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Comparing AI's impact on the organizational structure between small and large businesses through management interviews.

By

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Abstract

This thesis examines the approach differences between different sized organizations towards the increasing usage and availability of AI services, focusing on organizational structures and processes for service based companies in the private sector. Conducting semi-structured interviews with five managers while factoring to different sized organizations regarding approaches to operations, employment, processes, and future prospects to assess how size factors into the approach. Findings indicate some differences in the adoption of AI are dependent on the size of the company where smaller sized companies display signs of greater adoption and generally view AI technology as potentially transformative. Additionally, larger sized companies show indications of approaching AI mainly for effectivization purposes, not transformational. The results may be explained with previous literature on fundamental organizational differences between larger and smaller organizations and the effects of innovative technology on organizations.

Keywords: Artificial intelligence, private sector, innovation, organizational structure, substitution, complementation

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1. Introduction

The world witnessed the artificial intelligence (AI) system ChatGPT, by OpenAI, passing the tests to some of the highest-ranking universities in the world; it wrote a full comedic episode for Comedy Central's South Park; it allowed ordinary people to write full code for websites and programs; and for business owners to decrease and even replace entire departments of their company with AI driven services (Varanasi, 2023; Farah, 2023). AI-based services aim to mimic human-like intelligence and continuously improve its capabilities by completing tasks based on previous data, creating a high level of cognitive skills. With companies moving towards AI based solutions, they are starting to replace and streamline processes, similar to when automation in factories was introduced, a debate has started regarding AI's restructuring effect on organizations and in turn, how it affects different parts of the workforce and labor market. Depending on the job and the type of organization, an AI based service can either complement, substitute, or create jobs.

The size of the company has a fundamental impact on how a company operates and how they adapt to change, however the majority of previous literature on AI's impact on organizations is often scaled to a specific industry. Hence, this research paper aims to explore and compare the effects that AI has on the organizational structures, with regards to operations, processes, employment, and future prospects, of larger (250+ employees) and smaller (10-49 employees) organizations in the private sector, and what approach top-level management are taking to adapt to this rapidly evolving technology (OECD, 2024). This will be done by analyzing and comparing answers from interviews with managers at different sized companies to literature and theory on organizational structures, skill-biased technological change (SBTC), and AI's potential.

The results of this research are threefold. Firstly it will show what top level management of different sized corporations know about AI. Secondly, it will display how these organizational leaders approach the usage of AI services in their company. Lastly, the opinions and standpoints organizational leaders have towards AI potentially replacing parts of the human workforce. With that, the following research questions will be used as a guide

to complete the aim:

RQ: How do upper management of different sized serviced based companies in the private sector perceive the impact that AI based services have on current and future organizational operations?

2. Background

2.1 Industrial Revolutions and Labor Force

To understand the impact of technological innovation on economic industries the industrial revolutions are examples of how innovation alters the way businesses operate. The creation of the steam engine in the 17th century was the start of the industrial revolution. With its power, it increased production in factories. Its applicability broadened and it was a fundamental invention for many, if not all, other engines to come after it including pumps, spinners, and locomotives to mention a few. It was the beginning for the several industrial revolutions that humans have experienced and laid the foundation for modern industries. In general, scholars agree that there have been four industrial revolutions, and along with each revolution followed moral concerns regarding the human workforce and whether the change was skill biased. SBTC is widely accepted as the reason for wage diversion caused by the change in skill demand due to technological advancement (Acemoglu, 1999; Card et al., 2002; Caselli, 1999). The need for new skills creates a wage inequality between skilled and unskilled labor (Frey et al., 2015). Each industrial revolution brought new technological solutions that altered the demand for human skills.

Industry 1.0 brought the steam engine which allowed for mechanical manufacturing and work that demanded a lot of power which transitioned humans from farming to feudalism (Xu et al. 2018). Similarly, Industry 4.0 brought automatization where computer programs operate factory machines and robotics, causing the demand for programmers and computer engineers to increase instead of the need for human labor on the factory floor (Xu et al., 2018). At this point the need for human labor had in a few centuries, after several millennia of history, migrated from manual labor. Instead, SBTC had shifted demand towards tasks and services that require a certain level of cognitive skills, something that computers and machines still

lacked (McAfee et al., 2014). Each industrial revolution fundamentally changed the way companies operated and the skills demanded by these organizations. Despite technological development causing a displacement for a lot of workers, Frey (2019) points out that historically, technological advancements were mostly labor enabling and not labor replacing, in general making life easier for the general public as the solutions meant that the new jobs put less physical stress on workers. The author share that scholars must not mistake historical trends to be forever continuous as industries keep advancing and states that advancements in AI technology may be detrimental to more people than it benefits.

2.2 Brief History of AI

AI enables computers to solve problems and complete tasks in uncertain circumstances, which are usually completed with human cognitive skills. In contrast to factory machines, it makes computers not only fast, and precise but also intelligent (Manning, 2020). Machine learning, which is a fundamental part of AI, is the ability of machines or computers to collect and analyze data to later make decisions regarding completely new data without human micro-management (Manning, 2020). This then enables computers to improve their decision-making as they collect more data. These cognitive skills are continuously being unlocked and available to machines with the evolution of AI technology (McAfee & Brynjolfsson, 2014).

However, despite the recent popularization, the term AI was first established in 1950 and got its first breakthrough to the mainstream when IBM's AI program, Deep Blue, beat the world chess champion, Gary Kasparov in 1996 (Mijwel, 2015; Yao, 2022). Muthukrishnan et al (2020) explains that the interest for AI technology has in two separate periods faced "unfulfilled overly ambitious expectations and an overall decline in interest in the field by investors, also known as an AI winter" (p.396). Furthermore, the authors explain that due to the lack of computing power, the complex networks needed for AI programs were not possible at the time and caused the two AI winters between 1974-1980 and 1986-1990. The early 1990s would spark a new interest in AI as computers became stronger. With continuous exponential improvements of computers, especially regarding GPU capabilities which are crucial for the functions of AI programs, and the increasing amount of available data, a steady development of AI programs and tools followed (Muthukrishnan et al., 2020). Fast

forward to today where almost every industry is already incorporating AI to do a lot of the data driven tasks that demand cognitive skills (Zhang, 2021).

Perhaps the most known example of an AI based service is Chat GPT which in very simple terms, is a system that gives human like responses that has scraped almost all data from the internet and can through machine learning from that information and the conversations with users become a cognitive assistant that possesses most knowledge that is on the internet available for private or professional use for free (Biswas, 2023). Furthermore, in February 2024, AI based services replaced two-thirds of Klarna's customer service labor force, equivalent to 700 employees (Klarna, 2024). Zhang (2021) provides use cases for AI technology in different industries in 2021. In finance AI has taught computers to learn risk, forecast markets, and analyze real-time charts; In medicine, AI is being used to make cross-analyses using data from thousands of patients, detect viruses, infections, tumors, and bring forward new types of medicine; In media, articles, and commercials are generated using AI and tailored to each user by letting an AI program studying the users behavior, relations and opinions; In the software industry, generative AI produce and optimize code. In 2023 GitHub, the world's largest open source platform for programming, revealed that 41% of all code on the platform is AI generated. With AI's impact on industries as a whole, on business models, organizational structure, labor markets and on society, it is fair to say that AI may be a crucial part of the future development of the world's economy and society. And it is yet to be discovered how different organizational structures and sizes of business will influence the approach towards AI.

3. Literature Review

3.1 Theory Differences between Small and Large Organizations

Firstly, in this research paper, a small organization is defined by the number of employees in an organization. The amount of employees has to be between 10 - 49 following the OECD's definitions of SMEs (small and medium-sized enterprises) (OECD, 2024). Following the same definitions, a large organization has 250 or more employees.

When scholars have studied the management styles and differences in employee responsibility, they found significant differences in small versus large businesses (Goffee & Scase, 1995). Goffee and Scase (1995) found that employees in small businesses are assigned roles that contain a wider variety of responsibilities. The authors explain that employees in small businesses are expected to display adaptiveness and complete duties beyond the contract agreement, rather than the task-based duties that a larger business expects from their employees. Scase (2004) explains this phenomenon by arguing that employees who want to excel in their careers through small businesses look for labor that is discretionary, flexible, and diverse. Contrastingly, employees in larger businesses look primarily for work that leads to promotion, something that is not commonly offered nor expected by employees in smaller businesses.

Despite this, Hirsh et al. (2004) explain that career development plans are often vague or non-existent in most large organizations to the benefit of the employer. Additionally, Sahut et al. (2014) display scholars' debate regarding the different advantages of large and small enterprises regarding innovation. The paper concludes that larger companies have a resource advantage whilst smaller companies have, through a greater skill of opportunity discovery and successful exploitation, a better adaptiveness to innovation. However, the authors add that greater adaptation to innovation does not necessarily lead to greater economic success. A study on different sized SMEs from Australia was conducted and they also found that smaller enterprises, despite having less resources are more innovative due to executives putting greater emphasis on supporting their employees than larger enterprises, which in turn enables smaller enterprises to compete with large enterprise without copying their business model (Gray et al., 2003). The authors argue that the balance between being performance oriented and supporting employees in small enterprises is the leading factor, which is in accordance with Goffe and Scase's (1995) argument that the work at large organizations is more performance focused than in smaller organizations. Gray et al. (2003)

3.2 Importance of Competitiveness

As discussed in the previous section, the scholars' debates on differences between large and small companies indicate that the size of a company reveals different competitive advantages. These arguments are further explored in economic theory and organizational theories on resilience and innovation. These theories could be relevant for this research, where AI can be

perceived differently between small and large businesses as a means to increase competitiveness.

Larger companies, following economic theory (Cowen & Tabarok, 2015), are more competitive than smaller companies. The theory says that larger companies with more assets, or economies of scale, can produce more and lower the cost of each unit, sell it cheaper, and thus be more competitive (Stigler, 1958). Furthermore, larger companies have more resources and thus are able to take more financial risk, in order to out-compete potential threats on the market. So how can smaller companies succeed and show success? A common reason is its customer relation; suppliers of a niche but continuous demand; their rural location which gives them access to a small but exclusive market with potential customers; and the ability to adapt and leverage change (Ahmedova, 2015; Gray et al., 2003).

According to microeconomic theory, a company needs to produce products or services at a price that is competitive in order to survive in the market (Cowen & Tabarok, p.17, 2015). This is done by having a comparative advantage, i.e. being able to produce at a lower unit cost, enabling the firm to sell at a competitive price. Often, the comparative advantage is due to a lower opportunity cost. To put this theory into context, if for example, an AI program could replace 5 accountants for the same cost as 1 employee, the company would have a comparative advantage over its competitors as it can produce the same service at a lower production cost and thus offer better prices than their competitor. The company replacing the human workers with an AI program would thus have an absolute advantage as they can use fewer inputs to produce the same service and have a lower marginal product of labor (p.329).

3.2.1 Creating Resilience.

Another aspect of being competitive is being resilient to change and shocks (Hamel & Valikangas, 2003). Gratton (2014) argues that a crucial part of having a resilient organization is internal innovation. By continuously innovating the organization is not only opting to find new ways to operate the organization but it also allows for the organization to be open to change and be ready to evolve as the industry evolves. Innovation in technological products and processes is a key driver for organizational change due to the competitive advantage of implementing new techniques that increase efficiency (Bustinza et al., 2016). Thus, technological and resilience capabilities are positively related, while technological capabilities are simultaneously positively correlated to innovation capabilities (Gratton, 2014;

Bustinza et al. 2016). For instance, Gratton (2014) suggests that each organization should allocate time for its employees to brainstorm ideas and suggestions for improving operations. This creates an organizational environment where employees feel important whilst the organization in itself keeps up with new ideas and technology. The aforementioned environment is what Goffe and Scase (1995) found to be more prominent in smaller organizations. Contrastingly, larger organizations have greater resources to allocate toward innovation (Sahut et al., 2014). However, the cost of innovation is arguably much lower with the increasing access to free AI services (source). Furthermore, the relationship between large and smaller enterprises is also important for the innovative speed of an industry, where large enterprises purchase the innovation that often stems from smaller enterprises, making smaller enterprises very important for development (Gray et al., 2003).

3.2.2 Organizational Structure and its Complexity

Being innovative and continuously incorporating the newest technology into a company is competitive but not always practical and could even be more costly than beneficial. When organizations incorporate even newer technology, it is either created through internal innovation or bought from another company. For larger businesses, setting up such investments is both costly and time intensive (Arthur, 1994; Ch. 1). In turn, it creates a commitment to that technology and causes a technology 'lock-in'. Arthur (1994) argues that digital technology, due to its complexity of using hardware and software, requires large initial investments, creating a commitment and economic desire to decrease the unit-cost by capitalizing on the investment. The author also argues that the commitment is strengthened by the learning effects of using the investment. Using the investment increases knowledge which then can be used to develop the business further. These factors of commitment cause the technological lock-in which has two main effects; a) it causes a decrease in innovation as the need for new solutions is depleted by the commitment to the investment; b) perhaps more importantly, if new technology is introduced into the industry that fundamentally improves processes it can deplete the use for the initial investment and due to the commitment factors, managers may be hesitant to discard of said investment as there is already large commitments and expectations of return on those investments. The technology lock-in phenomenon is more present in larger organizations, as the size causes the investments to be greater in terms of cost and time as larger organizations have more people that need to either research, develop, and apply the technology or to understand and adjust if the technology has been prepared by another company.

An example of the negative effects of a technology lock-in is Blackberry (Moussi, 2017). They were the leading cell phone manufacturer, marketed towards people with aspiring careers. They provided what they called the handheld computer featuring a full keyboard, replacing the ABC-123 keys to your cell phone which made texting and emailing much faster and easier. Their innovation allowed business men and women to answer emails when commuting from and to work. Their investments in developing this technology and its success from it, created a lock-in situation where they were slow to change their business model and innovation strategy when their competitors Apple released their phone, with many desired features that focused on user-friendliness and intuitivity (Moussi, 2017). Consequently, what once was the leading company in their industry fell far behind and has not come near to regaining that position. Companies that survive are those who adjust to changes in the industry. IBM has done business transformations several times, for example when they transitioned from manufacturing typewriters and cash machines to creating computer hardware and software despite facing large economic difficulties (Cortada, 2019). The switch and adjustment to innovation and business developments were crucial to survive as a firm and to establishments as one of the largest companies today (Cortada, 2019).

3.3 Deskilling & Skill Biased Technological Change

Skill-biased technological change (SBTC) is when technological advancements are biased and complement a certain type of skills which alters the demand for skills in the labor market, causing a change in the organizational structure as some employees become more and less valuable for the operations (Frey, 2019). Deskilling is the phenomenon when technological advancements reduce or deplete the need for a type of skill, in turn making labor equipped with that skill less useful (Golden & Katz, 2007).

These are not new phenomena, with each industrial revolution having machines, robots, and computers of sorts replace parts if not entire labor markets for increased economic growth (Bonekamp & Sure, 2015). Technological advancements increase economic growth overall but raise the issue of a socio-economic divide in the form of SBTC, which historically has economically benefited more people than it harmed (Golden & Katz, 2007; Frey, 2019). However, the benefits tend to reach the capital owners first and over time, sometimes decades, reach the common people, especially those facing deskilling, causing a period of

discontent towards SBTC whilst real wages catch up. (Frey, 2019). Frey (2019) argues that the full benefits of the Industrial Revolution were not received until real wages and demand for new skills had caught up to economic development. Goldin and Katz (2007) argue that the divide regards the “race between technology and education”, meaning that education and skills need to continuously expand as technology advances. They conclude that jobs with flexible skills will sufficiently succeed in the long run, causing people who expect to benefit from the SBTC to approve of it (Frey, 2019).

However, Cappelli (2014), argues that this is not an issue of skill but rather an issue of skill mismatching. Cappelli addresses the increasing reports of skill gap, following years after the 2008 recession from companies a, by reviewing the data and finds that the opposite is true. Employees have more skills than what the job requires and unemployed possess skills but are unable to find a job that matches their skills. In short, Cappelli (2014) explains the increasing reports of skill gaps from employers as a consequence of a more frequent need and complex process of hiring, along with lobbyism to approach cheaper foreign labor.

Furthermore, scholars have shown that low-skilled workers were heavily replaced by the innovations that emerged from Industry 4.0 and it increased the demand for high-skilled workers, forcing an upskilling for employees to not become unemployed (Frey, 2019; Bonekamp & Sure, 2015). This evidence suggests that the competitive nature of SBTC could replace another wave of the human workforce. McAfee and Brynjolfsson (2014) make the parallel to how the steam engine continued to improve for decades before it revolutionized industries and started to replace the majority of the human workforce from factories, computers or “the second machine” continued to improve years, becoming faster, smaller, and more capable overall but has still been laughably poor in cognitive tasks. However, The authors explain that computers have greatly improved, through AI and the improvement of machine learning, in these tasks and what was unimaginable just a few years ago is now possible and available. Suggesting that a radical advancement of technology, in accordance with what Bonekamp and Sure (2015) wrote about, is in the works and that the labor force maybe shift towards organizations that value the development of their employee’s skills in order to be resistant to technological advancements and not be on the wrong side of SBTC in the short run.

3.4 Applications of AI

In order to know whether AI will cause a new need for organizations to upskill their employees in order to serve a purpose for the organization, we must establish what AI can do and what potential it has. As mentioned, artificial intelligence is set out to simulate human intelligence. It "trains computers to learn human behaviors such as learning, judgment, and decision-making" (Zhang, 2021, p.1). A key technical aspect that allows AI programs to become intelligent and display high levels of cognition is machine learning (Manning, 2020). Machine learning is the technical process of learning from previous data points. With more data to analyze the computer can start to see trends and patterns, and in turn predict future outcomes or make decisions on what to do with new data without micromanagement from humans. This then enables computers to improve their decision-making as more data is collected.

This is the main concept for OpenAI's program, ChatGPT, which has scraped all information from the internet in order to create an extremely cognitively skilled tool, in possession of the majority of the knowledge on the internet and will take decisions based on it (Biswas, 2023). Another practical example of AI tools is Grammarly. In contrast to regular spelling programs, that follow a predetermined set of rules, Grammarly analyzes the way you write and makes suggestions to fit your own personal style in order for the text to be more cohesive (Fitria, 2021). There are also generative AI tools, able to produce images, code, text etc. A popular tool for image generation is Dall-E, which can produce images from text (Zhou et al., 2023). The author explains that the AI program analyzes the prompt you give it, triangulates to images that have been described similarly to the prompt, and generates an image based on some sort of average of those images. They give the user three images to choose from, which allows the program to learn which image best matches the description based on what image the user chooses (Zhou, 2023).

Earlier chapters discussed that AI based services and technology were increasingly being used in all types of industries. Now does this mean that we will not need programmers, doctors, and stockbrokers in the future? Frank et al. (2019) say yes, no, and it depends on the organizational structure. The authors stress that a new AI service only alters that specific demand. Additionally, the job requirements are not static but change as technology changes, meaning that the demand for human labor depends on the job requirements and how they

change with technological advancements (Frank et al., 2019; Frey, 2019, Ch 1). The authors conclude that if the job only requires singular tasks, they are more prone to be replaced by AI services. Hence, the resilience to be replaced by computers with AI services is heavily dependent on the organizational structure. If the employees in an organization are densely connected, meaning that employees work and communicate across different sectors of the organization, they are more resilient (Frank et al., 2019). The intra-connectivity in an organization is in turn dependent on the industry and the size of the organization (Frank et al., 2019; Goffee & Scase, 1995; Scase, 2004).

Nevertheless, scholars generally agree that AI technology will both be labor destructive and enabling but that it is, due to its capabilities, hard to predict when and which jobs it will affect (Frey, 2019, Ch 13.; Frank et al, 2019; Howard, 2019). Some are more optimistic and believe that the slow nature of industry restructuring will create an overlap between labor replacement and labor enablement that limits the time span of negative effects, whilst others point towards the history of SBTC which caused decades of net-negative effects (Frank et al. 2019). Frey, (2019, Ch 12) stresses the fact that the effects of technological advancements of AI might not behave the same as previous development.

3.5 Substitution versus Complementation through AI

AI's capability of replacing the human workforce has been acknowledged for a few years already. Chui et. al's paper from 2016 reviews what jobs machines are capable of replacing humans in at the time and what jobs they will be able to replace in the future. The authors mention artificial intelligence as a tool that can greatly increase automatization in the future and argue that "One of the biggest technological breakthroughs would come if machines were to develop an understanding of natural language on par with median human performance" (Chui et al., p10, 2016). Compared to other computer programs, AI technology enables computers to conduct tasks that demand cognitive understanding. In other words, artificial intelligence allows computers, not only to store data but learn from it to complete tasks autonomously which ultimately allows computers to make human-like decision making and solve new problems based on previous knowledge (Karkowski et al., 2020). These cognitive and analytical skills are, according to the World Economic Forum (2023) the most desired by many employers in 2023 and are mostly relevant to service-based industries.

Scholars are torn on whether AI services will complement the current workforce to make them more efficient or completely replace some jobs, Karkowski et al. (2020) compare the different arguments. The substitution argument is based on the cognitive limits of humans. Humans can learn and train cognitive skills to a high level, but it takes a lot of time causing a steep opportunity cost of scaling a human's cognitive capability, something a computer using AI technology be taught to do much faster (Helfat & Peteraf, 2015; Shrestha, Ben-Menahem, & von Krogh, 2019). AI's potential to produce, the aforementioned, comparative advantages in a competitive environment is believed by scholars to trigger substitution, effectively causing a deskilling of these cognitive competencies. This deskilling would cause substitution for routine work that requires cognitive skills that AI based systems possess. An example of this is the aforementioned case of Klarna, who replaced 700 employees with an AI based customer service, responsible for guiding customers through the company's chat function (Klarna, 2024). The CEO of Klarna stated that one-third of the customer service is still run by humans, but hints that more may be substituted as the AI's capabilities keep improving (Klarna, 2024).

In contrast, the complement argument describes areas where humans and AI technology complement each other with respective strengths and weaknesses. One view is to divide a task into subtasks that split into different work areas. For example, a doctor can keep the patient stabilized whilst the AI runs an analysis on the test to suggest an action (Talby, 2019). Another suggests that they work together. In the previous example, the doctor would supervise the machine to control for any machine bias (Talby, 2019). This suggests that for example, generative AI could, as seen in other industries, perform tasks that are data and time intensive, whilst the human employee supervises what the AI produces to check for any false information, biases, or irrelevancies. Furthermore, Cioffi (2020) show, by analyzing trends among 320,000 AI related patents, that a major use for AI technology is for effectivization purposes of current operations and processes. The author concludes that major trends for AI usage are data processing, result analysis, resource effectivization, and forecasting. The aforementioned case of Klarna is one example, which indeed was a substitution for the two-thirds that got laid off. However, the remaining third who kept their jobs can be seen as SBTC and complementing the lacking capacities of the AI. In the hospitality industry, AI based service allow for accommodation owners to predict the occupancy of rooms based on previous data allowing employees to adjust labor, for example cleaning staff, accordingly (Kılıçhan et al., 2020); the same forecasting idea is applied, through AI technology, in the

sustainable energy industry (Ahmad et al., 2021); data summarizing is used in the finance industry (Zhang, 2021). This shows that AI based technology can simultaneously act as both a substitute and complement to human labor, obtaining characteristics of being SBTC and deskilling.

The debate displays that there is no clear answer to whether AI will act as a substitute or complement, but there is a consensus that it depends on the context of the task. The context does not only include the type of industry or the task that is performed but also what environment. As established in this section, determining factors other than industry include the complexity, size, and interconnectivity of the organization. Is it difficult to imagine an employee in a small start-up company playing around with different AI tools to complete a task or solve a problem? Is this scenario less believable in a global corporation, like an international bank, with thousands of employees and strict praxis on what programs and digital tools are allowed to be used? Regardless, the literature is lacking in the area of using contexts other than the type of industry (Lee et al., 2018; Lamberton et al., 2017; Murugesan et al., 2023; Ruel et al., 2020; Sina, 2024; Sharifi et al., 2021; Chen et al., 2023; Kılıçhan et al., 2020; Ahmad et al., 2021). Thus there is not any clear consensus on the research topic presented in this paper. This is another reason to explore the differences in adopting AI in large versus small organizations, which is where this research paper aims to contribute to the literature.

4. Methodology

4.1 Research Design

This study is set out to understand the different impacts of implementing AI based services on the organizational structure in larger and smaller organizations. To conduct this research, guidelines of what smaller and larger companies were needed. The research uses the OECD definition of small and large enterprises as guidelines, complemented by the interviewee's own contextual perception of their organization's size. For this research, a small organization is defined by the number of employees in an organization. The amount of employees has to be between 10 - 49 following the OECD's definitions of SMEs (small and medium-sized enterprises). Following the same definitions, a large organization has 250 or more employees

(OECD, 2024). Since this is a current phenomenon and still evolving, the results of this study may contribute to the literature and indicate the future of the socio-economic environment.

Current literature regarding AI's impact on organizations is generally industry focused. Not having fully developed, decisions that will steer the future of AI services are still to be made. Hence, this research will investigate how the organizational leaders reason regarding this phenomenon to get an idea of what role AI services will play in organizations in the future. Since my research aims to assess where small and large businesses differ in their adaptation to AI and how leaders of these organizations reason for their adaptation to AI services, this qualitative research will be based on semi-structured interviews with organizational leaders from the private sector.

Additionally, the interviewees will be working for organizations within the service-based industries. This is because, as mentioned in the literature review, AI at this stage of innovation can perform cognitive, analytical tasks based on large datasets, something that is largely desired in service-based industries. Additionally, service-based industries make up most of the world economy (World Bank, 2022).

4.2 Data Collection and Material

This research collected primary data by conducting interviews with organizational leaders from different sized companies that all operate in a mix of serviced based industries within the private sector. The interviews were conducted in a way that views the interviewees as experts on their organizations who explain what they believe would be the correct response to the increased popularity of AI services for their organizations. For the interviewees to be qualified for this research, they were required to have responsibilities in planning organizational structures, processes, and operations. In other words, the interviewees need to be involved in constructing and strategizing the future of the organization. Due to the lack of official titles in smaller organizations, this refers to top-level management. For large organizations, this includes positions such as CEO, CFO, HR management, and any other positions responsible for strategizing. Each interviewee will be asked a set of questions regarding their position, responsibility, and organization to ensure that they fulfill the aforementioned requirements.

The aim of the questions, which can be viewed in Appendix A, was to understand how the organizations have and will approach AI. Thus, the questions were formulated so that the interviewees answered how they currently use AI. Furthermore, when asking about the future and general view of AI in their organization, the semi-structured interviews allowed for the managers to freely talk about the subject matter and not limit their answers. This allowed the interviewees to bring up new perspectives, examples, and specific reasons for why they believe a certain change has or will be made. However, in order to use the interviews to compare different sized organizations the interviews need to be somewhat structured for the interviewees to stay on topic and for the answers to have comparability. Furthermore, since the interviewees are located in different cities all interviews were recorded and held online so that the interviews are as similar as possible.

Additionally, primary data was also collected through experiences that the interviewee shared, who is a researcher of global leadership and entrepreneur of a company that has since 2002 specialized in helping large organizations that operate globally to assess their organizational structure and need for managers when facing any sort of change, whether it be transformation of the organization, restructuring, technological advancement, or scaling the business. This interviewee has helped global organizations namely IBM, Coca-Cola Company, Mitsubishi Holdings, and Nippon Express to name a few. This data gives greater insight into the impact that AI has on larger organizations and acts complement to the data collected from interviews with managers from the larger organization.

Companies were contacted via email for a declaration of interest to participate in the research. Without any interest, the researcher moved on to their personal network which included both previous employers and employers of friends, classmates, and family. The researcher also reached out to LUSEM career services for contacts to any partners without any response that included contact information. These efforts led to five, 45 minute, interviews with individuals that fulfilled all aforementioned requirements. The interviews were held between 10 April 2024 and 2 May 2024 and were conducted and recorded online through Microsoft Teams and Zoom. Some interviewees supplied contact information for potential participants of the study but did not lead to any additional interviews. Prior to the interviews, emails were sent out to each interviewee to inform about the aim of the study, conditions for the interview, declaring the anonymity of the interviewee, and handling of the data collected from the interview. The recorded interviews were first transcribed using

Whisper and then audited by the author before being used for the results and analysis for this research. The transcription resulted in 66 pages of data.

The research will be limited to the private sector and not conduct interviews with organizational leaders in the public sector. The main reason is that the laws and regulations differ greatly between private and public organizations, which inevitably creates different factors that impact decisions and adaptation to innovation and AI services. Furthermore, focusing on the private sector narrows the scope of the research which will make the results more conclusive and precise. However, the selection of interviewees will not be limited to a specific service industry that they work in. Since the research intends to show any potential contrast between how leaders of larger and smaller companies have adapted and plan to adapt to the rapid advancement and capability of computers and machines. Tying the research to a certain industry limits the scope of the result as this advancement is used in most industries (Forbes, 2023), and such research would not contribute as much to the literature as it has already been done before. This research instead focuses on how the size difference potentially impacts the approach. Another reason is that limiting the research to a specific industry would drastically limit the chance of reaching a substantial amount of potential interviewees willing and available to partake in this research.

4.3 Data Analysis

Each interview was divided into four sections through color-coding that were context specific. The first section included information regarding the interviewee's work experience, position, and responsibilities. Additionally, the first section included information related to the organization, the industry it operated within, amount of employees, and the contextual size of the organization as interpreted by the interviewee. The first section controls that the interviewee fills the requirements in regard to the scope of the research. The second section included information regarding the interviewee's knowledge, familiarity, and experience of AI. Data from this section includes how the interviewees describe and define AI, how they have used it privately with specific examples and names of the AI services. The third section includes data of how the managers have experienced the impact that AI has had on their organization. This answers how the organization already uses AI, what changes/adaptations have been made or are planned due to AI, whether they have had internal discussions regarding AI, etc. The fourth section includes data regarding the interviewees view and

opinion of AI. The interviewees share how they want to approach AI going forward, what areas in the organization where AI fits and does not fit, how they believe that AI will change their business and industry, and how AI will coexist/cooperate with the human employees (complement vs substitution), what qualities that are preferred in a future were AI usage increases. Constant memoing during the sectioning was done to keep record of any interesting information.

Sectioning each interview allowed for cross-examination of each interviewee's answer and reasoning for each respective section. By looking at keywords, topics, and themes the interviewee's answer could be analyzed with regards to the organizational context. The memoing allowed us to recognize patterns, correlations, and connections. When the sectioning was done, the pattern's relationship to the theoretical framework was then investigated. The investigation allowed for the research to reach conclusions and answer the research question.

4.4 Limitations

The interviewees are managers in companies, hence it is reasonable to assume that these individuals have reason to maintain a reputation. This introduces the possibility for personal bias if the interviewees alter their answers with regards to the reputation and would in turn give biased data that would harm the quality of the research. By declaring the interviewee's anonymity the incentive for personal bias is countered as they know that what they say will not be traced back to them or their organization.

The interviewees are considered experts on operations for their respective organizations, however, they are not necessarily experts on AI. Some may argue that this limits the research as they do not know the full potential of AI services and their plans of organizational change will be limited to this knowledge. To give insight, the interviewees will be asked questions regarding their knowledge of AI. Nevertheless, they are still responsible for the operations of their respective organization, regardless of their knowledge about AI.

Creating a definition for a small and large organization is another limitation of this study. Despite using existing definitions of these terms (OECD, 2024) for this study, what separates a larger from a smaller organization will always depend on the context. In smaller, more

specific industries, a large company might be considered a small company in a larger context. This creates a limitation as they have to be interpreted. As mentioned in the method, by asking the interviewees about the amount of employees and what size they consider themselves as in their own context, I can conduct a cross-analysis using the OECD definition together with the organizational context to defer this limitation.

5. Discussion & Analysis of Findings

The results of the interviews will be analyzed in five different sections, each covering essential areas to answer my research question. Each section will be directly followed by a discussion of the topic with relevant references to the literature review.

5.1 Description of Interviewees and the Corporations

Interviews were carried out with representatives from five different corporations. They were all in positions that were relevant to this research. Every interviewee was either the CEO of the company or managed a substantial part of their organization. Their positions could all be regarded as top level management. The size of the corporations is also essential for my research question. The interviewees were asked to define the size of their organizations in relation to the industry they were operating in. Four out of five interviewees regarded their businesses as smaller sized companies and one regarded themselves as a medium to large organization. All companies operate in different sectors of the service industry with a wide range from digital media marketing production to storage relocation services. All companies operate towards the private business clients, two companies also have clients from the public sector. Each corporation and its representative is introduced below. The names of the interviewees have been changed to maintain anonymity and decrease the impact of personal bias to the research.

Alex is the CEO of a moving and warehousing company in the Stockholm area. The business was founded 3 years ago and manages a total of 9 employees. Alex describes the company as “pretty small” when compared to their competitors. Alex is responsible for all development, employees, and operations.

Bobby is the CEO and founder of a company that supplies the Swedish Unemployment Agency (Arbetsförmedlingen) with labor opportunities since 2021. The company has 45 employees and four departments, each with a manager who reports directly to the CEO. Bobby describes the company as a smaller company among 219 competitors and describes companies with 100 or more employees as the size of a medium-large for their industry. Bobby's main responsibilities cover the overall development, growth plans, and investments

Claire is the founder of a digital marketing company and describes the position as the “chief accountability officer”. The business started in 2020 and with today’s total of 10 employees, Claire described the company as small but aims for rapid growth. Claire’s main focus is making sure that their operations go smoothly by holding staff accountable and providing the necessary tools to do their jobs.

David is part of the top level management in a company supplying public authorities with collectively purchased goods and services. As the COO, David is responsible for all corporate shared functions covering the economic department, digitalization department, and HR. David manages about 25 employees out of a total of approximately 200. David describes the company as medium-large size within their sector of the industry..

Earl is the founder and President of a company, started in 2001, that offers training and leadership assessment services to global corporations in need for global and intercultural managers. Through his long experience of leadership development through multiple transformation phases for the past decades, I will take the opportunity to use the findings from this interview for two purposes: First as findings from a manager of a small company of 9 employees, equivalent to the other four interviews. Secondly as an expert interview, where Earl shares the insights and experiences from a vast number of companies and their sourcing of future leaders and knowledge to face change. This is specifically relevant when touching questions about AI and employment. Earl has worked with companies such as IBM, Mitsubishi Corporation, and Nippon Express to find managers for their global operations. The aforementioned companies all have over 20,000 employees and operate globally. For that reason, his expertise will also be relevant to complement knowledge on how large organizations operate.

The results show that all interviewees have relevant positions and responsibilities that is within the scope of this research and are thus able to provide relevant data from the perspective of different sized companies within the private sector of the service industries.

5.2 AI Knowledge and Awareness.

To set the AI scene in the interviews my initial question was how they defined and perceived Artificial Intelligence as of today. Among all interviewees, the awareness and knowledge regarding AI were fairly similar and they all referred, in one way or the other, to the recent increase of access and use of generative AI. Everyone was familiar with Chat GPT and have used it both professionally and privately. As Claire states: “The most common, Chat GPT, can do anything (...) I use it mostly as my personal assistant, spitball questions I don’t know and it helps me write texts, write emails so that it looks professional.”

All interviewees display a fairly good perception of what AI is in general. For instance, Alex says: “So my understanding of AI is that it is an application platform that is capable of learning. It learns by taking information that it had, it already has within, within its database or by information that you feed it (...) the other part of AI is that it can learn from what you've provided. That is, it can increase its capability and then it works independently of you to do what you ask it to do.” Although they use different terminology to describe what it is and how it works, the interviews show that AI is at the top of mind for business managers regardless of the size of the companies they represent.

All interviewees said that they had used AI services privately, either in the form of simple spelling/grammar programs such as Grammarly or Chat GPT to produce training schedules, comparing insurances, producing songs, stories, speeches or other forms of texts. This displays that all interviewees are aware of some of the capabilities of AI, has a general idea that it processes and analyzes data to produce an output based on the limitations that it is given. Furthermore, this also shows that some of the benefits from the technological advancements, in the form of AI based services, have already trickled down to the average worker. This insinuates that, in contrast to previous SBTC which diverged the skilled and unskilled labor, advancements of AI based services are perceived to increase the skill of unskilled labor and may converge the skill gap to skilled labor (Frey, 2019). Scholars argued that the varied properties of AI make it difficult to predict how it will affect labor markets,

but also agreed that these properties may alter historical trends of SBTC (Frey, 2019; Frank et al., 2019). Additionally, being that AI has reached the average worker, inevitably it is something that companies need to adapt to and cannot ignore, in regards to both employees and customers.

5.3 Organizational Use and Adaptation of AI

Turning into the part in the interviews where the research explores if and how AI is being used in their organizations today, the answers start to diverge. But first, all interviewees confirm that AI is in fact being used in their day-to-day business to some extent. The general purpose for all businesses of their usage is for the effectivization of their operations. Whether it is for summarizing data, editing videos or writing contracts. Bobby explains that “It is not as if we have changed our entire processes but more streamlined parts” “To produce the conditions where everyone gets more out of their own time and get better quality, increase efficiency through AI.” Additionally, Claire states “We become more efficient in what we do. We produce more with less time thanks to AI”.

But when further comparing and analyzing where and how it is being used the result shows that there are differences in terms of outcome. Alex, Bobby, Claire, and Earl describe how they, in their respective companies, are using AI to produce content in terms of e-mails, videos, program code, etc. For example, Claire states that “We use AI for content creation, video production, voice recordings, and more. So we actually use AI a lot in our daily work.”

David and Earl, on the other hand, stick with the description that AI in a more mature organization is closer to a virtual assistant, who assesses, concludes, or suggests ideas based on data they provide in order streamline processes.. As David states “we have started, for example in the legal department, to use LEYA (AI assistant for lawyers) to read and control drafts of contract terms (...) they have really saved a lot of time”.

The analysis of the interviews also shows that none of the companies involved have yet used AI to fundamentally transform their business operation with the help of the technology. When it comes to the fundamental pillars of the processes the interviewees insinuate that AI is not part of it. Bobby says that “If you look at the entirety of our business, then so far we have not incorporated any fundamental changes towards an AI agent. We have not done a *Klarna* and automated our entire customer service”.

Among the selection of companies being part of this study, the analysis of how AI is being used today in their companies does not find any significant differences when comparing the size of the organizations involved. This aligns with Cioffi (2020) stating that AI is mainly used for the effectivization and streamlining of operations. The expert interview with Earl shows however that large global industrial companies have already incorporated and scaled AI into their core production processes, using advanced robotics, etc. But the business idea seems to stay the same. It is still to be seen whether and how this disruptive technology will transform the industries represented in this thesis. However, the findings along with the literature suggest that the driving force of adopting AI tools in businesses today is effectivization.

5.4 Managerial Approach to AI and Future Potential

Moving on to the findings about how managers view and want to approach AI, the findings show that all interviewees display encouragement of engaging in AI and new technology in order to develop their respective businesses.

Bobby states “One thing is that I feel a strong motivation to make sure that we capitalize on AI and many in our firm are inspired to do it to a greater extent”. Bobby later explains that they are involved in an innovation project. It is looking to create an AI that can simulate being at an interview using a virtual reality headset and an AI program that acts as the interviewer. “We are not really there yet....but if we were to get there it would give us access to more industries”. For Claire, adapting to and using the opportunities AI offers is now a central part of their development strategies. “Each week, we go through this week's AI-tool and present what it does. Then every month we try one AI-tool in the company and then evaluate it. We also attend a webinar regarding AI each month.”

Both Claire and Bobby seem to integrate AI in their business with an innovative approach where they explore and evaluate on a regular basis and they seem convinced that their approach will give them competitive advantages. Claire “If one person can do a job and be as productive as 5 people thanks to AI. No company will say no to that. That is exactly what AI allows. That is why I, who runs a firm, believe that it is really attractive and more so lucrative.”

Claire and Bobby represent smaller sized companies. Their approach to innovative technology seems to imbue the whole business and affect everyone. AI has become the engine for new business opportunities. David on the other hand, representing a company of a different size and maturity, doesn't seem to pursue AI as the fundamental driving force for change. The management creates an environment that encourages an innovative approach to AI to happen naturally, but does not force it: "We have conducted seminars about AI and conferences to create internal curiosity (...) I see the legal department is doing it internally, but there are other departments that would need workshops regarding it (AI)".

Claire explains how the AI they use can, from a previous marketing video, recognize and recreate the same voice that speaks in the first video. They can then let an AI write a script for a commercial, based on ideas from previous spitballing with the AI, that is produced and then voiced over with the interviewee's voice that the AI has generated.

"We use it (AI), we study it, and we test it." *Claire*

"You are really on top of things then?" *Interviewer*

"Yes, you don't have a choice. Otherwise you are slowly but surely going to die." *Claire*

Larger businesses in my research do not seem to have the same transformative strategy connected to AI when analyzing how David and Earl discuss the matter. Instead, they tend to regard AI potential in terms of more effectivization of their existing business. David says that AI will be used to effectivize their paperwork, that it has already helped in the legal process and that the potential for AI is to make work easier and faster for their employees. "I don't think we are ready to have a pure AI service, but I definitely believe that it can help. Yea, like where we have a lot of manual resources to do large (...) volume control". The view is shared by Earl when speaking in the context of large organizations developing AI agents inside a company. Earl's main concerns regards the capability and independence of AI. The interviewee makes the example of teaching someone how to cook, if you leave that person for a few months the dish will be cooked differently, because the person will make its own evaluations as time goes by and adapt the recipe. Now replace the cook with an AI service. In that sense, Earl believes that large organizations must have humans that audit the output of any potential AI agent: "I also think that that is kind of where we're moving towards. Humans controlling what the AI produces (...) you have to monitor to make sure that it doesn't enhance its capability in the wrong ways".

These findings suggest that size of the business causes differences as managers of larger organizations seem more hesitant to let the use of AI be transformative as it may change or disrupt what has been built already. This goes in accordance with the simple idea of not fundamentally changing a process that is already working, which the previous growth to eventually become a large organization is proof of. This may be explained by the corporate environments that larger businesses tend to have (Goffe & Scase, 1995; Sahut et al., 2014), the technology lock-in phenomenon (Arthur, 1994), or both. Whilst the results show that smaller organizations see how AI can excel their business by it being a fundamental part of it and being more open and flexible to change.

These results imply, in accordance to Gray et al. (2003) and Sahut et al. (2014) arguments of adaptation to innovation, that smaller companies may tend to faster adapt and adjust their strategies to technological advancements and AI-opportunities in this case. The smaller businesses show intentions to make AI a fundamental part of their business, where the innovative culture speeds up the adaptation and business transformation. The reason for this may be explained by complexity of larger organizations as shown/argued by previous research. This is supported by the argument that smaller businesses create resilience by continuously innovating, whilst large businesses can rely more on the resource advantage (Bustinza et al., 2016; Sahut et al., 2014).

Furthermore, in regards to the approach of AI being dependent on industry, the findings of this research also aligns with previous literature. Literature shows that the type of industry affects the adaptability and approachability of AI (Zhang, 2021). Alex, the CEO of a moving company, expresses the complexity of incorporating AI in manual labor as “it is very physically demanding and (...) I think it will take a lot of years before an AI can do a lot of physical work in the same ways as a human”. He continues by suggesting that they will possibly use AI for marketing, calendar and the directory but not the fundamental part of their business. It makes sense that Claire, founder of a digital marketing company then says “That would be my vision for what we do. Practically nothing is done manually, 95% should be done with the help of AI”. Clearly showing that the intent is to use AI tools at the very core of their business. Similarly, the CEO of the employment service company earlier explained how AI tools is not a fundamental part of their business, mainly for effectivization, but later explain “I hope in that timeframe, three, four years (...) then I hope that we have at least one department of operation is fully AI-based where we have an income generative leg that runs

and is developed by AI". This is in line with Frank et al. (2019) research that the approachability of AI based services also depends on the industry of the company, where digitized industries can adopt AI services to their core whilst industries that are not already digitized can not to the same extent.

5.5 AI and the Workforce.

Bobby states: "We humans are replaceable. I think our role is to serve the AI, but right now we are in a situation where we are working the other way around. I ask how generative AI can effectivize our work, but I believe that that is a pendulum that will swing the other way".

Despite having different views on how AI services will be implemented and change the operations in the organization, I find that all managers initially give similar answers when I ask them whether they view AI as complementation versus substitution to their labor force in the future. They argue that they mainly view AI as a complementation. However, upon analyzing the interviews in its entirety, it seems that they view AI as both a complement and substitute. Alex seems convinced that AI will be more of a complement, since he argues that the moving services can not as an industry transform into an AI business. The company will still need a labor force to move furniture. Alex suggests that AI can also cut down on external partners, for example in marketing, which could be considered as substitution as the consultants would then be substituted by an AI based solution. Claire states that "We have always seen AI as a complement... It has been more like this, that it helps us create and make everyone in the team even better", thus arguing that AI will increase efficiency in the form of AI complementing Claire's employees. However, Claire's previous statement about having 95% of all work should be done by AI, insinuates a substitutionary vision for the company.

David first says "No, I say that it is more like a help to the employees. A new tool with the purpose to effectivize work." But when being asked if we are moving towards AI substituting employees, David replies "I actually believe so, (...) this is probably just the beginning and more AI-agents or -assistants will be able to replace people eventually."

Earl claims that the AI's capability of replacing humans depends on the work to be done. With each AI tool another service and capability will be unlocked. If the AI unlocks all skills of what an employee does, then it will be replaced. But it then creates new processes that need to be monitored, managed, and coordinated with all tools.

As previously mentioned, the managers generally express that AI is and will remain a complement to their existing employees and not replace their employees with an AI. This shows trust and loyalty for their employees which is reasonable considering their personal connection to them. However, the data shows that the size of the business was somewhat correlated to how the managers view the problem, where managers of smaller businesses are leaning towards not hiring new employees and use AI instead, effectively replacing future employees with AI and could arguably be considered a substitution. Claire's description and view nicely summarizes what the smaller businesses insinuated, which is that they can postpone their employment when scaling as the current employees are capable of increasing their output with AI.

“What has changed is when we are onboarding more employees (...) when we look at where we are today, the amount of projects we have then it is not relevant. Maybe when we have 20 active projects at the same time, maybe then we need someone who knows copywriting from the ground up so that he can leverage AI to do all the projects.” - *Claire*

None of the interviewees expressed any particular changes, caused by AI, in what capabilities they are looking for when searching and hiring new staff. The general take was that they always look for a diverse set of capabilities, and hinted that AI may have increased lookout for tech savvy and social capabilities, whilst still respecting that we all are different. Bobby claims that “In order to grow, get the right competence then we need to be able to attract and capitalize both on the target group that is excited for innovation and AI and so on. But also find a way where we get effective development for the people who aren't there”.

Furthermore, Bobby adds about approaching organizational transformation by stating “I think that many firms, historically, do it wrong when making changes. That is making a change and forcing everyone to make the change all at the same time. Then some are going to be excited and some will think it is hard or annoying.” Displaying value in employees that drives innovation in general, whether that is through AI or any other area.

The findings of my research aligns with the literature stating that AI will be both labor enabling and labor replacing which makes it more difficult to predict whether AI based tools will be used to complement, substitute or create jobs. (Frey, 2019; Frank et al., 2019). Earl points out that jobs at global corporations that demand a level of social skills will be harder to

replace as he believes that AI will lack trust from humans in that aspect and often entails multiple tasks and expectations that are outside of the current capabilities of an AI tool or service.

The difference that can be noted here is that size and maturity seem to impact how the business leverages AI. The managers of smaller businesses insinuate that utilizing AI makes it possible for them to grow their business without the cost increase of hiring more employees, allowing them to be more competitive and using a different growth strategy (Cowen & Tabarok, 2015). They express the importance of internal motivation driving this development and actively motivate their employees to do so. By increasing their internal competencies, they can leverage AI to grow their business and compete with competitors with more resources. That in turn will lead to a fundamental development for their business to grow and expand, as well as assist with their current operations.

Contrastingly, larger businesses seem to leverage AI to assist their current employees to smoothen their current operations. This may be explained by the organizational structure and environment. In accordance with Goffe and Scase (1995) larger organizations tend to be more static causing change and incorporation of new technology to be slow, insufficient, costly and without the promise of return. This raises the importance of having an interconnective and flexible organizational structure which both increases the susceptibility of innovation and resistance towards change (Frank et al, 2019; Gratton, 2014). In the same sense, smaller organizations are less static, and employees are less constrained to their given tasks, giving them the opportunity to experiment with new technology and innovation. It shows that size and maturity of the firm is a factor to the level of aspiration of using AI as leverage and to innovate for the future.

From the findings of this research, AI does not seem to affect what kind of capabilities the managers from this study seek when employing new staff. Bobby's statement is in line with the arguments of Gray (2003) and Goffe & Scase (1995), that smaller businesses generally have a more flexible approach to organizational structures that can move in and adapt to the external factors, i.e. the availability, usage, and demand of AI based services. Whilst the mere size of larger organizations makes this harder as, even if only a single department of the firm changes, there are a lot of people that need to adjust to the change which again goes back to the complexity of larger businesses.

6. Conclusion

This thesis started by acknowledging the impacts on organizational structures and operations caused by technological advancements in AI based technology, along with theoretical differences between how smaller and larger organizations operate and are defined. In considering the increased usage and application of AI in organizations in recent years, this research aimed to explore the potential differences in managerial approach and view of adjusting to this increase between larger and smaller businesses. To reach this aim the following research question was formulated and answered through semi-structured interviews with managers of different sized businesses:

RQ: How do upper management of different sized serviced based companies in the private sector perceive the impact that AI based services have on current and future organizational operations?

The findings suggest that current applications of AI based services are not significantly dependent on the size of the firm. The managers that took part in this study all have applied some level of AI application to their business operations and mainly use AI to effectivize current processes. The results, along with the literature, show that effectivization and streamlining processes is currently the main application of AI technology. The findings also suggest that the application of AI technology is dependent on the industry the business is operating in.

Furthermore, the results suggest that there is a significant difference in the vision for how AI can transform business operations between different sized firms. It seems that larger businesses tend to stick with the effectivization aspect of AI application, whilst smaller businesses see the transformative potential that would enable them to compete with larger businesses in their industry. This may be explained by previous literature, suggesting that larger organizations' structures are more vertical, static, and less adaptive to change due to their size and the organizational environment that generally comes with it. Contrastingly, previous literature suggests that smaller organizations generally create a structure that is more

prone for innovation and in turn become more adaptive to change, despite having less resources.

Additionally, the research suggests that company size slightly affects how managers view AI in the context of the labor force. The results insinuate that managers, regardless of size, want to apply AI in a complementary fashion instead of substitutionary. However, it seems that this view primarily is in consideration of current employees. Furthermore, the findings suggest that managers view AI as an opportunity to grow the business without employing more people, effectively substituting future employees that perhaps would, without AI development, be hired. This idea was displayed from all managers in this research, but more present among managers of smaller sized businesses.

Lastly, since the findings from this research was concluded using a relatively small sample size, future research will be necessary to further investigate the implications of the importance of company size in AI adaptation and approach. This could involve a sample size that allows for several smaller and larger businesses in the same industry to control for industry dependency. Regardless, the research has further introduced signs that company size may be a determining factor to the approach of AI based services and in turn the development of businesses, which display the need for further investigation on the topic.

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Appendix A

Questionnaire for Semi-Structured Interviews.

Questionnaire for Managers.

Soft introduction questions

- a. How have you been?
- b. Have you done anything fun lately?

1. Assessing the interviewees expertise

- a. What company do you work for and what industry are they in?
- b. Would you define your company as small or large?
- c. What is your position in this company?
 - i. What responsibilities come with that position?
 - ii. How many people do you manage?
 - iii. How long have you had that position?

2. Assessing their knowledge about AI (extend this part)

- a. Do you know what AI is?
 - i. Describe AI and how to use it.
 - ii. Do you use grammarly, chat gpt. or any other tool?
- b. Do you use AI in your personal life?

3. Assessing the usage of AI in the organization?

- a. From your experience, how has AI impacted your organization? LEJA AI for lawyers
- b. How do your organization, department in the organization use AI-services?
 - i. IF yes:
 1. when and why did you start using Ai services to complete tasks
 2. Specifically in what ways do you use AI services in the company?
 - ii. IF No
 1. Why are you not using AI services?
 2. Have you had a discussion with your colleagues about using AI services?
- c. are employees allowed to use AI and in what ways?

- d. are competitors using AI in any interesting ways
4. Visions for the future
- a. Do you believe that the company/organization will increase, decrease the usage of AI services or about the same as today.
 - i. Why do you think that?
 - b. How do you think that AI has impacted the employment process?
 - i. Has it changed what qualities you look for?
 - c. In what ways do you regard AI as a replacement for Human employees?
 - d. In what ways do you regard AI as a complement for Human employees?

Questionnaire for “Earl” - Organizational Structure Expert.

2. Soft introduction questions
- a. How have you been?
 - b. Have you done anything fun lately?
 - c.
3. Establishing the interviews expertise
- a. Could you briefly summarize your professional career for me?
 - b. Where do you work currently?
 - i. What does the company offer to their customers?
 - ii. What is your responsibility within the company?
 - c. How have you helped larger organizations be successful?
4. Assessing the key factors for organizational success
- a. In your experience, what do you think are the most important things when considering organizational structures for a company to be successful?
 - i. Are there any companies where this doesn't apply?
 - b. When adapting to change, what are the most common difficulties organizations face?
 - i. What advice do you give to that answer?
 - c. What would you say is the biggest difference between large and small organizations?
 - d.
5. Assessing their knowledge about AI (
- a. Do you know what AI is? describe AI and how to use it.
 - i. Do you use grammarly, chat gpt. or any other AI-tool?
 - b. Do you use AI in your personal life?
6. Assessing the impact of AI on organisational structure.

- a. How do you think AI tools and services impact organizational structures?
 - i. Do you think that this impact differs between large and small organizations? Why/Why not?
 - ii. In regards to adapting to and applying AI services into an organization, what are your biggest concerns?