of learning and transforming.

Similar to the discussion of productivity, learning happens on an individual and organisational level. Here, the knowledge base of an organisation surpasses the total value of individual knowledge due to further forms of capital adding to a company's foundational knowledge base. Nevertheless, the processes towards learning and acquiring new knowledge are similar no matter the subject. Stern (2007) explores existing literature and puts the ways, in which individuals learn, into three categories that include behavioural learning, cognitive learning and social theories, which suggest that any form of learning is the result of past experiences.

Organisations, from a human capital standpoint, mostly have to work and learn as teams. As a result, team learning and its accompanying complexities are shifted into the center of attention. Ultimately, organisational learning is used to gain further insights and knowledge into companies' field of interest in order to improve performance and achieve business objectives (Fiol & Lyles, 1985). Senge (1990) and Edmondson (2002) highlight the importance of teams in an organisation when they point out that organisational learning is dependent on the quality and ability of teams to explore new knowledge streams. Hereby, past success and past failure are key components and drivers of the extent to which an organisation is determined to gather new knowledge, therefore learns. Past success does not guarantee future success and rather raises the threat of moving away from exploration efforts that may spark innovation and resilience. Commonly, success in the past is an indicator for reliability, which stems from exploitation efforts (Townsend, 2010).

There is consensus in the literature that organisational learning involves the necessary elements of acquiring knowledge, distributing information, interpreting information and retaining knowledge in the organisational memory. Studies conducted in the fields of business, social sciences and sports have shown that knowledge acquisition becomes of higher quality once knowledge is sourced external to an individual's or company's usual network (Åkerman, 2015) (Wilson, Bloom & Harvey, 2010). This is based on the concept that one can say with an almost perfect probability that there is another individual doing something better than they are. Hence, firms can (almost) always find additional, valuable knowledge from outsiders, whether this may occur through hiring, contracting or experimenting. Information distribution, which can synonymously be referred to as the sharing of knowledge, plays a key role in a firm's learning process to advance the knowledge base of a firm. Nonaka (1994), who has been a pioneer in the field of knowledge management, emphasizes the benefits of knowledge sharing as it is seen as the main driver for new idea generation. Hong et al. (2004) agree and raise the notion that the following improved organisational innovativeness provides a solid foundation for future successful business conduct. Importantly, a firm's social and physical capital influence the ability to share knowledge in a firm due to the trust and willingness of employees that is necessary to share information in the first place. Information interpretation also relies on the quality of a firm's social capital, specifically its cognitive dimension, as the interpretation of information refers to the uniformity of a group's members' cognitive maps, which ultimately decides how an individual interprets messages (Sammut-Bonnici & McGee, 2015). Organisational memory, lastly, refers to the amount and value of knowledge, which has been successfully stored in an organisation, as a result of retaining efforts. The location of such memory can be found in any form of capital, and may include human brains, intellectual property, physical manuals, information stored in databases, etc. (Jennex & Olfman, 2002). Urbancová & Linhartová (2011) present numerous research results that point out the downside of storing organisational knowledge in human capital, as staff turnover presents the biggest threat of knowledge loss. Hence, Parise, Cross and Davenport (2006) argue that the future of

knowledge-retention strategies will shift to greater technological involvement in the form of using the capacity of intranets along with improved hiring and training processes.

3.3.6 Media Richness Theory

This theory was developed by two organisational scholars, Daft and Lengel (1986), and is targeted to facilitate an effective use of media channels in business communication. The aim is to choose such channels on the basis of reducing any form of equivocality and misinterpretation in order to distribute and share information as efficient and effective as possible. The richness of a medium can be seen as a scale, which varies on the basis of four factors, namely the inclusion of personal focus, immediacy of feedback, conveyance of multiple cues, and variety of language. When a medium enables the sender of a message to incorporate personal feelings and emotions, it is more likely for the receiver to have a more accurate interpretation of the message sent. Thus, face-to-face conversations incorporate the most richness. The advent of Web2.0 has allowed for long-distance online conversation with the inclusion of immediate feedback. As a result, technological developments of the 21st century have increased the richness of various media. E-mails are still lower ranked on the richness scale due to the lag between message and response in comparison to live chats. The conveyance of multiple cues refers to the emphasis of sensory stimulation meaning that a medium gains in richness as it reaches more senses. Phone calls, therefore, are considered less rich than video calls. The variety of language accounts refers to the diversity of meaning that can be communicated with a respective medium. Again, any form of medium that allows for an instant two-way communication would be considered as more rich (Dennis & Valacich, 1999) (George, Carlson & Valacich, 2013).

Ishii, Rife & Kagawa (2017) point out some downsides of the theory and how richness should not be seen to be ubiquitous, as it depends on the context of a situation and the perceptions of users. The use of smartphones, especially, has led to significant changes in the use of all kinds of media, providing users with more options to communicate. Thus, organisations are likely to have an efficiency-oriented advantage when there is awareness about which media is best suited for any specific situation. The presence of sufficient physical capital in the form of capabilities and resources is necessary to allow for such a choice to be made in the first place. Ishii, Lyons & Carr (2019) analyse that lean media including emails are best used to minimize uncertainty, as the sender of a message has the opportunity to clarify any circumstances of an issue, while rich media is best suited to tackle the concern of equivocality.

3.3.7 The Goal of Organisational Learning

The idea of this concept has been raised by a number of important, relevant personalities in the field of knowledge management. Pedler, Burgoyne & Boydell (1989) called it The Learning Company, Senge (1990) The Learning Organisation, and Nonaka (1995) The Knowledge Creat-

ing Company. Even though their principles do have differing paths at the core, the final assumptions from all authors align in a way, in which enterprises have a potential opportunity to reach a state, in which their respective capabilities are used to an extent that creates a desired end state. Thus, the authors present the learning organisation – or whatever one might call it – as an entity that maintains this desired end state through ongoing changes.

3.3.7.1 Senge's Fifth Discipline

Senge (1990) perceives that there are five disciplines that are essential to bring about a learning organisation. In his same-named book 'The Fifth Discipline', Senge describes Personal Mastery, Team Learning, System Thinking, Mental Model and Shared Vision to be the building blocks for an organisation that circles around the ideal state from a knowledge management perspective. All of these elements have already been mentioned in previous sections of this thesis. Therefore, it is more important to understand how the elements are linked instead of their respective meanings. Senge presents a model that links personal and organisational factors that are relevant to create an environment, which enables productive work. Thus, system thinking can be seen as the most crucial element as an organisation's understanding – the leaders' understanding – of all parts of the enterprise along with reasoning of how they are linked is a crucial foundation for knowledge to flow in an organisation.

3.3.7.2 The Learning Company

Pedler, Burgoyne & Boydell (1989, p.91) describe the learning company as "an organisation, which facilitates the learning of all of its members and continuously transforms itself in order to meet its strategic goals." Similar to what previous literature about the principle of productivity has shown, the learning company follows the assumption that a company's focus on its strategic goals and objectives should be a company's key target. The authors point out that not any company can be classified as such a 'learning company' as all learning should have an effect towards the development of individuals and teams. Hereby, learning is seen as a cost, as it is time and capital consuming. Therefore, a certain return exceeding that investment should be expected and delivered by those who learn.

The 90's have marked the beginning of a technological revolution, which has impacted industries of all kind. Currently, only a fracture, about 12%, of the original S&P500 firms are still in that ranking. This is proof for the radical industry changes and challenges brought upon firms by the technological revolution. Hence, Pedler, Burgoyne & Boydell (1989) argue that the competitive edge that The Learning Company provides to firms due to its focus on improved exploitation and exploration efforts is an essential component for a firm's long term survival. Business leaders' rising awareness and understanding of this connection is the reason for raised interest into the field of knowledge management.

3.3.7.3 The Knowledge Creating Company

Nonaka and Takeuchi (1995) have focused their research on the exploration of why Japanese companies have been successful. Different to the previous two sources, the two Japanese researchers prioritize knowledge over learning processes as they find it to be the primary and lasting source of competitive advantage. Hence, learning is seen as part of the bigger picture that makes up knowledge creation. Nonaka and Takeuchi (1995) argue that the interaction of four modes is responsible and necessary to create knowledge. Socialisation, externalization, combination and internationalization (SECI). The distinction between the type of knowledge, hereby, is key as the authors' concept is based on its different natures in human capital. According to Nonaka and Takeuchi knowledge creation is a circular process of the relationships between the two forms of knowledge, which are explained in the following paragraph. Fundamental for Nonaka and Takeuchi's Knowledge Creating Company is an understanding of three knowledge management concepts including tacit knowledge, explicit knowledge and ba.

3.3.8 Tacit and Explicit Knowledge

There are two forms of knowledge, which are explicit and tacit. Explicit knowledge is also referred to as codified or written knowledge and can be easily documented and transferred. The information written in an operations manual would be considered as explicit knowledge due to the provision of hard facts, which can be replicated by any person. Tacit knowledge is based on an individual's ability to turn theoretical knowledge into effective execution. Therefore, it is also referred to as know-how or working intelligence. The complexity of riding a bike is often used to explain the concept of tacit knowledge. Those, who know how to ride a bike, often cannot explain how it actually works, as they just do it. In order to gain the ability of riding a bike, one does not need to understand the underlying physical concept and exact motions of feet and hands. It is way more important to try it and learn through experience, success and failure (Connell, Klein & Powell, 2003) (Kothari et al., 2012).

TABLE 1 - TACIT VS. EXPLICIT KNOWLEDGE

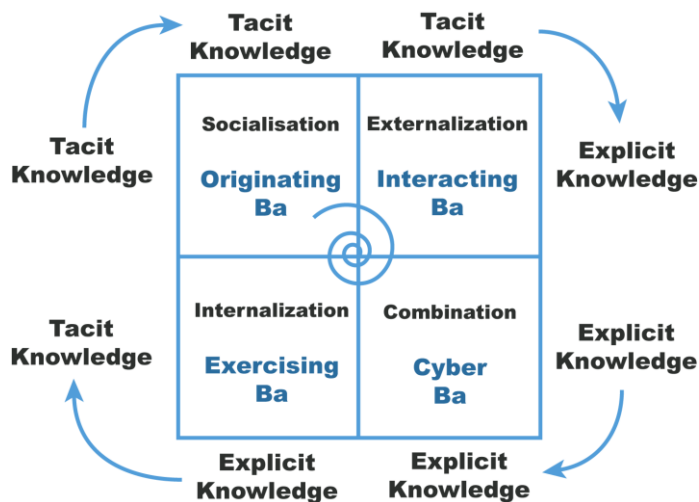
Tacit knowledge (subjective)	Explicit knowledge (objective)
Knowledge of experience (body)	Knowledge of rationality (mind)
Simultaneous knowledge (here and now)	Sequential knowledge (there and then)
Analog knowledge (practice)	Digital knowledge (theory)

(Source: Nonaka et al. 2001, p. 494)

3.3.9 The Concept of Ba

Ba is a concept developed by Japanese philosophers Nishida and Shimizu. Ba refers to a space that can be physical, digital or mental. It allows individuals to connect with each other and relate to another in order to establish an environment, in which knowledge can be shared and created. There are four stages of Ba that correspond with Nonaka's concept of a Knowledge Creating Company. Originally, Nonaka and Takeuchi established a concept explaining the interaction and processes involved in a knowledge creation process. The idea of ba then added to this idea and provided reasoning and explanation concerning the space and environment that are necessary to lead to the creation of knowledge. Figure 5 visualizes how the SECI-model and the concept of ba align.

FIGURE 6 - THE CONCEPT OF BA



(Source: Jashpara, 2011)

Socialization in the Originating Ba is required to transfer tacit knowledge. Given the fact that tacit knowledge is deeply embedded in an individual's values and beliefs. Therefore, a rich form of communication, ideally face-to-face would enable for such transfer of knowledge. Mentoring programs, social events or meeting are just some examples of what socialization may look like. The Originating Ba refers to a space that enables individuals to feel comfortable and carefree, which would allow them to share experiences, emotions and perspectives. Criticism is raised in some literatures as there is doubt concerning the lack of competitive thinking. Arguments are made that the ba needs to balance cooperation and competition in order to create a culture that creates knowledge as a result of critical thinking and change.

Externalization in the Interacting Ba refers to the conversion of tacit to explicit knowledge. At this stage, the Interacting Ba refers to a space, where an individual has the required instruments to make their knowledge explicit. The Interacting Ba should consist of a mix of people, which is why diversity is of such big importance. Literature describes cultural diversity in a firm

as a double-edged sword as it can have two opposing effects. On the one hand, cultural diversity can have negative effects on innovation and knowledge sharing efforts, when there is too much noise in the communication process, which could occur when there are differing values or language barriers (Niebuhr, 2009). On the other hand, if a good, working communication process is established there is increased potential for creativity and innovativeness due to the synergies (Dahlins et al., 2005) (Ozman & Erdil, 2013).

Combination in the Cyber Ba is a stage that does not increase the knowledge base of a firm. Importantly, at this point knowledge is often taken from one individual and made available to the whole organisation. It can be considered as the easiest process as tools are provided to a user in order to codify explicit knowledge in order to make it available to a broader group. The Cyber Ba, besides its virtual tools, should have characteristics of a collaborative, supportive and caring environment, in which individuals are then inclined to make an effort to make their knowledge available to others.

Internalisation in the Exercising Ba enables individuals to broaden their respective knowledge base as a result of the work that has been done in the Cyber Ba. It follows a learning-by-doing approach as individuals take knowledge that is made available through the organisation's systems and apply it in a real life scenario. Colleagues and mentors are crucial players in this process as they can help individuals to succeed faster. Illieva-Koleva (2015) highlights the importance and influence on mentoring programs, but emphasizes the importance of finding a mentor that is both experienced and motivated in order to provide value to the mentee.

3.3.10 Becoming a Learning Organisation

Pedler, Boydell & Burgoyne (1989) have created a list of 10 specifications, which they argue are some key benchmarks for firms to develop and advance to the state, which they call The Learning Company. Previous literature review has pointed out the similarities between all concepts and their perspectives towards organisations' ability to reach a state that sparks knowledge creation and learning (Nonaka, 2007). Therefore, Pedler, Boydell and Burgoyne's (1989, p.100) list can be generalized to showcase key factors that a firm needs to fulfill in order to reach this desired state.

1. Organisational policy and strategy formation are structured as learning processes in order to allow for evaluation and improvement efforts
2. Organisational policy and strategy are topics that can be discussed organisation wide, and should be incorporated and known.
3. Structures are flexible in order to allow for change
4. Managerial control systems of all kinds (accounting, finance, etc.) follow a learning process and include feedback loops in order to enable future improvements

5. Information systems should be in place to inform members but also to enable a two-way communication, which allows for critical thinking.
6. Constant communication and feedback between individuals, teams and departments.
7. Each member functions as an environmental observer in their actions with individuals or organisation that are external to their own company
8. Members of the organisation engage in the sharing process of information with company insiders and outsiders (e.g.: key customers)
9. The organisational culture and management style allow individuals to learn from their failures and successes.
10. Members of the organisation have access to resources that support and encourage self-development.

This section has provided an in-depth look into the field of knowledge management and has highlighted some key factors that need to be in place in order to enable knowledge sharing, which is an indicator for productivity and organisational success. Stiles & Kulvisaechana (2003) draw on this connection and put the responsibility on organisational leaders, as they need to emphasize the importance of human capital in a firm along with their respective skills, abilities and impacts on organisational learning and a firm's overall performance. The concept of ba strengthens the importance of spaces that allow for knowledge creation to occur and for employees to feel comfortable and carefree. Therefore, it is crucial to analyze if and how business leaders' attitudes towards these concepts have changed over time along with the impact on and impact of office spaces.

3.4 Office Spaces

At this stage, the most relevant concepts for this thesis have already been analysed. An exploration of office spaces throughout recent history marks the last section of the literature review. The starting point will be set in the 1950s, a time in which countries around the world have started to recover from the war-driven past of the 20th century, and businesses began to flourish. The development of office spaces in the post-war era will be explored on the basis of decades. However, four clusters will be made as significant macro environmental changes have had major impacts on businesses' decision making concerning the design and layout of office space environments. The clusters will look as follows: 1950s-1970s, 1980s-1990s, 2000s and 2010s. The last section will provide a summary of existing articles and papers that attempt to forecast future development.

3.4.1 Era 1 – Hierarchy and Status

In the post-war era millions of people found themselves in the ruins of what was left behind. The media signifies this as the starting point of a new, more peaceful global living and describes 1945 as 'Year Zero' (MacMillan, 2009). In the midst of society attempting to start over

again businesses found themselves caught up in a system that was shaped by strict hierarchies and power expressed through status. Musser (2009) describes the office space of the 1950s as an open office that was chosen not for democratic purposes but for the sake of fitting as many people into the available area as possible. Privacy was only granted to those employees that have already climbed the career ladder and were therefore higher ranked. Different to the modern perception of open office as a space for collaboration and communication, the open office of the 1950s followed the Bentham's Panopticon effect², which has been used as a common reference in business. Thus, office spaces were designed to serve as a motivational/pressure-driven instrument to maximize productivity levels of the masses at the bottom of the organisational hierarchy.

Stringer (2016) describes how Robert Probst, the designer of the cubicle office space, shaped work in the 1960s. It is also referred to as action office and incorporated a mix of cooperation and privacy. The three-walled spaces spread through office spaces around the world, however, not for long. Cubicles allowed workers to focus more on their own work due to the increased perception of privacy and lack of distracting sensual experiences, such as loud noise. Nevertheless, other senses were left out, which negatively impacted workers' satisfaction and happiness. The small amount of social contacts, and the monotone look of the office space were factors that negatively affected employees' perceptions. Moreover, Väänänen et al. (2012) argue that the 1960s marked a time period when work stress was peaking, but no social movements were yet put in place to fight for workers' rights, which is why individuals had to suffer these consequences quietly or fell victim to layoffs. Bobkoff (2016) argues that US economic dominance following the war-driven European and Asian countries created an almost monopolistic mindset among big companies. This power was expressed in corporations' behaviour towards business-level employees, which were rated simply on their performance and effort. Past CEO of IBM, Thomas Watson Jr., describes IBM's approach in the 1960s as one of a kind (Bobkoff, 2016). His company moved against common business measures and were the front runners of a human centered business approach, which would not become the norm until the 1980s.

The 1970s saw a continuation of previous years, however, macroeconomic societal changes started to slowly change businesses' views and behaviours towards their employees. The previous decade saw the arise of the hippie culture, which started in the United States and spread across the modernized world. This counterculture was one of many social movements at this time, and shared values on the lines of liberation and openness (Jony, 2017). In an article, pub-

² In this prison cell design, a guard overlooks the entire prison seeing all cells, whereas no inmate can see the guard due to the choice of lighting. As a result, inmates never know whether they are being watched.

lished in *The Economist*, Segnit (2020) presents cases of how this social movement along with greater awareness in society about stress at work started to shift business managers' perceptions towards employee relationships.

Stanford Professor, Harold Levitt (2003) describes this era between the 1950s and 1970s as a means of transforming motivated and engaged employees into disaffected and emotionless figures. The approach of today's knowledge economy has changed hierarchical structures, especially, how they are implemented in reality. However, the core idea of hierarchies has not changed, which is why following paragraphs will not depict a disappearance of hierarchies, but rather a flattening.

3.4.2 Era 2 – Human Resource Management

The influences of social movements, specifically the hippie culture and the involvement of Gen X in the world of work, were destined to have drastic impacts on the years between the 1980s and the new millennium. Deadrick and Stone (2014) center their research on the field of Human Resource Management and explore its early beginnings, and mark the 1980s as the start of strategic HRM. This followed business managers' changing understanding towards perceiving employees as critical components to an organisation instead of emotionless machines, which could be replaced as fit. Dulebohn et al. (1995) describe this time period as the era of employee relations, in which trust was a key component for the relations' sustainability. According to Tracey (2014) there is a positive correlation between factors of a firm's HR system and customer-related and financial outcomes of a firm, which strengthens previous arguments and highlights the importance of the improvements made in the late 20th century.

Lee et al. (2016) found that a firm's ability to appropriately manage its human resources was key for improving employees' mental state/health, which in turn would be likely to have positive effects on company performance. This links with previously discussed issues in this thesis' work-life balance section and productivity section. This research aligns with Becker & Gerhart's (1996) findings, in which they suggest that companies' growing human-centered approaches – both company internally and externally – were key factors for the development of better employee-employer relations. Furthermore, these changes began to flatten business hierarchies across the globe, which had positive effects on employee engagement and idea generation, which was a result of improved innovation and creativity measures (Kubheka, Kholopane & Mbohwa, 2013).

Beyond the social and hierarchical changes that took place during this time, office spaces also underwent drastic structural changes. The advent of future multinationals including Apple, Microsoft and IBM significantly sped up computers' transition from being an exclusive luxury to a piece of hardware that was affordable and value-bringing for firms. The end of the 20th century saw large computers taking over office space desks. Dorn (2015) points out the drastic

cost decrease for computing operations and the rapid advancements of microprocessors, which he argues to be the reason for the commercialisation of computing machines. Additionally, office spaces experienced a move away from clustered cubicles to office spaces with a more open, modern look. The implementation of open offices found a comeback with designs that were targeted towards comfort and stimulation of senses including constant access to daylight.

3.4.3 Era 3 – Coworking and Teams

The new millenium saw a new generation gain a foothold in the world of business. Millenials – those, who are born between 1981-1996 – began to take on key positions in companies and started to change office natures around the world. Different to previous generations, millenials did not have to adapt to the rapid technological advancements of the late 20th century, as they grew up with it. Gibson and Sodeman (2014) agree with this notion, however, they argue that this often comes at a tradeoff causing a lack of soft skills for members of those younger generations. Ultimately, the 2000s mark a changing point in the world of businesses, which is a result of the macro environmental factors that came together: Firstly, a new generation entering the workforce, secondly, companies starting to switch to human-centered approaches emphasizing customers over the product, lastly, knowledge economy and knowledge workers becoming one of the most valuable terms in business.

Brinkley (2008) points out how the 2000s brought drastic changes to product and service industries as nations underwent transformations into knowledge economies. Powell and Snellman (2004, p.3) define knowledge economy as “production and services based on knowledge-intensive activities that contribute to an accelerated pace of technological and scientific advances.” Hence, it draws on the literature that was highlighted in the previous section about knowledge flows and emphasizes the importance and appropriate management of knowledge in a company. The increased emphasis on knowledge and how it is shared and communicated in an organisation has caused another paradigm shift in office spaces.

According to Florida (2002) changes in the 2000s led to the rise of the creative class. Gandini (2015) draws on Florida’s enthusiastic claim and highlights the difficulties that companies faced in this time, as individual’s expectations of the knowledge economies’ coworking approach skyrocketed in terms of the expected socio-economic benefits to workers. Coworking, teleworking and home office; all of these terms gained significant value in the new millenium, when smartphones and laptops allowed some employees in certain industries to move away from their fixed office spaces. Census data from the European Union suggests that around 5% of all employed workers already do their work from home (Eurostat, 2020). These numbers are likely to increase, especially when considering past trends and the likelihood of employees starting to integrate some form of teleworking into their workweek.

The early 2000s saw the approach of coworking, which became a performance-improving alternative for those, who were already working remotely. Capdevila (2013) describes coworking spaces as the coexistence of workers that utilize available networks to improve their quality of work. Furthermore, the author claims that competitive pressures decrease as a result of escaping casual office spaces and are replaced with a new economic rationale, in which workers build reputation through their respective networking practices. This aligns with the work approaches that were practiced in office spaces in the 2000s, when focuses shifted once again compared to previous years. Teams were put into the center of attention. According to Bell and Kozlowski (2002) teams have always played a crucial role in firms, but the improvement of computers and easier accessibility allowed companies to use resources to enable teams to communicate and cooperate significantly better, no matter the geographic location. Hence, the new millennium saw companies working towards the embedment of teams into the organisation's workflow systems (Mathieu, Marks & Zaccaro, 2001).

3.4.4 Era 4 – Setbacks and Development

Even though the 2010s represent a period in time, in which office spaces underwent developments rather than changes, businesses had to struggle with the macro environmental issues of the late 2000s. Smallbone et al. (2012) describe the effects of the economic downturn of 2008 on businesses of all size. Impacts on firms were dependent on respective exposure to international financial markets, which were influenced by nation's banking systems and economic structures. As a result, firms were hit to different degrees with some facing major setbacks, while others could continue their business almost as usual. Chen, Mrkaic & Nabar (2019) emphasize the fact that 2008 saw the worst global recession in the post-war era, and argue that the global economic slowdown that followed the crisis in the 2010s hurt businesses until the near end of the decade.

As a result of the economic events, the 2000s-trend of office spaces losing in size due to increased remote work became an obligation rather than a strategic option. A research report by Deutsche Asset Management (2016) reports a drastic decline of office space per worker in 2010. Beyond that, the research raises the term 'shadow space', which is described as unused space in a firm, that broadly vanished as a result of companies being forced to downsize and reduce costs. Unemployment, which according to Misini and Badivuku-Pantina (2017) can be seen as an indicator for economic growth, skyrocketed from 2008 to 2013. Krogstad and Flores (2018) present Eurostat data that indicates an unemployment rate in the European Union of 11% in 2013, which was the highest rate of this century. During the mid 2010s, effects of nation's policy changes started to positively impact respective domestic economies, which meant that nation-wide economies and domestic businesses slowly started to return to business as usual.

Interestingly, the 2010s did not see drastic new changes to the world of office spaces. Trends developed meaning that office spaces followed designer trends making them look modern, and technological improvements saw laptops and mobile phones being integrated into daily worklife more frequently (Cascio & Montealegre, 2016). Besides that, however, the 2010s saw a continuation of knowledge workers being shifted into the center of attention (Field & Chan, 2018). Naveen (2017) agrees with research presented in the previous section about mental health being a crucial factor for work-life balance and productivity, and adds that the recent decade has shifted towards awareness issues concerning mental health with organisations such as the WHO investing capital and human resources to achieve positive change for workers in the near future. This indicates that the future of office spaces is likely to be changed on the lines of making improvements to workers' perceived quality of work and life.

3.4.5 Future Outlook

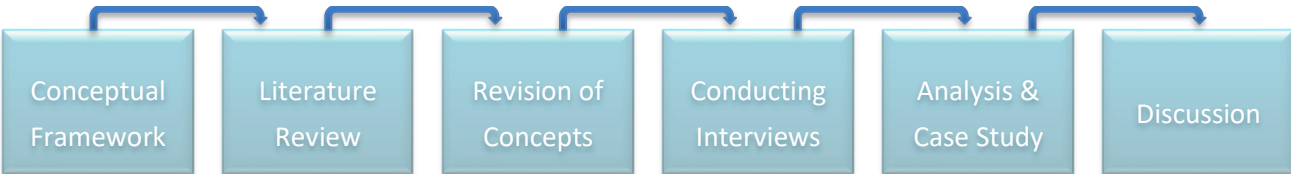
The future of office spaces is partly fictional due to the amount of speculations that are available online. It is important to narrow the time frame in order to arrive at predictions, which are likely to be more appropriate and accurate. Articles suggest that further growth of technologies including cloud computing, wireless technology and reduced tech costs, will further reduce the required office space and further move towards digitized, paperless offices (Wall Street Journal, 2015) (Deutsche Asset Management, 2016). Rossenfeld (2016) argues that the ongoing efforts to attract and retain high-quality tenants have positive impacts on the creativity and amenities that are introduced by office owners. Ultimately, Colenberg (2020) summarizes that office spaces matter, as they are the environmental base line for healthy and satisfied employees to perform at a high-level that supports their respective organisations.

4 METHODOLOGY

The goal of this thesis is to provide authorities in strategic policy positions with appropriate and relevant information and new insights to make workforce-related decisions, which are likely to have impacts on a global scale. Simultaneously, this thesis' findings are expected to inform decision makers in businesses about the extent to which certain factors that are highlighted throughout this thesis are relevant in their routines. Due to the qualitative nature of this thesis, this research is a contribution to a major project concerning work and life in the European Union with the intent to engage further research efforts. As already highlighted in the introduction, the EU, recently, has started to engage in research efforts concerning new ways of work, which is why this thesis can be seen as a contribution to this international project. The literature research has shown that there is a vast amount of research that has been conducted in the field of productivity, work life balance and office spaces. Nevertheless, literature lacks a practical aspect, which can be retrieved through the qualitative research that has been chosen as part of this thesis. Firstly, this is expected to provide deeper insights into cultural norms and knowledge sharing flows in companies to help the reader understand some real world dynamics of modern office spaces. Secondly, opinions and views of interviewees that are involved in the research as participants are expected to add significant value as they add the dimension of the actual business world and provide insights that reach beyond a theoretical sphere. Additionally, the fact that qualitative research has a greater emphasis on opinions, attitudes and experiences strengthens the argument of conducting qualitative approach.

The thesis follows a qualitative research design, which starts with a comprehensive literature review helping to extract the most important concepts like productivity, work-life balance, knowledge flows and the nature of office spaces. The empirical part builds upon the literature review and is dedicated to different types of interviews, which help to empirically test the concepts and to see how the concepts work in real working environments. Additionally, the interviews are also used to extract a comparative case study, which adds further insights into a real life business environment. The entire process can be visualized in the following flowchart.

FIGURE 7 – FLOWCHART



The vast amount of secondary research that has been identified in the previous section of this thesis has shown that there is common consensus concerning key factors influencing the most relevant concepts of this thesis including productivity, work-life balance, knowledge flows and office spaces. Findings of the primary research will be analyzed on the basis of findings of the literature review. Beyond that, the current status quo of research conducted or funded by the European Union suggests that the linkages of theory and practice seem to be the missing piece in order to arrive at a conclusion that allows governmental decision makers to act. This lack of empirical evidence provides further reason for the significance of this research and its appropriateness.

The following sections will provide the reader with additional insights into the qualitative tools that have been chosen for this thesis; in-depth interviews, expert interviews and case studies. Research tools will be explained and analyzed in terms of their usability, benefits and disadvantages. Beyond that, this section will include an explanation of how qualitative data will be treated and analyzed in order to answer the initial research question.

4.1 Data Collection Plan

Personal interviews with experts and opinion leaders have been selected as the ideal data collection methods for this master thesis. They will be scheduled throughout the beginning of 2020, and are planned to be finished by the end of April. Venues will be carefully chosen based on the interviewees' position in their respective company. Interviews with CEO's are expected to be held in a more formal setting compared to employees, which are expected to be more approachable at and outside of the office space. Here, it is crucial to respect any form of office space violations, which is why prior permission to interview employees have been requested where needed. In order to enhance the participation of interviewees, they will be put in the position of experts and they will be provided with the opportunity to receive a summary of the thesis' findings, which may produce interesting input for their respective work life. Hence, decision-makers are given two incentives, firstly, a high level of respect and recognition, as I approach them as experts in their respective field, secondly, an opportunity to receive findings that result from this thesis, which are expected to provide them with interesting insights. A careful handling of data provided from interviewees will serve as a basis of avoiding any form of ethical issues, which may appear along the way of this thesis. Interviewees will be given the chance to remain anonymous in order to guarantee honesty in their answers. A high level of trust concerning personal data is expected to yield to deeper insights into interviewees' respective company and personal experience. Interviews will be structured in a way to minimize any threats to the validity or reliability of the study, in order for any future replication efforts in other countries or industries. Additionally, findings from the interviews will also provide necessary information to construct case studies, which aim to explore dynamics of different office spaces throughout the recent past.

Interviews will be voice recorded and notes will be taken throughout the interviewing process. This will be done to highlight instant thoughts during the interviews or to mark any highlights, which are expected to be of great value for the discussion section of this thesis. Word-for-word transcripts will be made of the interviews and then used for the analysis. Here, a bi-lingual approach will be chosen. As a result, transcripts are expected to be in German, while sections in the analysis and discussion sections will be in English.

Due to the global outbreak of the Corona Virus the expected time frame for interviews has been extended to the end of April due to restricted interviewing abilities with certain members of the target population. Virtual face-to-face conversations and phone calls have been added to the list of how interviews with decision-makers and employees will be conducted. As a result, interviews were more informal than they would have been in a professional setting. For the purpose of this study, insights and responses were of even more value due to firms' current involvement into the field of office spaces, as a result of the crisis.

4.2 In-depth Interviews

In-depth interviews are a common tool in a qualitative research process that involves personal interviews with a predefined number of interviewees to explore an individual's assumptions and beliefs about a topic of interest (Ryan, Coughlan & Cronin, 2009). Thoughts, experiences, expectations, values and other personal traits can be unraveled in such interviews, in which the interviewer has the ability to integrate instant feedback loops to direct the interview into a certain direction. Patton (2002, p.341) describes in-depth interviews to be the best way to "enter into the other person's perspective."

This kind of research is frequently used for either new issues or problems, where quantitative data is already available (Legard & Keegan, 2003). When issues are 'new to the world' or at least new to a certain target group or industry, then in-depth interviews have the ability to provide researchers with information about the current status quo and may provide either answers or evidence for future quantitative research (Myers & Newman, 2007). When quantitative data is available surrounding an issue, then in-depth interviewing has the ability to provide input concerning the feasibility in the real world.

The goal of an interview is a crucial factor that has effects on the structure and format of an interview. Ryan et al. (2009) strengthen this point by highlighting the importance of congruity between the type and format of the interview with the aims, research questions and objectives of the study. The level of formality depends on the context of given research topic along with the sensitivity of issues discussed. Pridemore et al. (2005, p.977) emphasize this and highlight that an appropriate location and interviewing format has to be chosen due to the potential effect that the consideration of privacy may have on a respondent's answers.

4.2.1 Expert Interviews

Expert interviews fall under the category of in-depth interviews, however, with the exception that the interviewee has expert power in the field, in which the researcher is interested. Here, the most critical concern is an appropriate definition of expertise, and what qualifies an individual to be considered as an expert. The traditional dictionary definition describes expertise as a “professional’s high level of knowledge or skill” (Cambridge Dictionary, 2020). However, even though this explanation seems plain and simple, there is a significant amount of research being funded in the background that aims to further improve the understanding and definition of ‘expertise’ (Seligman, 2000). Especially in the fields of sociology and technology the status of experts is of concern due to the importance of maintaining and developing knowledge (Ericsson & Smith, 1991).

Expertise is often put into the category of subjectivity (Newman, 2014). Claims of expertise due to social status follow a psychological scheme and are often put equal to expert power, even though Courtois & Gendron (2019) argue that it is not more than a false heuristic. As a result, studies on expertise focus on the distinction of so called experts according to dissonances in their cognition and problem solving (Searston et al., 2019). Knowledge development, knowledge structures and expert’s reasoning processes are key factors in the definition of who to claim as an expert (Hoffman, 1998). For the purpose of this thesis, the expert definition will follow such a scheme and will evaluate potential interviewees on the basis of whether they fulfill such criteria. The expert group for this thesis is referred to as ‘Decision Makers’, which is used as an umbrella term indicating that one should incorporate traits that are generally assigned to the traditional perception of a person in the position of a Decision Maker, a leader, potentially a CEO. These traits include experience taken from the position, companies and industries they have worked in, accountability and responsibility taken from their control over a team and need to perform financially, and future oriented business approach taken from the mission their respective company stands for.

4.2.2 Interview Approach

11 in-depth/expert interviews are conducted with both top-level managers, but also employees to gain further insights into the role of office space development at different levels of a firm. The goal is to categorize the importance and amount of thinking that goes into what could be changed in a working environment along with the respective effects on productivity, mental health and work-life balance. Insights from employees in different office space environments give reason as to how the office space they are in effects their work life balance and their on-job productivity.

The interviews follow a semi-structured approach meaning that an extensive preparation is allocated to create an interview structure, which follows the purpose of guiding the direction of the interview without interfering or altering the respondents’ answers. The set-

ting of the interviews depends on the convenience of the interviewee. There will be a focus on approaching them in an environment, in which they feel comfortable. Due to the Corona virus, interviewees are given full control over the time and format of the interview; however, face-to-face online conversations are mentioned to be the prioritized choice if possible. 9 out of 11 interviews are conducted using Facetime or Skype, while only 2 interviews with decision-makers are via phone call. Refer to Appendix 2-4 to find the interview guidelines that have been constructed for each group of interviewees; decision-makers (2), employees (3) and interviewees (4) for the case study.

Ultimately, the goal is to perceive the main topics of the research question from the interviewees' perspectives to understand the degree to which they emphasize efforts towards those fields in their daily business. This is supposed to contribute to the overall purpose of this master thesis, which attempts to support research from the European Union, as they try to optimize employees' work life, which is aimed at raising an employers' awareness of this topic.

Interviews with employees follow a similar structure and include laddering questions to grasp their respective underlying assumptions and beliefs. Here, it is crucial to appeal on their beliefs about how work environments and developing efforts may have impacted their well being on and off the job. In this case, interviewees' most important trait is any form of work experience, which is likely to have a positive relationship to the quality of their responses.

4.2.3 Interview Analysis

It is expected that interviews will yield data that can not be measured using a quantitative approach. Data analysis of interviews will follow an inductive approach as the received information guides the way, in which the data is analyzed. Throughout the interviews, the transcription process and the constant re-reading of interviews clusters are made to enhance the overview of the collected data. Interviewees' statements in respective clusters are coded on the binary basis of positive and negative depending their attitude towards an issue. The coding, which is also highlighted in the interview section looks as follows

- Positive attitude
- Negative attitude
- Lack of Awareness
- Issues that link with the literature review
- Novel concepts not discussed in Literature Review

The clusters follow the outline of this thesis' Literature Review and are adapted on the basis of the information provided by interviewees. Common and repeated themes are linked together to form new categories in order to support the data analysis.

4.2.4 Sampling Method

The sampling method used is 'convenience sampling'. Even though this method is often criticized for its bias of choice, there is sufficient reason that supports the feasibility and usefulness of this method for this research thesis. Selection bias and the claim of the selected sample not being representative are the most common downfalls of this method due to the fact that the researcher chooses their sample from a specific group, which results in a biased research outcome and conclusion. However, for the purpose of this research this is not the case. Even though decision makers are selected based on their convenience in terms of availability and previous connections, the selection is not made following any knowledge or awareness about their opinions or views towards the topic of matter. Ultimately, all interviewees are chosen from different industries, which is useful in the task of not just trying to understand some beliefs and biases, but to collect as many ways of thinking as possible. The free choice of respondent's allowed for the creation of counterparts meaning that almost all decision-makers were given an employee that worked in the same – or in a similar – industry.

Beyond that, convenience sampling enables a researcher to control certain characteristics before the start of an interview, such as validating whether a decision maker possesses a high level of power in a firm.

4.2.5 Target Population

There are two target populations, which are crucial in this thesis' qualitative research, 'Employees that work in an office space environment' and 'Decision Makers'. Even though there is no geographical restriction, there is a preference of interviewees being located near Vienna. Even though an interview could be done via phone or email, face-to-face interviews are the preferred method, which is likely to gain the interviewer the most information. However, due to COVID-19 this means of interviewing has not been made possible. Furthermore, it is crucial that interviewees are available at one point throughout the months of March and April; ideally with the possibility to reach them later on for further questions and follow ups.

4.2.5.1 Target Population: Decision Makers

For CEOs, it is necessary that they are or have been in a position, in which they have control over the structure of office spaces. This is a crucial component, which allows the interviewer to back up the interviewee's expert power.

- **Element:** CEO or employee in a leadership role
- **Extent:** No geographical restrictions, however, with a preference of being located near Vienna.
- **Time:** Availability between March-April

- **Sampling Unit:** Decision-makers in a company, who has or ever had the ability to make or have a say in structural or contractual changes regarding office spaces in his/her company.

4.2.5.2 Target Population ‘Employees’

- **Element:** Employee in a non-leadership role
- **Extent:** No geographical restrictions, however, with a preference of being located near Vienna.
- **Time:** Availability between Jan-Mar
- **Sampling Unit:** Part-time or full-time employee at a company, who is employed on the basis of fixed working hours. The individual is unable to make structural or contractual changes regarding office spaces in his/her company.

4.2.6 Sample Size

A total of 11 in-depth expert interviews are planned to be conducted with both decision-makers and employees, which is expected to yield enough information to form educated and well-informed recommendations and expectations regarding the development of office spaces in the future. The principle of saturation is used to support the claim of the sufficiency of around 10 interviews mostly with interviewees from different industries. Currently, it is not expected that additional interviews would contribute any more insights. Hence, quality is taken over quantity, which is a fair claim considering that one interview partner, who is in an experienced managerial position, can add an immense amount of valuable and helpful information given that the interviewer manages to allocate an appropriate amount of time to a specific interviewee. Interviews are expected to take around 20-30 minutes.

4.3 Case Study Definition

Case studies are a useful tool to gain knowledge that lies beyond the limitations of any form of quantitative analysis. The method’s ability to delve into a situation enables a researcher to source valuable, in-depth information and insights, which might not have been uncovered with a different research conduct. Academic areas of ‘Law’ and ‘Business’ are frequent fields of use for case study analyses, due to the fact that it enables a rather easy way of exploring complex modern and historic issues (Lovell, 2006). Beyond that, case studies find a frequent use in social sciences, especially in the field of psychology (Grassel & Schirmer, 2006; Johnson, 2006). All this information falls in line with this thesis’ topic of exploring an issue that is closely related with psychological concerns, such as work-life balance, and law-related topics, such as policy making and contractual changes at work.

The method of conducting case studies is often accused of not providing sufficient hard data that has any meaning on its own. Zeev Maoz (2002, pp. 164-165), a US Professor of Political Sciences, emphasizes this viewpoint in his argumentation that “case studies have

become in many cases a synonym for freeform research where everything goes.” Hence, there is a threat that researchers disregard an objective view towards a certain topic of matter and analyze a given situation in the light of their subjective and personal expectations, due to the fact that the method of case studies provides them with too much freedom. As a result, it is crucial to conduct case studies in a way, which ensures validity and reliability, along with the careful selection of whether a case study is the appropriate research approach in the first place (Bennett & Elman, 2007).

4.3.1 Case Study Approach

The case study in this thesis will follow a consistent focus on facts with a continuous regard of the research questions and conceptual framework in mind. Hence, it is expected that all information used is accurate and, most importantly, relevant to the topic of interest. Methods and theories that have been identified as relevant in the literature review will guide the analysis in order to arrive at an outcome, which contains comparable information. The fact that the case study will be mainly used as an exploratory tool, which aims to examine past behaviour and processes, for large corporations provides it with a greater form of generalizability. Therefore, the use of case studies as part of this research is justifiable and appropriate due to its context in a real-life situation, which is concerned with social issues (Yin, 1994).

The case study about Change at Anecon vs. A1 will mark the final segment of this thesis’ qualitative research. Initially, secondary data will be used to provide the reader with a background to the situation of concern. Primary research taken from a personal expert interview will provide key insights that enable an accurate analysis and discussion previous to the case presentation. The case will provide an ideal ending point for the discussion as it incorporates all principles of the literature review, and it will highlight a real-life scenario of an office space change that has caused two different outcomes for separate companies. The findings of the case analysis are then expected to provide additional insights into the idea of office development, which have not yet been addressed by authorities.

Arguments for the use of a case study for this thesis are manifold, however, the greatest benefit lies in the ability to carefully analyse working groups, policies and institutions, which is of great use in the case of office space development. Case studies enable the reader to explore the topic of the thesis in a holistic way, which allows for careful considerations of different viewpoints on a firm, ranging from effects on workers to performance of departments. The case of Change at Anecon vs. A1 has been chosen, not to generalize nor to provide guidelines of how changing office space environments may impact workers, but rather as a means of highlighting issues and concerns that may arise during such a process. For the purpose of this thesis, which attempts to provide insights into the real world, this approach is of great value and contribute significant value to the provision of feedback to the governing bodies of the European Union.

4.3.2 Case Study Analysis

The initial case study presentation will provide the reader with sufficient context to have a clear understanding of the situation and context of interest. The analysis aims to explain the phenomena in the case of Change at Anecon vs. A1 on the basis of the context of the case in the light of this thesis' topics. For the case, an embedded approach will be chosen meaning that it will be analysed on the basis of factors that are relevant to office spaces. The level of relevance is determined by the conceptual framework, findings from the literature review, and information provided by the interviewees. After conducting the interviews, the transcript will be categorized on the basis of a narrative approach that follows the timeline of the case study. Coding will be used to represent and highlight the interviewee's attitudes and perceptions at certain stages of the development process of the case. The analysis of the case will attempt to gain insights into the employees' mindset in order to establish a reasoning that enables the identification of root causes and sources of positives along the case.

5 ANALYSIS OF INTERVIEWS

This section comprises an in-depth analysis and consideration of the interviews that have been conducted as part of this thesis' qualitative, primary research approach. The structure of the analysis will follow the scheme of the Literature Review in terms of the chronology of concepts. Opinions and experiences of decision makers and employees of homogeneous and heterogeneous industries will be merged in order to present retrieved information in a broad context, which is expected to facilitate reasoning and understanding. Objective assumptions and interpretations of interviews will be made in order to allow for considerations beyond the scope of existing literature.

All interviews were held in German. The following section includes numerous citations and para-phrases of those German interviews, which have been translated to English. The German counterparts will not be included in the main part of this thesis to avoid clustered, confusing paragraphs.

5.1 Coding-Approach

To facilitate the analysis, interviews were coded on the basis of 6 criteria:

Criteria 1: Context of the response has been mentioned in the Literature Review

Criteria 2: Context of the response has not been mentioned in the Literature Review

Criteria 3: Response is of positive nature (mostly used for employees)

Criteria 4: Response is of negative nature (mostly used for employees)

Criteria 5: Response aligns/agrees with literature presented in Literature Review (targeted at DMs)

Criteria 6: Response misaligns/disagrees with literature presented in Literature Review (targeted at DMs)

5.2 Productivity

Interviewees were asked to elaborate on how productivity is measured in their respective firms. For decision makers, those questions were directed towards their reasoning behind certain measurements, and how they are using them with appropriate results in their consideration of employees' performances. For employees, they were asked about how their on-job

performance is measured, also in the light of any agreements that were made when they started that job.

5.2.1 Measurements

Only one of six DMs, DM5, shows a clear tendency and reliance on quantitative measures, which are encouraged by traditional literature. DM5 explains her firm's approach through the production-centered objectives of the business, which is operating in the pharmaceutical industry. Even though quantitative measures are only used for departments as whole, as it gives an idea of how an average employee performs in that department, she still has "*both quantitative and qualitative yearly objectives for every single employee*" (DM5). In case, there is an issue in any department, she would be able to draw from those KPIs.

In comparison to that, all other DMs use quantitative measurements in only a few areas of business, especially when it is easy to measure, such as sales or production. DM6 makes use of financial statements in order to arrive at an understanding of how different departments and their respective employees are contributing to the firm's overall performance towards objective fulfillment. However, there is little concern about the necessity of stricter, more accurate forms of measuring and monitoring employees' productivity levels, due to the associated additional time efforts, which is perceived to be too great of a burden. DM2, who has provided a rather conservative view on the issue of office space development, refers to an "*inability to measure certain soft-qualities, which as a result make it difficult to measure in the first place*" (DM2). As a result DM2 almost brushes off the relevance of any productivity measures in his argumentation that "*office equipment and the design are of little relevance compared to the culture in a company*". Hence, DM2 perceives the culture in a company of way greater performance, and believes that it is his role to assess whether the atmosphere in a firm is appropriate for employees to reach a level, in which "*WLB is of no relevance*".

DM5 and DM2 showcase the two extremes, which are seen in the business world, whereas one is fixated on rigorous quantitative measures, while the other trusts their subjective, personal instincts. However, it is important to add that DM2 is restricted to a certain extent as a result of the firm's involvement in Austria's gambling industry, compared to DM5's work in the field of science.

DM4 says that his company has measurements in place that allow him to assess workers of some departments on the basis of quantitative values, however, "*we only look at those numbers maybe once or twice a year, but they are not used as our main measuring tool, because that would be trust, ... in terms of trusting people to perform well*" (DM4). This approach aligns with the way of doing business of the other DMs. Beyond that, trust is commonly and specifically highlighted as a key component in everyday business conduct. DM3 emphasizes this point of trust and adds another dimension, when she argues that trust is the base, on which em-

employee-employer relationships are built, but *“gut instinct is crucial to understand whether an employee is being assigned the right workload without over or under burdening them.”*

5.2.2 Perceived impact of office spaces environment

Five out of six DMs show a certain awareness level about the impacts of office spaces that allows them to communicate and address certain issues, which have arisen in the past. Noise, lighting and the issue of space are common themes, which are mentioned by the majority of interviewees. Only DM2 follows his conservative stance, and does not convey the impression that he sees office spaces as a means of potentially improving a work environment. He strengthens his conservative stance in his argumentation that *“I have never really experienced the concept of open space. I have seen it in different forms before, but, personally, I have got to say that I am not a fan of it. Probably in the field of communications it may occur rather often, print media for example, but I see it as the American way of doing business, because they make use of the concept of open space. Here, I am more traditional when it comes to that.”*

Contrary to that, all other DMs emphasize the importance of office spaces and their contribution to an employees' productivity. The term culture was frequently used as an all-encompassing term to refer to the importance of an environment, which allows employees to feel comfortable. An employee interview highlights the threats of ignoring a healthy on-the-job culture. EM2 provides an example of a negative experience in her previous job. She describes how the work culture had been terrible, which led to pressure and unhappiness that impacted her on-job productivity as a result of the mental burden. EM2 explains how a sub culture among some employees, especially interns was formed, which consisted of silent complaints and slack working efforts. Complaints were directed at the CEO's poor managerial performance and his disregard for providing his employees with an office environment, in which they could flourish. She says that *“it was such a relief to be surrounded by fellow employees, interns in this case, who were all complaining about the job. We literally met up in some closet and just complained to each other about how shitty the job was. All the motivation I had when I started the job was gone by this point, and we started procrastinating longer and longer, until I decided to leave the job”* (EM2).

5.2.3 Perceived impact of culture and working hours

Three out of five employees have explained at least one past job experience, which was shaped by a culture that had negative effects on the productivity of employees. EM3, an employee in a monopolistically positioned pharmaceutical company, received little attention from any supervisor or her boss, which led to slack working behaviour across the entire department. EM3 describes *“the moral was at such a low in the company that we sometimes reached a point, where we hardly cared, to be honest. I was usually working towards deadlines that I received from an external agency, and when I wasn't given any, then... well... I started to realize*

how slack I got, started wandering around the office, chatting with colleagues". Earlier in the interview, she pointed out the downside of no form of performance measurements from the employer's side. Here, EM3 argues that even though it was good that they were not strictly monitored, *"also no one recognized the extra hours that were put in by any employee"*. Hence, she was missing an appropriate incentive or some intrinsic driver to perform to her maximum, as a result of the slack managerial efforts.

The interview process identified that working hours hardly play any relevance for employers, when assessing an employee's performance. This correlates with the previous findings of management's inability or inactivity of retrieving significant and meaningful quantitative data to measure the productivity levels of employees. The fact that all DMs encourage flexible working hours and therefore are almost unable to track the exact working hours of employees means that they have to rely on trust once again. Hence, this is another indicator for the subjectivity that comes along with the concept of productivity.

DM3 provides an objective answer that considers both sides, DMs and EMs. She argues that *"I simply do not have the ability to tell an employee to do all those tasks in exactly 38.5 hours, and you have got to finish this, this and that. However, on the opposite, there should be enough work that allows an employee to realistically finish said workload in that time, which is a balance"* (DM3). EM2 brings up an interesting insight into this field of workload management that has been addressed by DM3, as it showcases the dangers of repeated mismanagement over a longer period of time. EM2 explains that *"the issue was that my colleagues and boss knew that I was getting the job done way faster than everyone else, and as a result my workload just became more and more without any proper prior warning. I ended up finishing it all, always, but it annoyed me that I got put into this position. As a result, when checking my working hours, I found that I actually ended up doing twice the hours I was supposed to."* Now this points out a major issue that may arise when mismanagement of workload occurs, especially when it is combined with the lack of any proper appreciation. Instead of sticking to the initial amount of work that EM2 was given, her boss and colleagues kept providing her with more tasks to finish. Initially, she took on this extra work and got it all done, but soon, shortly before she quit the job, she decided to drastically reduce her efforts, as a means of quiet protest.

As someone, who has had experience in the field of digitalization and communications, DM3 is familiar with the importance of trust, which is why she doesn't shy away from allowing employees to work remotely. Even though, opinions differ when it comes to home office and remote work, all other DMs agree with this notion of prioritizing results over working time. DM2 raises a point, which should not be taken literally, but rather as an indicator for his mindset, when he says that *"I prefer an employee that gets more work done in 15 hours than someone else in 40."* DM5 refers to the international connections her company possesses with companies in the United States. The accompanying 9 hours time difference are the main reason for

the existence of flexible working hours in her firm, which links with previously mentioned inability to track employees' working hours at all times.

EM4, who is working in the field of strategy consulting, was asked about the work place culture in the world of management consulting, and whether working hours are generally misused as a performance indicator even though the work could have been finished in less time? In response to that EM4 gives an honest answer, which highlights the high pressure that is put onto consultants of top firms to perform well, however, he argues that this is the nature of the job. He explains that, *"in consulting, you always try to over-deliver in order to satisfy and impress the clients. Hence, nobody gives a damn, when you finish your work, but if you are able to add some form of additional value then you're expected to do so."* Additionally, he raises a point from one of his previous jobs in the banking sector, where he experienced another picture, which forced him to stay on the job from 9-5, *"where I had the feeling I could have gone home for hours, because I've already finished the job"* but he had to wait for the day to go by.

5.3 Work-life Balance

WLB is a concept that is present in the minds of all interviewees, however, their responses showcase the subjectivity and broadness of the term WLB. The following section provides an insight into interviewees' perceptions about what WLB means to them, how firms have targeted the issue of it, and examples of how mismanagement of WLB can harm individuals and firms equally.

All DMs perceive WLB to be correlated with the idea of satisfaction and happiness as a result of accepting the trade-off between working hours and spare time. DM1 points out the social side of her job as a manager, and sees it as her – and her firm's – responsibility to provide employees with a degree of social benefits that allow them to lighten the mental burden that is put on employees through their work. Hereby, there is common acknowledgement that each individual is different as a result of their personal life. Employees with families, especially women with young children are often pointed out, as they require careful management. DM1 emphasizes the importance of encouraging mothers and providing them with additional resources that allow them to work with even more flexibility as a result of their private life. On the basis of 'what I don't know, won't hurt me', DM1 refers to the technical legal breach that comes with such flexibility *"but at the end of the day, I don't care when someone finishes their work, as long as it gets done. Of course there are some labour-law regulations"*, but DM1 – and all other DMs – believes that this flexibility allows employees to self-regulate and manage their WLB, as they see fit.

There is a tendency among DMs to create two levels of WLB, whereas one is concerned with individuals, while the other involves seeing the bigger picture and considering WLB department or even company-wide. Responses also indicate that the broad perspective is crucial as it

supports firms' decision making in the areas of improvements that are aimed at the general improvement of WLB. DM2 and DM5 follow this rather broad approach, where any issue regarding WLB is addressed on a company-wide level and improvements to individual's happiness at work is attempted to be solved through actions and activities that concern all employees. DM2 lists some of the programs that have been put in place in his firm. When asked about any negative past experiences with employees that may have suffered mentally as a result of poor WLB, he referred to the company's low fluctuation in turnover rates and overall employee happiness.

All other DM's perceive WLB on a rather individual base, provide examples from their own experience and attempt a consideration on a personal level. This does not mean that DM2 and DM5's efforts are of any less quality, but it shows a different approach. DM1, DM3 and DM4 point out several examples of employees, for who they had to make some sort of special agreement in order to improve their ability to work more efficiently in terms of their time spent on the job. Interviews show that adults that look after their young children sometimes require certain exclusive measures, which are necessary for them to continue the provision of high quality working results.

Similar to productivity, for EMs, WLB is a solely subjective measure. The majority of EMs talks about on-job satisfaction and the degree to which they enjoy their jobs, when asked about WLB. EM1, EM4 and EM5 seem to be on the upper end of an imaginary job satisfaction scale. Even though they often have to work long hours and their performance is rigorously measured and controlled, especially for EM4, they perceive this pressure as helpful and supporting. EM1, who works in a young Austrian start-up, describes the value and joy that he personally gets through the *"chilled atmosphere"*. He explains how his office space has developed over the years, as the business began to grow, and even though the atmosphere has been raised to a more serious level, it also allowed him to grow personally through the new challenges. EM1 continues, *"of course this family-like feeling vanished, once we moved into the bigger, open space, but at the end of the day the drive has to come from all employees, especially those people in a leading position"*. Once, again, this draws on the importance of culture, which all EMs perceive as a significant factor for the quality of their job satisfaction, and ultimately perceived WLB.

EM4, provides an interesting approach to the concept of WLB, as he provides his personal perception on the topic. *"I do not perceive WLB on a weekly or monthly base, rather on – let's say – a span of ten, fifteen years. Currently, I'm probably working twice as much as everyone else I know, but they work up until 60 and I..., well, I don't."* Here, EM4 refers to the high workload that is demanded of him on an everyday base, which hardly provides him with an opportunity to focus on his private life besides work. However, he does not perceive this to negatively influence his WLB, due to the fact that he expects future monetary and personal benefits to outweigh the efforts he currently invests. Hence, he provides a new perspective of moving

away from perceiving WLB as a concept that is based on how much time is allocated to work in comparison to an individual's private life, as an individual might value one over the other due to personal reasons. For EM4, the utility he gains from putting *"an incredible amount of effort"* into his current job outweighs the utility he would gain when not working. This aligns with an idea raised by DM2, who argues *"work and life are inseparable. I believe work and life to be one thing that belongs together"*. Thus, he wants to deliver the message that work and life are perfectly correlated and influence each other. Given his previous answers, which were of traditional and conservative nature, it is appropriate to interpret this statement, in a way, which almost downplays the individual role of one's private life and the negative repercussions it may have on a person's work.

5.3.1 Company efforts

Both DMs and EMs were asked about the efforts that have been undertaken by their respective company that are targeted at the improvement of issues relating to the concept of WLB. Flexible working hours are mentioned by all of the DMs as a crucial component of their approach towards creating an environment that enables employees the ability to self manage. Shared activities including summer feasts, casual hiking adventures and department-wide lunches or dinners are exercised in all firms, which shows that there is common understanding about the importance of social aspects in the workplace. However, company efforts reach beyond this basic level and involve a wide range of further social offerings that can be used by employees.

Two activities that were specifically pointed out by DMs include the following.

1) DM2 mentions *"We offer a wide range of opportunities, starting from summer feasts or birthday parties to a Fit Program to a joined hiking weekend with family. We attempt to provide a wide range of activities that allows us to impact employees beyond the 10 hours they spend in the office every day."*

2) DM1's efforts in her company even go one step further as she elaborates on *"the vast amount of opportunities and courses they offer for employees to develop their knowledge base. In terms of social activities I have never experienced a company, and I have worked in many, that emphasizes this as much, as my current workplace. [...] Especially for young interns, I believe that job security and a good pay are the most crucial components to feel happy and satisfied on the job. I believe this to be a hygiene factor that makes you feel better as you also feel rewarded accordingly. [...] But there are differences for every employee, some prefer a career-oriented path, others don't. In general, we attempt to reach employees of every age group. We offer a kindergarten on the premises, which is valued, especially, by young mothers."* Beyond that DM1 talks about free coffee, team building efforts and also mentions the ability to choose working hours flexibly.

The opinions and experiences of the other DMs fall inbetween those two ranges of experiences from DM1 and DM2.

5.3.2 Effects on Employees

Employees address their on-job satisfaction and perceived WLB, and provide insights into how managerial efforts or the absence of them have impacted it. The previous section has already highlighted the high level of job satisfaction of EM1, EM 4 and EM5. EM5 raises a unique point as he emphasizes the impact the involvement of upper management has on the entire atmosphere and culture in his firm. *“Given the fact that we have a close relationship, I believe that it is so important for management to be involved with employees. I think that if managers lack this kind of involvement and commitment to look after their employees and interact with them on a social level, then such behaviour is ultimately bad for the performance of a company. [...] The fact that people that are higher up in the hierarchy are involved with us employees allows them insights into what’s going on, what could be improved, and of course it also allows them to have a look at performance. Alone the fact that it benefits the business makes this so relevant”.*

EM2 and EM3 mention the exact same points but instead of describing their past job experience as *“I am completely satisfied”* (EM5), they portray an opposing scenario, in which they felt *“unhappy with the job”* (EM2) and *“even angry when coming home from work”* (EM3). EM3’s experience of slacking management has already been pointed out in the productivity section, however, such behaviour has consequences reaching beyond the scope of work, into the private life of an employee, again creating this connection of work and life as one entity, as pointed out by DM2. EM3 elaborates, *“I was close with only one other colleague and we’ve openly talked about those bad conditions at work and our unhappiness. We had the same viewpoints, and I actually felt the repercussions myself, especially when coming home from work and just being angry for no particular reason. Even my boyfriend addressed that, but once I quit the job, he mentioned how much happier and more relaxed I seemed to be, and that was actually the case. I feel like you just carry all of those emotions from work to your home.”*

EM2 talks about her time in her past job, where staff turnover was on a high as a result of the poor WLB efforts from her boss’ side. Even though she was working for a communication coach, who was teaching those lessons of communication and relationship-building, he was unable to transfer those concepts to his business. *“Given the role he is in, and the theories he’s preaching in his seminars, you’d expect him to have an understanding of team building or office culture, but no. Hence, that ended up being the reason why so many left the job as a result”* (EM2). Beyond the lack of communication, EM2 also points out the absence of any kind of motivational boosters. *“I was literally working my butt off and all I got was higher expectations from everyone else. There was not please or thank you, they just wanted me to get the job done, because they knew I was putting in more effort than anyone else. There was just no form*

of appreciation, besides 'oh you're already done'. This ended up being the reason why I left the job. Well, we had a team of interns, and I sort of got promoted to team-leader, which made me earn 100€ extra each month, but that's peanuts, and not what I was after." This shows that EM2 felt completely misunderstood, and efforts to appreciate her work, which were solved through monetary aspects, were missing the reason of why she put in the work. Even after personal talks, her boss did not seem to understand the individual characteristics and motivations of his employees, resulting in the high turnover rates.

EM3 provides another example that shows her in another work environment, in which she was feeling both happier and safer. Even though she says that the work itself was incredibly annoying and simply was not fun, she refers to the outstanding culture in her team, and the good connection all employees had with the boss. *"The team was incredibly nice, I always got what I asked for, whether it was a different shift due to my uni schedule, or whatever, it just worked. They always had an eye out for me, which was the reason, why I stayed on the job for such a long time even though I had gotten to a point, where I was in no need for the job anymore, financially, as it was a student job."* EM3, at the time of the interview, seems to be happy with her current position and appears to have learned from the past experiences. Now she has an even deeper appreciation for workplaces that take care of their employees, and which are able to engage with them on a level that allows for personal development to take place.

5.4 Knowledge Flows

The interview questions were designed in a way to provide interviewees with an opportunity to objectively talk about cooperation in their respective department or firm. EMs were asked to provide an overview of the extent to which they were cooperating and working together with other employees, both on a voluntary but also forced base in terms of actively working together on a shared process, which required teamwork. This is supposed to allow for the identification of knowledge streams in firms. Beyond that, EMs and DMs talked about personal development opportunities, which do have an impact on a company's respective knowledge base. Beyond that, media richness was addressed to assess the companies and their employees' preferences of communication tools.

All five EMs state that they are required to have some form of communication with other employees in order to get their job done. Even though the level of required communication efforts varies between interviewees, there is consensus about the effect and benefits of regular communication. EM1 and EM4, the prior being a touchpoint for several departments the latter a strategic consultant, have the most amount of professional interactions on the job. In their responses about this topic, these two focus on different aspects. EM1 highlights the responsibility that comes with the fact that he is a touchpoint for several departments and, hence, is required to be approachable almost all the time. However, he mentions that it is part of the job of being a project manager and that he values the interactions with his colleagues. EM4

addresses another point, which draws on the quality of communication in his consulting team. Due to the fact that they are working together, in the same room, from Monday to Thursday almost the entire day, for months, requires an atmosphere in the team that engages active communication and involvement in order to make fast progress. Here, EM4 addresses the concept of human and social capital, as he mentions the rigorous interviewing process in consulting, which has become the standard in order to make sure that there is a certain “*personal fit*” (EM4). EM4 continues that “*Personally, I value the fact that companies attempt to improve the wellbeing of employees and actively look after them, which has been the main reason why I wanted to join the firm in the first place. The culture that is present in our team is so unique, it really is one of a kind. I can literally imagine spending a weekend in some retreat with any of the guys that I am working together with. But why’s that the case? [...] During the interviews they ask you a bunch of psychological questions, all with the intent to figure out whether the team would be capable of spending up to 70 hours a week in room with you.*”

For all other EMs, they do have parts in their jobs that require teamwork, hence, communication with colleagues, but they mostly work on their own. EM3 describes an interesting case, as she was in constant touch with one colleague, but also with a company-external firm that provided her with deadlines for reports and other documentations. In this scenario, she describes how she represented the only touchpoint, which is why time management and planning was her responsibility. She does not perceive the fact that no other person was involved in this process as an issue as results were as expected and there was no extra noise in the communication process, which may have distorted any messages.

5.4.1 Media Richness

DMs point out the importance of trust and a healthy culture in the firm, which enables knowledge to flow in a firm. DM6 provides an example, in which such an atmosphere was not well established. He describes the firm’s inability to adjust to its previous change of moving to an open-office space without adapting the culture, which hindered knowledge to flow efficiently through the firm. “*We all experienced catastrophic effects on productivity, as a result of the drastic increase of so called ‘HeyJobs’. Given the fact that we were all sitting right next to a superior and other colleagues from different departments, we lost any form of physical distance, which – I know now – was a crucial component of our past communication*” (DM6). HeyJobs refer to the casual assignment of jobs on the principle of ‘HEY, drop what you’re doing and work on this’. Again, DM6 blames the culture in the firm and provides another example referring to HeyJobs and how they appeared as a result of media richness. “*The lack of physical distance, encouraged face-to-face interactions, which reduced the amount of emails that were usually sent. Hence, we lost all the distance that an email usually inherits. When you receive one, you can work on it when you are free, but this was no longer the case*” (DM6).

In order to grasp the underlying problems of this issue, other DMs were asked about such scenario, and whether changes to the media richness in an open-office environment had any negative effects on their knowledge flows and productivity. DM4 provides an answer that reflects the responses of all other DMs. *"I don't believe that anyone is confronted with such an issue in our firm. If someone approaches, and I currently do not have the time to help them, then I tell them. I say something on the lines of 'I'll come to you later' or whatever. But it is also a question of the culture"* (DM4).

Following the topic of media richness, DM4 addresses a new downside of face-to-face conversations, which are considered to be the richest media. As he addresses the current use of online video chats as a result of the Corona crisis DM4 argues that, *"some parts of our job function even better, even more efficiently. Right now, all of our meetings are via Skype, and they run smoother and more efficient than usually. All the chitchat is left out and we get straight to the point."* Hence, considering efficiency in terms of time spent on a task, this form of media proves to be most efficient.

5.4.2 Organisational Learning

Even though organisational learning and the development and retrieval of knowledge in a company was not a main component of the interview structure, due to time constraints, some interviewees included interesting insights into this field of interest.

DM1 points out the development opportunities for employees, which are linked with the social offerings of the firm. It is part of the company's program targeted at WLB, but has some clear effects on the company's knowledge base. DM4 provides employees with the opportunity to flexibly arrange their working schedule in order to enable employees to finish a university degree besides working in the company. Beyond that, statements such as DM2's focus on providing employees with a workplace culture that positively impacts employee happiness in order to lower staff turnover rates can also be seen as an effort towards knowledge retaining.

Four out of five EMs mention some form of training or education, which they were involved in during their time at a company. All of them have had at least one job during their time at university, both at graduate and post-graduate level, and experienced some form of support from their employer. This help, whether it was flexible working times or on-job training, paid for by the company, were highly valued by all employees, as they see it as a means of personal development. EM4 talks about his time in consulting and the knowledge he gained alone through the work with his colleagues with most of them from different academic fields. *"You're constantly in the same room with such bright personalities, I've literally been the dumbest person in the room at all times, but this helped me so much. I feel like the learning curve in consulting is steeper than in any other industry, and even though they expect a lot, it pays off."* (EM4). This statement is linked to employee learning, as it draws on the personal development of an

individual, however, a link can be established with the concept of knowledge flows, as it is highlighted in the literature review of this thesis. A company's efforts and focus on giving their employees the chance to speed up their personal development, ultimately contributes to the company's knowledge base in the long run.

5.5 Office Spaces

The following section includes interview answers concerning office spaces. DMs and EMs were asked about the structure of their current office space along with explanations of why they have been put in place. Beyond that each interview involves a section about home-offices, a topic, which was expected to provide a number of new insights as a result of the Corona virus and the respective introduction of remote work in most workplaces. Ultimately, this section contains DM's expectations towards different forms of work, especially remote-working practices, and how they forecast the future development of office spaces, in comparison to their current one. This will then provide an ideal introduction for the case study, which elaborates on the scenario of two office space developments, and the respective positive and negative repercussions on the firms and on employees.

All interviewees describe an office space setting, which – even though they are uniquely structured – fit into some form of broader concept. The three broad concepts, which are found among interviewees, are (1) traditional workplaces with shared offices, (2) open offices with and without single offices for managers, and (3) open offices with desk sharing.

5.5.1 Traditional Workplace

EM3, EM5 and DM2 are the three interviewees that have been working in traditional workplaces, which have been common before the open offices concept became the modern choice of office space designs. Reasons for DM2's belief in this concept has already been pointed out in the productivity section of this analysis, where he argues that he does not perceive open plan to be the future of offices, as he sees them as over-valued. He points out, *“there have been some thought processes concerning office structures, but we decided to put functionality in the center of our design thinking process. [...] I am an advocate of smaller office units that allow smaller groups to work together, while providing some form of privacy at the same time.”* EM3 and EM5 both describe their office spaces as traditional, which draws on the existence of different rooms, in which two to four employees have enough space to get their work done. In both occasions departments serve as a filter to decide office space allocation. DM2 has described this common decision based on the media richness concept and improved knowledge flows. *“[...], even though Skype meetings and other forms of communication would be no issue from a technical standpoint, I believe that face-to-face meetings are of higher quality simply because emotions can be transferred more easily”* (DM2).

Concerning EM3 and EM5's attitude towards those traditional workplaces, they seem to be indifferent. Even though, EM3 had some issues on the job, the structure of office spaces was not an issue that she perceived as such, which is why they were never concerned with its relevance. However, EM3 also mentions the lack of colleagues at her old workplace, which might have been different if an open plan design had been in place. Additionally, she points out the strict attitude of management towards any kind of changes to the design of the workplace. She does not refer to the inability of making changes, but the unnecessary effort that had to be made in order to make any small additions, even if it was just a wall clock. *"I mean that's a couple of Euros for a wall clock and it's those kind of things that showed me the lack of understanding from management's side"* (EM3).

5.5.2 Open-Office

All other EMs and DMs have discussed a workplace, which follows the open-office concept. Only exceptions are EM4, DM3 and DM6, whose office spaces already include desk-sharing. The main difference in the description of open office spaces and the respective structures consists in the degree to which the open space has been implemented. DM5 represents the lower end of this scale, as her office, as the GM of the firm, is separated from the open space of employees. However, she describes, *"my office is entirely surrounded by glass fronts, which gives me the opportunity to have confidential conversations, while still being able to be visible and at the same time seeing everyone else"* (DM5). This allows her to be approachable, while still keeping a distance in case confidentiality is required. Beyond that, the glass fronts carry a feeling of open space due to the sense of more space. The rest of the office is separated into different levels with each level being assigned to one department. Departments include quality management, marketing, administration and product management. DM5 refers to the nature of her firm and the industry they are operating in. The pharmaceutical industry requires employees to work in laboratories, which is why only 30% of all employees have a fixed workplace in the office in the first place. Additionally, she adds that the finance department is not part of the open-office concept due to the different working approach and the nature of their work.

A slightly different picture is drawn by DM4, whose workplace has undergone recent changes from single offices to an open-plan concept. *"The topic of the interview perfectly reflects our current thought processes. We have switched to open-offices two years ago, and attempted to modernize each aspect to the maximum. We attempted some form of soundproofing through protection walls, but they do not affect the open structure as a whole"* (DM4). Concerning the reason for this structural change was the attempt to support communication among employees, which proved to be a success. Opposing to DM5's previous explanation of the GM having her own office, DM4 describes that all supervisors and managers had to give up their office spaces meaning that every employee of any stage in the hierarchy was given equal office space resources in the open-plan office. *"Initially, we had some form of resistance, when we started to rid managers of their offices, and placed them right among a team. Their complaints*

stretched on the lines of the idea that managers need to have office spaces, but after discussions and with time, those concerns along with the issue vanished” (DM4).

Beyond that, DM4 provides insights into the planning process of this structural development. The introduction of the open-office at Bosch was the result of a central decision made by the founder. Each branch then has a facility department consisting of around 6 employees that were in charge to check whether these company-wide policies are implemented accordingly. DM4 highlights how each branch is given some form of freedom in order to react to any special considerations, wants or needs. During the planning and designing process a considerable amount of time went into the environmental consideration of the workplace including lighting, brightness, communication streams and accompanying noise, humidity and temperature. Beyond that, *“the facility team is also responsible to check on employees’ working environment in order to ensure the health of employees” (DM4).* He explains that twice a year facility management checks on employees and attempts to identify any opportunities or improvements that could be made to the workplace.

Employees that are working in such an office space structure seem to be happy with the concept and have not reported any issues. On the contrary, EM2 emphasizes the importance of close social relationships that are built through an open-plan design. DM5 adds that social relationships on the job are of major importance, but the open-office design is not used to further them in a way of more private communications, but rather as a means of feeling part of a bigger picture.

5.5.3 Shared-desk concept

DM3 and DM6 have experienced an office space change towards a shared-desk concept with differing results, experiences and perceptions. The case study following the analysis of the in-depth interviews will elaborate on this issue.

EM4 describes how the company he works in also makes use of the shared desk concept, as a result of the nature of employees’ daily activities. In consulting, he spends around 4 days a week away from his company’s headquarters, making it the logical consequence for choice of office space. When asked about the desk-sharing culture in consulting firms, and whether he believes this to change any time, he answers in defense of his current employer saying that, *“if anyone has their own desk, besides partners and their assistants, who have got one, this just wouldn’t work out. For partners, it makes sense. Even though they travel a lot, they still spend most of their time in the office, so yeah, that’s the reason behind the sharing-concept” (EM4).*

5.5.4 Home-Office

Interviewees were asked to describe how the concept of home-office is applied at their work. The following grid provides an overview of the respondents’ answers. Replies shown in the grid

are paraphrased and written in the third person. The second column refers to the degree to which an opinion at an interviewees' firm considering home-office has been formed along with the nature of it. Green reflects a positive attitude towards home-office, red reflects a negative attitude towards home office, and yellow refers to a firm that has no clear vision concerning its remote working standpoint. The checkmark (✓) or X-sign (X) characterize whether DMs and EMs agree or disagree with the regulations and approach of their respective firm.

TABLE 2 – INTERVIEWEES AND THEIR ATTITUDES TOWARDS HOME OFFICE

Firm	H-O	Situation in their workplace
DM1	X	Home-office is a hot topic right now. Only 5 out of 38 are given the chance based on decisions from top management. Anyone is given the chance to do home-office twice in each quarter for personal reasons if needed. Believes that home-office should be enabled more frequently, especially, mothers.
DM2	✓	Home-office is only possible for those in the IT-department.
DM3	✓	Home-office is possible, but the social component outweighs it in importance, which is why management does not support it. However, special considerations are made on a casual base.
DM4	✓	Employees can spend up to one day a week in home office. Currently, during Corona, 100 employees are working from home, and it works fine.
DM5	✓	Home-office is possible and encouraged due to flexible working hours
DM6	✓	Has always been possible, and is used by employees according to their beliefs whether it is appropriate.
EM1	✓	We have three departments in the firm. Each department leader has different views. IT-workers usually have to come to the office. For others, they have the chance to work from home, whenever they want, especially, when you have been part of the firms for longer.
EM2	X	Even though, it would have been logistically possible, it was not a desired means of working from the manager's point of view. Employees were of different opinions. Only one employee was allowed to work from home.
EM3	X	They had no contractual regulations, but the poor technical setup didn't allow

		them to finish their work away from the workplace
EM4	✓	Friday is the only possible home-office for someone in my positions, however, management prefers attendance
EM5	✓	They do have the opportunity, however, it is not properly and officially integrated into the working structure of the firm

The high agreement rate of firms' stances also refers to the decision power that is present for some DMs. Even though, DM1 is a clear decision maker, she is still bound to the board of directors and some other councils that are higher up in the hierarchy. The table shows 2 yellow-marked firms, whereas there is a slight difference as to why they have been marked with this colour. DM1's firm has various mixed opinions in the firm, which has already led to a certain degree of arguments and confrontations in the firm. DM1 believes that upper management does not perceive the value of home-office, especially for certain groups, such as mothers, and argues that they move too slow. For EM5's firm, no clear stance has been made regarding the acceptance or rejection of home-office. There is a culture of work being done in the office space, which is why home-office has not yet been a central topic.

EM2 describes an interesting scenario, as to why her manager did not support home-office for any employees. Even though productivity was not measured, given the fact that he hardly saw anyone actively working in the office, her boss' argument used the lack of visibility as a means of blocking home-office. EM2 says, *"Especially the younger ones in the office always wanted to work from home. We had one female employee, who was around 40 and she ended up getting to work from home on Mondays. But this took so long. Another, younger colleague tried doing the same thing but he didn't let her. He said there's a difference between being at home or at work, but never provided any examples. To be honest, I did it anyways. They thought I was working long hours on the weekend, but I just grabbed all I needed and did my work from home."* This describes a scenario, in which unreasonable and unjustified actions from the management's side have led one employee taking the issue into her own hands, working from home behind the back of her superiors.

All interviewees agreed that their quality of work is not affected as a result of working from home. However, productivity and efficiency are mentioned concerning home-office and how these variables change in comparison to work done in the firm. Once again, subjectivity is shown in the responses, as each interviewee provides different insights and viewpoints concerning the topic of interest. EM1 describes that quality does not change – possibly even improves due to the freedom he is provided with – as a result of home-office but productivity

worsens due to the distractions and tendency to procrastinate. *“It compares to studying at home, all of a sudden everything else seems more interesting than doing work. I believe in the importance of a proper setup and fixed routines. Now during Corona, we’ve got fixed meetings every morning at 9, where we talk about what we got done, and our objectives for the day. I estimate that it takes me approximately 10-15% longer than when I do my work in the office”* (EM1). DM4 shares his opinion and also highlights the random distractions that occur throughout the day when spending the day at home instead of the office.

A different perspective is provided from EM3, who refers to her introverted personality and preference of working alone, isolated, when possible. *“I like the informality of working from home. Not sure how to describe it, but you’re surrounded by all your colleagues and you’ve got to follow the common norms, like going on break at noon, but at home it’s different. I’ve got my own little office space at home, where I can retreat, which also allows me to leave work behind closed doors once I leave this space”* (EM4). DM1 and DM4 also emphasize the benefits to certain people whether it’s their personal traits or circumstances. Parents or those that live far away from the workplace may be better off when doing some or most – but not all – of their work from home. Again, it shows their perspective to individuals in comparison to a broad view, where policies are made on a company-wide base.

5.5.5 Future

DMs were asked about the future of office spaces and their beliefs regarding how the way of doing work will change? All respondents saw the trend of remote working grasping a proper foothold, however to different extents. DM2 maintains his conservative view and argues that he expects certain parts of work to become more flexible with the prerequisite that performance and quality would not be negatively impacted. DM5, who also belongs to a non-advocate of home-office agrees with DM2, and argues that a permanent move towards a remote working environment is unrealistic, and does not align with the desires of employees, who value the social aspect of office spaces. However, she also sees a certain growth in flexibility and work from other areas, but only to a limited extent. Additionally, DM2 draws on the nature of her work environment, which is the pharmaceutical industry, which ultimately would not allow all workers to move away from fixed office spaces.

The other DMs take on a different viewpoint, as they perceive home-office and remote working to be valuable parts of future work environments, which is reflected in some of their upcoming decisions that are planned for the upcoming years. DM3 has a strong believe in the growth of remote working, also because she has emphasized this kind of work for several years. *“We have employees that live outside of Vienna, and they have to commute for hours to get to some meetings. I believe that those things will change. Of course, it would make sense to see each other at least once a month, but considering the rest of the work, we could do that remotely using teams or Skype. The Corona crisis proves that working from home works. Be-*

yond home-office, I think that the entire concept of working in separated teams will grow as a whole” (DM3). DM4 agrees with this notion as he highlights the required trust, but also his willingness to try out new things.

DM4 also teases the fact that his company is planning on making changes to their office spaces in the near future. Even though, the 2020’s Corona crisis has led to a postponement of these plans, which involve “a move away from any fixed workstations. Hence, employees will have their own lockers, where they store their stuff. The plan is for them to then grab their things, go to a desk that is free and put it all back once they are done. This will lead to communication areas for phone calls or meetings, another area for off-time, like drinking coffee or meetings as well. The idea for this planned change comes from the empty work desks that occur as a result of people working from home, holidays or sick leaves. I reckon that this would easily save you an additional 20% of your available office space if you cut back” (DM4). Two DMs have already gone through this process of switching to an open space concept with desk-sharing.

5.6 Case Study

DM3 and DM6 both have worked for two companies in the past that have gone through the process of switching to a new office space concept. Prior has worked for Anecon, an IT-service provider, latter has worked for A1 Telekom, a telecommunication firm. The two scenarios are of major similarities, however, the different approaches to the change process of the firms have led to two different outcomes of how the new office spaces were perceived by employees along with varying impacts on concepts relevant to this thesis. The case will be structured in three sections that have been chosen following Levin’s change model. Hence, this case includes the chapters ‘Before’, ‘Change’, and ‘After’.

5.6.1 Before

Table 3 provides a brief overview of how differences in the change process have impacted the outcomes of either scenario. Beyond that, it is important to understand the cultural background of both companies in order to grasp the real reason as to why outcomes differed so drastically.

TABLE 3 - ANECON VS. A1 TELEKOM

	ANECON (DM3)	A1 Telekom (DM6)
Before	<ul style="list-style-type: none"> • Located in Old AKH • Emotional attachment • Firm has history of emphasizing employee happiness and WLB • Management preferred presence if possible 	<ul style="list-style-type: none"> • Decentralized (geographically) • Traditional office space • Regular Skype-meetings • Home-office friendly • Monthly f2f-meetings

	<ul style="list-style-type: none"> • Culture of remote working • Space issues and merging offices 	<ul style="list-style-type: none"> • Culture of one fixed work desk • Planning of merging spaces • End of 2017: Planning of change
Change	<ul style="list-style-type: none"> • Hired external firm for guidance • Prioritized Discussion • Work groups formed • Cooperative design efforts 	<ul style="list-style-type: none"> • Complex hierarchy structure • Brief internal communication • Decision was final • Waited for works to finish
After	<ul style="list-style-type: none"> • 0-Day → Opening Day • Friendly environment • Different way of working 	<ul style="list-style-type: none"> • No proper introduction • Culture shock • Noise • Busy environment • Lack of focus • Power struggle for office desks
Outcome	<ul style="list-style-type: none"> • Quality of work unchanged • More and improved communication flows <p>→ DM3 SATISFIED</p>	<ul style="list-style-type: none"> • Job satisfaction went down • WLB went down • Focus worsened productivity • → DM6 LEFT JOB

In 2017, A1 and Anecon started to develop a new concept, which would change the way, in which the companies' employees are currently working. Even though, the final outcome was visualized identical, both firms had a different set of available resources and different approaches to achieve the expected goal. At this point, DM6 has not yet worked in an open-office before, which was a characteristic that he shared with the majority of his fellow colleagues. Hence, A1 consisted of a culture of employees that were used to one workplace that figuratively belonged to them. DM6 describes the company's past work conduct as decentralized and home-office friendly. Skype and other forms of virtual communication were frequently used, as teams were often geographically separated.

DM3 was faced with a similar background, however, her team's and firm's culture had always been shaped by employees' ability to adapt to new work spaces. *"It occurred that you didn't see some employees for an entire week just because they were working remotely in a client's office"* (DM6). Thus, she argues that a change to a desk-sharing concept was a logical step given the fact that some employees hardly ever required a fixed work place. This shows that Anecon already had a certain degree of openness and understanding for such a new concept. However, DM6 compares the departure of their old office space to heartbreak as the firm, its management and its employees had an emotional connection to the building, which represented the founding location of the business years ago.

In 2017, A1 began to initiate the planning process for a new office space concept. Cost savings, wasted space and a step towards modernization were the key reasons for a change from a traditional office space to a desk-sharing office. *“It felt like the CEO of A1, and its directors, attempted to sell this initiative as a modern office space solution, but it felt like a cost saving method. It got presented as a final decision without any feedback from lower hierarchy levels, besides information regarding dates.”* DM6 describes quick transition efforts that did not allow for any discussion to evolve in the first place. He refers to the hierarchical structure at A1 that consists of seven different levels, which work in a top-to-bottom approach. The distance between hierarchical levels did not enable any employees or even project managers, like DM6, to have a say in the process. *“We’ve discussed it internally, but when the top level management decides on changes, than there’s no way around that decision and it’s got to be implemented. To be fair, I’ve got to say that everyone was impacted as a result of that decision. Even directors that were used to working in their own offices with two secretaries at the front desk, all of a sudden found themselves working among other employees”* (DM6).

DM3 describes a different approach, which she links back to the nature of the firm and its approach to concepts, such as WLB or on-job satisfaction. DM3 argues, *“it has always been the firm’s philosophy to direct its efforts towards the establishment of a culture that focuses on employee relationships and their respective happiness.”* In 2017/18, the firm faced the issue of limited space in their old office space, which resulted from merging efforts with a different site. Hence, management made the decision to switch to a new, modern office space, but different to A1, they incorporated an external company that was specialized in such change efforts to guide the process and support several links in the firm.

5.6.2 Change

The actual change process marks the biggest difference in this case and allows for a range of areas to be pinpointed in order to identify possible mistakes in hindsight. In the case of A1, hardly any communication took place, and employees felt left alone in the process of switching to a new environment. For Anecon, DM3 draws a whole different picture, as she emphasized the value that was provided from the external, supporting firm. *“Managers and employees were interviewed in order to identify their respective values and beliefs. This information was then taken and analyzed to see, which areas of the old office space should be present in the new work place and which parts could be left behind. The idea of involvement, involving all employees of all hierarchies, came from them [the external firm]”* (DM3).

As part of the change process, the work groups were formed and each team was given a specific task. This allowed employees to actively participate and be part of the project. *“I remember one team that was responsible for all the new furniture, so they had to decide on carpets, shelves and so on. Another team, led by the IT-department had their say in the infrastructural part and had a project running concerning modern offices and how they pictured them. Anoth-*

er group was busy making rules of conduct, which included behaviour in an open office space and what to look out for.” DM3 also mentions the excitement and engagement of employees, which was reflected in the high level of involvement from most employees.

DM3 refers to experiences that she heard from friends, which reflect the situation of A1 and DM6’s mindset at the time. *“I know of people, who have also switched to an open office environment and they found themselves in a situation, in which they felt quite lost. They were kind of handed the new office like ‘here you go, get to work’”* (DM3). Furthermore, she mentions the importance of the first day in the new desk-sharing office, which was less of a workday and more of an introduction to the environment. Each work group presented their area, and provided explanations and reasoning as to why they have made certain decisions.

5.6.3 After

Table 4 provides an overview of changes that occurred in the new office environments in both firms and how the two DMs perceived them respectively.

TABLE 4 - ANECON VS. A1 TELEKOM 2

	DM3 (Anecon)	DM6 (A1 Telekom)
Work Desks	She describes the new work environment in a neutral, more positive way. Given the fact that she and her colleagues were involved in the design process, they were already knew what would expect them. She describes how this change came as no culture shock and employees were able to adopt to the new conditions.	He portrays it in a negative light. He does not understand the necessity to of having his own locker and sees it as a hassle to grab all of his stuff and then remove it once he’s done. <i>“Every time we went into a meeting we had to clean up the desks and once we were done, it was quite likely that they were already occupied by someone else.”</i> He also mentions a power struggle because <i>“older, more established employees did not want to switch desks, which is why some form of subculture was formed that did not feel friendly or welcoming at all.”</i>
Phone Box	She describes them as an opportunity to have a quiet talk on the phone without being interrupted or interrupting others.	He describes them as clustered boxes, which were avoided if possible, as they were humid, warm and small.
Work	She elaborates on the change in how	Impacts on productivity were detri-

Impact	work was done. <i>“I don’t believe that it had any impacts on the quality of work, but the way in which we communicated, and the amount of collaboration increased”</i>	mental, alone because of the increase in HeyJobs. Employees’ focus was off, and I had several employees that switched to home-office to avoid coming to the office.
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5.6.4 Case Summary

This case comparison is of such relevance due to its many similarities and the accompanied different scenarios of how an office space development project ended. The following discussion section of this thesis further elaborates on each aspect of this case and addresses certain important factors that are of relevance when considering an office change. Nevertheless, it is crucial to reflect on some key elements of this case in order to get an overview of the topics that have been addressed.

The reason for change is the first point of parity between the two firms with Anecon shifting due to space constraints and A1 doing it mainly for cost-cutting reasons. Importantly, this information is taken from employees meaning that the statements reflect their personal perception of how the change process turned out. However, the fact that management communicated their plans in such a way, that A1’s employee perceived it as a cost-cutting effort shows that something along the communication process went wrong. Nevertheless, this case describes a scenario, in which a positive reason for change led to a positive outcome, while a negative reason led to the opposite.

Communication is the second point, in which both firms differ significantly. The strict hierarchy at A1 did not allow for any two-way communication meaning that hardly any feedback loops were put into place, which would have given certain members of the firm the chance to be involved in the process. Beyond that, messages were distorted as a result of the noise that interfered along the way of getting a message across all hierarchical levels.

The third point addresses the difference in how the change was implemented. Anecon went to an external firm, while A1 planned the change internally following instructions only from top level management. Anecon was guided along the way with communication among all members of the hierarchy being heard equally. Even though this process opens a gateway for resistance and discussion, this process seems to have gone by fluently.

The goal definition, even though it was reached in both cases, led to different perceptions as an outcome. A1’s goal can be compared to a point of time, in which the new desk-sharing office is opened for all employees to start work. Different to that, Anecon’s goal surrounded a period of time, not just a point, in which they envisioned a scenario that allowed all employees to effectively work in their new office space environment. As mentioned, both goals were reached, however, at different expenses to employees.

6 DISCUSSION

Information sourced from interviews has provided an in-depth understanding into the real world of business and how concepts including productivity, WLB, knowledge flows and office spaces are implemented and treated. The following discussion section links the existing literature with the findings analysed in the previous section in order to gain new insights and confirm existing theoretic claims.

The interviews have highlighted that heuristics are used in practice to create a form of simplicity in today's complex world of business. The analysis shows that subjectivity is managers' go-to option to avoid unnecessary involvement with quantitative measurement or metrics. However, the impact of subjectivity stretches beyond the scope of managers and also affects employees. Findings are conform with Young-Ho et al.'s research (2019), as individuals do have an appropriate estimation of whether their efforts in a given situation are productive or not. Here, however, the analysis adds another dimension, which is effort and its perceived relation to productivity. Interviewees show that their level of effort – from high to low – has a major positive impact on the level of productivity over which they have constant control, if their environment allows it. This suggests that management should be aware of its employees' satisfaction levels and engage in WLB-related efforts in order to build a culture, in which employees are willing to contribute to their optimal capacity.

Existing literature emphasizes the balance between individual and enterprise productivity. However, the complexity of measuring individual performance levels outweighs its value, which is why managers mostly rely on subjective perceptions. Goal setting, team and enterprise performance have been mentioned as substitutes for actual measurements. This approach is commonly used for knowledge workers that do not have any physical output that can be measured easily using quantitative measures. This links with William Ruch's claim that the complexity of individual performance ultimately hinders its accuracy (National Research Council, 1994).

Primary research provides a different view onto the issue raised by Buchanan and Settles (2018). The literature review presents their argument of working hours being misused as an inaccurate measurement of individual productivity, especially in consulting agencies, which are used as an example. This thesis suggests that such behaviour cannot be linked to any industry, as it solely depends on the quality of a firm's culture. Results suggest that managers that value quality of work over hours worked are likely to encourage the provision of high quality output in the long run. This stems from the assumption that a sole focus on hours worked diminishes efforts, hence diminishes productivity, if employees feel forced or unhappy. Beyond that, it is

the nature of consulting firms to incorporate long working hours, which does not automatically reflect any negative associations concerning employee happiness or pitfalls regarding WLB.

The majority of interviewees perceive that their office space environment has a positive impact both on the quality of work and productivity. This can be understood as a modern thinking approach, however, employees that have experienced a number of different office space environments argue that productivity levels differ. Traditional, conservative thinking restricts the development of new office space opportunities, which also works as a barrier for potential improvements to quality and productivity of workers.

Interesting findings have been made in the field of WLB. Findings agree with Valcour (2007) and his argumentation that WLB, similar to productivity, is a subjective concept. At the same time, this goes against the OECD's approach (2018) of calculating quantitative indexes on the basis of working hours and hours spent away from work. Moreover, this thesis even challenges the view of WLB being a balance, as it is more of a priority that is chosen. Given that an employee is not forced to work certain hours as a result of personal or financial issues, they have the ability to prioritize one over the other. The time of prioritization may differ. WLB may only ever be balanced in the long-term, as age may impact one's priorities. Two interviews with ambitious young students, who have recently started their career in their respective fields of interest argue on the lines of Frone (2003), which is that hours for work and life may be allocated in any way, as long as no personal conflict is created. Moreover, results also align with Abendroth and Dulk's findings (2011), which understand WLB as a satisfaction level. The analysis shows that respondents set terms such as WLB, satisfaction or happiness equal to another.

There is a strong indication that any distortion of WLB or generally low satisfaction levels at work can have serious effects on an individual's mental health, straining them even on a physical level. This aligns with claims from the WHO (2020) and OECD (2018) and also shows off the threat to businesses, when a culture does not allow an appropriate treatment for dissatisfaction to be put in place. Lower effort and engagement ultimately harm a business in the long term.

Interviews raised an issue that has not yet been addressed in the literature review and that is the extent to which work and life affect another. The two-sided correlation is a basic assumption that is also confirmed by this thesis, however, it seems that work and life experiences and their respective effects differ according to a person's personality and values. Here, it is likely to assume that the root of any dissatisfaction or unhappiness at work or in life may determine a person's ability to cope with it. The analysis highlights two scenarios of unhappy employees. One employee, the boss created a bad atmosphere, which allowed a subculture to form among employees allowing each member of this group to cope with the situation together. The other employee faced a different situation, because even though she did not like management's way of doing business, she hardly had any close friendships at work, which made

her carry her baggage of dissatisfaction to her home, as she was alone coping with it. This raises a number of new interesting questions and perspectives. Thus, it is likely to suggest that the average effect of work on life could be greater than the other way round, as people would be more likely to deal with work-related problems outside of work, than taking personal problems to work. However, this does not diminish or deny life-related issues and their effects on a person's work.

Working hours also play a crucial role in the field of WLB, whereby most managers already understand the connection and impact it has on a person's perceived satisfaction. Flexible working hours have been described as the key reason for an improved individual time management. This aligns with management's previously mentioned preference of quality over hours worked. Moreover, this aligns with Buchanan and Settles' claim (2018) that flexibility of working hours is a key component of providing employees with greater control and opportunities to do their work. The analysis shows the importance of trust in this process of allowing employees to self-manage to an extent. Here, trust is a key component, and managers emphasize the importance of appropriately assigning tasks in order to split workloads in a way that fit any employee on the basis of their contracted working time.

Beyond the provision of flexible working hours, firms can choose from a vast amount of efforts that are targeted at improving on-job satisfaction levels. It seems that companies can be categorized on a large scale concerning these efforts meaning that there is awareness about the positive effects of satisfied employees, however, this knowledge is not ubiquitous, which explains lacking efforts of certain companies. This new awareness is part of a modern way of thinking and requires long-term thinking with an open-minded attitude that allows for a critical reflection on basic assumptions. This argument can be transferred to the impact of actions taken by firms that are targeted at the improvement of WLB and satisfaction. Most firms rely on policies, rules, efforts and events that are targeted at a wider audience. However, the analysis has shown the importance and effectiveness of WLB-related efforts that are targeted with an individual in mind. Additionally, there is a link to the argument of subjectivity of perceptions.

Those corporations that make use of WLB usually do so for valid reasons, especially for the retaining of knowledge in form of human capital. Interviews show that those companies that implement a strong focus on WLB-related efforts generally have a good understanding of the sustainable nature of human capital, as described by Garavan et al. (2001). Regarding the field of knowledge management, managers increasingly start to grasp the value of technology and its applicability for knowledge creation and sharing. Once again, those DMs that have shown a degree of modern thinking make use of virtual ways of communication and report benefits, such as improved efficiency. Moreover, those arguments are always accompanied by a warning that refers to the importance of maintaining a certain level of social interactions, which links to the importance of office spaces as more than just an environment for work conduct.

The analysis confirms Lev et al.'s (2016) claim that organisational capital is of major importance for a business as it enables all other forms of capital to be used to their full extent. Experiences and opinions of employees show that workplaces with outdated resources complicate any business activities to a great extent. Firms that experience such a scenario, in which their infrastructure no longer fits to the needs of other forms of capital, such as human capital, need to introduce strategic changes. The kind and extent of the change need to be made according to the source of the problem, and may include anything from minor hardware upgrades to major office space restructuring efforts.

Concerning office spaces, the analysis agrees with existing literature in terms of the current mainstream design choices that are introduced on a global scale. Traditional office spaces refer to any non-open office, in which the structure is often defined by the available space in an office building. However, even in textbook open-offices, every firm has some secluded offices for specific departments, mostly those that work with confidential information including finance, accounting or IT. The research shows that there is a tendency to move to an open-office concept, especially in those industries that involve knowledge workers that do not follow a physical output concept, but rather work as service providers. However, there is still a degree of resistance among some DMs that do not perceive office spaces as value-adding solutions. Nevertheless, the majority considers office spaces as a means of transforming the way, in which work is done.

The analysis confirms the trend of desk-sharing offices, which are considered by numerous large firms as a modern, new solution. Respondents refer to the changing work conditions that are given in such an environment, emphasize the strong culture that results from such efforts, but also refer to the effects on quality and productivity. According to this thesis, a move from an open office to a desk-sharing office does not significantly improve the quality of work or individual productivity, however, it is important to understand why firms decide to undergo such changes. Space and monetary constraints have been identified as the main reasons for such structural changes to a desk-sharing concept, which allows firms to reduce shadow space and cut costs without negatively impacting key performance indicators.

Concerning open-office, this research shows that a firm's culture is of major importance and needs to be put into the center of consideration before making any structural changes that are expected to change the way in which work is done in a firm. The case study shows that not every culture is suited for an office space change, especially, when no prior preparation efforts have been put in place to facilitate the transition. Additionally, beyond the importance of culture, communication is another key component of any successful big, company-wide project. The case of Anecon indicates how communication among all levels of hierarchy and an active inclusion and engagement of employees can add value that has the ability to maintain a culture or even improve it. Beyond that, firms' hierarchies are put into a center position as an

overly complex hierarchical system is expected to distort communication to such an extent that confusion and uncertainty lead to negative perceptions by workers.

The literature review has shown firm's tendency to increasingly integrate home-office into their employees' daily working routines. The analysis confirms this notion, however, it identifies three reasons that provide managers with motives to avoid an official implementation of home-office. Hereby an official implementation refers to providing employees with the opportunity to work from home at least once a week without having to go through a lengthy bureaucratic process.

1. Disbelief in concept
2. Lack of trust
3. Social component

The first two points are closely related and refer to a conservative way of thinking. This approach by management is hard to overcome and is expected to require new, innovative input from an authoritarian position. The social component, however, draws on a different belief, which is the assumption that social components at work are necessary to an extent, which does not allow them to be compensated away from work. The analysis shows that this way of thinking resonates better with employees than the first two arguments, as it emphasizes individual, mental well being.

Findings of this thesis allow for the creation of a certain hypothesis, which is likely to find its place in current literature, once validated. As highlighted in the literature, opinions about the future of office spaces vary significantly to an extent, where information becomes rather blurry. The analysis suggests a continuous move to office spaces, however, contrary to some believes that office spaces will vanish as a result of space and cost savings, offices will persist in the long term. This conclusion is made as a result of the social component that is of high value to any concept highlighted in the initial literature review. Social capital is identified as a key driver for mental wellbeing and health, which supports productivity and WLB. Moreover, social interactions are a foundation of knowledge flows, as networks are used to share any kind of information in the first place. Lastly, office spaces are designed with employees in mind – if planned correctly – and only succeed as an office environment, if employees feel involved and engaged.

Hence, office spaces will persist over time, but they will continuously evolve in knowledge industries to open space environments, in which home-office becomes a fixed component of daily work with the virtual space developing into an extended version of one's physical workplace, while social interactions and WLB maintain to be a top priority of successful leaders. Desk-sharing concepts will also see an increased presence, however, need to involve careful planning, especially as their main purpose is to save space and costs without harming individual and enterprise performance.

7 CONCLUSION

This work has been guided by the vision of confirming, denying, and finding existing and new information in order to provide decision makers in the European Union with a baseline for future research. These findings are then expected to yield to policy changes that impact millions of people in the European Union.

Primary research that has been conducted in the form of in-depth interviews and a case study has confirmed and validated the appropriateness of concepts pointed out in the literature review, which are productivity, WLB, knowledge flows and office spaces.

The literature review directed its focus on individual and enterprise productivity along with considerations of how these may theoretically be quantified. Primary research found that today's knowledge workers are hard to track and monitor as a result of geographic and timely flexibility. Hence, heuristics and subjectivity on the management's behalf are used to make accurate observations about individual productivity. Enterprise productivity and performance take the center stage in an actual, real life business environment.

WLB is a concept that people generally perceive as on-job satisfaction and happiness with life. Results show that not all firms have grasped the benefits and value that can arise from a company-wide focus on WLB improvements. Those, who have understood the concept experience a flourishing culture, in which effort – hence perceived productivity – are on an equally positive incline. Moreover, this thesis challenges the view of WLB being a balance, as it argues that subjectivity reigns over one's decision whether to allocate time to one or the other, which serves the purpose of fulfilling one's targets and priorities.

Knowledge management is a concept that is not actively associated with office spaces and the other concepts addressed in this thesis. Turnover rates, which are a crucial part of knowledge retaining, and the communication efforts, hence knowledge sharing, are frequently addressed by managers. The concept of media richness is raised as a means of introducing the ease of modern communication tools incentivizing its more frequent use.

Office spaces have developed rapidly in the post-war era with the open-office concept being the latest innovation, which is expected to last. Desk-sharing concepts in the open office linked with the virtual workplace – home-office – have been identified as the future of office spaces. Social interactions will continue to take a center stage in successful managers' work ideology along with WLB to ensure employee happiness and satisfaction, and productivity to sustain successful business performance.

7.1 Research Question

This thesis focused on the research question of *'How have office spaces changed in the past and what will happen in the future along with respective effects on and of productivity and work-life balance?'*

This thesis has been designed in a way, in which past office space developments have been analysed in the light of concepts highlighted in the literature review. Productivity, WLB, knowledge flows and the nature of office spaces have been put into the center of attention. Interviews have highlighted the major role these concepts play in daily business conduct and have confirmed, questioned and challenged the claims stated in existing literature. This section draws on the key findings of this thesis and links them with the research question.

Productivity and WLB have been identified as crucial components affecting one another as much as they are affected by an individual's work and the work environment, thus office spaces. Concerning productivity, complex quantitative measuring tools become rather obsolete, as the sample of decision makers indicate that they are not used. The idea of trust has taken out the need for constant monitoring efforts of employees, which indicates the subjective nature of the concept. Knowledge workers and trust are compliment terms that merge in today's world of work, where office spaces slowly shift away from a fixed geographic and timely schedule.

Results suggest the majority's perception of office spaces being important for both productivity and WLB. Hereby, WLB is often put equal with satisfaction levels indicating that people merge work and life in their minds as one big part of their lives, whereby only a state of happiness and satisfaction in both can truly bring them balance.

The social aspect of firms along with an office culture have been identified as key factors for perceived quality of work and life. Sub-cultures that form as a result of dissatisfaction represent a threat to productivity levels in a firm, which again highlights the importance of a stable, healthy culture and its relation to productivity. Moreover, results from interviews suggest that office spaces can influence a firm's culture through either connecting people or giving them the necessary freedom and silence to get their work done.

While office spaces undergo a shift to open spaces, working hours shift away from the center of attention. There is a clear indication that working hours are no longer a measurement tool, but rather a means of estimating workload. This argument is made following the linkage with a lack of quantitative measures for individuals.

Here, however, managers are recommended to carefully analyse assigned workloads in the light of the task along with the employee or work group that it is assigned to. Different performance levels of employees make this a difficult and fastidious task. Results show that too

little work may actually have a worse effect than too big of a workload. If employees are confronted with too much work, and they have the courage to speak up, the only barrier that would hinder the resolution of the issue would be a manager that acts irrational as a result of unawareness of concepts addressed in this thesis. Too little work is likely to lead to a decline of motivation and the feeling of restraint for certain employees. Hence, it is important to manage feedback loops between decision makers and employees. Beyond that, there is a clear indication that reward, even recognition need to be in place to engage high future work ethics. Results point out that a lack of appreciation can lead to drastically declining motivation. Here, the advent of new shared office spaces has led to an increase in communication among members of different hierarchies providing more opportunity to resolve such issues.

Concerning WLB, the findings point out that there are two means of addressing the concept of WLB and work satisfaction in a firm. This happens either on a personal or broad level. There is an indication that the more a decision maker is aware of the benefits of WLB on productivity, the more they emphasize a personal approach. This means that WLB-related efforts are implemented with individuals on mind. This may include a policy aimed at supporting workers that have to commute every single day. Some firms do not engage on such an individual level and rather take broad activities into account when considering WLB-related team activities, such as a shared weekend or team events.

The thesis raises an interesting point as it describes a new view towards WLB. It challenges the term 'balance' as results suggest that it is not about balancing hours worked and hours spent away from work. There are hints that it is rather a work life prioritization meaning that it is solely based on personal, subjective preferences. Hence, common measures are deemed rather inaccurate when considering it on an individual basis due to the fact that a career oriented person, e.g., would be willing to trade off off-work time for work time. The so called balance, therefore, is solely internal and should be seen as an individual's perception of how satisfied they are in their current work-life situation.

The importance of WLB or WLP – assuming that it is a prioritization – is reflected in the harms that individuals are confronted with when they are unhappy with any of the two factors involved. Results show the strain that is put onto people's mind once there is a form of imbalance or unhappiness at work or in their private life. There is a strong suggestion that work-related issues have an even greater effect on one's private life than the other way round. Results show that there is a common connection seeing the concept of work as a fixed part of one's life, which is why humans tend to carry those work-related burdens into their private lives even more than the other way round.

The last suggestion made for the concept of WLB is the point that an individual's personality and values are part of their perception towards office spaces and the respective environment. Personality traits may include one's introverted behaviour making them appreciate privacy and

silence at work. Values may include an employee that values family over other – let's assume – monetary factors. Once again this showcases the subjectivity of the concepts of discussion.

Media richness has been identified as a key concept in office spaces, as it is of such big importance for daily communication efforts. Nevertheless, it includes one major downside and possible threat, especially in the today's open-space oriented world of business. Results show that mismanagement of open spaces can lead to such disturbances on a stimuli-based level that performance and satisfaction suffer significantly. So called HeyJobs are an example for the lack of distance that is presence in open office spaces, when everyone has the opportunity to address everyone at any time. This indicates that rules need to be put in place to form a culture for open office designs to be sustainable.

Results suggest that communication should be the number one priority and consideration in all efforts in all firms, everywhere. There has not been a single scenario or case in which proper two-way communication between all parties involved would not have resolved any issue. Even the case study provides insights into how a different communication approach in two almost identical scenarios can lead to drastic benefits.

Results indicate a clear tendency towards constantly developing office spaces. Those decision makers that are aware of its benefits to WLB and productivity are willing to take risks to implement such office change projects. While open offices represent the present, shared office spaces will represent the future. There is evidence that goes against the common belief of the idea that office spaces might eventually vanish completely, which is that even though remote working will increase, the social, interhuman component of office spaces is inevitable and irreplaceable.

Remote working and home offices are a hot topic right now and are expected to appear more frequently in the near future. Hereby, home offices are complimentary to actual office spaces, not a complete substitute, as addressed in the previous paragraph. Findings from interviews with employees suggest that there is great demand for home office use with some conservative managers hindering it. Employee's perceptions point towards the irrationality and flawed logic of some managers. There is a strong suggestion that conservative managers, even though they cannot measure their employees' productivity at work feel reassured when knowing that they are in the office. There seems to be a lack of trust hindering certain managers from extending the use of home office to those employees that request it. This point is only valid for those employees that do not have to be present in the office at all times, which would make the use of home office irrational.

Social interactions have been identified as a basic need fulfilment, which is delivered through the presence of office spaces. There has been a significant emphasis on this concept of socialization, which is why this research suggests that office spaces will maintain. Even though, there

are some voices that point towards the disappearance of office spaces, as a result of technological advancements and cost reductions, this thesis argues against this notion, stating that office spaces, even though they might diminish, will remain as an important construct that reflect the heart of a firm's culture.

7.2 Hypotheses Formulation

For the sake of future research, the analysis and discussion of information taken from qualitative interviews has produced interesting, valuable and new insights into the future world of work. It is expected that future qualitative, especially quantitative research could profit to a large extent, when using this research as a foundation. Hence, this section will construct a number of hypotheses, which are based on findings, analyses and discussions from this thesis, and which are encouraged to be tested in following research.

H1: Concerning WLB, work-related issues have a greater effect on one's private life, than the other way round.

H2: The reason (positive/negative) of an office space change has a positive effect on the quality of the change process.

H3: The perceived quality of communication between hierarchical levels in a firm is positively correlated with perceived WLB and Productivity among employees.

H4: The higher a decision maker's understanding of office spaces and its benefits, the more they are engaging in activities that are aimed at improving WLB.

H5: Individuals that describe themselves as career-oriented and achieving are less likely to suffer from long working hours than others.

H6: Firms that implement WLB-related tasks also on an individual base achieve a greater perceived satisfaction score than firms that focus on only company-wide WLB-tasks.

8 LIMITATIONS AND FUTURE RESEARCH

8.1 Limitations

This thesis purposely used qualitative instruments in order to identify underlying assumptions that have not yet been identified in qualitative literature. In the process of reading this thesis some limitations have to be taken into consideration when evaluating and interpreting the results. The limitations of this thesis are based on three pillars.

Firstly, convenience sampling was used, as it proved to be the most effective method. Chance was involved to an extent, in which the author did not know, which interviewees would agree to an interview. Random people that the author knew would fit into the target audience of this thesis were contacted and decided to participate. The sample taken for this consisted of people that the author has been in touch with throughout his young career. Hence, there might be a bias in the choice of interviewees as a result of the connections the interviewer has made in the past. This may have impacted findings, especially for EMs, as no employee was older than 35 years. The inclusion of an older age group may have provided further insights into their perceptions of how office space changes impact an older generation.

Secondly, the geographic demographics of interviewees also play a role. The literature review made use of global findings, while the primary research focused on Austrian's that have worked mostly in Austria and Germany. The inclusion of interviewees from other geographic locations in the European Union may have provided additional insights into different work environments.

Thirdly, the advent of the Corona Virus and its respective effects made the interviewing process more difficult than expected. All interviews were done over the phone with only some of them using a face-cam. This led to a relaxed, more informal environment. Nevertheless, those interviews that were held over the phone excluded any kind of body language, which could not be taken into consideration when analyzing the interviews.

8.2 Future Research

This final section uses four points of recommendations for future research conduct.

Firstly, the Corona crisis that has already been addressed has forced firms around the world to allow their employees to work remotely. This offers an ideal testing field to qualitatively and quantitatively assess the degree to which perceived and actual performance levels of individuals and companies have changed during this time. It would provide great value to this field of

interest if researcher focused on how work conduct has changed along with WLB-related concerns on individuals and their social groups.

Secondly, case studies are expected to provide further insights into the field of office space development. Even though, communication and an appropriate culture are basic foundations for a successful change process, case study analyses may provide further insights whether there are any other factors that support the transitioning process of a firm to an open-office desk-sharing company.

Thirdly, the discussion of results included a section about WLB and its respective two-sided correlation between work and life. This thesis raises an argument that work has a greater impact on life, than the other way round. Workplace-related research could be done to carefully analyze this dynamic. This would provide additional interesting insights both for decision makers in the European Union, but also for businesses. Beyond that, it would further strengthen and validate the belief and understanding concerning the physical and mental effects of on-job dissatisfaction on the human body and mind.

Regulatory, political science could gain insights from this thesis that should guide future research efforts. This involves the assessment of how labour contractual law would need to be adapted in order to allow for new ways of work being integrated into a regulatory framework. Flexibility of working hours, home-office, remote working, which is currently regulated through subjective trust, could be manifested into labour contracts in order to avoid illegal procedures, such as long working hours, or weekend-labour. Moreover, this would represent another step towards the EU's efforts to create awareness in its member states that the concepts targeted in this thesis – productivity, WLB, knowledge flows and office spaces – are of major importance, relevance and benefit to decision makers and employees across Europe, even the world.

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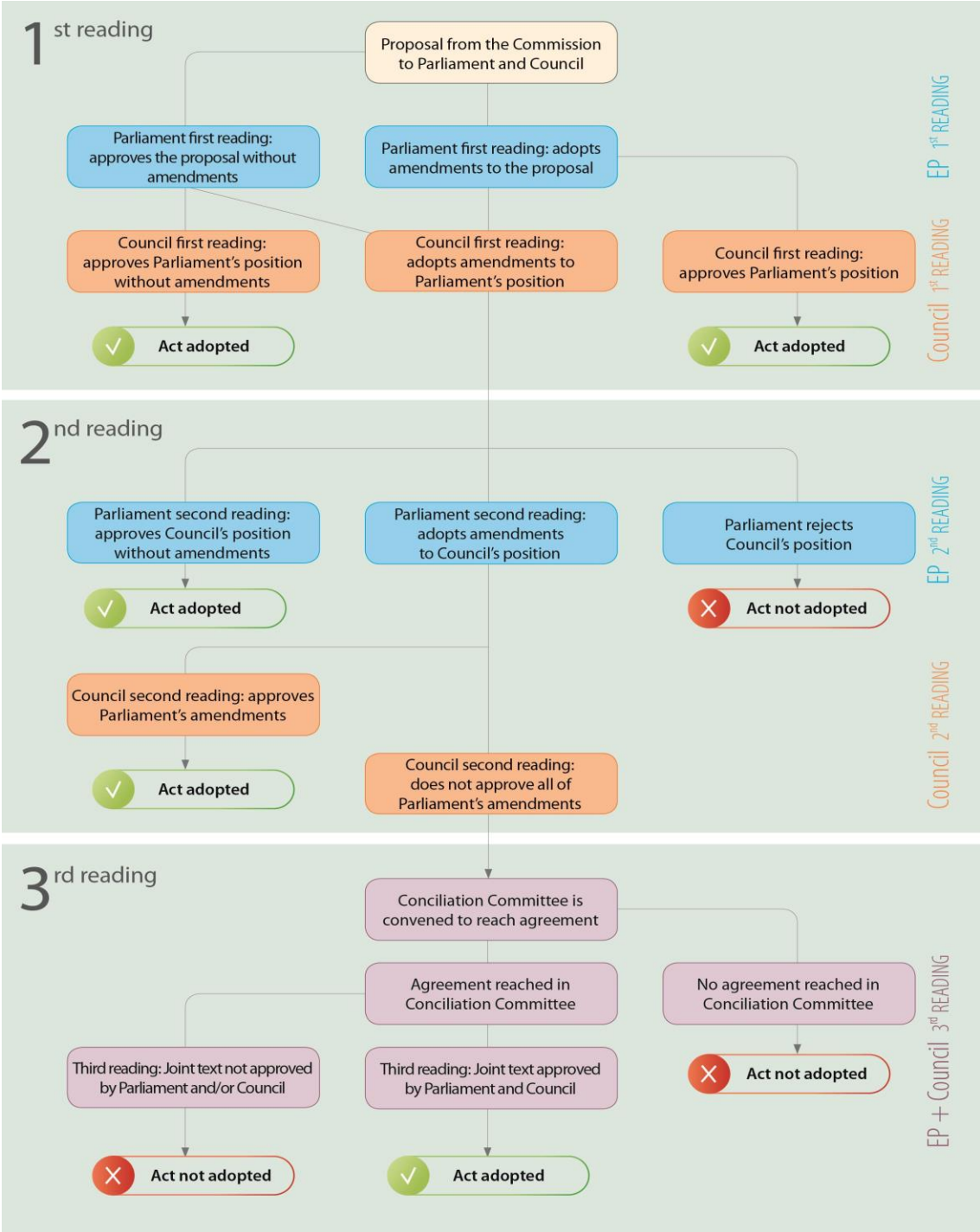
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APPENDIX

Appendix 1 – Legislative Procedures in the EU

FIGURE 8 – LEGISLATIVE PROCEDURE IN THE EU



(European Parliament, 2020b)

Appendix 2 – Interview Structure for Decision Makers

1. Introduction

- Purpose of this interview and explanation of research topic → no mention of factors that influence the factors as no bias should be conveyed.
- Background of Interviewee (Introduce yourself!!)

2. Current Workplace

- What is the design of the office space? → Why has it been chosen? By whom?
- Ever thought about making changes?
 - Yes – Delve further
 - No – Why are no changes made?
- Awareness? Guide the interview towards the interviewees perception of office environments and the effects they have
- Any employees working from home?

IF they mention a concept from the Literature Review then delve deeper into this segment...
Otherwise direct the interview into the following directions

Tell the interview that references to past job experiences are very welcome

Productivity

- How is productivity measured in their firm?
- How do they perceive productivity in their firm?
- Which steps are taken in the firm to improve productivity of workers?
- Identify awareness level

Work-Life Balance

- How do they perceive their WLB?
- How do they perceive their employees WLB?
- Have they experienced WLB-related issues at work? Mental health etc.
- How are working hours chosen and treated at their firm?
- Have they taken actions to impact WLB of themselves or employees?
- Identify awareness level

Knowledge Management and Cooperation at work?

- Explain the degree to which teamwork is necessary in their firm
- Does the office space support the work that is done? (Elaborate)
- Do all employees work the same shifts? Any teleworkers?
- Identify awareness level

Final Question: To what degree do current working contracts support and enable them to make changes to office spaces, ways of work (eg. home office).

End

- Do they have any remarks?
- What is their perception of the thesis topic and have the questions been new to them?

Appendix 3 – Interview Structure for Employees

1. Introduction

- Purpose of this interview and explanation of research topic → no mention of factors that influence the factors as no bias should be conveyed.
- Background of Interviewee (Introduce yourself!!)

2. Current Workplace

- How do they work? Types of work, hours, how is the contract set up?
- What is the design of the office space? → Has it always been this way?
- Have changes occurred since the started working there
 - Yes – Delve further → How have changes affected them?
 - No – How does the current office space support their daily work? Is anything hindering them?
- Past experiences? Have they worked in other workplaces with a different office space design? Do they have remote work experience? (during Corona?)

3. How do they feel at work?

- Guide the interview towards their satisfaction levels at work.
- How often do they interact with colleagues and how do they perceive interactions with colleagues?

IF they mention a concept from the Literature Review then delve deeper into this segment...
Otherwise direct the interview into the following directions

Productivity

- Dependent on answers from (2)
- How would they describe productivity
- How would they rate their productivity (qualitative and quantitative) in different job situations, and what affects their productivity level throughout a day?
- How do they perceive colleagues' productivity levels?

WLB

- What is L
- What is B
- How do they balance it? Is it manageable?
- How do they manage to switch from one role to another?

End

- Do they have any remarks?
- Thank you

Appendix 4 – Interview Structure for Case Study

1. Introduction

- Purpose of this interview and explanation of research topic → no mention of factors that influence the factors as no bias should be conveyed.
- Background of Interviewee (Introduce yourself!!)
- What kind of work is currently done? Home-office etc.

2. Past Workplace

- Office Space
- Culture
- Satisfaction

3. Change

- How was it communicated? By whom?
- What effects were expected?
- How did employees react?

4. Current Workplace

- How have things changed?
- Office Space
- Culture
- Satisfaction

5. Thesis Related Topic Q's

- WLB
- Productivity
- Knowledge Flows
- Company efforts and colleague perceptions

6. End

- Any final remarks?
- Thank you

Appendix 5 – Interview Partners

TABLE 5 - INTERVIEW PARTNERS

Interviewee	Sex	Age	Industry	Interviewing Method	Duration
DM1	F	40-45	Travel	Facetime	32
DM2	M	50-55	Gambling	Facetime	15
DM3	F	45-50	Telecommunication	Skype	31
DM4	M	50-55	Engineering & Tech	Phone call	24
DM5	F	50-55	Pharmaceutics	Phone call	22
DM6	M	30-35	Telecommunication	Skype	28
EM1	M	20-25	IT-Startup	Facetime	31
EM2	F	25-30	Communications	Whatsapp Video Chat	28
EM3	F	30-35	Pharmaceutics	Whatsapp Video Chat	19
EM4	M	20-25	Consulting	Facetime	25
EM5	M	20-25	Insurance	Facetime	25