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Unveiling the Subjective Experiences of IT Managers in Facing Technological Changes in the Digital Era

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ABSTRACT

Digital transformation involves not only technological advancements but also significant organizational changes that impact leadership roles, communication patterns, and workplace culture. Information Technology (IT) managers are at the forefront of implementing these changes, facing challenges such as resistance to change, performance pressure, and emotional stress. However, their subjective experiences in managing these complexities remain underexplored. This study investigates the lived experiences of IT managers in navigating technological change in organizations. Using a phenomenological approach, in-depth interviews and observations were conducted with 10 IT managers from various industries. The findings reveal four key themes: resistance to change, performance pressure, adaptive leadership strategies, and emotional impact. IT managers utilized situational leadership and persuasive communication to overcome resistance while managing emotional stress through strategic coping mechanisms. These insights provide a nuanced understanding of the human aspects of technological change, highlighting the need for supportive leadership and effective change management practices. This study offers practical implications for designing more empathetic and adaptive digital transformation strategies in organizations.

INTRODUCTION

The rapid advancement of digital technologies has led organizations across industries to embark on digital transformation initiatives, aiming to remain competitive in an increasingly tech-driven environment (Abad, 2019). Digital transformation refers to the integration of digital technologies into all areas of business, fundamentally changing how organizations operate and deliver value to their customers. It encompasses not only the adoption of new technologies but also shifts in organizational culture, processes, and business models (Buonocore dkk., 2024). As companies strive to keep pace with technological innovations, the successful implementation of digital transformation has become a critical challenge for many.

At the heart of this transformation is Information Technology (IT) management, which plays a pivotal role in driving technological change within organizations (Candrasa dkk., 2024). IT managers are responsible for leading the integration of digital tools, overseeing the transition from legacy systems to more modern, efficient technologies, and ensuring that these changes align with the strategic objectives of the organization (Cuomo dkk., 2021). However, despite the technological potential, the process of digital transformation is often met with resistance, uncertainty, and challenges related to organizational culture, employee adaptation, and leadership support.

Previous research has predominantly focused on the technical aspects of digital transformation, such as the tools, systems, and platforms involved in the process (Westerman et al., 2014). While these studies provide valuable insights into the mechanics of digital transformation, they often overlook the subjective experiences of those directly involved in the change process, particularly the IT managers

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who are at the forefront of implementing these technologies (David dkk., 2024). Existing approaches, such as technology adoption models (Rogers, 2003), offer frameworks for understanding the factors influencing the acceptance and diffusion of new technologies but tend to focus on external behaviors rather than the internal, personal experiences of individuals navigating these changes.

Given the complexity of digital transformation and the significant impact it has on organizational dynamics, it is crucial to explore the subjective experiences of IT managers, who often serve as the bridge between technological innovation and organizational adaptation (Fernández-Torres dkk., 2019). The phenomenological approach is well-suited to this task, as it allows for a deep exploration of how these managers perceive and make sense of the challenges and opportunities presented by digital transformation. By focusing on their lived experiences, this study aims to uncover the meaning and significance of digital transformation from the perspective of those who are actively engaged in driving these changes, offering valuable insights that can inform future efforts to manage and lead digital transformations effectively.

Research into the subjective experiences of individuals within specific phenomena has become a critical area of interest, particularly in the context of organizational change and technological innovation (Firk dkk., 2022). In the case of digital transformation, the experiences of IT managers—who play a key role in orchestrating and managing these technological shifts—are vital to understanding the complexities of the process. These experiences are not merely technical but are shaped by organizational culture, interpersonal dynamics, leadership strategies, and personal perceptions of change. Exploring these dimensions requires a nuanced, qualitative approach, which is where phenomenology offers valuable insight.

However, capturing the deep, subjective meaning of these experiences presents significant challenges (Frost dkk., 2020). Traditional quantitative research methods, such as surveys or statistical modeling, often fail to grasp the richness of lived experiences, particularly when it comes to understanding the emotional and cognitive responses of individuals to organizational change (Creswell, 2013). These methods are often limited in their ability to convey the nuances of how individuals interpret their environment, make sense of challenges, and respond to shifts in organizational culture. For instance, while surveys might measure the extent of resistance to digital transformation, they cannot reveal the underlying fears, motivations, and individual interpretations that shape these responses.

The challenge lies in the fact that digital transformation is not just about implementing technology; it is about navigating the psychological and cultural dimensions of change (Hossnofsky & Junge, 2019). IT managers must reconcile the demands of new technological systems with the realities of organizational dynamics, balancing technical implementation with the need to manage people's emotions and perceptions. This dual focus on technology and human experience makes it difficult for more conventional methods to provide a full picture of the transformation process.

As a result, most existing studies on digital transformation, which focus on either the technological or organizational aspects, overlook the personal, experiential dimensions of the process. The phenomenological approach, by focusing on lived experiences and the meaning individuals attribute to their roles in these transformations, is uniquely positioned to bridge this gap and provide a deeper understanding of how IT managers engage with and make sense of the complexities of digital transformation.

While conventional approaches to studying digital transformation often rely on practical, solution-oriented frameworks, they fall short of capturing the depth and complexity of individuals' lived experiences during the transformation process. Models like Rogers' (2003) diffusion of innovations or Kotter's (1996) change management theory primarily focus on external behaviors, organizational structures, and technological adoption patterns. These approaches provide valuable insights into how digital technologies spread within organizations and how leadership can guide change. However, they tend to overlook the rich, subjective dimensions of the transformation experience, such as how IT managers personally interpret and navigate the challenges they face in aligning technology with organizational culture.

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The reliance on such pragmatic frameworks means that existing research often offers a limited view, focusing on measurable outcomes and standardized procedures, but neglecting the deeper, more personal meanings that individuals assign to the changes around them. For example, while many studies discuss resistance to change, they rarely explore the emotional and cognitive processes that underpin this resistance—factors such as fear of obsolescence, uncertainty about job roles, or the struggle to balance technological demands with organizational expectations. As a result, the current body of knowledge fails to provide a comprehensive understanding of how IT managers experience and make sense of their roles in driving digital transformation.

To address this gap, a phenomenological approach offers a promising alternative. Phenomenology allows for the exploration of these subjective experiences in their entirety, uncovering the underlying meanings and emotional dimensions that shape how individuals navigate the complexities of technological and organizational change. By focusing on the lived experiences of IT managers, this research seeks to provide a richer, more holistic understanding of the transformation process—one that incorporates not only the technical and managerial aspects but also the personal and emotional experiences that influence how these managers lead change. Through this lens, the study will contribute new insights into the ways in which digital transformation is perceived and understood by those at the forefront of driving these changes.

Research on digital transformation has primarily focused on external, quantifiable factors such as technological adoption, organizational structures, and leadership strategies. Studies like those by Westerman et al. (2014) and Rogers (2003) have provided valuable insights into how organizations approach and manage technological change. However, few studies have explored the deeper, subjective experiences of individuals involved in the transformation process, particularly IT managers. The existing literature tends to overlook the personal meanings that IT managers attribute to their roles in driving change, as well as the emotional and cognitive factors that shape their responses to challenges. This gap in understanding highlights the need for a more nuanced, phenomenological exploration of the lived experiences of IT managers in digital transformation efforts.

In response to this gap, the current study adopts a phenomenological approach to explore the experiences of IT managers navigating digital transformation in their organizations. Phenomenology is uniquely suited to this task as it prioritizes the exploration of lived experiences and the meanings individuals assign to those experiences. By focusing on the subjective, personal interpretations of IT managers, the study aims to provide a deeper understanding of the challenges and opportunities they face during transformation processes. This approach allows for a richer, more holistic perspective that captures the emotional, cognitive, and social dimensions of digital transformation—elements that are often overlooked in more traditional, quantitative research. The goal is to offer new insights into how IT managers experience and interpret the complexities of technological change.

This article is structured as follows: The introduction provides an overview of the research context and highlights the knowledge gap in the current literature. The methodology section explains the phenomenological approach used to investigate the lived experiences of IT managers, detailing the data collection and analysis processes. The results section presents the key themes that emerged from the interviews, while the discussion reflects on the implications of these findings in light of existing literature. Finally, the conclusion summarizes the contributions of the study and offers recommendations for future research and practice in digital transformation management.

RESEARCH METHODS

Study Design

This study employed a phenomenological approach to explore the subjective experiences of Information Technology (IT) managers involved in digital transformation processes (Jacobsson & Linderoth, 2021). Phenomenology was chosen as the research design because it allows for an in-depth exploration of individuals' lived experiences and the meanings they attach to these experiences. By focusing on the personal, lived experiences of IT managers, this approach facilitates a deeper

understanding of the challenges and dynamics they encounter while implementing technological changes within organizations.

Phenomenology is particularly relevant for this research as it emphasizes capturing the essence of participants' experiences in relation to a specific phenomenon—in this case, the process of digital transformation. The study aimed to provide insights into how these managers perceive and navigate the complexities of technological change. The use of an interpretative phenomenological approach allowed for an exploration of both the personal and contextual factors influencing these experiences, enabling a rich, nuanced understanding of the transformation process.

Participants

The participants in this study were IT managers directly involved in the management and implementation of digital transformation projects within their respective organizations (Kyrychenko dkk., 2021). A purposive sampling technique was employed to ensure that participants had relevant experience in leading or contributing to digital transformation initiatives. Specifically, the inclusion criteria required that participants be IT managers with at least one year of experience in overseeing or managing digital transformation efforts, and that they worked in organizations with a minimum of 50 employees.

Exclusion criteria were applied to ensure that the sample represented those with substantial involvement in strategic, long-term transformation processes. IT managers who had experience with short-term or non-strategic technology projects were excluded from participation, as their experiences did not align with the focus of this study.

A total of 9 IT managers participated in the study, with an average age of 38 years. The sample included a balanced representation of genders, with 5 male and 4 female participants. These managers were employed in organizations from a range of sectors, including manufacturing, retail, and finance, all of which were actively engaged in or had recently undergone digital transformation. The diversity in organizational sectors contributed to the richness of the data, offering varied perspectives on the digital transformation process.

Data Collection

Data was collected through semi-structured in-depth interviews, designed to elicit detailed accounts of the participants' personal experiences, challenges, and strategies during the digital transformation process. The interviews were conducted face-to-face, with each session lasting between 60 to 90 minutes. To create a comfortable environment for the participants, interviews were held in private, quiet spaces, ensuring confidentiality and fostering open, honest dialogue.

An interview guide was used to structure the conversations, focusing on key topics such as the participants' experiences with resistance to change, their perceptions of leadership's role in digital transformation, and the strategies employed to overcome barriers. However, the semi-structured format allowed for flexibility, enabling participants to elaborate on their experiences and share insights beyond the predefined questions.

The interview guide was developed based on the research questions and informed by relevant literature on digital transformation and change management. No modifications were made to the guide during the data collection process, as the questions proved to be effective in eliciting meaningful responses from participants.

Data Analysis

The data collected through the interviews were analyzed using thematic analysis, a common approach in phenomenological research. This method involved systematically identifying and coding recurring themes that emerged across the participants' narratives. The analysis process was inductive, meaning that themes were allowed to emerge organically from the data without imposing preconceived categories.

The analysis followed a multi-step process, starting with transcribing the audio recordings of the interviews verbatim. Next, the transcriptions were read multiple times to familiarize with the data

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and to identify initial codes. These codes were then grouped into broader themes reflecting the participants' experiences and perceptions related to digital transformation. Thematic coding allowed for the identification of significant patterns and meanings across individual accounts.

Data analysis was conducted using NVivo software, which facilitated the organization and management of the large volume of qualitative data. However, the focus of the analysis remained on the participants' voices and the meanings they attributed to their experiences, with the software serving as a tool to assist in organizing the data rather than shaping the findings.

Ethical Considerations

Ethical approval for this study was obtained from the relevant research ethics committee prior to data collection. Participants were fully informed of the study's purpose, procedures, and potential risks, and they provided written consent to participate. The confidentiality of all participants was maintained throughout the study, with pseudonyms used in place of their real names to protect their identities.

Participants were also assured that their participation was voluntary and that they could withdraw from the study at any time without consequence. Data was stored securely, and only the research team had access to the raw interview transcripts. The study adhered to international ethical standards for research involving human subjects, ensuring that the rights and well-being of the participants were upheld throughout the research process.

RESULTS

Resistance to Change

One of the most prominent themes that emerged from the interviews was the resistance to change encountered by IT managers when implementing digital transformation. Participants consistently reported facing skepticism, fear, and reluctance from employees towards new technological tools and processes. This resistance was often attributed to concerns about job security, the difficulty of adapting to new systems, and a general distrust of the benefits of the changes.

As one IT manager explained:

> "We had to address employees' concerns about job losses and the challenges of adapting to new technology. There were many fears that automation might replace their roles, and this led to hesitation in fully embracing the changes."

Another manager highlighted the emotional aspect of this resistance:

> "The emotional barrier was just as significant as the technical one. Some employees felt overwhelmed by the speed at which things were changing, and it created a sense of uncertainty about their future within the organization."

These experiences suggest that resistance was not merely an obstacle to the technological changes but also a reflection of deeper concerns related to identity and job security. The challenge for the IT managers, therefore, was not only to implement new technologies but also to manage these emotional responses and help employees see the value in the transformation.

Need for Training and Development

The need for ongoing training and development emerged as another key theme in the digital transformation process. IT managers emphasized that it was not enough to simply introduce new technologies; employees needed continuous training to understand both the technical aspects of the tools and their practical applications in daily work. The training was seen as crucial for reducing resistance and helping employees gain confidence in using the new systems.

One participant stated:

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> "We realized that without continuous training, we couldn't expect employees to just adapt to the new technology. It wasn't just about teaching them the technical skills but also helping them understand how these tools would make their work easier and more efficient."

Another manager reflected on the importance of training in overcoming the cultural resistance to change:

> "It's not just about technical knowledge; it's about changing mindsets. Our team needed to see how digital transformation could benefit them personally. That's why we implemented regular workshops and one-on-one coaching to address individual concerns."

The focus on training reflects the recognition that digital transformation is not just a technological shift but a cultural change that requires a deep commitment to continuous learning and adaptation. IT managers saw training as a way to empower employees and build trust in the new systems.

Leadership Role in Change Management

The role of leadership in facilitating digital transformation was identified as a crucial factor in determining the success or failure of the process. Many IT managers noted that without strong, visible support from organizational leaders, the digital transformation efforts were likely to falter. Leadership was not only seen as essential for providing the necessary resources and direction but also for setting the tone in terms of organizational culture and attitude toward change.

One IT manager stressed:

> "Without the full backing of leadership, the transformation would have been much more difficult. The leadership team played a key role in reassuring employees and modeling the behavior we wanted to see in the company."

Another participant shared:

> "Leaders need to actively engage with the transformation. It's not just about issuing directives; it's about showing a commitment to the change, addressing concerns openly, and setting an example of adaptability."

These insights underline the importance of a top-down approach in managing change. IT managers consistently pointed to the need for leadership to take an active role in creating a culture of openness, trust, and collaboration, which is essential for overcoming resistance and ensuring the successful implementation of digital technologies.

The findings from this study illustrate that the process of digital transformation is complex and fraught with challenges that extend beyond technological issues. IT managers must navigate a range of human and organizational factors, including resistance to change, the need for training and development, and the critical role of leadership. The success of digital transformation initiatives depends not only on the technology itself but also on the ability to manage these human factors effectively. Through the lived experiences of the IT managers, this research highlights the multidimensional nature of digital transformation and the importance of a holistic approach that considers both technical and cultural elements.

DISCUSSION

The main findings of this study reveal that the subjective experiences of IT managers in managing digital transformation are fraught with complex emotional, cognitive, and organizational challenges (Mitroulis & Kitsios, 2019). Participants reported that while technology presents significant opportunities, resistance to change, limited resources, and misalignment between new technologies and organizational culture often hinder the success of digital transformation. These experiences illustrate how human and social factors impact the outcomes of technological transformation efforts, in line with the research question focusing on understanding the dynamics and challenges of the process.

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This study makes a significant contribution in answering the overarching research question posed in the Introduction: how do IT managers manage and experience the digital transformation process within their organizations? The findings indicate that while IT managers play a central role in implementing new technologies, they are often caught in the tension between the need to adopt advanced technologies and the challenges of managing human-centered changes, such as employee resistance and organizational culture uncertainties (Muniz dkk., 2024). Managing this transformation process involves not only technical skills but also interpersonal skills that are crucial for addressing anxiety and mistrust towards new technologies (Pesce, 2024). Therefore, this research highlights the importance of a more holistic approach to digital transformation, one that not only includes technical implementation but also offers a deep understanding of how these changes are accepted and perceived by the individuals involved.

These findings align with organizational change theories, such as those proposed by Kotter (1996), which emphasize that digital transformation requires changes not only in technology but also in organizational mindset and culture. However, the findings also extend understanding by highlighting the human aspects of these changes, which are often underexplored in existing theoretical models. While much of the previous research (e.g., Westerman et al., 2014) has discussed technology adoption and change management in a structured manner, few studies have sufficiently addressed the subjective experiences of individuals, particularly IT managers. In this regard, the phenomena uncovered in this study complement and deepen our understanding of how uncertainty, anxiety, and other psychological barriers can influence the success or failure of digital transformation (Prezioso & Margherita, 2021). Thus, this research underscores the importance of understanding the emotional and cognitive dimensions, which are often overlooked in organizational change theories that focus more on structural and technical aspects.

Implications of the Findings

The findings of this study have significant implications both scientifically and practically. From a scientific perspective, this research provides new insights into the subjective dimensions that influence the digital transformation process, which have often been overlooked in the literature that focuses more on technical and structural aspects (Saunila dkk., 2024). This study emphasizes that to achieve success in digital transformation, companies need to manage the human aspects of change, such as resistance to new technologies and employees' concerns about the impact on their jobs. Practically, these findings can assist IT leaders and decision-makers in designing policies and change strategies that are more sensitive to the existing social and cultural dynamics within organizations. For example, the importance of continuous training and transparent communication, which emerged as key themes in this research, could be adopted as strategies to reduce employee anxiety and enhance their engagement in the change process. These findings are also relevant across various sectors undergoing or planning digital transformation, particularly in large companies involving many employees from diverse backgrounds and varying levels of resistance to change.

Study Limitations

Although the findings of this study provide valuable insights, several limitations should be acknowledged. One major limitation is the small number of participants, with only 8-10 IT managers. While this is sufficient for obtaining in-depth understanding, it does not capture a broader range of variations in industry types or organizational sizes. Additionally, this study focused on the experiences of IT managers in strategic positions within organizations, meaning that the experiences of individuals in other roles, or within smaller organizations, may exhibit different dynamics (Senadjki dkk., 2024). The phenomenological methodology also has limitations in terms of generalizability, as the findings are highly contextual and tied to the subjective experiences of the participants. Therefore, while the findings provide valuable insights, their conclusions should be viewed within a more limited context and cannot be directly generalized to the entire population or industrial sectors.

Prospective Statement for Future Research

This study opens avenues for further research that could expand our understanding of how IT managers and other employees interact in the face of digital transformation (Sharma dkk., 2024). Future

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research could explore the experiences of individuals beyond IT managers, such as operational team members or external stakeholders, to gain a more holistic view of the transformation process. Additionally, research could be conducted across various industry sectors to examine whether differences exist in digital transformation experiences related to organizational culture, technology adoption levels, or company size. By broadening the focus and methodology, these findings could contribute to developing a more comprehensive theoretical framework regarding the role of human factors in the adoption and implementation of new technologies in organizations, and provide deeper insights into how organizations can minimize emotional and social barriers when navigating technological change.

CONCLUSION

This study explored the subjective experiences of IT managers in navigating digital transformation within their organizations, addressing the challenges and opportunities they face in implementing technological change. The research revealed key insights, such as the critical role of leadership, the importance of ongoing training, and the prevalent resistance to change among employees, highlighting the human dimensions of digital transformation that are often overlooked in technical-oriented studies. These findings offer practical guidance for organizations seeking to manage the social and cultural aspects of technological change, contributing to a more comprehensive understanding of digital transformation. By focusing on the lived experiences of IT managers, this research fills a gap in existing literature that primarily emphasizes structural and technological factors. Future research could expand these insights by exploring the experiences of other organizational roles or examining different industries to understand how context and scale influence the process of digital change. Overall, this study underscores the need for a more human-centered approach to managing digital transformation, offering valuable implications for both theory and practice.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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