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Chapter

Organizational Culture Change and Technology: Navigating the Digital Transformation

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Abstract

The chapter investigates the critical relationship between technology and organizational culture change. It presents a framework that elucidates the interplay between technological adoption and the ensuing cultural shifts within organizations. The author delves into the various stages of the digital transformation process, examining the challenges and opportunities that organizations encounter as they integrate new technologies. By drawing on real-world examples and case studies, the chapter underscores the pivotal role that organizational leaders play in guiding their teams through these transitions, fostering a culture of adaptability, and promoting a growth mindset. The chapter also explores the importance of addressing the human element in digital transformation efforts, emphasizing the need to effectively manage change, overcome resistance, and bridge skill gaps to ensure a successful transition. Furthermore, the author discusses the ethical implications of adopting new technologies, advocating for a responsible and people-centric approach to innovation. In conclusion, the chapter offers a forward-looking perspective on the future of organizational culture in the digital era, anticipating emerging trends and novel technologies that will continue to shape the way organizations function. This informative chapter provides a valuable resource for understanding and navigating the complex interplay between organizational culture change and technology.

Keywords: organizational culture change, digital transformation, technological adoption, leadership and adaptability, ethical implications

1. Introduction

The digital age has brought about significant transformations in the way we live, work, and interact with one another. Technological advancements have allowed us to connect with people from all over the world, access vast stores of information at our fingertips, and automate a wide range of tasks. As these changes continue to unfold, it is increasingly apparent that technology is not only changing the way we live but also the way we work.

This chapter explores the interplay between organizational culture and technology in the digital era. I delve into the ways that technological advancements have influenced organizational culture and vice versa. I discuss how the adoption of new technologies has affected the way we communicate, collaborate, and make decisions within organizations. I also examine the ethical considerations associated with the use of technology in the workplace such as privacy and data security, job displacement, and environmental impact.

Furthermore, this chapter outlines the future of organizational culture in the digital era. I discuss how remote work arrangements and the increasing significance of diversity and inclusion are expected to impact corporate culture in the future. I also examine how the rapid development of automation and artificial intelligence technologies will continue to influence corporate culture, and the potential effects on employee well-being, work happiness, and mental health as they become more integrated into many facets of organizational life.

Ultimately, the dynamic interplay between organizational culture and technology is complex and multifaceted. As the rate of technological change quickens, businesses must continue to be watchful and proactive in spotting new trends and cutting-edge technologies that will influence organizational culture in the future. By doing this, organizations may foster a culture that is more adaptable, resilient, and inclusive, setting themselves up for long-term success in a setting that is dynamically unstable and uncertain.

2. The framework of the digital transformation

Numerous breakthroughs and technological advancements at the beginning of the digital age have changed how businesses function [1]. The interaction between technological adoption and subsequent cultural shifts inside businesses becomes an intriguing research topic as technology continues to advance at an exponential rate. Understanding the difficulties and opportunities brought on by these developments requires a framework that clarifies this interaction.

Organizations must first recognize the potential advantages of adopting new technologies before the adoption process can begin [2]. This understanding frequently results from a knowledge of the competitive environment and a desire to stay relevant in the face of upheaval [3]. The sheer use of technology, however, does not ensure success. To ensure the successful adoption and utilization of new technologies, corporate culture must undergo a fundamental transition [4].

Technology advances must be successfully implemented, and organizational culture, which is the shared values, assumptions, and beliefs that shape behavior within a company [5], is a key determinant. A positive cultural shift that embraces change is necessary to create an atmosphere in which people feel empowered to try new things, learn new things, and adapt to new ways of doing things [6]. Promoting a growth attitude, open communication, and teamwork are essential components in creating a culture that welcomes technology improvements [7].

It is crucial to take into account both the macro and micro-level factors that have an impact on this relationship in order to better understand how technological adoption and cultural changes interact. On a larger scale, firms are under a great deal of pressure to adapt due to the external environment, which is characterized by quick technological development, escalating competition, and altering customer

preferences [8]. Due to this external pressure, businesses must assess their current procedures and consider using new technology in order to stay competitive [9].

Simultaneously, at the micro-level, individual attitudes and behaviors play a vital role in the successful integration of technology within organizations. Research has shown that individual resistance to change can hinder the successful implementation of technological innovations [10]. Thus, organizations must invest in training, skill development, and change management initiatives to ensure employees are equipped to navigate the dynamic landscape shaped by technology [11].

In conclusion, a framework that elucidates the interplay between technological adoption and the ensuing cultural shift within organizations recognizes the complex interdependencies between macro-level environmental factors and micro-level individual behaviors. By understanding this interplay, organizations can better anticipate and navigate the challenges and opportunities that arise from technological advancements, ultimately fostering a culture that supports innovation, adaptability, and growth.

3. Stages of the digital transformation process

The digital transformation process, a multifaceted endeavor, has piqued the interest of scholars and practitioners alike as it involves the integration of new technologies into the core of an organization's operations, fundamentally altering the way it creates and delivers value to customers [12]. As organizations embark on their digital transformation journeys, they encounter a myriad of challenges and opportunities at various stages of the process. A deeper understanding of these stages, in conjunction with the associated challenges and opportunities, is essential for organizations seeking to navigate the complexities of digital transformation.

The acknowledgment of the need for change by an organization and the following creation of a future vision are what define the initial stage of digital transformation [1]. At this stage, firms struggle to determine the most pertinent technology and create a comprehensive strategy that is in line with their main business goals [4]. However, if firms keep a strong emphasis on strategic planning and resource allocation, the chances for growth and greater competitiveness that result from integrating digital technologies can offset these initial hurdles [3].

Organizations must deal with the challenges of integrating new technologies into their existing processes and infrastructure as they go to the deployment stage [13]. Effective change management is essential at this level because firms must deal with potential resistance from staff members who are concerned about how new technologies may affect their jobs and duties [10]. Organizations must make targeted training and skill development investments to promote a culture of learning and flexibility in order to address these issues and seize the potential for increased productivity and efficiency [11].

Organizations refine their usage of new technology and change their processes during the optimization stage of digital transformation to get the most benefit possible from these advances [14]. Organizations at this stage struggle to strike a balance between utilizing the advantages of current technology and remaining adaptable in the face of ongoing technological breakthroughs [6]. Organizations in this stage have opportunities if they can use data and analytics to guide decision-making and promote continuous improvement [15].

The ability of an organization to fully integrate new technologies into its core business processes and culture defines the maturity stage of digital transformation. At this point, the organization has achieved a level of digital readiness that enables it to continuously adapt and innovate in response to changing market conditions [16]. Organizations must negotiate the difficulty of maintaining their innovative edge at this level to avoid becoming complacent and risking falling behind their rivals [9]. Organizations that have successfully traversed the previous phases of digital transformation are well-positioned to use their digital capabilities for sustained growth and competitiveness, thus the prospects in this stage are wide [12].

In conclusion, the process of digital transformation takes place over a number of stages, each of which presents its own set of opportunities and problems for companies. Organizations can more successfully navigate the challenges of digital transformation by understanding the nuances of these stages and the implications that go along with them. In doing so, they will ultimately realize the enormous potential of new technologies to spur growth and competitiveness in the digital age.

4. The role that organizational leaders play in guiding their teams through transitions

Organizational leaders are crucial in supporting their staff through changes, establishing an adaptable culture, and encouraging a growth mentality in the quickly changing digital landscape [6]. Understanding the duties and skills needed of leaders to successfully manage these changes is essential given the growing incidence of digital transformation programs [1].

Leaders must first present a clear vision and strategy that is in line with the larger corporate goals and explain the advantages of adopting new technology as firms undergo digital transformation [12]. By sharing this vision, executives may address team members' potential fears and uncertainties while also instilling a sense of urgency and direction for the organization [17]. Additionally, as the environment is constantly changing, leaders must be adaptable and flexible in order to make changes in reaction to new knowledge and market conditions [9].

The development of a culture that welcomes change and adaptability is essential to guiding teams through digital transformation [5]. Organizational leaders can influence this culture by exhibiting actions that show a willingness to try new things, learn from mistakes, and adapt [18]. Cultivating a culture of adaptation requires fostering open communication, teamwork, and a willingness to challenge the status quo [19].

Additionally, leaders must encourage their team members to adopt a growth mentality [7]. This way of thinking, which is defined by the conviction that skills and intellect can be acquired *via* work and education, has been associated with higher levels of motivation, adaptability, and performance [20]. Leaders may foster a culture where team members feel empowered to adopt novel technology and strategies by praising and rewarding effort, tenacity, and ongoing learning, ultimately spurring innovation and growth [21].

The techniques and tactics used by these leaders to effectively manage the complexity of digital transformation can be better understood by real-world examples and case studies. Microsoft's change under CEO Satya Nadella's direction is one noteworthy example. Nadella realized right once that the company needed a cultural change to encourage innovation and agility in response to the quickly evolving digital

landscape [22]. He promoted a growth mindset, urging staff members to embrace a “learn it all” attitude rather than a “know it all” attitude [23]. Microsoft was able to revitalize its product line, enter new markets, and achieve tremendous growth by adopting this attitude [24].

The evolution of DBS Bank, a preeminent financial organization in Asia, is another intriguing case study. DBS Bank started a digital transformation journey under the direction of CEO Piyush Gupta [25]. Gupta promoted an organizational cultural shift by highlighting the value of cooperation, experimentation, and customer-centricity [26]. DBS Bank was able to successfully restructure its business model through these initiatives, utilizing digital technologies to optimize operations, enhance client experiences, and spur innovation [25].

Walmart is a shining example of a business adopting digital transformation to keep its competitive edge in the retail sector. Walmart has made significant investments in its e-commerce capabilities and introduced a number of digital initiatives targeted at improving the consumer experience, such as mobile apps and click-and-collect services, under the direction of CEO Doug McMillon [27]. A culture of innovation and adaptation has been fostered throughout the company thanks to McMillon’s leadership, allowing Walmart to maintain its lead in the quickly changing retail sector [28].

These case studies show how essential organizational leaders are in assisting their teams as they undergo digital transformation. These executives have effectively navigated the opportunities and challenges given by the digital revolution by adopting a growth mentality, encouraging an environment of adaptation, and continuously emphasizing customer-centricity.

In summary, organizational leaders are crucial in supporting their teams, while they undergo digital transformation, creating an environment that is flexible, and encouraging a growth attitude. Leaders may successfully negotiate the intricacies of technology change and position their organizations for long-term success in the digital age by fostering four crucial qualities.

5. The human element in digital transformation efforts

For firms hoping to stay competitive in today’s ever-changing business environment, digital transformation has become essential. While the successful implementation of new technology is an essential component of these efforts, the human element must also be taken into consideration [1].

Effective change management is essential for handling the human element of digital transformation [17]. This entails creating a distinct vision and strategy, outlining the advantages of change, and including staff members at every stage [12]. Organizational leaders may support the successful integration of new technology while also addressing possible worries and uncertainty among team members by encouraging a culture of adaptability and growth [19].

Overcoming this natural human predisposition to reject change is a major issue in efforts to implement digital transformation [29]. Engaging staff members in decision-making can help overcome this resistance by giving them a sense of ownership and influence over the changes being made [30]. Additionally, supplying continuing assistance, materials, and training can assist staff members in developing the abilities and self-assurance required to adopt new procedures and technology [31].

Another critical component of addressing the human factor in digital transformation is bridging skill gaps. Digital talents are increasingly in demand as businesses adopt new technologies. Organizations must make targeted training and development program investments to provide their personnel with the essential skills and abilities to solve this challenge [32]. Additionally, encouraging an environment of constant learning and development can assist firms in being flexible and adaptable in the face of ongoing technological progress [21].

In conclusion, successful initiatives to implement digital transformation must focus on the human factor. Organizational leaders can assure a smooth transition, utilize the advantages of digital technologies, and position their companies for long-term success in the digital age by skillfully managing change, overcoming resistance, and bridging skill gaps. The different aspects that affect an organization's workforce, such as change management, resistance to change, and the need to fill skill gaps, must be understood by organizational leaders. Leaders may foster a positive environment, where people can adapt, grow, and succeed despite the continuous digital transformation by being proactive and addressing these concerns. In turn, this enhances the organization's long-term success and competitiveness in the rapidly evolving digital landscape.

6. The ethical implications of adopting new technologies

The rapid adoption of new technologies has undeniably revolutionized the way we live and work, offering unprecedented opportunities for innovation, efficiency, and growth. However, the relentless pursuit of technological advancement also raises a number of ethical concerns, necessitating a responsible and people-centric approach to innovation [33].

One significant ethical concern associated with technological adoption is the potential impact on employment and income inequality [34]. As automation and artificial intelligence (AI) increasingly replace human labor in a variety of tasks, there are growing concerns about job displacement and the widening gap between the highly skilled and less-skilled workers [35]. To mitigate these negative consequences, organizations and policymakers must prioritize workforce retraining and skills development, ensuring that individuals have the necessary skills to adapt to the changing labor market [36].

Privacy and data security are also pressing ethical concerns in the digital age as organizations increasingly rely on the collection and analysis of vast amounts of personal data to drive decision-making [37]. The potential misuse of this data, as well as the risk of unauthorized access by malicious actors, raises important questions about the ethical boundaries of data collection and surveillance [38]. Organizations must, therefore, adopt rigorous privacy and security measures, while also being transparent about their data practices and ensuring that individuals have control over their personal information [39].

The environmental impact of technology adoption is another important ethical consideration. While new technologies have the potential to drive sustainability efforts and reduce our environmental footprint, they can also contribute to increased energy consumption and electronic waste [40]. Organizations must carefully consider the environmental implications of their technology choices and strive to minimize their ecological impact through responsible practices such as energy efficiency, recycling, and sustainable sourcing [41].

It is critical for organizational leaders, legislators, and society at large to have continual conversations about the implications of technological adoption in light of these ethical considerations. Stakeholders can collaborate to create frameworks and rules that strike a balance between the pursuit of innovation and the defense of human values, rights, and dignity by encouraging open discourse and ethical thought [42].

Organizations should also give ethical issues top priority when making strategic decisions, focusing on the interests and well-being of those who will be impacted by new technology and their communities [43]. To make sure that ethical issues are promptly addressed and incorporated into organizational procedures, this may entail putting in place ethical monitoring mechanisms, such as the usage of ethics committees or the employment of ethics officers [19].

In the end, overcoming the difficulty of managing the moral ramifications of technological adoption necessitates a team effort and a shared dedication to responsible innovation. Organizations, politicians, and society as a whole may work together to fully utilize the potential of new technologies while preserving the values and principles that define our humanity by acknowledging the significance of ethical considerations and taking a people-centric approach.

In conclusion, there are several ethical ramifications of implementing new technology, necessitating a responsible and human-centered approach to innovation. Organizations may choose the technologies they adopt more wisely by taking into account the social, economic, and environmental repercussions of their choices, helping to create a more egalitarian, secure, and sustainable future for all.

7. The future of organizational culture in the digital era

In reaction to new trends and cutting-edge technologies, organizational culture is about to go through considerable changes. The ongoing expansion of remote and flexible work arrangements is one trend that is anticipated to have a significant impact on corporate culture [44]. Since the COVID-19 epidemic has expedited the shift to remote work, firms must reconsider conventional ideas of collaboration, communication, and employee engagement as they adjust to this new reality [45]. It will be necessary to create new procedures and technologies to accommodate a more scattered workforce in addition to placing more focus on encouraging a sense of connectedness and shared purpose among all employees, regardless of where they are physically located [46].

The increasing significance of diversity and inclusion is another significant trend influencing organizational culture in the future [47]. Organizations in the digital age must work to foster a culture that values individuals with varied viewpoints, life experiences, and backgrounds because diverse teams are better able to spark creativity and address challenging issues [48]. This will need, in addition to the adoption of more inclusive hiring and retention procedures, a sincere dedication to developing a culture of decency, empathy, and belonging [49].

In the future, the rapid development of automation and artificial intelligence (AI) technologies will also continue to influence corporate culture [50]. Leaders will need to consider the moral ramifications of adopting these technologies, as well as their potential effects on employee well-being, work happiness, and mental health as they become more integrated into many facets of organizational life [33]. Organizations must establish a people-centric innovation strategy to overcome these obstacles,

ensuring that the advantages of AI and automation are fairly distributed and that any potential hazards are sufficiently addressed [51].

Organizations must take into account the possible effects of emerging technologies such as blockchain, the Internet of Things (IoT), and virtual reality (VR) on their organizational culture as they look to the future [52, 53]. These innovations have the potential to completely change how workers engage with one another and the company as a whole in terms of communication, collaboration, and decision-making [54]. Organizations must invest in the necessary infrastructure, training, and support, as well as address any potential ethical issues and make sure that staff members can adjust to these new tools and ways of working, in order to fully realize the potential of these technologies [55].

In conclusion, rising technology, changing labor dynamics, and shifting societal norms and expectations will interact in an increasingly complex and dynamic way to define organizational culture in the digital era. Organizations may build a more resilient, adaptable, and inclusive culture that is well-suited to thriving in the digital era by proactively tackling these obstacles and embracing the opportunities given by new technological breakthroughs.

8. The interplay between organizational culture change and technology

As businesses from all industries struggle with the intricate interactions between organizational culture change and technology, the digital era has brought up a wide range of benefits and problems. Technology adoption is both influenced by and results from organizational culture [5]. Organizations frequently undergo significant cultural changes as they embrace and integrate new technologies into their daily operations. These cultural changes can have an impact on whether these technology projects are successful or unsuccessful [56]. For instance, the implementation of communication and collaboration technologies can result in a culture that is more transparent and open, which would increase employee engagement and collaboration [57]. On the other hand, the use of monitoring and surveillance technologies might foster a climate of distrust and apprehension that eventually works against the organization's goals [37].

It is important to incorporate knowledge from many disciplines in order to comprehend this dynamic interaction better. For instance, organizational behavior provides insightful viewpoints on how people and teams interact with and are influenced by technology [58]. The fundamental mechanisms that promote successful technology adoption and integration inside businesses can be uncovered by studies by looking at elements such as individual characteristics, motivation, and communication [59].

However, management studies emphasize the structural and strategic aspects of technology adoption, offering guidance to organizational leaders on how to deal with the opportunities and problems presented by new technologies [9]. Technology studies offer a critical lens for examining the broader social, economic, and ethical implications of technology adoption within organizations. This includes understanding the role of leadership in fostering a culture of adaptability and innovation, as well as the significance of aligning technology investments with the organization's broader strategic objectives [33, 60]. Examining the unintended effects of emerging technology and promoting more responsible, human-centered approaches to innovation are some examples of this [42].

It is crucial for executives to comprehend the connections between cultural transformation and technology adoption as firms continue to traverse the digital era and to make use of the wealth of knowledge offered by diverse academic disciplines. To manage change and get over opposition, this requires encouraging a culture of ongoing learning and flexibility among staff members, as well as a growth attitude [7].

Additionally, organizations need to carefully weigh embracing the advantages that come with new technologies with considering the ethical ramifications of doing so [55]. This entails making sure that the advantages of innovation are dispersed fairly, as well as taking into account the potential effects of technology on employee well-being, job happiness, and mental health [33].

Finally, as the rate of technological change quickens, companies must continue to be watchful and proactive in spotting new trends and cutting-edge technologies that will influence organizational culture in the future. By doing this, businesses may foster a culture that is more adaptable, resilient, and inclusive, setting themselves up for long-term success in a setting that is dynamically unstable and uncertain.

In conclusion, by combining knowledge from a variety of disciplines, including organizational behavior, management, and technology studies, it is possible to gain a greater understanding of the intricate interactions between organizational culture change and technology. Organizations may create more effective strategies for handling the potential and challenges of the digital era by incorporating these various viewpoints, ultimately creating a culture that is well-prepared to flourish in the face of constant change and unpredictability.

9. Organizational culture theories and models

The study of organizational behavior and management has long recognized the significance of organizational culture in shaping employee behavior, influencing operational procedures, and impacting overall productivity. To gain insights into the diverse nature of organizational cultures, researchers have developed frameworks and models that offer a multidimensional understanding of cultural characteristics and their implications. By exploring these frameworks and models, organizations can gain valuable insights into their own culture, identify areas for improvement, and foster a positive and productive work environment.

The competing values framework (CVF) suggests four cultural kinds based on the contrasts between internal and exterior focus and flexibility and stability [61]. Clan, adhocracy, hierarchy, and market are a few examples of cultural types that offer insights into the norms, beliefs, and behaviors that distinguish various organizational cultures. The competing values framework's multidimensional structure is based on several theoretical stances. To create the framework, [62] drew influence from several disciplines, including organizational theory, management, and sociology. For a thorough knowledge of organizational culture, the CVF combines ideas from systems theory, organizational effectiveness, and cultural aspects. According to the CVF, there are four main cultural kinds, each of which is distinguished by organizational practices, attitudes, and behaviors.

1. Clan culture: Employee engagement, teamwork, and collaboration are prioritized in clan cultures. Clan cultures encourage a sense of community and prioritize fostering ties within the organization [61].

2. **Adhocracy culture:** The innovation, entrepreneurship, and adaptability that define adhocracy culture. Adhocracy-based organizations promote experimenting, taking calculated risks, and using a flexible approach to problem-solving [61].
3. **Hierarchy culture:** In hierarchy cultures, defined procedures, stability, and structure are stressed. Efficiency, defined roles and duties, and obedience to policies are valued in hierarchical organizations [61].
4. **Market culture:** Market culture places a strong emphasis on achievement, competition, and methods that are results-driven. Customer satisfaction, objective achievement, and attention to external market dynamics are prioritized in organizations with a market culture [61].

The CVF has applications for managing and comprehending organizational culture. The framework's cultural types can have an impact on organizational effectiveness, leadership philosophies, and strategic decision-making [61]. The framework supports attempts to promote cultural transformation, identify cultural gaps, and evaluate the current company culture.

The validity and application of the CVF in various organizational situations have been investigated through empirical investigations. Research by [63] gives proof of the CVF's ability to predict organizational outcomes such as employee commitment, performance, and satisfaction. These studies show the framework's applicability in actual organizational settings and add to its empirical underpinnings.

The Denison model highlighted the four cultural characteristics of engagement, consistency, flexibility, and mission [64]. It investigates the link between these cultural characteristics and organizational efficiency, emphasizing the value of a solid and adaptable culture in obtaining excellent performance. To provide a thorough knowledge of organizational culture, the Denison model draws on a number of theoretical stances. To provide a comprehensive framework, [64] combines ideas from systems theory, social psychology, and organizational behavior. The model places a strong emphasis on four crucial traits that together lead to a good organization: mission, adaptability, involvement, and consistency.

Mission: The Denison model's mission component is concerned with the strategic alignment and coherence of an organization. Strong mission-driven organizations display a common sense of purpose, specific goals, and a well-defined vision [64].

Adaptability: The adaptability dimension looks at an organization's capacity to meet changes and challenges from the outside. It includes traits such as adaptability, creativity, and the ability to learn and grow under challenging circumstances [64].

Engagement, participation, and employee empowerment levels within the organization are all reflected in the involvement dimension. Organizations with a high level of employee involvement encourage collaboration, ownership, and dedication [64].

Consistency: The alignment of systems, processes, and behaviors within the organization is the emphasis of the consistency dimension. Consistent organizations have coherence, distinct values, and a robust culture that penetrates every aspect of their operations [64].

The Denison model has applications in managing and comprehending organizational culture. It offers a framework for evaluating an organization's current cultural strengths and shortcomings, pinpointing opportunities for development, and directing cultural change initiatives.

The three levels of culture described by [65] include artifacts and behaviors, professed values, and underlying presumptions. This approach places a strong emphasis on how shared presumptions and ideas influence company culture, and how it affects how employees behave and make decisions.

According to Schein's three levels of culture paradigm, culture may be seen in three different ways: through objects and actions, professed beliefs, and underlying presumptions. These levels engage in specific interactions that influence organizational culture [65].

Objects and behaviors: On the surface, artifacts and behaviors are how culture is expressed. They comprise the physical setting, signs, customs, language, and the outward behaviors of the group's members [65]. These components offer hints about the deeper facets of culture.

Espoused ideals: Individuals inside the organization's represent their declared ideas and values through their espoused values. They are the clear manifestations of the organization's values, including its mission, objectives, and ethical standards [65]. Embedded values direct behavior and decision-making.

Underlying assumptions: Unconscious or taken for granted, underlying assumptions are the foundation of organizational culture. They are the deeply ingrained attitudes, expectations, and beliefs that shape how members view and interpret the outside world [65]. These presumptions influence behavior and are hard to alter.

The three levels of culture paradigm developed by Schein offers useful applications for comprehending and controlling organizational culture. It offers a guide for evaluating the outwardly apparent behaviors and artifacts, understanding the values upheld, and discovering the underlying presumptions. Organizations may better communicate, establish a healthy work environment, and connect their culture with their strategic goals thanks to this understanding [66].

Clan, adhocracy, hierarchy, and market are the four main organizational culture types identified by the framework provided by the organizational culture assessment instrument (OCAI) created by [61]. This paradigm makes it easier to evaluate and quantify organizational culture, assisting in the discovery of cultural assets and opportunities for development.

The clan, adhocracy, hierarchy, and market organizational cultures are the four categories identified by the competing values framework (CVF), which serves as the foundation for the OCAI model [61]. According to the paradigm, every organization has a dominant culture type that influences its members' beliefs, actions, and practices.

The OCAI model provides useful insights for identifying and controlling organizational culture. It is a structured assessment tool that enables companies to determine the type of culture they currently have and contrast it with the culture they would like to have. This knowledge makes it possible to implement focused interventions that will promote employee engagement, harmonize culture with strategic goals, and boost organizational performance [61].

The adaptability and efficacy of the OCAI model in diverse organizational situations have been confirmed by empirical study. For instance, [67] looked at the connection between organizational culture and organizational success and discovered that there is a correlation between performance and culture congruence. These studies add to the empirical support for the OCAI model and demonstrate its value for comprehending and controlling corporate culture.

10. Technology acceptance models

For organizations and people to succeed in the current digital world, technology must be widely adopted and used effectively. Researchers and practitioners have created a variety of technology acceptance models to better understand and anticipate technology adoption and usage patterns. These models are designed to provide light on the variables affecting people's acceptance and adoption of new technology.

Models of technology adoption act as frameworks for describing people's intent to adopt and use technology. These models take into account a number of variables, such as user beliefs, perceptions, attitudes, and behavioral intentions, that affect the acceptance and adoption of technology.

Technology acceptance model (TAM): Davis' technology acceptance model (TAM) is one of the most popular technology acceptance models [68]. Perceived utility and perceived usability are crucial variables in determining users' attitudes and behavioral intentions toward adopting technology according to TAM.

The UTAUT, or unified theory of acceptance and use of technology [59] created the unified theory of acceptance and use of technology (UTAUT) to combine and expand on a number of earlier technology acceptance models. Performance expectancy, effort expectancy, social influence, and facilitating conditions are the four main factors identified by UTAUT as influencing the uptake of technology.

Extended technology acceptability model (TAM2): By including new elements that affect technology acceptance, the extended technology acceptance model (TAM2) builds on the original TAM. TAM2, which was proposed by [69], comprises elements, including subjective norm, image, job relevance, output quality, and outcome demonstrability.

The Theory of Reasoned Action (TRA), created by [70], is a comprehensive social psychology theory that has been used to explain how people embrace new technology. According to TRA, a person's attitude toward a behavior and subjective norms can have an impact on their decision to accept a technology.

To explain consumers' acceptance and adoption behaviors, technology acceptance models rely on a variety of theoretical pillars. These foundations include diffusion of innovation theory, social psychology, and cognitive psychology.

Cognitive psychology: To explain how people create beliefs and attitudes toward technology, technology acceptance models include cognitive psychology principles. These models place a strong emphasis on cognitive processes, including information processing and decision-making, as well as perceived usefulness and usability.

Social psychology: Models of technology acceptance use social psychology concepts as social impact and subjective norms. These ideas emphasize how social variables, societal norms, and interpersonal influence affect people's decisions to accept new technologies.

Technology adoption models frequently cite Rogers' diffusion of innovation theory when discussing the spread of new ideas [71]. This theory examines variables such as innovativeness, compatibility, complexity, trialability, and observability to explain how ideas spread and are embraced within a social system.

For both researchers and practitioners, the application of technology acceptance models has important implications. The design and execution of technology-based treatments can be influenced by these models, which offer a framework for comprehending users' technology adoption habits. Organizations can create strategies to encourage technology adoption, enhance user experiences, and improve organizational performance by recognizing key factors impacting technology acceptance.

Technology acceptance models are essential for comprehending and forecasting how people will accept and adopt new technology. Models, such as TAM, UTAUT, TAM2, and TRA, offer useful insights into the variables that affect the acceptance and adoption of technology. These models provide a thorough understanding of users' ideas, attitudes, and intentions toward the adoption of technology by merging cognitive psychology, social psychology, and diffusion of innovation theory. These models' useful applications help businesses create efficient technology adoption strategies, enhance user experiences, and promote successful technology implementations.

Organizations can modify their strategies to overcome certain hurdles and increase the chance of technology adoption by utilizing the information offered by technology acceptance models. For instance, firms can emphasize the technology's perceived utility and simplicity in order to allay users' worries and boost their intention to adopt. Additionally, fostering good social norms and encouraging peer influence can help promote technology acceptance. These methods can be informed by an understanding of the social influence and subjective norms that drive technology adoption.

In addition, the design of user-centered interfaces, simple user interfaces, and efficient training programs can be influenced by technology acceptance models. Organizations can reduce complexity, give crystal-clear benefits and demonstrations of the technology, and foster an environment that encourages technology adoption by taking into account the elements outlined in these models. This can then result in greater productivity, better judgment, and superior organizational performance.

In summary, technology acceptance models offer useful perceptions into the variables affecting people's acceptance and adoption of new technologies. These models help organizations create efficient plans for fostering technology acceptance and adoption by taking into account users' beliefs, attitudes, and behavioral intentions. The theoretical underpinnings of these models are strengthened by the incorporation of cognitive psychology, social psychology, and diffusion of innovation theory. The applications of technology acceptance models enable businesses to enhance user experiences, adopt technology more effectively, and lead successful digital transformations.

11. The impact of digital transformation on organizational culture

Digital transformation is a strategic requirement for enterprises in the modern era and it is defined as the integration of digital technologies into various organizational functions. While technology developments are frequently the center of attention in the context of digital transformation, organizational culture is also significantly impacted.

The common values, beliefs, customs, and behaviors that influence the workplace and direct employee behavior are referred to as organizational culture. Due to their significant impact on work processes, communication channels, decision-making, and employee roles and responsibilities, digital transformation efforts have the potential to disrupt and redefine corporate culture.

Within enterprises, digital transformation develops an innovative and adaptable culture. It urges staff members to try new things, take chances, and value lifelong learning [72]. Organizations can increase productivity, automate jobs, and streamline operations by implementing digital technologies. Organizations must foster a growth

mentality, promote cooperation, and offer resources for continual learning and development in order to keep up with this trend toward innovation and agility.

A more empowered and collaborative workplace culture is frequently the result of digital transformation. Between teams and departments, smooth communication, knowledge exchange, and cooperation are made possible through digital tools and platforms [73]. This change calls for a culture revolution in which networked and decentralized decision-making processes replace hierarchical ones. Employee participation in cross-functional collaborations, sharing of ideas, and sharing of expertise are all encouraged, establishing an inclusive and empowered work environment.

In order to successfully implement digital transformation, organizations must be agile and responsive to ongoing change. It calls into question established working practices, needs a culture that welcomes change and ambiguity, and motivates staff to actively look for new opportunities. The promotion of a culture that encourages experimenting, learning from mistakes, and embracing change as a driver of progress is crucially dependent on organizational leaders.

There are difficulties associated with how digital transformation affects company culture. Organizations may encounter cultural inertia entrenched in conventional working methods, reluctance to change, and fear of job displacement [74]. Effective change management techniques, transparent communication, and employee engagement are required to overcome these obstacles. To provide employees the digital skills they need to succeed in the new workplace, organizations must engage in training and upskilling initiatives.

The effects of digital transformation on organizational culture have broad-ranging repercussions. A supportive and flexible culture can boost worker satisfaction, draw in and keep top talent, encourage creativity and innovation, and boost organizational performance. On the other hand, a mismatch between organizational culture and digital transformation initiatives can result in resistance, disengagement, and eventually the failure of transformation attempts. Therefore, to achieve congruence with their aims for digital transformation, organizations must actively manage cultural change.

Digital transformation has a big impact on company culture and goes beyond just being a technological activity. A cultural shift inside businesses is required to accommodate the shift toward innovation, empowerment, collaboration, adaptation, and flexibility. Organizations may traverse the difficulties and take advantage of the opportunities brought by the digital era by identifying and resolving the influence of digital transformation on organizational culture. To create a culture that supports successful digital transformation, it is essential to utilize effective change management techniques, involve employees, and invest in the development of digital skills.

12. Challenges and opportunities in adopting new technologies

Organizations constantly struggle with the problem of implementing new technology to stay competitive and foster creativity in today's quickly changing digital market. Adopting new technology comes with a number of difficulties:

1. **Technological complexity:** Because new technologies frequently have complicated features and functionalities, businesses must engage in learning about and mastering them [12]. With regard to technology selection, system integration,

and personnel training for the new technologies, this complexity can provide difficulties.

2. **Employee resistance to change:** The implementation of new technology can cause disruption to typical work processes and elicit resistance from staff members. Employees may worry about losing their jobs, encounter a learning curve, or be unsure about how new technologies will affect their roles and duties. Gaining employee buy-in and fostering a good culture of technology adoption requires strong change management tactics and transparent communication to address this opposition.
3. **Cost factors:** Adopting new technologies frequently entails high upfront expenses, such as infrastructure upgrades, technology acquisition, and training initiatives [75]. To justify the adoption of new technology, organizations must carefully consider the financial ramifications and prospective return on investment.
4. **Integration obstacles:** Adding new technology to current systems and procedures can be a difficult and time-consuming undertaking [12]. Organizations may encounter compatibility problems, data migration issues, and interoperability problems, necessitating the development of strong integration strategies and ensuring seamless system connectivity.

Adopting new technology also present substantial opportunity for development and transformation:

1. **Increased productivity and efficiency:** New technologies offer the potential to automate operations, streamline workflows, and boost operational effectiveness [76]. Organizations can improve resource utilization, lower manual errors, and boost productivity by implementing new technology, which will produce better business results.
2. **Innovation and competitive advantage:** Using new technologies, businesses can frequently innovate and set themselves apart from competitors [77]. They can provide a competitive edge by opening doors to new business models, product offers, and consumer experiences. Organizations that embrace technological improvements have the chance to lead in their respective marketplaces and pioneer industry disruptions.
3. **Data-driven insights:** Organizations now have access to priceless data and useful insights thanks to emerging technologies, such as artificial intelligence and data analytics [12]. These insights allow for the identification of fresh growth prospects, improved customer comprehension, and evidence-based decision-making.
4. **Better customer experience:** Making use of new technology can improve how customers are treated generally, which will increase customer loyalty and satisfaction [76]. Mobile applications, personalized marketing platforms, and customer relationship management systems are just a few examples of the technologies that help businesses meet changing customer expectations and provide tailored experiences.

A deliberate approach is necessary for the effective adoption of new technology, one that takes advantage of the potential and handles the problems. Organizations ought to:

1. Create a technology adoption strategy: Businesses should integrate technology adoption into their overall company strategy by outlining their objectives in detail and selecting the solutions that will best help them achieve them [75].
2. Invest in change management: Successful technology adoption requires overcoming opposition to change. In order to promote employee acceptance and excitement, organizations should invest in change management activities, which include effective communication, training programs, and incentives.
3. Promote an innovation culture: Businesses should establish an atmosphere that values innovation, reward experimentation, and promotes lifelong learning [77]. Fostering cross-functional cooperation, offering resources for skill-upskilling and training, and recognizing and applauding successful technology adoption projects can all help achieve this.
4. Perform a cost-benefit analysis: Businesses should carefully assess the financial ramifications of using new technologies, taking into account both immediate costs and future gains. A thorough cost-benefit analysis can be done to help justify investments and guarantee that the technologies chosen are in line with the organization's strategic goals [12].
5. Prioritize user experience: When adopting new technology, user experience should be taken into account in the main. To ensure seamless technology adoption and optimize user happiness, businesses should consult end customers during the decision-making process, solicit their comments, and offer user-friendly interfaces and intuitive designs [76].

Organizations have opportunities and problems as a result of the adoption of new technology. Organizations can take advantage of opportunities for increased efficiency, innovation, data-driven insights, and better customer experiences despite constraints, including technological complexity, reluctance to change, financial considerations, and integration issues that may occur. Organizations can overcome obstacles and seize opportunities to promote successful technology adoption and gain a sustainable competitive advantage by developing a strategic approach, investing in change management, fostering an innovation culture, conducting cost-benefit analyses, and placing a high priority on user experience.

13. Conclusion

In conclusion, the intricate relationship between organizational culture and technology adoption highlights the importance of understanding and addressing the multifaceted challenges and opportunities presented by the digital era. As businesses navigate this rapidly evolving landscape, embracing adaptability, continuous learning, and a people-centric approach will be crucial for long-term success.

Leaders play a pivotal role in fostering a culture that not only embraces innovation but also prioritizes ethical considerations, striking a delicate balance between

leveraging new technologies and upholding human values. By doing so, organizations can create an environment that is not only resilient but also inclusive and supportive of all stakeholders.

The rapid expansion of remote work, the growing emphasis on diversity and inclusion, and the increasing integration of technologies such as AI, automation, and IoT present both challenges and opportunities for organizations. To thrive in this ever-changing environment, businesses must develop strategies that acknowledge and address the human factor in digital transformation, focusing on communication, change management, and skills development.

Moreover, recognizing the ethical implications of technology adoption is essential for organizations to ensure a responsible and sustainable approach to innovation. By engaging in open discourse and collaboration, businesses, policymakers, and society can work together to harness the full potential of emerging technologies while safeguarding the well-being of individuals and communities.

Finally, understanding the complex interplay between organizational culture change and technology adoption requires insights from various disciplines, enabling businesses to develop a comprehensive and proactive approach to managing change. By cultivating a culture of adaptability, curiosity, and growth, organizations can position themselves for success in an increasingly uncertain and dynamic world.


In summary, the digital era presents a unique set of challenges and opportunities for businesses. By adopting a people-centric approach to technology adoption, carefully weighing the ethical ramifications, and fostering a culture that promotes adaptability, inclusivity, and continuous learning, organizations can successfully navigate the complexities of the digital age and secure their place in the future.

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