Transformational leadership and AI adaptability

A qualitative study investigating how transformational leadership style influences employee adaptability and innovation in the context of AI-driven organizational change.

FIRAS DANIL

AIHAM AL-SHARIFY

Bachelor Thesis

Stockholm School of Economics 2024

Abstract

With the rapid development of artificial intelligence, organizations globally are starting to pursue AI-transformation. Just like with other changes, AI-transformation comes along with some challenges, specifically given its impact on work tasks and employees in general. The aim of this study is to explore how transformational leadership influences employee adaptability and innovation in the context of AI-driven organizational change. We have conducted 17 semi-structured interviews with corporate decision makers, advisors and executives who have been responsible for AI-transformations. Through the theoretical lenses of the transformational leadership compass, the empiric was analyzed. The empiric suggested that transformational leadership is widely adopted by organizational leaders and that effective communication emerges as a central catalyst for adaptability in the face of AI-driven change. Effective communication cultivates a culture centered on continuous learning and innovation. Personalized support and development has also been shown to foster adaptability and innovation. The implications suggest that future research should conduct quantitative studies to measure the specific impacts of various transformational behaviors and incorporate the views of employees.

Key words: Transformational leadership, AI-implementation, Employee adaptability, Innovation, The transformational leadership compass

Authors

Firas Danil (25421)

Aiham Al-Sharify (25233)

Examiner

Laurence Romani, Associate Professor, Department of Management and Organization

Bachelor Thesis
Bachelor Program in Business & Economics

Stockholm School of Economics

Acknowledgments

There are several people we would like to express our gratitude to, as they have made significant contributions to this paper. Firstly, we would like to thank all participants whose insights, stories and expertise have been very valuable for conducting this study. We would also like to thank our course director Laurence Romani for her continuous guidance and support for enhancing this paper. Lastly, do we want to send our gratitude to Stockholm School of Economics for providing us with a strong business education who have contributed to our professional and personal growth, it has truly been a rewarding experience.

Firas & Aiham

Stockholm, May 13th 2024

Table of Contents

Executive summary

Purpose and scope

Leaders and their employees face unique challenges due to the rapid rate of organizational transformation driven by AI. This research investigates transformational leadership framework and its impact as a solution for challenges and uncertainties that emerges during implementing AI, proposing that it may provide valuable insights and encourage employees' adaptability and innovation. The text examines scholarly literature and previous studies on both transformational leadership and technological adaptability within organizations. The study derives its results from the rigorous examination of existing literature, complemented with empirical evidence and data from leaders in the technology sector and more particularly in the software industry, which is considered at the forefront of AI development. This study intends to provide insights into how leaders might successfully manage technology transformations by analyzing qualitative data obtained from interviews with business decision-makers, advisers, and executives.

The research aims to investigate the impact of transformational leadership on employee adaptation and innovation in response to organizational changes caused by AI. The emphasis is on gathering insights from leaders who are actively engaged in or impacted by the integration of AI, with the goal of outlining successful methods and practices. The primary objective is to comprehend how leaders may effectively use transformational leadership concepts to facilitate the smooth integration of AI technology, while also promoting innovation and equipping staff to adapt to new technological advancements.

Key findings

This paper provides leaders and organizations with a toolbox to manage uncertainties that arise from AI-driven change which as a result enables a more innovative work environment and improved organizational performers. The study shows that transformational leadership mitigates the challenges posed by technological disruptions. The integration of AI goes beyond organizational considerations, rather societal considerations also play a vital role. Leaders and organizations can through transformational leadership acquire a framework for handling obsolete competence, ethical dilemmas and the progressive technological advancements. By driving

change that is embraced by ethical frameworks, leaders can mitigate negative societal effects and drive innovation at a meso level. The study also demonstrates that ethical and societal considerations are important as they increase employee acceptance of AI. Thus, by implementing ethical adaptation of AI, employees are more likely to accept change followed by AI adaptation. Transformational leadership ensures the creation of a healthy and innovative work environment that enhances the well-being of the employees, which contributes to social sustainability.

As previously mentioned, the research underscores the importance of transformational leadership in cultivating adaptability and continuous innovation. Leaders who prioritize open, transparent communication effectively build trust and clarity among employees, and those who excel at effectively communicating their vision create an environment where employees feel encouraged to learn and adapt. This culture of learning empowers employees to face the challenges of AI transformation positively, seeing these changes as opportunities for growth rather than threats to their roles.

Additionally, the study emphasizes the significance of personalized support and development. Leaders who provide individualized attention and opportunities for skill enhancement enable employees to view AI as a supportive tool that enhances their daily work rather than disrupting it. This approach minimizes resistance to change, as employees feel more confident and secure in their ability to navigate the new technological landscape.

Ultimately, this combination of effective communication and personalized development allows organizations to become more adaptable and better positioned to leverage AI effectively. By doing so, they cultivate a culture that not only embraces technological transformation but also thrives in an environment of continuous innovation.

Implications for practice

This study provides a comprehensive framework that empowers leaders to manage the uncertainties inherent in AI-driven change.

1. **Effective communication:** Prioritizing open communication and crafting a compelling vision and communicating it effectively are essential to creating an adaptable organizational culture. By instilling confidence and clarity among employees, visionary leaders ensure that teams understand and align with the overall mission. This clarity helps establish a culture centered on continuous learning, where employees are encouraged to acquire new skills, embrace new technologies, and explore innovative ways of solving problems. Effective communication requires consistency, transparency, empathy and adaptability to changing circumstances, allowing leaders to build a resilient workforce ready for AI challenges. The empirical evidence demonstrates that this can be implemented by different methods such as workshops, building AI communities within the organization, and constantly informing and aligning AI adaptation with the company's vision.
2. **Personalized support:** Recognizing and fostering individual development is crucial for building adaptable teams. Employees are more likely to view AI as a supportive tool rather than a disruptive threat if they feel that their leaders understand their unique needs and career aspirations. Personalized support entails developing tailored training programs, mentorship opportunities, and career pathways that empower individuals to upskill effectively. By investing in their workforce's growth, leaders can reduce resistance to change and create an environment where employees confidently adapt to technological advancements.
3. **Ethical Frameworks:** Ethical frameworks are important to help align AI transformation strategies with ethical practices, which in turn organizations balance technological progress with societal values. Leaders who prioritize ethical frameworks can minimize the negative effects of AI on jobs, privacy, and inequality by proactively addressing these concerns during strategic planning. For instance, they may emphasize transparency in AI decision-making, ensure fair access to retraining programs, and advocate for inclusive innovation. This approach strengthens innovation at the macro level by fostering public

trust, encouraging collaboration, and enhancing the adoption of AI technologies. Furthermore, leaders should focus on long-term societal focus, since employees are more likely to be engaged if the long-term vision and societal values are communicated. By striving for societal benefits through the transformational compass, leaders can ensure authentic vision and support for broader change.

Conclusion

The study's empirical findings showcase the need for transformational leadership in effectively managing the uncertainties and difficulties that arise from incorporating AI into enterprises. This research showcases the importance of transformational leadership traits such as adaptability, ethical foresight, and clear communication in creating a thriving culture amidst technological advancements, particularly in the rapidly changing field of artificial intelligence. It achieves this by combining theoretical knowledge with practical insights from corporate decision-makers, advisors, and executives.

Chapter 1: Introduction

1.1 Background of the Study

The landscape of organizational management and leadership has undergone significant transformation over the decades, evolving through various theories and models that aim to optimize employee performance, engagement, and innovation. Among these, transformational leadership has emerged as a paradigm that prioritizes vision, inspiration, and the empowerment of followers to exceed their own limitations and contribute more effectively to the organization's goals (Berson and Avolio 2004). This leadership style, characterized by its focus on intrinsic motivation and personal development, contrasts with more traditional, transactional approaches that rely on extrinsic rewards and penalties (Moynihan and Wright, 2012).

The relevance of transformational leadership has become increasingly pronounced in the context of rapid technological advancements and the integration of artificial intelligence ("AI") into the workplace (Gyanamurthy & Radhanath 2023). As AI technologies reshape industries, automate tasks, and redefine roles, organizations face the dual challenge of fostering adaptability among their workforce and ensuring ethical practices (Morandini et al. 2023). Transformational leadership plays a significant role in promoting technological innovation (Chen et al., 2012). The onset of AI-driven change has not only disrupted operational norms but has also raised ethical questions about the role of human leadership in navigating these shifts, especially in the technology sector. (Gyanamurthy and Radhanath, 2023). This is even more relevant in software development, where AI is at the forefront.

Historically, the introduction of transformative technologies into the workforce has necessitated a reevaluation of leadership styles and organizational strategies (Dhamija, Chiarini, and Shapla, 2023). From the industrial revolutions of the past to the digital revolution of the present, each wave of technological change has prompted leaders to adapt their approaches to managing and inspiring their employees. In the current era of AI-driven change, the capacity of transformational leaders to inspire adaptability and innovation among employees is crucial. These leaders are tasked with creating a vision

for the future that integrates AI technologies, fostering an organizational culture that embraces change, and cultivating a workforce that is both resilient and innovative**.**

As AI continues to advance, understanding the dynamics of leadership and its influence on employee behavior in the face of technological change is an intriguing academic topic. In this research, we posit that transformational leadership can be considered instrumental for navigating the complexities of AI-driven change and also emerges as a force for organizational transformation. Transformational leadership can be a strong force in navigating AI-driven change filled with uncertainties, which creates a compelling rationale for further exploration and study in this area. Understanding how transformational leadership practices can facilitate organizational adaptation to AI and influence employee outcomes is essential for informing leadership development initiatives and guiding strategic decision-making in this digital era powered by AI. Therefore, we aim to delve deeper into its role and impact within this evolving landscape.

1.2 Relevance of the Study

This thesis delves into the nuanced realm of transformational leadership and its impact on facilitating employee adaptability and fostering an environment conducive to innovation amid AI-driven changes. The significance of this study lies in its targeted effort to reconcile transformational leadership with the distinctive challenges introduced by technological advancements, especially in the realm of AI.

Transformational leadership, characterized by its emphasis on vision, inspiration, and the personal development of followers, stands at the forefront of this research. This leadership style, in the context of AI-driven organizational change, offers a unique lens through which to examine the dynamics of employee adaptability and innovation. As organizations increasingly integrate AI into their operation, the imperative for a leadership approach that not only navigates this transition effectively but also harnesses the potential of employees to innovate becomes clear. Transformational leaders possess a strong vision for the future, which is crucial when integrating AI since it is accompanied by challenges and uncertainties. This visionary approach aligns with AI-driven innovation by enabling the leader to foresee and implement cutting-edge AI solutions that

transform business practices and industry standards. This connection is underscored by transformational leaders' ability to envision and steer their organizations towards groundbreaking uses of AI technologies that drive innovation. Another example of the relevance of transformational leadership in adopting AI technologies is transformational leader's ability to enhance organizational adaptability to AI by focusing heavily on employee development. By delegating authority and fostering autonomy, transformational leaders empower their employees to take ownership of AI-enabled decision-making processes. This empowerment goes beyond simply using AI tools for routine tasks. It involves encouraging employees to engage with AI strategically to innovate and solve complex problems.

This study contributes to the broader discourse on leadership's role in technological integration, providing a solid foundation for further research. As organizations continue to grapple with the rapid pace of technological change, the aim of this research could guide leaders in crafting strategies that not only facilitate the smooth integration of AI but also capitalize on the creative and innovative potential of their workforce. In doing so, this thesis not only enriches the academic conversation on leadership and change management, but also offers practical implications for leaders striving to navigate the complex terrain of AI-driven organizational change.

1.3 Goal of the Study

The study aims to examine how transformational leadership influences employee behavior with the goal of facilitating AI-driven changes. The purpose is to provide insights and guidance to company leaders on whether transformational leadership can be used as an effective tool for AI-driven organizational change. To reach the aimed result, the following research question have been identified and will be further discussed throughout this research study.

The Research Question (RQ):

How does transformational leadership style influence employee adaptability and innovation in the context of AI-driven organizational change?

1.4 Research Design

This research study uses an approach known as phenomenology to investigate the impact of transformational leadership on employee adaptation. To gather qualitative data, we have chosen semi-structured interviews as the main methodological approach. We will conduct the interviews with carefully selected participants who are corporate decision makers, advisors and executives directly involved with or affected by the integration of AI. We opted for the flexibility offered by these interviews, as it allows for a nuanced exploration of the issues. By striking a balance between predetermined questions and room for in depth inquiry, this method enables us to gain insights into participants' experiences and perspectives. The use of semi-structured interviews aligns with the exploratory nature of our research questions and provides an opportunity to delve deeply into how transformational leadership influences employee adaptability in AI-driven organizational changes.

The instrument of choice for data analysis is thematic analysis. This technique involves finding patterns or themes in the data, analyzing them, and reporting them in order to give a thorough description of the participant's experiences. Transcription of the data, creation of preliminary codes, theme searching, review and theme refinement, and eventually definition and labeling of themes are all steps in the analytic process. The findings will be presented coherently and will be backed up by participant quotes. By employing a combination of structured interviews and theme analysis as our chosen methodology, we create a dynamic framework that allows us to investigate the intricate relationships between transformational leadership and AI. By blending concepts with practical insights from interviews, we hope to advance discussions on transformational leadership within the ever-evolving landscape of technological innovation.

Chapter 2: Literature Review

2.1 Transformational Leadership in Organizational Change

Transformational leadership is one of the most studied models in leadership and its evolution can be traced back to established scholars such as Burns and Bass (Jan Stewart 2006). Changes and evolvement in the workplaces were occurring from the late 1970s, resulting in a shift in adoption of transformational leadership, with the goal of maintaining effectiveness (Bass 1999). However, despite the origin of this leadership style being linked back to the late 1900 hundreds, associations of its characteristics can be found 5000 years ago, in the time of ancient philosophers (Humphreys and Einstein 2003).

Transformational leadership has been proven by robust research to be an effective leadership style that lays a strong foundation for employee adaptation during organizational change as it plays a significant role in affecting employee attitude, motivation, and commitment towards change (Stefanie Faupel and Stefan Süß 2019). Transformational leadership revolves around the leader's ability to motivate followers beyond self-interests, articulate a vision and strive to satisfy their higher needs (Jan Stewart 2006). Transformational leaders have the ability to uplift its followers from bottom levels in Maslow's hierarchy of needs to higher levels (Hay 2006). Leaders can, by using behavioral characteristics of transformational leadership, help followers achieve performance that surpasses their expectations (Humphreys and Einstein 2003). Research has shown that transformational leadership can both increase work engagement and create a positive perception of change (Stefanie Faupel and Stefan Süß 2019). Furthermore, the efficacy of transformational leadership in managing change, particularly its comprehensive approach that addresses both the emotional and professional needs of employees, is explored in a study by Cao and Le (2024). Their research, titled "Impacts of transformational leadership on organizational change capability: a two-path mediating role of trust in leadership", provides insights into how transformational leadership enhances organizational change capabilities through the development of trust in

leadership, highlighting the importance of addressing emotional and professional aspects during transitions (Cao & Le, 2024).

Usman (2020) highlights that transformational leadership fosters a culture of innovation which is a key factor for enabling AI-driven change. By influencing the values of the followers, there is a potential for an increased acceptance of new innovation and change due to the shift in attitudes. Transformational leadership leads to organizational learning and it influences adaptation of AI-driven changes by empowering a culture of change and development. Organizations can thus capitalize on the advantages of AI by having a transformational leader who focuses on creating a culture of innovation and learning. Carmeli et al. (2014) suggest that transformational leaders embrace innovation by testing new ideas, by challenging the status quo, and creating an environment where psychological safety is embraced, where employees feel safe to fail and see it as a natural process in their own personal growth.

Transformational leaders also help manage the negative perceptions of AI-driven organizational changes. Transformational leaders are particularly well-equipped to manage the negative perceptions of AI-driven changes within organizations due to their core traits of empathy, communication, and commitment to individual development. These leaders excel in identifying and addressing the emotional and professional impacts of technological disruptions (Cao & Le, 2024). The rapid progress of artificial intelligence in the workplace can have troubling implications for employees and a fear of job displacement and skill obsolescence are concerns worrying followers (Rudra Tiwari 2023). Transformational leaders will ultimately need to work toward practical solutions that reduce any negative effects of the AI-driven organization change. Open communication and offering support for skill development are traits of transformational leadership that can help mitigate those concerns, and hinder employee resistance by making the objectives of the organization aligned with the ones of the employees. Transformational leadership helps by focusing on aligning organizational goals with employee development, effectively minimizing resistance, and fostering a culture where changes are embraced as progress rather than feared as obsolescence.

Past studies have shown that gender can influence the tendency to embrace transformational leadership traits. Indeed has it been proven that women exhibit more traits of transformational leaders, compared with men. However this conclusion has been criticized, as some argue that such differences may not solely be due to differences in gender, rather it may be a result of higher barriers to entry for women to attain leadership positions, thus resulting in women needing to have preeminent leadership skills to overcome those obstacles (Bass 1999).

2.2 The role of AI in organizations

Organizations are undergoing a technological shift and artificial intelligence is a major player in this progressive change as it is viewed as a disruptive technology (Bankins et al. 2023). As the organizational landscape is continuously evolving and as advancements in artificial intelligence are progressing, organizations today have a need for continuous AI integration to be able to maximize organizational efficiency and sustain their competitive edge. The use of AI is still at early stages in organizations, as AI has been primarily experimental and its economic return has been minimal, however it is still being adopted, especially for large organizations with the necessary resources and capabilities (Bankins et al. 2023).

Khanzode and Sarode (2020) have compiled a list of the benefits of artificial intelligence, recognizing its potential. They highlight AI's ability to perform tasks more efficiently than humans and rely on facts, rather than emotions, when making judgments (Huang, M.-H., Rust, R. T., & Maksimovic, V, 2019). Organizations can directly benefit from AI by automating tasks enabling precise and cost-effective predictions through data analysis or even facilitating social interactions with staff members or clients through conversational agents (Duan, Edwards, & Dwivedi, 2019). AI's capabilities result in leaders being able to leverage AI as a tool in their decision making processes (Noponen, 2019). AI's speedy data collection, processing, and analysis capabilities, together with its

capacity to deliver real-time results, can increase analytical efficiency and support leaders in making evidence-driven decisions (Wang et al., 2011).

AI offers profound opportunities for organizations, however the adaptation and integration of AI doesn't solely rely on technical implementation, rather it also relies on employees being adaptive to those AI-implementations and viewing them positively and optimistically, rather than dismissing them. AI-driven initiatives also have ethical implications that transformational leaders need to address, studies have shown. For instance, the potential neglect of moral ethical values when employing algorithms for decision making is an example (Mittelstadt & Floridi, 2015). Additionally, using AI does involve dealing with information, which means data privacy and security become concerns (Kaur & Gandolfi, 2023). Also, ethical considerations such as transparency, fairness and accountability also play a role, in this domain (Stalidis et al., 2015; Wirth, 2018). Transformational leaders play a vital role in managing ethical implications by ensuring ethical AI practices, building trust with stakeholders and gaining crediability with actors from both within and outside the organization.

Chapter 3: Theoretical Framework

3.1 The transformative leadership compass

Transformational leadership is a well established leadership theory that emphasizes the constructive and motivating impact that leaders have on their followers (Burns, 1978; Bass, 1985). It encompasses crucial elements such as charisma, inspiration, intellectual stimulation, and individualized concern (Mohamed and Otman, 2021). Contrary to leaders who depend simply on their position of authority, these leaders give priority to taking action in the best interests of their followers while working together with them to accomplish a common goal (Northouse, 2016).

Transformational leadership is essential in promoting employee adaptation and innovation within the framework of AI-driven organizational change. The "transformative leadership compass," a conceptual framework devised by scholars such as Giovanni Schiuma, provides a systematic approach for leaders to effectively traverse and use digital innovations (Schiuma et al., 2021). This model is especially designed to tackle the difficulties and possibilities of digital transformation through the embracement of six transformational competencies, making it particularly relevant for examining the effects of AI on transformational leadership, employee adaptability and innovation in the context of AI-driven changes. The transformational leadership compass delineates the essential competences required for digital transformative leaders, illuminating the critical talents that differentiate successful leaders in the digital era (Schiuma et al., 2021). Its purpose is to function as a standard for cultivating leaders' skills that facilitate digital transformations, improves the culture inside an organization, and promotes behaviors that support digital transformation.

The transformational leadership compass is a framework for leaders seeking to successfully traverse the many challenges of digital transformation. The model identifies six essential competencies that are important for creating an atmosphere conducive to the flourishing of digital innovation:

1. **Grasping the essence of digital transformation:** Leaders must understand the digital environment and gain experience in technical tools and trends. They should critically assess client demands and the whole market, employing holistic thinking to ensure the digital transformation corresponds with the organization's objectives. By evaluating difficulties and opportunities, leaders may design plans that include both urgent demands and long-term objectives.
2. **Envisioning digital wealth creation goodness:** Leaders are accountable for building a vision that blends ethical leadership and social value creation with digital strategy. This should go beyond financial rewards to examine the long-term effect on diverse stakeholders, ensuring that the change benefits the larger community. By establishing a culture built on ethical behavior, leaders may inspire hope, optimism, and drive, which positively influence the business and society.
3. **Shaping a knowledge-creating context:** Leaders should create a culture of learning that thrives on curiosity, innovation, and cooperation. By enabling shared learning and experimentation, they build an atmosphere where innovation becomes natural. This strategy encourages teams to feel secure expressing ideas, encouraging productivity, happiness, and enhanced problem-solving abilities.
4. **Communicating the essence of transformation:** Leaders must be able to convey complicated digital difficulties into understandable ideas utilizing narrative, analogies, and rhetorical tactics. This makes the transition more accessible to stakeholders who may not have technical skills, helping them grasp the idea. Such good communication also stimulates individuals to embrace change, minimizes opposition, and secures group buy-in.
5. **Engaging people to act:** Leaders should utilize political power and dialectical reasoning to unite teams with various ideas. This includes knowing the feelings and viewpoints of each team member and finding common ground to align them toward shared objectives. By accepting diverse viewpoints, leaders may balance conflicts and foster passion, dedication, and unity.
6. **Making digital transformation everyone's job:** Leaders empower their staff by fostering a culture that encourages personal and professional progress. They promote risk-taking and cultivate trust to ensure that every member contributes meaningfully to

the digital transformation process. Through training and support, leaders help their teams develop the critical thinking and practical skills required to manage problems and accomplish group objectives.

To sum up, the transformational leadership compass framework offers a systematic method for leading digital changes that are both creative and inclusive, by embracing these competencies mentioned above.

3.2 Theory discussion

The utilization of the transformational leadership compass framework is a useful framework for proficiently overseeing the human element of technological change, particularly in the situation of incorporating AI (Schiuma et al., 2021). Leaders may use this framework to guide their teams in understanding and embracing digital transformation, fostering innovation, adaptability, and a shared goal.

The application of the transformational leadership compass involves confronting challenges as well as benefits. A crucial challenge is to ensure that leaders possess the requisite abilities and adaptability to effectively guide their teams through the process of digital transformation. The importance of good leadership skills in times of complexity and change has also been emphasized by other researchers (Bolden, 2016). This has even been emphasized by other scholars who claim that leaders must have a thorough understanding of the digital landscape and also cater to the individual needs of their followers to maintain engagement and motivation (Hershatter & Epstein, 2010). The compass developed by Schiuma enables the development of a culture that is centered on knowledge and collaboration, leading to enhanced innovation and adaptability (Schiuma et al., 2021). Raisch and Birkinshaw (2009) found that workers demonstrate heightened engagement, alignment with corporate goals, and a willingness to actively contribute to the organizational goals. The findings of Raisch and Birkinshaw (2009) validate the elements of the transformational leadership compass developed by Schiuma.

While the transformational leadership compass is comprehensive, it may sometimes overlook the need for specific practical approaches to tackle urgent technological issues such as the practical

challenges mentioned by Rick Haythornthwaite in the Bolden's research paper (2016). Leaders must give priority to both visionary and strategic guidance, as well as practical execution strategies, while considering the quick and disruptive nature of breakthroughs in AI (Kane et al., 2019). Future research should prioritize the integration of change management methodologies within the framework to enhance its efficacy in AI-driven work environments.

Chapter 4: Methodology

4.1 Method of Choice

4.1.1 An Inductive Qualitative Study

This study uses the inductive research approach because the researcher set specified goals and objectives, which are to explore the interaction between transformational leadership and AI-driven change within organizations, that suggest an exploratory and generative focus. Since the goal is to examine how transformational leadership styles influence employee adaptability and innovation in the context of AI-driven organizational change, the research question set previously is open-ended and general, hence this approach is considered to be inductive. Moreover, the research questions mentioned are used as guides rather than questions that test hypotheses, which is a characteristic of the inductive approach. Finally, this study uses a qualitative approach because the researcher will collect the data using semi-structured interview questions. This method empathizes on subject interpretations and enables the possibility of alternative explanations to our research question as the overall context is taken into account (Saunders et al. 2019). The use of semi-structured interviews aligns with the exploratory nature of our research questions and provides an opportunity to delve deeply into how transformational leadership impacts AI adaptability. This method is usually used in qualitative studies to collect rich and in-depth data from the respondents (Saunders et al. 2019).

4.2 Sample

4.2.1 Interviewed Participants

In the context of exploring the influence of transformational leadership on employee adaptability and innovation during AI-driven organizational changes, the focus on the interviewed participants and the structure of the interviews are pivotal. Given the nature of the research questions, which delve into leadership communication, encouragement of innovation, overcoming resistance, and support for learning in the face of AI integration, a targeted approach in selecting interviewees and the industry of focus is warranted.

For this thesis, the technology sector, specifically companies that specialize in software development, presents a particularly rich field for inquiry. The choice of this industry is strategic for several reasons. First, it offers a homogenous sample that is highly relevant to the thesis topic, ensuring that the findings are directly applicable to understanding how transformational leadership can facilitate successful AI integration in environments characterized by rapid technological advancement and a high demand for adaptability and innovation. This focus not only enhances the coherence and depth of the research but also contributes valuable insights to the literature on leadership in technology-driven contexts, with potential implications for leadership practices across similar fast-evolving industries. Second, the nature of work in software development, which often involves creative problem-solving, collaboration, and continuous learning, aligns well with the principles of transformational leadership, such as fostering an innovative environment and supporting skill development. Transformational leadership within this context is not just beneficial but necessary, as leaders must inspire and guide their teams through ongoing technological evolutions. Lastly, the visibility of AI's impact in this sector allows for clear observation and analysis of how leadership styles influence the integration of new technologies and the organizational response to these changes.

The interviews were conducted with senior leaders within the technology departments in companies, who have directly overseen or been closely involved with AI integration efforts. The research sample includes CEOs, CTOs, and team leads since they can provide firsthand accounts of the challenges and strategies associated with leading AI-driven change. These individuals are chosen because their roles likely require them to actively employ transformational leadership skills to navigate the complexities of introducing AI technologies, manage employee reactions and adaptation processes, and foster an environment conducive to innovation and learning.

The interviews conducted for this research were performed in two distinct periods, the first around October 2023 and the second in April 2024. Despite the relatively brief interval between these two sets of interviews, the potential impact of this time difference on the quality and relevance of the results was carefully considered. Given the fast-paced nature of the technology sector that is continuously adapting to and integrating AI, changes in organizational dynamics, leadership strategies, and employee responses can occur relatively quickly.

To minimize the potential risk that this time difference could pose to the quality and consistency of the data collected, a strategic approach was adopted. The subsequent phase in April 2024 allowed for the validation of previously collected data and the examination of any changes or developments in perspectives and experiences related to transformational leadership and AI-driven organizational change. For those interviewees from the 2023 session, their contributions were carefully analyzed with an awareness of the potential limitations posed by the passage of time. The data from these interviews was approached with a certain reservation regarding the timing of the analysis, recognizing that the rapid advancements in AI and shifts in leadership practices could influence the relevance of the information provided.

However, it's important to note that interviews from 2023 were still taken into consideration for the final analysis. This decision was based on the observation that the content of these interviews broadly tackled the subject in ways that were not directly impacted by the short time period between the two sets of interviews. These contributions were assessed to provide valuable thematic insights that transcend the immediate temporal context, offering general perspectives on the role of transformational leadership in navigating AI-driven changes that remain pertinent over time. In total, 17 leaders have been interviewed. The table below presents the demographics and roles of the leaders interviewed. As we can see from the table below, the majority of the interviews were conducted with males, despite the authors' efforts to conduct more interviews with female leaders in this industry. The reason for the skewed ratio in gender might be due to the fact that the technology industry is unfortunately mainly male-dominated.

Number	Interview Date	Duration	Gender	Role	Code name	Recorded and transcribed	Interview form
1	Oct 2023	35 min	Male	CEO	MACE1	No	In person
2	Oct 2023	20 min	Male	Founder	MAFO1	No	Video meeting
3	Oct 2023	60 min	Male	CTO	MACT1	No	Video meeting
4	Oct 2023	20 min	Male	CTO	MACT2	No	Video meeting

5	Oct 2023	30 min	Male	National Technology Officer	MANTO1	No	Video meeting
6	Nov 2023	25 min	Male	CTO	MACT3	No	Video meeting
7	Nov 2023	30 min	Male	CTO	MACT4	No	Video meeting
8	April 2024	22 min	Female	Senior manager	FESM1	Yes	Video meeting
9	April 2024	21 min	Male	Head of AI enablement	MAAI1	Yes	Video meeting
10	April 2024	15 min	Male	Head of AI	MAAI2	Yes	Video meeting
11	April 2024	6 min	Male	AI Analyst	MAAI3	Yes	Video meeting
12	April 2024	34 min	Male	Head of AI	MAAI4	Yes	Video meeting
13	April 2024	27 min	Male	Project Manager	MAPM1	Yes	Video meeting
14	April 2024	20 min	Male	Head of Data & Analytics	MAAI5	Yes	Video meeting
15	April 2024	15 min	Female	Advisor	FEFO1	Yes	Video meeting
16	May 2024	21 min	Female	Founder	FEFO2	Yes	Video meeting
17	May 2024	35 min	Male	Senior manager	MASM1	No	In person

4.3 Interview Process

4.3.1 Collection of Empirics

As previously mentioned, the empirical foundation of this thesis is constructed on a comprehensive collection of data, derived from a series of interviews that spanned two distinct time frames: one set in October 2023 and another in April 2024. Reflecting the digital-centric theme of this investigation, the majority of the interviews were conducted using video communication tools. This method facilitated access to a broad range of participants and also aligned with the digital transformation subject at the core of this research.

The length of these interviews varied, ranging from a brief 15-minute conversation to more extensive discussions lasting up to an hour. This variation in duration was intentional, allowing the dialogue to naturally evolve to the depth required by each participant's insights. Some participants were not actively working with AI and are thus less relevant for this research. In curating the pool of participants, a dual approach was employed. An initial selection was made through cold approaches on LinkedIn. This method ensured the incorporation of new perspectives into the research, broadening the scope of experiences and insights. The remainder of the participant group was sourced from the author’s existing professional network, leveraging established connections known for their expertise and relevance to the study's focus. This approach to participant selection resulted in a rich diversity of viewpoints, enhancing the research with a wide spectrum of experiences related to transformational leadership and AI-driven change.

To ensure the integrity and comprehensiveness of the data, almost all interviews conducted in the most recent phase (2024) were recorded and transcribed. This meticulous approach to data collection was aimed at preserving the accuracy and depth of the conversations, allowing for a more detailed analysis. The emphasis on the recent interviews was due in part to their proximity to the ongoing developments in AI and organizational leadership, providing a contemporary context to the research findings.

In sum, the empirical data collection for this thesis was thoughtfully designed to provide a robust foundation for the investigation. Through digitally conducted, semi-structured interviews, a

depth of insights was garnered, offering a rich basis for exploring the impact of transformational leadership on employee adaptability and innovation amid AI-driven organizational change.

4.4 Ethical Considerations

In conducting this research, ethical standards were adhered to, such as securing verbal consent from participants and guaranteeing their confidentiality to protect their personal information and foster an environment conducive to open and honest communication. However, ethical consideration in research extends beyond these immediate actions to encompass the broader implications of the study's findings on AI and transformational leadership. This study, while focused on demonstrating how transformational leadership can be instrumental in implementing AI and managing uncertainties, has the potential to influence public policy, inform community practices, or even reshape parts of academic and practical fields related to technology and management. Therefore, the choice of words and the presentation of the data and analysis are well thought out and analyzed in light of the subject and implications of the topic being studied.

It is crucial that the application of this research's conclusions be guided by a commitment to beneficence and justice, ensuring that the knowledge contributes positively to society and the academic research of this topic while at the same time respecting the contribution and thoughts of all participants. Moreover, during the research process, significant attention was devoted to understanding how the implementation of AI under transformational leadership could influence workforce dynamics and public trust. To ethically address these impacts, the researcher also had discussions with employees from various industries, for example the law and software industries since these industries are more likely to be affected by AI technologies (Bankins & Formosa, 2023). These discussions are not further analyzed in this research, but we're conducted to help the researcher get a more diverse perspective on AI's potential social implications, such as job displacement and changes in work tasks, in order to maintain a balanced and ethical approach to the topic.

Chapter 5: Empirics

In the following chapter, we will explore the results from our interviews and explore the impact of transformational leadership on employee behavior and artificial intelligence. In order to analyze the collected data, thematic analysis was used. The researcher divided the data into themes. The researcher will employ the thematic analysis approach as a data analysis tool to examine the data that had been gathered. According to the thematic analysis approach, themes will be found by examining patterns, like recurrence, resemblance, and concepts.

The interviews revealed several key themes that align closely with the thesis statement and offer a detailed look into the practical application and outcomes of transformational leadership during periods of significant technological upheaval.

All the participants described traits of transformational leadership when asked to describe their own leadership style, and the empirical data shed light on specific traits of transformational leaders that correlated with successful AI integration. Traits such as autonomy, visionary thinking, and strong communication skills were frequently mentioned. Leaders seem to agree that they need to help employees envision how the future would look like and at the same time bring everyone along. That meant being open, adaptable, and always ready to listen, commented a participant. Listening to how employees envision the future was also deemed important and mentioned several times during several interviews. The participants' focus on embracing transformational leadership traits seems to be influenced by modern perception of what constitutes good leadership. A leader said the following when asked to describe his leadership style:

"Fairly modern if you look at the management theories, the leadership theories. I work in a decentralized manner. I don't want to micromanage; I want self-sufficient teams, self-sufficient employees who dare to make decisions. I believe that, generally speaking, decisions should be made as close to the competencies as possible. I think leadership is more about setting the framework, setting the framework, so employees know what they have to adjust to, what the

company wants, what the overarching goals are, what strategies we have, but within that layer of space, having a lot of freedom to act on what they believe is best." - MAAI2

Another experienced leader who is involved in creating and sustaining innovation mentioned the following traits to be vital in his leadership: *"I try to maintain a sense of simplicity and clarity, which I personally find important. It's much more important to have a fundamental trust within the team than to pretend to have a lot of work or processes (...) Trust and security are often fostered through vulnerability."* - MAAI4

5.1 Theme 1: Communication as a catalyst for adaptability

Leaders shared detailed accounts of how their communication strategies evolved to meet the challenges posed by AI integration. They emphasized the importance of transparent, consistent, and inspirational communication in fostering an environment where employees felt informed, valued, and part of the change process. For instance, one leader described a series of interactive town hall meetings designed to share experiences about AI technologies, highlighting the benefits and addressing concerns. This approach was mentioned several times during several interviews, who all emphasized the importance of having the employee be part of the journey as many employees did not necessarily understand the idea behind AI-transformation. Many employees saw it as a threat due to negative perception associated with the term artificial intelligence. By addressing their fear and clearly communicating the objective, the aim and consequences of the transformation, resistance got reduced and a more receptive atmosphere for change was built.

"Most people who work with data in some way find these monotonous (work tasks) to be boring. Some may enjoy it, but most find it boring. So just being able to show them that we can simplify their job this much, we can speed up things with help of AI. It makes them interested, and then it's important to run a lot of demos and sit with them, thus building the solutions together with them." - MAAI1

Resistance to AI-driven changes was a very common challenge, leaders highlighted the importance of demonstrating empathy, engaging in direct dialogues to address fears and misconceptions, and showcasing early successes of AI integration as key strategies to overcome the barrier of resistance. A detailed account involved a leader who assigned a change leader for AI, where early adopters of AI technologies became advocates, sharing positive experiences and outcomes with their peers. A participant said the following when asked about the employee acceptance of AI-driven changes:

"I think the most important thing is that one should see it (AI) as a support tool and see the benefit of it. One should understand why certain things are conducted the way they are and how it (AI) can facilitate the operations (...) When talking to businesses, it's often these repetitive, monotonous tasks that they want to get rid of, because they consume a lot of time (...) So I think it's a bit about how you communicate this change. If you address it like, 'I understand that you have a challenge here, this takes up a lot of your time, can we look at a solution?' And then, before presenting a solution that might be AI-generated or automated in some way, we first address their challenge."- FEFO1

On the other hand, one participant said that there was no internal resistance faced in his organization, and when asked if communication and culture were contributors to no resistance occurring, he answered the following:

"Honestly, at this point, I don't think so. Thanks to ChatGPT, the hype has become too big so it's impossible to say no (to AI-adaptation) now. If anything, I think we need to tone down the levels of ambition of AI because suddenly people are believing that everything is possible." - MAAI2

5.1.1 Ethical consideration

This research explores the critical intersection between ethical considerations in AI implementation and the role of effective communication in facilitating AI adoption. Insights gathered from interviews suggest that embracing and transparently communicating the ethical

dimensions of AI enriches the discourse around its deployment and also enhances stakeholder acceptance. The findings indicate that effective communication strategies that highlight ethical practices, address AI's limitations and dilemmas, and clarify its role within organizational and societal contexts can lead to a more favorable perception of AI technologies. Specifically, when leaders articulate the ethical implications associated with AI, such as its impact on job roles, the integrity of results generated, and the broader organizational reliance on this technology, employees begin to view AI less as a threat and more as a conventional tool integral to modern business practices. Furthermore, this theme examines how leaders communicate the evolving responsibilities of employees in relation to AI-generated content and the future trajectory of organizations in an AI-integrated world. This approach mitigates apprehensions and positions AI as a critical component of organizational advancement, fostering a culture of informed acceptance and ethical engagement with technology.

'The most important thing is, again, to make them feel secure about what it (AI) can do and cannot do based on how it's constructed.' - FEFO2

5.1.2 Fostering a culture of continuous innovation

Several leaders mentioned that the emphasis on effective communication led to a creation of a culture of continuous innovation. By being receptive to change, a culture of continuous innovation and experimentation got fostered and leaders aimed to maintain it through various strategies and interventions.

"When situations arise, I try not to come up with solutions but instead help so that we collectively think of a solution, or the individual or resources do it themselves, so that people don't come to me expecting to get all the answers." - FEFO1

Leaders spoke of creating an "innovation lab community" where employees could experiment with AI technologies and share their successes and failures in a risk-free environment, leading to

a notable increase in product innovations and process improvements. This approach not only helped in leveraging AI for operational efficiency but also empowered employees to propose innovative solutions, such as combining the use of AI with other tools that are used day-day like Microsoft Excel and even Python for data analysis.

Leaders shared their deliberate efforts to create environments that encourage innovation, particularly in response to AI-driven changes. The establishment of shared prompt libraries and communities for the employees was frequently mentioned as strategies to stimulate creative thinking and experimentation among employees. The theme of creating and sharing prompts between the employees seemed like a common approach in several companies interviewed.

“Our ‘Innovation Lab Community’ allowed employees to use AI tools and to share success stories or even changes. It’s about building confidence and fostering creativity.” - MACT2

"We have various AI hackathons at X (The company name) where you sit for a while and come up with ideas and so on." When asked to elaborate, he said: *"For example, the next hackathon could be to use AI to simplify our processes. It can be at that level, not specific at all. Then they usually divide us into groups and we start brainstorming ideas, make some drafts, maybe do some coding, and then there's a jury that selects the winners."* - MAAI1

5.2 Theme 2: Personalized support and development

The interviews underscored the transformational leaders’ focus on personalized support and development to aid employees’ transition through AI-driven changes. Leaders detailed their efforts in providing training programs, rotation, mentorship, and developmental projects to help employees acquire new skills and adapt to new roles necessitated by AI integration. One leader shared a compelling narrative of a mentorship program that paired AI-savvy employees with those less familiar with the technology, fostering a culture of peer learning and support.

In addition to this, a recurring topic during the interviews was employee upskilling. Several leaders mentioned that while some employees are self-driven, others require assistance to embrace technology and AI. Some are more naturally curious and optimistic about AI, while others do not have an interest. Consequently, upskilling to get everyone on board was deemed important by many leaders, highlighting the necessity of comprehensive strategies to ensure all employees can navigate the evolving workplace landscape. The evolving and changing workplace environment and change in tasks was almost considered certain by several leaders during the interviews. Several leaders were in consensus that the way employees currently work will change in the future, however, the amount of change seems to vary. The majority of the interviews reveal that AI is a supportive tool for the employees, while some believe that AI is a disruptive tool that will completely change the way we currently work.

Chapter 6: Analysis

The aim of this section is to analyze the empiric gained from the interviewers to answer the research question. Large parts of the empiric align with the proposed competencies from the transformative leadership compass. The transformative leadership compass exemplifies that certain leadership behavior such as effective communication has shown to be a pillar for successfully affecting employee perception for AI-change and influencing their adaptability for the transformation (Schiuma et al., 2021). The description of effective communication involved key terms such as vision, empathy and support. However, analyzing the term through the lenses of the transformational leadership compass, a more nuanced understanding can be embraced.

The empirical evidence shows how transformational leadership practices can help respond to and shape the process of technological integration within organizations, which builds on the article by Morandini et al. (2023). By showcasing real-world applications, the empiric demonstrates that transformational leadership styles can mitigate the challenges posed by AI, such as resistance to change and ethical concerns, thereby fostering a culture of continuous innovation and adaptation. This work is particularly significant as it fills gaps in existing research by linking transformational leadership traits with specific outcomes in AI-driven environments, offering practical implications for leaders in technology-intensive sectors.

The transformative leadership compass, as outlined in the theoretical framework, emphasizes competencies crucial for navigating digital transformations, such as understanding the essence of digital change, creating value through digital innovation, and effectively communicating the digital vision. The empirical data from the interviews provide a grounded perspective on how transformational leaders practically implement these competencies in AI-driven environments.

6.1 Grasping the essence of digital transformation

The theory states that the leaders should possess a deep understanding of digital technologies and their potential to resolve organizational challenges, emphasizing a strategic and holistic approach to technology integration. On the other hand, the empirical evidence demonstrates that the leaders displayed a pragmatic grasp of AI, focusing on practical applications that enhance operational efficiency and meet customer needs, often using intuition. There seems to be similarities between theory and practice in the strategic use of digital tools such as AI. However, the empiric suggests a more intuitive and application-focused approach, potentially due to the fast-paced nature of technological change, which is not heavily emphasized in the theoretical framework. In the transformative leadership compass model, the focus is largely on structured and strategic approaches to understanding and implementing digital transformation. Intuition is important among leaders, as they possess tacit knowledge that aren't necessarily measurable or transferable. This leads to successful implementation despite minimal use of data in their decision-making. However, the reliance on intuition is still subject to risks, such as resulting in suboptimal outcomes, due to the potential biases and a lack of fact-based decision-making. This intuitive approach appears to stem from the need to make quick decisions in environments where technological advancements rapidly evolve and market conditions shift frequently. In practice, leaders are found to be less about methodical analysis and more about agile, adaptive strategies that allow for the immediate application of AI technologies to solve real-time problems.

6.2 Envisioning digital wealth creation goodness

In the theory presented by Schiuma, leaders are expected to align digital transformation with societal values, focusing on long-term benefits over immediate gains, underpinned by a strong ethical foundation (Schiuma et al., 2021). Ethical considerations and societal impacts are recurrent themes in the interviews performed, and the empirical data gathered, with leaders actively engaging in practices that ensure AI technologies benefit both the organizations and individuals. Leaders aim to maximize efficiencies on an individual level, which in turn benefits

society. The empiric showed that leaders embrace transformational leadership to motivate employees, to ensure a healthy and innovative work-environment, which aligns with the finding from Chen et al. (2012). The second competency in the transformational leadership compass is thus mainly applicable to large scale firms and is often inapplicable among minor companies which shows the theory's limitations, especially as it requires resources and capabilities that many organizations don't necessarily possess.

The majority of leaders interviewed seem to understand employees' fear of change, especially regarding AI and the recent news on its role in society. Discussing the role of AI in the organization and in society has been invaluable for many leaders to address the fear, create trust and mitigate uncertainties associated with the role of AI, which aligns with the article from Cao & Le (2024). The role of the leader becomes to create more driven employees that embrace technological and AI development instead of fearing its implications. It appears to be that employees are also motivated by the role and the implications of AI in society. Addressing the concerns of the employees can help motivate them and thus increase the employee adaptability of AI and innovation.

6.3 Communicating the essence of digital transformation and Engaging people to act

Schiuma states that effective communication, including the use of rhetoric and storytelling, is crucial for articulating the vision and motivating stakeholders towards embracing digital changes (Schiuma et al., 2021). This is also evident in practice, where leaders seem to employ sophisticated communication strategies, such as town hall meetings and direct dialogues, to demystify AI and integrate employees into the transformation journey, addressing fears and fostering a culture of openness and innovation as proposed by Usman (2020) and Carmeli et al. (2014). The empirical evidence highlights the critical role of communication in transformational leadership during AI integration, aligning with the theory that effective communication is essential. The empirics also shows that successful adaptation of AI-transformation is contingent

upon effective communication as it has been used as a tool to manage uncertainties which as a result can create a culture of innovation and growth that empowers the followers which resonates with Usman (2020). Resistance and fear are common challenges associated with AI-transformation as lifted by Rudra Tiwari (2023), through addressing the employees' concerns and reframing the change, the barriers can be overcome. The embracement of transformational leadership enables such reframing which as a result unites the teams, as the AI-transformation will not be viewed as a dictatorial change and potential employee resistance will as a result get mitigated. Overcoming resistance and successful adaptation of AI-transformation leads to the formation of an environment where risk-taking and sustained innovation are encouraged, as a result of the initial reframing. Thus is effective communication seen as a pillar for influencing employee adaptability in AI-driven transformations as it extends beyond short-term objectives.

On the other hand, the theory states that leaders should use political power and dialectical reasoning to address diversity and resistance within teams, guiding them toward unified goals (Schiuma et al., 2021). Leaders in practice seem to understand the complexity of innovation and AI changes, understanding its complex ethical and practical dilemmas, as mentioned by Kaur, Mandeep & Gandolfi, Franco (2023). Resistance is managed through empathy and by showcasing the practical benefits of AI. While the theory emphasizes the use of political skills and dialectical thinking, the empiric reveals a more empathy-driven and benefit-focused approach. This suggests that while theoretical models advocate for managing complexities through cognitive strategies, in practice, emotional and practical engagement plays seem to play a more significant role. This seems to arise from the social construction of what constitutes good leadership, and thus is these strategies untapped due to their perceived ethical implications. The theory still provides an important nuance to the discussion, since power struggles and different stakeholder interests can affect the success of the adaptation of the AI-transformation, and in such cases the use of political power may be vital.

6.4 Making digital transformation everyone's job and Shaping a knowledge-creating context

The theory advocates for widespread engagement in digital initiatives, with leaders fostering an environment of empowerment and continuous learning. Leaders actively promote a culture where digital transformation is part of everyone's role through training, mentorship, and collaborative projects, ensuring all team members are involved and invested in AI integration. The empirical data align closely with the theory regarding this aspect, demonstrating how transformational leaders not only delegate digital tasks but also cultivate a shared responsibility for digital transformation. This alignment highlights the effectiveness of transformational leadership strategies in ensuring comprehensive participation in AI-driven changes.

6.5 Conclusion

The comparative analysis between the theoretical expectations of the transformative leadership compass and the empirical findings from real-world practices demonstrates a strong alignment in core areas such as ethical orientation, communication, and engagement in digital transformation. However, it also reveals areas where practice diverges from theory, particularly in the intuitive and adaptive approaches leaders take in fast-paced digital environments. These insights underscore the dynamic interplay between established leadership theories and their adaptation in the rapidly evolving landscape of digital and AI-driven organizational change, offering valuable lessons for both academic research and practical leadership application.

Chapter 7: Discussion

7.1 Answer to research question

The aim of this study was to investigate the impact of transformational leadership styles on employee adaptability and innovation amid AI-driven changes in organizations. Transformational leadership, widely adopted by organizational leaders, leverages certain traits to foster employee adaptation. Among these traits, effective communication emerges as crucial, acting as a catalyst for adaptability in the face of uncertainties about AI's future impact on organizational structures. Leaders who prioritize open and transparent communication effectively build trust and clarity among employees. Through regular updates and insights about the AI adoption process, these leaders help ease fears related to job displacement and uncertainty. The study's empirical data underscore that leaders who engage in active listening and foster a two-way dialogue better understand individual employee concerns and cultivate a collaborative environment. This type of communication, complemented by workshops and encouragement to embrace AI and change, not only motivates employees to accept changes but also helps them overcome fears associated with AI and related change initiatives.

Vision articulation is another element that directly impacts employee adaptability. Leaders who clearly convey a shared vision of how AI will transform workflows are more likely to inspire and align their teams with organizational goals. This study shows that leaders who frame AI adoption as a journey towards technological advancement help employees see themselves as crucial contributors to the overall success. Thus, employees become more motivated to develop innovative solutions and new skills to support this shared vision.

This cultivates a culture centered on continuous learning and innovation, fostering self-driven employees who proactively contribute innovative ideas and advance AI development. Furthermore, in environments shaped by AI change, the focus on empowering employees leads to novel solutions, which is a critical aspect for transformational leaders. Additionally, the focus of transformational leadership on individual consideration plays a significant role in enhancing adaptability. Through personalized support and opportunities for development, employees are

equipped with the necessary skills and tools to align their professional growth with ongoing AI-driven transformation initiatives.

7.2 Contributions

This research contributes to the existing literature by empirically demonstrating how transformational leadership facilitates employee adaptability to AI-driven changes. Aligning with and extending theories suggested by Burns (1978) and Bass & Avolio (1994), our findings illustrate that transformational leaders, by engaging in open communication and vision sharing, effectively prepare and guide their organizations through the challenges and uncertainties of digital transformation.

The literature emphasizes transformational leadership relevance for motivating employees and fostering a culture receptive to change (Jan Stewart, 2006; Stefanie Faupel and Stefan Süß, 2019). The empirics from our interviews underscore this assertion, highlighting traits such as adaptability, visionary thinking, and effective communication as not merely desirable but essential for navigating the complexities introduced by AI technologies. Leaders in our study exemplified these traits, actively shaping a work environment where employees are not only prepared but are enthusiastic participants in the innovation process. This direct correlation with successful AI integration lends credence to the argument that transformational leadership is instrumental in managing technological upheaval, a central element of our literature review.

Usman (2020) and Carmeli et al. (2014) discuss how transformational leadership fosters a culture of innovation critical for embracing AI-driven change. Our empirics illustrate this by showing leaders who not only advocate for but also enact principles of innovation and learning, crucial for AI adoption. For instance, the creation of “Innovation AI Communities” and the conduct of AI hackathons as mentioned by our participants are practical implementations that reflect leadership strategies enhancing organizational learning and adaptability.

Communication is a vital element in transformational leadership. The empirical evidence in this thesis demonstrates how leaders use communication not just as a tool for information dissemination, but as a strategic asset to influence employee perception and involvement in AI initiatives. Effective communication serves as a critical bridge between management’s vision for

AI integration and the broader employee base, ensuring that everyone understands and aligns with the organizational direction and even to a certain extent the societal direction of AI in organizations. Moreover, in rapid technological advancements and consequent shifts in workplace dynamics, the role of communication in transformational leadership becomes even more evident. Furthermore, the literature review raises concerns about the ethical implications of AI in organizations (Moynihan and Wright, 2012). The empiric complement this discussion by revealing how transformational leaders actively manage these ethical dilemmas, by adhering to ethical AI practices and by fostering an environment where ethical concerns are openly discussed and addressed. During interviews with numerous AI leaders for this study, it became apparent that ethical AI is an important topic of discussion. While the urgency with which these ethical issues are addressed varies from leader to leader, there is a shared recognition of the need for leadership and effective communication about AI's use cases and role in the organization. Many leaders stressed the importance of being transparent about how AI is used within organizations, especially concerning issues of accountability and responsibility. Transformational leaders, known for their integrity and ability to inspire, are naturally at the forefront of these discussions.

7.3 Implications

The findings from this study have significant implications for both practitioners and theorists. For organizational leaders, understanding the impact of their leadership style on AI adoption and employee innovation is crucial. Our study suggests that by adopting transformational leadership practices, leaders can not only enhance AI integration success but also boost innovation and adaptability among employees. For researchers, this study highlights the need for further exploration into the specific mechanisms through which transformational leadership can mitigate the challenges posed by technological disruptions and more specifically a significant disruption such as AI. Beyond organizational boundaries, the implications of this research touch on broader societal concerns, such as job displacement due to AI and the ethical responsibilities of leaders to mitigate such effects. This discussion underscores the need for a balanced approach that considers both technological advancement and its human impact.

7.4 Discussion of limitations

While this study provides valuable insights, it also comes with limitations. The reliance on qualitative interviews, though rich in detail, limits the generalizability of the findings. Additionally, the perspectives are confined to those of leaders, which may incorporate biases towards positive portrayals of their leadership efforts and successes. Future research could benefit from incorporating the views of employees to provide a more balanced perspective on the effectiveness of transformational leadership practices.

7.5 Recommendations for future research

Future studies should explore the impact of transformational leadership on AI integration across different organizational contexts and cultures to enhance the robustness and applicability of our findings. Additionally, quantitative studies could be employed to measure the specific impacts of various transformational leadership behaviors on employee innovation and adaptability metrics.

This research has demonstrated a clear relationship between transformational leadership and employee adaptability within the context of AI integration. Nevertheless, further studies can build on these findings by exploring innovative approaches to refine and shape transformational leadership for addressing the challenges and uncertainties that arise with AI. For example, future studies could explore how evolving communication practices might help leaders address the complexities and anxieties of AI adoption more effectively. Understanding how leaders can refine their communication methods to provide clarity and inspire confidence would be valuable for guiding employees through technological transitions through the lens of transformational leadership and existing literature on this topic.

7.6 Conclusion

The empirical data demonstrates the crucial role of transformational leadership in businesses' adoption of AI and their ability to effectively navigate the uncertainties associated with AI integration. The empirical evidence from the actual world underscores the crucial role of transformational leadership in successfully using AI in enterprises. This study addresses a significant need by establishing a connection between theoretical concepts and practical

instances where leaders effectively navigate technological developments. It emphasizes the ability of these leaders to establish a forward-thinking and ethical work environment, which is essential in view of the rapid pace of technological advancements in today's world. The empirical evidence demonstrates how leaders effectively use characteristics of transformational leadership, such as flexibility, ethical foresight, and clear communication. These attributes contribute to the development of a business culture that flourishes in the face of technological breakthroughs.

This thesis highlights the need of transformational leadership in enabling firms to not only manage but also strategically take advantage of the possibilities brought forth by AI. This statement encourages continuous academic discussion on the intricate relationship between leadership, technology, and organizational adaptability. It also suggests that further study should investigate various leadership styles and their efficacy in different technological breakthroughs. This thesis and its empirical results acknowledge the importance of various leadership theories that may be essential for AI-driven transformation and innovation. Conversely, it emphasizes certain characteristics of transformative leadership that are crucial in promoting employee innovation and satisfaction. The purpose of examining transformational leadership attributes is to deepen our comprehension of successful leadership within the AI environment, without implying that these traits are the exclusive ones of importance for navigating technological advancements.

References

Bankins, Sarah & Formosa, Paul. (2023). The Ethical Implications of Artificial Intelligence (AI) For Meaningful Work. Journal of Business Ethics. 185. 1-16. 10.1007/s10551-023-05339-7.

Bankins, Sarah & Ocampo, Anna & Marrone, Mauricio & Restubog, Simon & Woo, Sang. (2023). A multilevel review of artificial intelligence in organizations: Implications for organizational behavior research and practice. Journal of Organizational Behavior. 45. 10.1002/job.2735.

Bass, B. M. (1999). Two Decades of Research and Development in Transformational Leadership. European Journal of Work and Organizational Psychology, 8(1), 9–32. https://doi.org/10.1080/135943299398410

Bass, B.M., & Riggio, R.E. (2005). Transformational Leadership (2nd ed.). Psychology Press. https://doi.org/10.4324/9781410617095

Berson, Y., & Avolio, B. J.(2004). Transformational Leadership and the Dissemination of Organizational Goals: A Case Study of a Telecommunication Firm. The Leadership Quarterly, 15, 625-646. http://dx.doi.org/10.1016/j.leaqua.2004.07.003

Bolden, Richard & O'Regan, Nicholas. (2016). Digital Disruption and the Future of Leadership: An Interview With Rick Haythornthwaite, Chairman of Centrica and MasterCard. Journal of Management Inquiry. 25. 10.1177/1056492616638173.

Burns, J. M. (1978). Leadership. New York: Harper and Row.

Cao, T.T. and Le, P.B. (2024), "Impacts of transformational leadership on organizational change capability: a two-path mediating role of trust in leadership", European Journal of Management and Business Economics, Vol. 33 No. 2, pp. 157-173. https://doi.org/10.1108/EJMBE-06-2021-0180

Carmeli, Abraham & Sheaffer, Zachary & Binyamin, Galy & Reiter-Palmon, Roni & Shimoni, Tali. (2014). Transformational Leadership and Creative Problem-Solving: The Mediating Role of Psychological Safety and Reflexivity. The Journal of Creative Behavior. 48. 10.1002/jocb.43.

Chen, M.Y., Lin, C.Y., Lin, H., & McDonough, E.F. (2012). Does transformational leadership facilitate technological innovation? The moderating roles of innovative culture and incentive compensation. Asia Pacific Journal of Management, 29, 239-264.

Dhamija, P., Chiarini, A. and Shapla, S. (2023), "Technology and leadership styles: a review of trends between 2003 and 2021", The TQM Journal, Vol. 35 No. 1, pp. 210-233. https://doi.org/10.1108/TQM-03-2021-0087

Faupel, S., & Süß, S. (2019). The Effect of Transformational Leadership on Employees During Organizational Change – An Empirical Analysis. Journal of Change Management, 19(3), 145–166. https://doi.org/10.1080/14697017.2018.1447006

Gyanamurthy, V., & Radhanath, S. (2023). Leading Change in the AI Era: Strategies for Transformational Leadership. International Journal of Advanced Engineering Technologies and Innovations, 1(04), 164-184.

Hay, Iain. (2006). Transformational leadership: characteristics and criticisms. E-Journal of Organizational Learning and Leadership. 5.

Hershatter, A., & Epstein, M. (2010). Millennials and the World of Work: An Organization and Management Perspective. Journal of Business and Psychology, 25, 211-223.

Huang, M.-H., Rust, R. T., & Maksimovic, V. (2019). The feeling economy: Managing in the next generation of artificial intelligence (AI). California Management Review.

Humphreys, J.H. and Einstein, W.O. (2003). "Nothing new under the sun: transformational leadership from a historical perspective", Management Decision, Vol. 41 No. 1, pp. 85-95. https://doi.org/10.1108/00251740310452934

Kane, Gerald. (2019). The Technology Fallacy: People Are the Real Key to Digital Transformation. Research-Technology Management. 62. 44-49. 10.1080/08956308.2019.1661079.

Kaur, Mandeep & Gandolfi, Franco. (2023). Artificial Intelligence in Human Resource Management - Challenges and Future Research Recommendations. Review of International Comparative Management. 24. 382-393. 10.24818/RMCI.2023.3.382.

Ku. Chhaya A. Khanzode and Ravindra D. Sarode, Advantages and Disadvantages of Artificial Intelligence and Machine Learning: A Literature Review, International Journal of Library and Information Science, 9(1), 2020, pp. 30-36. doi: https://doi.org/10.17605/OSF.IO/GV5T4

Mittelstadt, B., & Floridi, L. (2015). The Ethics of Big Data: Current and Foreseeable Issues in Biomedical Contexts. Science And Engineering Ethics.

Mohamed, I.A.H. and Otman, N.M.M. (2021). Exploring the Link between Organizational Learning and Transformational Leadership: A Review. Open Access Library Journal, 8, 1-19. doi: 10.4236/oalib.1107242.

Moynihan, D.P., Pandey, S.K. & Wright, B.E., 2012. Setting the Table: How Transformational Leadership Fosters Performance Information Use. Journal of Public Administration Research and Theory. Available at: https://doi.org/10.1093/jopart/mur024.

Morandini, Sofia & Fraboni, Federico & De Angelis, Marco & Puzzo, Gabriele & Giusino, Davide & Pietrantoni, Luca. (2023). The Impact of Artificial Intelligence on Workers' Skills: Upskilling and Reskilling in Organisations. Informing Science. 26. 39-68. 10.28945/5078.

Noponen, Niilo. (2019). Impact of Artificial Intelligence on Management. 24. 43-50.

Northouse, P. G. (2016). Leadership, Theory and Practice (7th ed.). Thousand Oaks, CA: Sage Publications Inc.

Pawar, Subhash & Dhumal, Vrushali. (2024). The role of technology in transforming leadership management practices. Multidisciplinary Reviews. 7. 2024066. 10.31893/multirev.2024066.

Raisch, Sebastian & Birkinshaw, Julian & Probst, Gilbert & Tushman, Michael. (2009). Organizational Ambidexterity: Balancing Exploitation and Exploration for Sustained Performance. Organization Science. 20. 685-695. 10.1287/orsc.1090.0428.

Saunders, M., Lewis, P., & Thornhill, A. (2019). Research Methods for Business Students. Pearson.

Schiuma, G., Schettini, E., Santarsiero, F., & Carlucci, D. (2021). The Transformative Leadership Compass: Six Competencies for Digital Transformation Entrepreneurship. International Journal of Entrepreneurial Behavior & Research, 28, 1273-1291. https://doi.org/10.1108/IJEBR-01-2021-0087

Shu, Q., Tu, Q., & Wang, K. (2011). The Impact of Computer Self-Efficacy and Technology Dependence on Computer-Related Technostress: A Social Cognitive Theory Perspective. International Journal of Human–Computer Interaction, 27(10), 923–939. https://doi.org/10.1080/10447318.2011.555313

Stalidis, George & Karapistolis, Dimitrios & Vafeiadis, Thanasis. (2015). Marketing Decision Support Using Artificial Intelligence and Knowledge Modeling: Application to Tourist Destination Management. Procedia - Social and Behavioral Sciences. 175. 10.1016/j.sbspro.2015.01.1180.

Stewart, Jan. (2006). Transformational Leadership: An Evolving Concept Examined Through the Works of Burns, Bass, Avolio, and Leithwood. Canadian Journal of Educational Administration and Policy. 54.

Tiwari, Rudra. (2023). The Impact of AI and Machine Learning on Job Displacement and Employment Opportunities. International Journal of Engineering Technologies and Management Research. 7. 10.55041/IJSREM17506.

Usman, Muliati. (2020). Transformational Leadership and Organizational Change: In The Context of Today's Leader. International Business Education Journal. 13. 95-107. 10.37134/ibej.vol13.1.8.2020.

Wirth, Norbert. (2018). Hello marketing, what can artificial intelligence help you with?. International Journal of Market Research. 60. 435-438. 10.1177/1470785318776841.

Yanqing Duan, John S. Edwards, Yogesh K Dwivedi. 2019. Artificial intelligence for decision making in the era of Big Data – evolution, challenges and research agenda, International Journal of Information Management, Volume 48, Pages 63-71, ISSN 0268-4012, https://doi.org/10.1016/j.ijinfomgt.2019.01.021.

Appendices

Appendix 1 - Inclusion Criteria

Has held a current or prior senior role within a technology department, or top management or advisory positions.

Fully or partly responsible for conducting or supporting AI-transformation

Based in Europe

Appendix 2 - Interview Guide English

Ethics:

1. Participation is voluntary.
2. Ensuring participants know that they, together with the organization they represent, will be strictly anonymous
3. Ensuring participants are informed that they may interrupt or leave the interview at any time without any obligations and explanations
4. Asking for permission to record this interview

Questions

The questions asked varied depending on the answers and the direction of the conversation, given the approach performed is a semi-structured interview approach. The questions varied partly depending on whether it was the first or second round of interview sessions. However this was a standardized framework.

Introductory question: How would you describe your leadership style?

- How do you perceive the relationship between leadership styles and the adoption of AI within your organization?
- Have you observed any changes in leadership styles or approaches as a result of the increased use of AI?
- Have you been responsible for carrying out any AI implementation? Could you tell me more about it?

If the answer is "NO", the interview will be ended.

If the answer is "YES", the interview will proceed.

- How have the employees perceived the change connected to AI? And how have you been able to shape it?
- What ethical considerations arise from the intersection of leadership practices and AI?
- Do the employees' get any competence development in connection with the adoption of AI? Do they receive any specific coaching or similar?

The email sent to potential interview prospects, by one of the researchers:

Swedish version:

Hej [Förnamn],

Mitt namn är Aiham, jag och min partner Firas, är två studenter som går sista året på Handelshögskolan i Stockholm där vi läser Business and Economics. Vi håller på att utforska relationen mellan ledarskapsstilar och AI, och hur det förstnämnda kan påverka anställdas anpassningsförmåga och innovation vid AI-drivna organisationsförändringar.

Vi ser att du har kunskap inom detta område och undrar om du skulle kunna tänka dig ställa upp på en kort digital intervju, 15-30 minuter, där du delar med dig av dina erfarenheter och expertis? Det skulle vara ovärderligt!

Tack på förhand!

Med vänliga hälsningar,
Aiham och Firas

English version:

Hi [First name],

My name is Aiham, and I am together with my partner Firas, two third-year students in Business and Economics at Stockholm School of Economics. We are currently diving into the world of leadership style and AI, in particular we are investigating how leadership styles can influence employee adaptability and innovation in the context of AI-driven organizational change.

You seem to be knowledgeable about this topic and we are therefore wondering if we could have a 15-30 min digital interview where you can share your experiences and expertise? Your contribution would be of great value!

Thank you in advance!

Best regards,

Aiham and Firas