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Redefining Organizational Culture for the Digital Age: A Model Proposal for Digital Organizational Culture

Dijital Çağ için Örgüt Kültürünü Yeniden Tanımlamak: Dijital Örgüt Kültürü için Bir Model Önerisi

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ABSTRACT

As technology breakthroughs and digital innovations continue to transform business environments, traditional organizational cultures are frequently found insufficient in promoting the innovative thinking, agility, and resilience needed for long-term success. This article presents a comprehensive framework for rethinking organizational culture in the digital age. The proposed model is designed to help organizations navigate the complexity and take advantage of the digitalized economy's opportunities. Based on Schein's organizational culture model, this study thoroughly examines existing literature to identify the essential elements of a digital culture framework. The suggested model prioritizes incorporating digital tools and mindsets at all levels of the organization, creating an atmosphere that promotes experimentation, cooperation, and a proactive approach to survive in the digital era. Furthermore, the study explores the crucial elements in promoting and integrating digital values, the function of human resource practices in facilitating the growth of digital skills, and the influence of digital culture on achieving a competitive advantage in the digitalized economy. By highlighting the crucial interaction between technology, people, and organizational processes, this study seeks to assist organizations in redefining their culture to thrive in the digital era by offering practical insights and a structured framework.

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ÖZ

Teknolojik gelişmeler ve dijital yenilikler iş ortamlarını dönüştürmeye devam ettikçe, geleneksel örgüt kültürleri, uzun vadeli başarı için gereken yenilikçi düşüncenin geliştirilmesi, çeviklik ve esnekliği teşvik etmede yetersiz kalmaktadır. Bu çalışma, dijital çağda örgüt kül-

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türünü yeniden değerlendirmek için kapsamlı bir çerçeve sunmaktadır. Öne sürülen model, örgütlerin karmaşık iş çevrelerinde yönlerini bulmasına ve dijital ekonominin fırsatlarından yararlanmasına yardımcı olmak için tasarlanmıştır. Schein'in örgüt kültürü modeline temelinde bu çalışma, dijital örgüt kültürü çerçevesinin temel unsurlarını tanımlamak için mevcut yazının detaylı bir incelemesini içermektedir. Önerilen model, örgütün tüm seviyelerine dijital araç ve zihniyetlerin dahil edilmesine öncelik vererek ve dijital çağda hayatta kalmak için deneme-yanılmayı, işbirliğini ve proaktif bir yaklaşımı teşvik eden bir atmosferi kapsamaktadır. Ayrıca, bu çalışmada dijital değerlerin teşvik edilmesi ve örgütlere entegre edilmesinde önemli unsurlar, insan kaynakları uygulamalarının dijital becerilerin büyümesini kolaylaştırma işlevi ve dijital kültürün dijitalleştirilmiş ekonomide rekabet avantajı elde etme etkisini tartışılmıştır. Bu çalışma, teknoloji, insan ve örgütsel süreçler arasındaki önemli etkileşimi vurgulayarak, uygulamaya yönelik bilgiler ve yapılandırılmış bir çerçeve sunarak örgütlerin kültürlerini yeniden tanımlamalarına yardımcı olmayı amaçlamaktadır.

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1. INTRODUCTION

Organizations must navigate a constantly changing, volatile, unpredictable, and complex environment in the digital age, partly due to rapid technological breakthroughs and innovations (Mack & Khare, 2016). The complexity of this landscape has been increased by disruptive political activities, significant natural disasters, and the worldwide COVID-19 pandemic (Pfaff et al., 2023). Consequently, the core values and behaviors that establish an organization have been transforming, with organizational culture emerging as a crucial element in effectively adjusting to the digitalized economy. Moreover, in a time characterized by rapid technological advancement that continually transforms market conditions, the capacity to innovate emerges as a crucial factor in determining an organization's longterm success and competitive advantage. Organizations with the appropriate cultures can participate in activities that could transform their cultures and provide long-term, superior financial results (Barney, 1986).

In the world of innovation and value creation, a digital ecosystem is a complex structure of interdependent digital platforms, technologies, and participants who facilitate efficient interaction and the interchange of information (Weill & Woerner, 2015). Organizations could thrive in a digital ecosystem by utilizing these interconnected technologies to improve efficiency, promote innovation, and provide customized customer experiences, ultimately leading to a competitive advantage and growth. The significance of digital organizational culture is becoming more widely acknowledged in the current era, characterized by the prominence of knowledge-intensive businesses (Jamkhaneh et al., 2022) and collaborative creation and consumption (Yıldız & Altan, 2023). Digital innovation is an essential aspect of digital transformation. It involves integrating digital elements into physical objects and converting analog products into digital services, potentially reshaping the

business environment's structures, processes, and boundaries (Hinings et al., 2018). Digital technology is transforming the operational processes of organizations and reshaping our perspectives on the concept of organizing itself (Snow et al., 2017: 5). Digital tools and platforms provide instant communication among employees, teams, and other organizations. Consequently, organizations prioritize information exchange and cross-functional cooperation (Setia et al., 2013). Moreover, the rise of digital technology has catalyzed a transition towards remote work and adaptable work schedules, further propelled by the growing practice of outsourcing projects to Asian countries, necessitating employees to cultivate self-discipline, adaptability, and proficient time management abilities to thrive in this evolving landscape (Byrd, 2022).

Dynamic capabilities refer to an organization's capacity to effectively combine, develop, and adapt both internal and external resources and abilities to respond to quickly evolving circumstances (Teece et al., 2016). Developing a digital culture within an organization, framed through the lens of dynamic capabilities, emphasizes the crucial roles of adaptability, innovation, and agility in navigating the rapidly changing digital environment through the flourishing of human resources (Gerçek, 2023a). An organization's capacity to embrace a new business model highly depends on its digital organizational culture and competence (Weiner, 2009). Digital organizational culture is a set of shared assumptions and understandings regarding how an organization operates digitally (Martínez-Caro et al., 2020). Digital culture encompasses participation, remediation, and bricolage as attitudes, behaviors, and expectations that influence how individuals behave and engage in modern businesses (Deuze, 2006). Developing highly enthusiastic and productive people, designing for self-organization, and strategically and culturally aligning digital technology within the organization are all components of digital organizational culture (Snow et al., 2017). The presence of a

digital corporate culture has a positive impact on exploratory innovation (Chandler et al., 2000). Numerous studies show that flexibility, openness, and the availability of varied information significantly impact the process and outcome of digital innovation (Lund, 2014). To comprehend culture's complex and influential role in digital innovation, an organization's culture must achieve a harmonious equilibrium between stability and adaptability. Also, managing knowledge heterogeneity across actors is crucial for digital innovation, as it allows for creativity and ideation without limiting the essential innovation environment (Müller et al., 2019).

Incorporating a digital culture into enterprises substantially improves creativity, operational efficiency, and market response, facilitating a more flexible, collaborative, and customer-focused operational framework. Nevertheless, a digital culture change also brings difficulties, such as the possibility of an information gap among workers and increased threats to knowledge security that require careful control and strategic supervision. Therefore, although embracing a digital culture may greatly enhance businesses' competitive advantage and growth, it also requires a thorough strategy to tackle the associated difficulties and guarantee a secure and inclusive digital transition (Shin et al., 2023; Zhen et al., 2021).

Although there are some studies to develop a framework for organizational culture in digitalized work settings (e.g., Duerr et al., 2018; Müller et al., 2019), to our knowledge, this is one of the first attempts to provide a comprehensive framework for digital organizational culture. Creating a structure for digital organizational culture is vital in the age of digitalization, as it forms the foundation for promoting the ability to adapt, withstand challenges, act quickly, and generate new ideas within organizations. This framework enables organizations to adapt to technological advancements, guaranteeing their competitiveness and agility in response to market dynamics. It fosters a culture that values quick decision-making and ongoing innovation, leading to long-term market success. In simple terms, a comprehensive digital culture framework is an essential requirement that allows organizations to survive in the face of the complex and disruptive nature of the digital era.

2. THEORETICAL BACKGROUND

2.1. Organizational Culture

Prior to looking into the details of organizational culture, it is imperative to provide a foundational understanding of the concept of culture itself. The term "culture" has its etymological origins in the Latin word "cultura," which is derived from the word "colere," denoting the action of cultivating the land (Etimoloji Türkçe, 2021). The metaphorical extension of agricultural origin may be observed in cultivating and advancing traits or feelings within any civilization. The anthropologist Edward B. Tylor is credited with

officially incorporating the phrase into the vocabulary of human sociocultural studies. Tylor (1871, 2012) expanded the idea of culture as a comprehensive concept that includes a nation's tangible and intangible resources, represented by its wide range of skills and customs. In contemporary discussion, especially within the framework of the social sciences, the term "culture" occupies a central position and is subject to many interpretations across diverse disciplines.

Hofstede is a prominent figure in organizational culture research (Minkov, 2007; Hofstede et al., 2010). Hofstede (1984) proposed a framework consisting of six dimensions to define and describe national culture. These dimensions include long-term and short-term orientation, uncertainty avoidance, indulgence, masculinity and femininity, individualism and collectivism, and power distance. Based on Hofstede's (1984) model of national culture, Turkey has been identified as exhibiting a significant level of collectivism and power distance value dimensions. Previous studies have indicated that Turkey has the highest degree of organizational hierarchy (e.g., Trompenaars & Hampden, 1998). According to Oney-Yazıcı et al. (2007), the organizational cultures observed in Turkish enterprises exhibit a combination of hierarchical structures and harmonious relationships, like those commonly observed within familial organizations.

Organizations, like nations, possess distinct cultural characteristics that distinguish them from others. The significance of organizational culture emerged in 1979 through Pettigrew's seminal work titled "On Studying Organizational Cultures." Various models of organizational culture have been developed since. For instance, Morgan (1998) suggested that organizational culture is the combination of rules, principles, and beliefs that, when integrated with symbols such as portrayed individuals and occurrences, provide an organization with its unique identity and establish the structure for internal and external actions. According to Smircich (1983), organizational culture serves several purposes and can be defined in several ways. The presence of organizational culture enables individuals to develop a sense of attachment to a structure that they perceive as larger in scope than themselves. The organizational culture attempts to explain and influence people's behavior. Structured as its foundation, organizational culture, according to Schein (1983), is a collection of beliefs established by the organization. According to Schein's model, culture comprises three layers: observable artifacts, physical manifestations of expressed values, espoused values, and fundamental underlying assumptions, unconscious values, and beliefs. Deal and Kennedy (1982) contend that an organization's business practices, attitudes, and behaviors toward its employees impact its overall culture. The model proposed by the authors classifies organizational cultures according to the speed of feedback and the amount of risk, resulting in the identification of four distinct culture types: "tough-guy macho, work-hard, play-hard, bet-company, and process." However, the model may fail to sufficiently represent the

intricacy and diversity of organizational cultures by restricting the classification of cultures to four categories based on only two dimensions—risk level and feedback speed.

Denison (1990) proposed an organizational culture model that looks at the connections between cultural traits and an organization's success, focusing on engagement, consistency, flexibility, and a clearly defined goal. The present approach primarily emphasizes the favorable attributes of these cultural characteristics while neglecting to thoroughly examine the potential drawbacks or compromises linked to them. Cameron and Quinn (1999) proposed a well-recognized model, the Competing Values Framework. This framework examines four distinct culture types: "clan culture, adhocracy culture, market culture, and hierarchy culture," emphasizing internal vs. outward orientation and flexibility against stability. The primary objective of this framework is to enhance organizational effectiveness. On the other hand, O'Reilly et al.'s (1991) Organizational Culture Profile evaluates organizational culture by assessing the extent to which particular attributes are characteristic of the organization, focusing on alignment with organizational values and behaviors. These characteristics are innovation, stability, respect for people, outcome orientation, detail orientation, team orientation, aggressiveness, and decisiveness.

Although beneficial for a comprehensive examination, the model's emphasis on certain traits may oversimplify the intricate dynamics of how these attributes interrelate within an organizational framework. Numerous corporate culture theories encompass values and beliefs, as initially posited by Schein in 1985. Considering the fact that Schein provides a flexible and essential foundation for understanding organizational culture, it could be transferred to digital working environments.

Schein's organizational culture model, which divides culture into three hierarchical levels—artifacts, espoused values, and basic assumptions—is a foundational paradigm in organizational behavior (Schein, 1985). Artifacts, which encompass procedures, organizational structures, and observable behavior, are the most noticeable elements of culture (Schein, 1992). Despite the apparent presence of these material components, comprehending their cultural significance often requires a more thorough analysis (Schein & Schein, 2016). An organization's external behaviors and traditions, such as ceremonies, rituals, and daily activities, manifest its fundamental cultural elements. These behaviors help members understand and experience the culture (Hatch, 1993; Chapman et al., 2018). According to Schein (1985), individuals within an organization possess shared values and ideas that serve as the fundamental basis of its culture. These essential components serve as a framework for behavior, decision-making, and the analysis of organizational events (Krackhardt & Kilduff, 1990; Marcoulides & Heck, 1993). Values espoused are not merely verbal declarations; they are intended to impact behavior,

decision-making, and the internal and external representation of the organization.

Schein's model (1985) posits that an organization's culture is primarily shaped by its underlying assumptions: implicit and accepted perspectives and perceptions. These assumptions provide the foundation for tangible entities and stated principles, although they are never challenged or openly deliberated upon due to their inherent significance to the organization's identity (Schein & Schein, 2016). One further attribute of assumptions is their tendency to operate at an unconscious level. According to Nelson and Campbell (1997), individuals inside an organization may lack awareness of their underlying assumptions and exhibit hesitancy in engaging in conversations or modifying them. Assumptions possess a more profound cognitive integration than values, influencing values through the gradual acquisition of validity. Additionally, according to Schein (1983), the founder of the organization is a significant factor in the formation of organizational culture. Nonetheless, additional organization members play an important role in influencing this culture. It's also critical to recognize the considerable influence that national culture has on corporate culture. The organizational culture exhibits dynamism and transforms in response to various internal and external influences. The concept of adaptation and change pertains to the organization's capacity to effectively respond and adjust to changes, demonstrating its flexibility and resilience (Zahra et al., 2004; Büschgens et al., 2013).

2.2. Digitalization and Organizational Culture

In the present era, digital technologies are crucial in enabling companies to gain long-lasting competitive advantages and adjust to the new trading regulations arising from external disruptions (Dubey et al., 2023). A search for the history of digitalization is to be confronted with a simultaneous and synchronous reflection of the history of communication. It is possible to consider the development of communication as a trilogy that starts with oral culture, continues with printed writing, and continues to the present day with electronic cultures (Baldini, 2000; Crowley & Heyer, 2010). The success of digital innovation and business transformation initiatives relies on several aspects, emphasizing an organization's capacity to cultivate ongoing development, execution, and incorporation of digital innovation endeavors. Research indicates that effectively managing the socio-technical challenges associated with inter-organizational collaboration, knowledge exchanges, diverse consumer groups, and heterogeneous user requirements is a critical organizational challenge (Lund, 2014). The notion of "digital organizational culture" is becoming prevalent in today's digital age and is commonly used to describe an organization's culture. Deuze (2006) has characterized digital culture as a developing collection of values, behaviors, and anticipations concerning how individuals are expected to behave and engage with others in a modern, interconnected society. Digital organizational culture has been defined as a collective set of assumptions and

shared knowledge about how things are done in a digital setting and acknowledged as a fundamental component of organizations in the digital era (Müller et al., 2019). Borcan (2021) asserts that having the right organizational culture can be seen as a competitive advantage since it significantly influences the adoption of new technologies and the innovation process. Thus, digital organizational culture is closely linked to digital capabilities and innovation. Digital capabilities facilitate the transformation and incorporation of technology, enabling optimal utilization of organizational resources (Uhl & Gollenia, 2014). Organizations utilize data analysis to improve decision-making, optimize operations, customize consumer interactions, and develop data-driven initiatives. The continuous effort of obtaining, incorporating, converting, and utilizing knowledge within and outside the organization is vital for manufacturing and service companies, serving as a significant intangible resource (Siachou et al., 2021).

Although digitalization in companies dates to the 2000s, when personal computers were widely used in numerous sectors, the idea of a digital organizational culture is still poorly defined. One possible explanation is that there are so many factors to consider in digitalized organizations. Research on digital organizational cultures often involves digital transformation, innovation, agility, and entrepreneurship. While some studies adopt Schein's model (Duerr et al., 2020), others (Goncalves et al., 2020) adopt Cameron and Quinn's (2011) organizational culture model. Therefore, several definitions of digital organizational culture cover various aspects. Nonetheless, prior research on digital organizational cultures has shown that certain elements are common: leadership, agility, resilience, innovation, collaboration, adaptation, and employee capabilities (Hinnings et al., 2018; Schiuma et al., 2022).

Previous research indicates that establishing a digital organizational culture allows businesses to address current difficulties effectively. It also encourages employees to develop a digital mindset, think critically, and take initiative, fostering a solid drive for exploratory innovation within the organization (Schiuma et al., 2022). Digital technologies offer resources for conducting experiments and creating prototypes, enabling companies to assess the viability of novel concepts, products, or procedures (Somohano-Rodríguez et al., 2022). Specific competencies are required to synchronize with technological processes. Digital competencies encompass a fundamental understanding, competence, abilities, and other attributes that empower individuals to fulfill their professional responsibilities effectively and successfully regarding digital media in the workplace (Obelander et al., 2020). Hence, with the integration of digital skills at each level of the organization, organizations not only strengthen their capacity for innovation but also significantly strengthen their ability to respond to rapid market shifts and technological advances.

In the digital era, knowledge is considered a critical power source, but it is also subject to becoming outdated (Yusuf et al., 1999). To keep up with the increasingly fast pace of business, individuals must adopt a continuous and agile learning mindset. According to Goldman et al. (1995), some strategic variables determine competition in dynamic environments, and they emphasize optimizing customer experience as a critical objective for boosting organizational competitiveness. Developing a motivated and informed workforce capable of navigating change and uncertainty is central to achieving this objective, underpinned by a management approach that fosters an entrepreneurial organizational culture. Such a culture thrives on empowering employees through delegating authority, providing necessary resources, promoting collaborative responsibility, and encouraging innovative problem-solving, thereby optimizing the synergy between individuals and information in organizational operations.

Studies showed that hierarchical cultural values such as formal norms, procedures, and control affect innovation negatively (Naranjo-Valencia et al., 2011). This finding suggests that strict conformity to traditional organizational structures and practices might restrict creativity and limit the ability of organizations to adapt to new challenges or explore novel solutions. Therefore, promoting a more adaptable and proactive organizational culture may be crucial to increase innovation and keep an advantage in continually shifting market conditions. Also, by establishing a framework for employee engagement and cultivating an open culture of innovation, the organization strengthens workers' emotional attachment, enhancing their motivation to stay and contribute meaningfully to the organization (Kim et al., 2015). Since leaders are the principal information sources for their workers, they influence the efficacy of such engagement and innovation strategies and have a crucial role as a primary source of information for employees. According to Sheninger (2014), a digital leader is someone who exerts influence over others, promotes sustainable transformation through information access, and cultivates connections to anticipate developments that lay the foundation for upcoming successes. Hensellek (2020) posits that digital leaders must have three essential components, namely a "digital mindset," a "digital skill set," and a "digital vision." A digital mentality refers to the leader's disposition towards digital technologies as a whole, with a specific focus on their use inside an organizational setting. Although possessing the appropriate mindset is crucial, a digital leader must also have a digital skillset, which refers to the abilities required to comprehend and effectively utilize digital technology. Leaders' leadership style influences the activities employees consider acceptable or accepted (Lu et al., 2018). Müller et al. (2009) suggest that leaders must recognize the impact of organizational culture on their leadership style and attitude toward digital innovation. This recognition is critical as it may challenge business transformation initiatives, such as conflicting with predetermined goals and changing demands and work habits. Siakas and Siakas

(2007) stated that practices and values within an organization are different aspects of the culture. Organizational practices depend on national, professional, and organizational culture, whereas values are contingent upon basic assumptions, professional ethics, and organizational artifacts. Recently, Leal-Rodriguez et al. (2023) proposed a digital culture model based on the Competing Values Framework (Quinn & Rohrbaugh, 1981). This conceptual model includes people, innovation, goals, and norms as determiners of digital culture. Since many elements could be necessary for organizations in the digital economy, a model that could help organizations go through digital transformation and cultivate a culture that can adapt to unpredictable changes in business environments caused by technological advancements is greatly needed, even though there have been some attempts to establish a framework for organizational culture in digitalized work settings (e.g., Duerr et al., 2018; Müller et al., 2019).

3. DIGITAL ORGANIZATIONAL CULTURE: A MODEL PROPOSAL BASED ON SCHEIN'S MODEL

According to Barney (1989:663), for an organization's culture to be the source of sustained superior performance, "it must be valuable, rare, and imperfectly imitable.". Thus, culture plays a pivotal role in maintaining competitive advantage. Schein's Organizational Culture Model (1983) is a detailed and versatile framework for comprehending the complex nature of organizational culture; hence, it could provide the ideal starting point for establishing a digital organizational culture model. Its focus on the relationship between visible artifacts, espoused values, and underlying assumptions offers broad perspectives into culture's tangible and intangible aspects in the digital age. Hogan and Coote (2014) proposed that Schein's multifaceted model of organizational culture provides an insightful framework for analyzing processes that promote innovation, emphasizing Schein's model's ability to explain cultural processes that enable organizational innovation. Digitalization significantly impacts the material expressions of culture, like technology, methods, and communication channels. Notable elements of a digital organizational culture include remote work, digital collaboration tools, and virtual workspaces (Duerr et al., 2018; Vial, 2021). In a study by Duerr et al. (2018), in which Schein's organizational culture model was based, digital organizational culture consists of cross-functional teams, customer integration, a start-up mentality, business creators, and increased agility. Schein's (1983) model of organizational culture consists of three levels. The first level is called "artifacts and visible behaviors," including structural and procedural elements within an organization. Artifacts and visible behaviors include language, symbols, behavior patterns, rules and procedures, objects, physical layouts, and technology. "Espoused values" refer to the strategies, organizational goals, and philosophies. These

values are those that group members are conscious of and that provide an explanation for their conduct, specifically determining what is considered right and wrong. They are evident in several elements of the organization, including its beliefs, methods, guidelines, objectives, and ideology. Finally, "basic underlying assumptions" are implicit elements such as implicit ideas and feelings existing in an organization. We propose a digital culture model based on Schein's assumptions.

Artifacts and Behaviors

Artifacts and visible behaviors are explicit factors that constitute an organizational culture. Considering that an organization that operates within a dynamic business environment characterized by rapid technological advancement will require cutting-edge technological infrastructures to maintain a competitive advantage, artifacts of organizational culture will include technology for operational and strategic tasks. Organizations in digitalized business contexts utilize various technologies to maintain their digital organizational culture. It is imperative to build knowledge networks, especially in new product development projects in organizations (Akgün et al., 2005). Cloud services and digital workplace platforms facilitate remote and flexible work. Digital communication systems, including video conferencing, instant messaging, and mobile apps for employees, enhance digital collaboration and enable rapid knowledge exchange. Those digital tools will impact communication patterns since digital platforms allow individuals to connect through electronic message systems, online meetings, and virtual training platforms (Sievert et al., 2017). Moreover, digital organizations utilize emerging digital technologies such as AI, blockchain, and the Internet of Things (IoT) to enhance customer experience, optimize processes, and develop innovative business models (Warner & Wager, 2019). Since decision-making is a strategic process for digital organizations, enterprise resource planning software, which encompasses project management tools, knowledge management systems, customer relationship management systems, and human resource management systems, is widely used. These tools enable continuous learning and adaptability as well. The studies about organizational digital transformation reveal how assumptions about technology affect how digital tools are used and how digital culture manifests itself in the form of artifacts (Harris & Mossholder, 1996; Jones, 2014). Moreover, advanced cybersecurity systems, AI-driven analytics tools, and cloud computing infrastructures are the primary digital needs of digital organizations (Jarrahi, 2018). Behl et al. (2021) discovered that behavioral intents favorably impact the real-world implementation of AI systems. Organizational structure is an integral part of the level of the artifacts in Schein's (1965) model, and it is characterized by flat, flexible structures that facilitate remote working, cross-functional team building, and project-based working. Symbols are a crucial part of artifacts; they could be "digital" in organizations with the help of technology. For instance, virtual reality (VR) could

be used for orientation, selection, or promotion purposes to create a duplicate of the actual organizational environment. Also, gamification could be used for employees to win "digital symbols" such as rewards or badges in virtual games for employee recognition.

Gamification has become a game-changing tactic across several domains, most notably hiring practices. Gamification is the process of incorporating game design elements into non-gaming environments to increase participant engagement and motivation. This is especially useful for organizations that want to bring something new to their recruitment methods. Talent is highly competitive in organizations; thus, attracting qualified applicants is critical. Incorporating gamification into HR recruitment procedures not only enhances employer branding but also makes it possible for candidates to determine how well and precisely they match the organizational culture and job requirements. According to Martensen et al. (2023), gamified recruiting enhances conventional processes by educating employers and candidates about each other's employer fits. Sultan and Suhail (2019) examine how digital leadership components affect gamification marketing techniques, emphasizing the significance of digital culture for successful gamification projects. Also, rituals such as birthdays and recognition could be conducted through online platforms or games. Varghese and Deepa (2023) investigated the efficacy of gamification as an employer branding tactic to draw in Gen Z workers. Virtual applications can facilitate the execution of corporate rituals, significantly contributing to culture development and organizational transformation. This strategy is in keeping with the changing digital organizational culture, which increasingly uses online platforms for participation and recognition (Ozenc & Hagan, 2017).

Espoused Values

Espoused values represent the second level of organizational culture and encompass the organization's principal values. In a digitalized setting, an organization's objective may involve digital transformation, maintaining the present digital environment, and maybe upgrading it, considering ongoing technical progress (Snow et al., 2017). Schein suggests that to uncover the organizational culture, it is necessary to describe the business objective initially. This is done to modify specific organizational components or implement a new strategy (Tolfo et al., 2011). Numerous organizations still prioritize traditional organizational goals, including market leadership, customer satisfaction and loyalty, operational performance, employee engagement, and organizational growth. However, digital organizations now prioritize flexibility, adaptability, innovation, and sustainable development as important objectives. Studies show that digital technologies such as AI, the IoT, and big data analytic tools can increase quality and customer satisfaction (Narayan et al., 2022). Aligned with these objectives, organizational strategies emphasize digital transformation, optimizing customer and employee experiences and

fostering an atmosphere conducive to effective knowledge exchange. Accordingly, organizational strategy in the digital economy prioritizes automation, robots, and AI to enhance employee engagement, efficiency, and productivity (Holford et al., 2019). In addition, organizational philosophies must align with the inclusion, resilience, and agility required in digitalized work environments. Organizational agility is essential for organizational performance, enabling companies to quickly perceive and adapt to environmental changes (Gerçek, 2023b). Information technology is pivotal in this process, with digital choices critical for determining agility (Overby et al., 2006). Innovation is anticipated to be the core value, ensuring flexibility, adaptability, and collaboration. Findings indicate that internal cooperation in research and development among employees positively impacts organizations' innovation performance, facilitated by combining different technologies (Zhang & Tang, 2017). Another significant issue is that the digital economy forces organizations to be transparent since customers can influence product and service development phases by making their voices heard online. The digital transformation has resulted in a shared understanding of situational awareness among people, requiring new strategies to establish trust between organizations and their customers (Bunker, 2020). The digitalized environment also changed customers' perspectives and purchasing patterns, making organizations more customer-sensitive. Thus, the ethical use of technology has become an essential consideration for many organizations in terms of customer satisfaction and employee relationships. The use of technology in the workplace could increase accessibility and efficiency, leading to an increase in the well-being of employees in some contexts (Hoeven et al., 2016).

Values such as adaptability, creativity, and willingness to change are highly valued in digital culture. Adopting these ideals helps organizations stay competitive and responsive to market needs as they embrace digital transformation. Fostering an atmosphere favorable to digital innovation and adaptability requires a change in the values and beliefs upheld (Hogan & Coote, 2014).

Hartl and Hess (2017) take a value-centric approach to organizational culture for digital transformation. The authors suggest that digital transformation success depends on values such as innovativeness, risk affinity, collaborative working environments, willingness to learn, participation, trust, tolerance towards failure, and agility. Leal-Rodriguez et al. (2023) suggested that the predominance of values, including responsiveness to market demands, analytical methods, cooperation, tolerance to failure, learning orientation, and willingness to change, support the creation of cross-functional teams and foster a culture of continuous learning to develop efficient solutions. From the perspective of small and medium-sized enterprises (SMEs), Isensee et al. (2016) proposed that strategic orientation, internal skills, management, and attitudes are crucial elements that influence the digital organizational culture.

Basic Underlying Assumptions

The fundamental, frequently unconscious assumptions that direct behavior within the organization form the basis of Schein's paradigm. Digital culture challenges conventional beliefs about cooperation, communication, and work. It encourages a way of thinking that sees adaptability, digital literacy, and lifelong learning as essential to the sustainability and profitability of organizations (Martins & Terblanche, 2003). The basic underlying assumptions are the building blocks of a solid organizational culture. Hence, it is evident that assumptions determine the most basic level of organizational culture. Assumptions must be drawn from what is heard and observed in organizations rather than immediately observable, which presents a challenge in studying culture (Buch & Wetzel, 2001). A digital organizational culture relies on the notion that ongoing digital transformation is vital for competitiveness and expansion. Within digital businesses, there needs to be a shared understanding that, despite the potential drawbacks of technology usage, the organization may still benefit from it by minimizing its negative consequences by implementing regulations. Another principle is the belief that ongoing learning, training, and skill enhancement are crucial to adapting to unexpected changes in a market.

The assumption that "change is constant, the external environment is dynamic, sustainability is essential, being flexible and adaptive is vital for survival, and technology is an enabler" underscores the very essence of digital organizational culture. These ideologies demonstrate an in-depth comprehension of the instability, unpredictability, complexity, and ambiguity that define the digital era (Bennett & Lemoine, 2014). In this context, digital businesses thrive by actively adopting flexibility, promoting a culture of continuous creativity, and utilizing technology as a tool and a strategic enabler for sustainable growth and adaptability (Teece et al., 2016). The assumption defining a "compete or perish" reality, the continuous nature of technological advancement, the reliance on empirical data and evidence for decision-making, and the tenet that "knowledge is power" describes the philosophical standpoint of digital organizational culture. Competition and digitalization are not seen as simply environmental factors but rather as essential components that influence the strategies and cultures of organizations (Porter & Heppelmann, 2014). The importance of using empirical evidence and knowledge is emphasized in the shift towards data-driven decision-making and knowledge management as essential skills in digital organizations (Korrherr et al., 2023). By recognizing people as intrinsically valuable and having the potential for development, being willing to work together and distribute leadership, and considering diversity as a source of strength, a humanistic perspective may be applied to digital organizational culture. This viewpoint is consistent with the principles of positive organizational behavior (Luthans & Youssef, 2007), which focus on promoting employee strengths, resilience, and overall well-being within organizations (Porath

et al., 2012). The principles that human activity should aim for exceptional performance, taking calculated risks is beneficial, and being proactive are crucial to highlighting the action-oriented principles of digital organizational cultures. The beliefs that emphasize the necessity of cooperation, the value of teamwork, and the importance of maintaining relationships highlight the underlying relational dynamics present in digital cultures. This relational component promotes a culture in which collaborative participation, cooperation, and interpersonal interactions are essential to achieving organizational achievement.

As seen in Figure 1, artifacts include technology and visible behavioral patterns. Visible behaviors include teamwork, participation in decision-making, open and fluid communication, risk-taking, information sharing, and innovative work behavior (Leal-Rodríguez et al., 2023; Schneider et al., 2013). The second level of the digital culture model values involves innovation, creativity, quality and continuous improvement orientation, customer centricity, market leadership orientation, openness to change, valuing knowledge, investment in human resources, tolerance towards failure, participation, risk affinity, flexibility, adaptability, inclusion, resilience, agility, sustainability, accessibility, personal privacy, data security, ethics (Dubey et al., 2023; Hinnings et al., 2018; Schiuma et al., 2023). The third level comprises fundamental underlying assumptions that reflect the organization's core beliefs, such as the recognition that change is an inevitable aspect of life, the confidence that employees can develop, and the criticality of sustainability for its continued existence. The explicit tools and interactions within an organization are founded upon these assumptions, which are also its guiding principles. Implications and challenges for the proposed model are discussed in the following section.

4. RECOMMENDATIONS AND CHALLENGES FOR THE PROPOSED MODEL

4.1. Practical Recommendations

The proposed model might impact several areas of organizational life and employee performance by considering the distinctive features of digital work environments. Also, our newly developed digital organizational culture model could guide organizations seeking to accelerate their digital transformation efforts. Organizations may enhance technology integration, improve employee literacy, and promote innovation by using our digital culture model as a guide. By adopting the current digital organizational model, organizations may enhance their environmental awareness by investigating novel concepts and technology, resulting in innovative products, services, and business models. The proposed model could be used by specific organizations such as start-ups, traditional companies undergoing digital transformation, e-commerce organizations, and software and media organizations. Startups often lack informal

ARTIFACTS

Technology: Digital workspace platforms, digital communication platforms, online learning platforms, data analytics tools, customer relationship software, enterprise resource planning software, HR analytics tools, virtual reality, blockchain, internet of things, cloud computing, gamification tools, digital content (videos, memes, blogs, podcasts, social media, etc.)

Behaviors: Innovative work behaviors, proactive behaviors, risk taking behaviors, participating decisions, knowledge creation and sharing, suggestion making, communication styles.

Innovation, creativity, quality, and continuous improvement orientation, customer centricity, market leadership orientation, openness to change, valuing knowledge, investment in human resources, tolerance towards failure, participation, risk affinity, flexibility, adaptability, inclusion, resilience, agility, sustainability, accessibility, personal privacy, data security, and ethics.

VALUES

ASSUMPTIONS

Relationship to the environment: Change is constant, the external environment is dynamic, sustainability is essential, being flexible and adaptive is vital for survival, and technology is an enabler.

Nature of reality: Compete or perish, digitalization is continuous, empirical data and evidence are the most reliable basis for making decisions, and knowledge is power.

Nature of human nature: Employees are inherently valuable and capable of growth and development; employees are ready to collaborate and share leadership; and diversity enriches and strengthens an organization.

Nature of human activity: Human activity should strive for excellence; risk-taking is advantageous in competition; proactivity is essential for initiating market change.

Nature of human relationships: Colloboration is necessary and needed, teamwork leads to the best outcomes, constant connectivity is beneficial, and understanding and valuing relationships with others is essential.

Figure 1. Conceptual Model Proposal for Digital Organizational Culture.

Source: Figure by the authors.

mechanisms, such as a common language, shared culture, and regular gatherings (McEvily et al., 2014). In the IT industry, the digital culture approach may be adopted by integrating digital tools and platforms into all operational areas within the organization. According to Chatman et al. (2003), establishing an organizational culture within a startup is accomplished through the recruitment, selection, socialization, training, and reward of employees who align with the values and culture of the organization. Human resources management could focus on digital strategies to attract, develop, and retain the digital talents required for organizations to compete in the digital era (Karaboga et al., 2021). Hence, based on the proposed model, those organizations could seek out members with fundamental values such as innovation, openness to change, tolerance towards failure, risk affinity, and flexibility.

Traditional organizations undergoing digital transformation could start by completing a digital readiness assessment to determine the areas where digital culture aspects have weaknesses or require improvement (Rowles & Brown, 2017). Since cultural variety exists within and within organizations, including diverse ideas and manifestations of cultural phenomena, organizations face challenges in transforming their current culture into a digitalized one. Traditional organizations undergo digital transformation by altering their ways of doing business, organizational structures, and obstacles (Vial, 2019). In addition, digital transformation exerts tremendous pressure on traditional organizations by necessitating the implementation of distinct structures and performance metrics (Verhoef et al., 2021). Thus, the proposed model could function as a fundamental guide for traditional organizations striving to keep pace with the demands of the digital era. By utilizing this framework as a foundation, organizations can reassess their basic assumptions and values to identify digital transformation-related inadequacies or opportunities for improvement. A digital organizational culture cannot be achieved merely by having a cutting-edge technological

infrastructure. For the most efficient operation of existing technologies, an organization's basic assumptions and values must also be aligned with the prevailing understanding and requirements of the current work environment.

The initiation of the model implementation may start with a comprehensive evaluation of the prevailing organizational culture and level of digital maturity (Gökalp & Martinez, 2021). According to the assessment, the model should be customized to meet the organization's particular requirements, difficulties, and objectives. For instance, a technology startup could emphasize the development of creativity and adaptability. Still, a conventional manufacturing business may place greater emphasis on digital literacy and incorporating digital technologies into operational procedures. Establishing training programs to increase digital literacy throughout the organization is fundamental (Trennery et al., 2021).

Employee motivation and engagement are essential aspects of digital organizational culture implementation. Active engagement of employees in the change process is crucial, involving ongoing communication and active involvement in adopting a digital organization culture. It is recommended to monitor metrics such as employee motivation, satisfaction, and well-being, along with the adoption rate of digital tools (Shivaraj, 2021). Consequently, feedback systems that enable employees to provide reports on the efficacy of the digital culture could propose potential improvements. On the other hand, leaders have a pivotal role in culture transformation (Sheninger, 2014). Their participation can facilitate acceptance and foster an environment where digital behaviors are valued and recognized.

Studies show that in Turkish organizations, paternalism, collectivism, and power distance are prevalent in small and medium-sized enterprises (Yetim & Yetim, 2006). Additionally, considering Turkey's predominant reputation as a "conservative nation" (Yahyagil & Ötken, 2011), it is possible that some employees would be resistant to technological advancements. Research in Turkey states that digitalization is gaining momentum, especially in sectors such as logistics (Aylak et al., 2020), automotive (Boz & Serinkan, 2022), finance (Demirhan, 2021), and tourism (Çubukçu et al., 2023). In Turkish organizations characterized by paternalism and collectivism, leadership could promote digital tools, emphasize their efficiency, and mitigate the possible effects of resistance to change. Introducing digital changes incrementally and providing training aligned with employees' technological skills can facilitate a more effortless adjustment to digital culture. Adapting digital strategies to an organization's unique requirements and recognizing accomplishments in the digital transformation process has the potential to increase employee morale. Fostering an environment that openly acknowledges and confronts obstacles advances a culture of continuous improvement. This strategy assists in overcoming digital adoption barriers, making the digital culture adoption process more accessible and more compelling in Turkish organizational

settings. Based on the theoretical and practical evidence provided, the following practices could be proposed to adopt the digital organization model:

- Increasing digital self-efficacy and literacy: Implementing
 comprehensive training programs to enhance digital
 skills across all levels of the organization leads to an
 understanding of digital culture artifacts such as digital tools, data analytics, and cybersecurity systems
 (Hensellek, 2020).
- Developing organizational resilience capacity: Resilience entails equipping the organization to promptly address and bounce back from obstacles (Gerçek & Yılmaz Börekçi, 2021) by prioritizing flexibility in processes and fostering a resilient mindset. This mindset allows organizations to navigate uncertainties and disruptions effectively, guaranteeing sustainability and continuity in the digital era.
- Adopting agile methodologies: Use agile working techniques to foster a culture of adaptability to opportunities and changes by promoting flexibility, quick iteration, and continuous improvement in project management and product development (Tolfo et al., 2011).
- Embracing data-driven decision-making: Increasing the methodical utilization of data to inform and verify judgments, consequently diminishing dependence on intuition or assumption using data-analytic tools (Korrherr et al., 2022).
- Enhancing employee experience: Developing innovative and highly reliable human resource practices for a superior employee experience by integrating digital methods will increase engagement, contentment, and productivity. (Panneerselvam & Balaraman, 2022).
- Digital leadership development: Providing leaders with the required skills to effectively lead in the digital era, which includes comprehending digital trends, leading remote and diverse teams, recognizing digitalization efforts, and advocating for a digital transformation within organizations (Shin et al., 2023).
- Raising awareness of digital ethics and responsibility:
 Integrating digital ethics into the organizational culture and informing employees about concerns regarding data protection, cybersecurity, and the ethical utilization of artificial intelligence is necessary to guarantee that digital organizations are aligned with societal values (Heyder et al., 2023).

The endeavors suggested above may assist organizations in developing a digital organizational culture. However, creating or maintaining a digital organizational culture is not solely confined to these efforts, and it is anticipated that it will not be limited to them in the future, either.

4.2. Measurement Recommendations

Organizational culture is generally evaluated by asking employees' perspectives regarding shared understandings and subjecting the results to hierarchical cluster analysis (e.g., Hofstede, 1998) or by assessing the culture on several characteristics such as involvement, consistency, adaptability, and mission (e.g., Denison & Mishra, 1995). Organizational culture can be evaluated using various instruments, each with different characteristics and limitations, depending on the research team, investigation purpose, and resource availability (Scott et al., 2003). It is recommended that the proposed model be tested by assembling an all-encompassing assortment of elements (artifacts, values, and fundamental underlying assumptions) for each dimension. This should be done following the operational definition of each dimension, which corresponds to the digital culture context and is derived from Schein's model's theoretical framework.

The utilization of mixed methodologies is recommended for effectively addressing the practical implications of the digital organizational culture model. In order to examine the manifestation of digital culture within organizations, the initial approach could involve conducting qualitative studies. This phase involves conducting semi-structured interviews with individuals or focus groups with organizational people at different levels, as Schein (1992) described, to reveal digital cultural artifacts, values, and underlying assumptions. The second measuring stage could entail evaluating digital artifacts and physical representations of culture. The utilization of digital tools and platforms and the observable behavior of employees engaging with these technologies are encompassed in this category. Observational studies in digital interactions could offer valuable insights into integrating digital technologies within everyday routines and their consequential effects on productivity and communication patterns. Also, qualitative methodologies such as observations and document analysis are frequently employed to comprehensively explore the complex and multifaceted aspects of values, beliefs, and presumptions within a given culture. Focus groups, in-depth interviews, and case studies can provide information about the contextual and experiential elements of digital culture in businesses. These studies play a vital role in comprehending the impact of digital culture on employee experiences, management practices, and the promotion of innovation through computerized textual analysis (Pandey & Pandey, 2017). Additionally, qualitative research could identify cultural change's complexities that quantitative approaches would overlook, such as employee attitudes and resistance to change.

A quantitative investigation could generate a pool of statements to develop scales for organizations and researchers interested in performing broader examinations. This enables the organization to efficiently and immediately evaluate the culture, facilitating the identification of areas needing improvement (Patterson et al., 2005). Additionally, mixed-methods research can validate findings across multiple research designs and offer a more comprehensive understanding of the dynamics associated with adopting digital culture. Integrating quantitative and qualitative data in this approach facilitates a thorough examination (Creswell &

Creswell, 2018). The mixed-method approach uses a combination of techniques and triangulation concepts to assess organizational culture, ensuring its generalizability, credibility, and authenticity within a specific setting, making it suitable for measuring the digital organizational culture model (Turner et al., 2017). Given the different work environments in which organizations operate, digital culture is anticipated to exhibit distinct characteristics. Therefore, it is suggested that ethnographic investigations or thorough case studies within the organization be carried out to uncover the fundamental concepts that impact the efficacy and acceptance of the digital culture (Yin, 2018).

Using longitudinal studies to monitor temporal changes can facilitate comprehension of the ongoing impacts of digital culture on business outcomes. These studies are precious for evaluating the progression of the early effects of digital culture and determining if the advantages continue over time, which is essential for the model's longterm validity (Valencia et al., 2010). Also, quantitative and qualitative studies examining the effects of digital culture on organizational performance, innovation, and employee satisfaction could enhance the validity and reliability of the model. Through rigorous statistical techniques, these data could provide strong justification for the efficacy of the digital culture paradigm. Additionally, digital organizational culture will be sensitive to the organization's size. For instance, a large organization's technological infrastructure and resources will generally be more substantial compared to smaller organizations, which could lead to differences in cultural elements (Isensee et al., 2020). These differences also include factors such as the dynamism of the operational environment and the legal framework. In the context of these variables, collecting data from organizations of different sectors, sizes, and other criteria and conducting comparisons can provide enlightening information on how the digital organizational culture model manifests in various contexts.

4.3. Challenges for the Proposed Model

This model offers advantages for those organizations that have already implemented digitalization processes. Developed to promote the expansion and sustainability of digital organizational culture, the current model could benefit organizations. For instance, it is known that organizational culture also influences human resource practices (Aycan et al., 1999). Hence, the proposed model could lead to the development of digital human resource practices within organizations because organizational culture influences human resource philosophies (Gürol et al., 2024). Since human resource practices have the potential to contribute to operational and relational resilience capacity (Gerçek & Yılmaz Börekçi, 2021), the configuration of highly innovative and reliable practices could lead to a more agile workforce. Nevertheless, it is critical to recognize that this model has certain limitations. According to Hatch (1993), while assumptions, values, and artifacts

are the main emphasis of Schein's organizational culture model, symbols and procedures aren't addressed in as much detail. The model provides a universal framework applicable across many industries, sizes, geographical locations, and organizational structures. Various sectors and organizations encounter specific obstacles and possess individual values that can significantly impact how remote work affects them. Organizational culture is multifaceted, with technology, behaviors, beliefs, and assumptions all interconnected. Both internal and external factors influence an organization's culture, which is dynamic and constantly changing. A culture model can depict an organization at a specific moment but may not explain the reasons and mechanisms behind cultural shifts. Additionally, values and underlying assumptions are subjective and subject to different interpretations by individuals working for the same organization. On the other hand, while technology tools could improve workplace efficiency, productivity, and flexibility, they can also have adverse effects on individuals' cognitive, psychological, and physical health (Atanasoff et al., 2017; Hoeven et al., 2016). For instance, the constant connectivity facilitated by digital tools can lead to information overload, heightened stress levels, and challenges in separating work from personal life, contributing to burnout and decreased overall well-being. However, such circumstances are preventable through the integration of ethical considerations and an emphasis on employee well-being into the basic assumptions and values. To sum up, this model serves as a guide for organizations either undergoing digitalization or those that have completed the digitalization process but wish to take their operations a step further.

5. CONCLUSION

To succeed in digital transformation, businesses must initially cultivate a culture that places a high value on digital skills since they are essential for promoting creativity and adaptability in a rapidly changing business landscape. By establishing a fundamental digital culture, organizations can efficiently adjust and redefine their competitive advantage (Velyako & Musa, 2023). The interaction of artifacts, values, and basic assumptions forms a dynamic ecosystem in companies. This ecosystem reflects a cultural shift rather than just technological change when adopting and incorporating digital technology (Weill & Woerner, 2015). The model developed in this study provides a clear guide for organizations seeking to traverse the process of digital transformation effectively. It highlights the significance of matching technical progress with human behaviors and organizational ideals, provided that digital culture is integrated into all aspects of the organization's activities.

Schien's culture model includes artifacts, values, and basic assumptions, offering a base for grasping the complex dynamics of digital culture in businesses. This approach is crucial for analyzing how digital technologies and behaviors are closely integrated into the cultural framework of

digital organizations. Although previous studies attempted to develop digital culture models, it was observed that they did not make a clear distinction between basic assumptions, values, and artifacts. Basic assumptions constitute the implicit ideas or beliefs that belong to the organization's members, whereas organizational values are the common beliefs held by members of an organization about what is deemed desirable. These standards and norms influence members' behaviors by establishing expectations and limits for acceptable behavior (Schein, 1990). Artifacts refer to the technical tools the business uses and the observable behavior patterns, including cooperation, decision-making involvement, and innovative work behavior. Based on this differentiation, our proposed model emphasizes that artifacts are the tangible manifestations of digital culture. Organizations must invest in cutting-edge digital technologies and promote open communication and cooperation to adapt to the influence of technology and observable behavioral trends. The emphasis on continuous learning and risk-taking in these behaviors indicates that businesses must develop a culture that encourages experimentation and views mistakes as opportunities for learning to succeed in the digital era (Teece et al., 2016). Previous research showed that cultural characteristics are related to employees' attitudes towards AI (Akyazı, 2023). Also, we propose that a digital organizational culture should include values such as innovation, collaboration, and sustainability (Shin et al., 2023). Other values to achieve organizational objectives may consist of trial-and-failure mentality, proactivity, adaptation, resilience, and agility (Gerçek & Yilmaz Borekci, 2021; Velyako & Musa, 2023). Moving further into the model, values like cooperation, trust, leadership, and creativity are guiding principles for visible behaviors. The values represent a shared comprehension and consensus on what is significant within the organization. Emphasizing attributes such as flexibility and proactivity is crucial in the current fast-moving digital industry, where organizations need to be agile in instantly addressing new trends and difficulties. Recognizing innovation and change as fundamental concepts is consistent with the characteristics of the digital age, which are rapid technological advancement and constant change (Overby et al., 2006). Sustainability in digital culture goes beyond instant innovation and flexibility, emphasizing long-term sustainability and accountability within the organization's DNA (Walkiewicz et al., 2021).

The proposed model classifies basic assumptions about the environment, the nature of reality, the nature of human nature, the nature of human activity, and the nature of human relationships, as in Schein's original work (1983). It is widely accepted that an organization functioning in a highly volatile and unreliable work environment must adhere to certain fundamental principles concerning the environment. They maintain the belief that environments are dynamic and subject to constant change and that to survive in such settings, it is crucial to possess sustainability, flexibility, and adaptability (Teece et al., 2016). A digital

organization should hold the presumption that technology is advantageous and vital. Assuming that decision-making must be grounded in empirical data and that knowledge is power, the reality in such competitive environments is that one must compete or perish (Bousdekis et al., 2021; Jarrahi, 2018). To compete in volatile environments, however, with the help of such technology, organizations must maintain the belief that their most valuable resource—their employees—is intrinsically capable of development and learning (Vrontis et al., 2022). Therefore, effective leadership is essential for their thriving and developing the necessary organizational competencies for new product and service creation (D'Innocenzo et al., 2016). An environment that encourages employees to collaborate, participate, and acknowledge one another for their contributions should guide human endeavors toward excellence and risk-taking.

Emphasizing the significance of adaptability, innovation, and continuous learning, framing the advancement of a digital culture via dynamic capabilities underscores the necessity for organizations thrive in the rapidly changing digital environment (Teece et al., 2016). The focus is on developing a culture that is competent at recognizing digital trends, quickly taking advantage of these possibilities, and constantly adjusting business procedures to stay ahead in a market driven by digital technologies. Our theoretical model acts as a guide for enterprises to evaluate and develop their digital culture actively. Due to the adaptability and depth of the model, organizational culture can be comprehended and influenced in various contexts, such as non-profit entities, government agencies, educational institutions, healthcare facilities, and virtual organizations. Organizations may pinpoint strengths and areas for growth by analyzing the artifacts, beliefs, and assumptions that form the foundation of their digital culture. Implementing tactics that strengthen positive behaviors and values while questioning and altering fundamental beliefs can result in a more creative and sustainable workplace culture.

6. LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

Schein's framework provides a thorough examination of organizational culture, focusing on artifacts, espoused values, and basic underlying assumptions. However, this exclusive attention may neglect the variety and depth found in alternative cultural models. Depending solely on Schein's paradigm could restrict our capacity to comprehensively grasp and tackle the ethical, privacy, and inclusion issues that arise in digital corporate cultures. Thus, future research should incorporate perspectives from many cultural frameworks. This may entail comparing how various models depict the effects of digital transformation on organizational culture or using a synthesis approach that integrates components from multiple frameworks, including Hofstede's (1980; 1984) cultural dimensions, the Competing Values Framework, and Schein's model,

to develop a more detailed and extensive comprehension of digital organizational culture. Moreover, technology, behaviors, beliefs, and assumptions change due to internal and external factors. So, such a model may only provide an overview of an organization's culture at a given time, failing to account for cultural growth and employees' subjective interpretations of values and assumptions. Hence, further investigations need to emphasize cross-cultural and industry-specific examinations due to the substantial impact of national culture on organizational culture and the diverse effects of digital transformation in various industries. In addition, it is vital to comprehend the influence of remote and hybrid work arrangements on corporate culture as they become more prevalent. Additional studies might explore the impact of physical distance and online interaction on cultural cohesiveness, value transmission, and shared assumptions in remote teams, providing valuable insights for building an adaptive organizational culture. Despite its limits, this study enhances the existing knowledge of how digital technologies interact with organizational culture. Our model encourages further research into comprehensive and modern models that may effectively represent the many effects of digital transformation on organizational practices, values, and assumptions. This study is an initial attempt to create a detailed framework for the cultural elements of the digital era.

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REFERENCES

Akgün, A. E., Byrne, J., Keskin, H., Lynn, G. S., & Imamoglu, S. Z. (2005). Knowledge networks in new product development projects: A transactive memory perspective. *Information & Management*, 42(8), 1105–1120. [CrossRef]

Akyazı, T. E. (2023). A Study on the Relationship between Employees' Attitude towards Artificial Intelligence and Organizational Culture. *Asian Journal of Economics, Business and Accounting, 23*(20), 207–219. [CrossRef]

Atanasoff, L., & Venable, M. (2017). Technostress: Implications for Adults in the Workforce. *Career Development Quarterly*, 65, 326–338. [CrossRef]

Aycan, Z., Kanungo, R., & Sinha, J. (1999). Organizational Culture and Human Resource Management Practices. *Journal of Cross-Cultural Psychology*, 30, 501–526. [CrossRef]

Aylak, B. L., Kayıkcı, Y., & Taş, M. A. (2020). Türkiye'de lojistik sektöründe faaliyet gösteren işletmelerin dijital trendlerinin incelenmesi. *Yaşar Üniversitesi E-Dergisi*, 15(57), 98–116. [CrossRef]

- Baldini, M. (2000). İletişim tarihi. Avcıol Basım Yayın.
- Balouei Jamkhaneh, H., Shahin, A., Parkouhi, S. V., & Shahin, R. (2022). The new concept of quality in the digital era: a human resource empowerment perspective. *The TQM Journal*, 34(1), 125–144. [CrossRef]
- Barney, J. B. (1986). Organizational culture: can it be a source of sustained competitive advantage?. *Academy of Management Review*, 11(3), 656–665. [CrossRef]
- Behl, A., Chavan, M., Jain, K., Sharma, I., Pereira, V. E., & Zhang, J. Z. (2021). The role of organizational culture and voluntariness in the adoption of artificial intelligence for disaster relief operations. *International Journal of Manpower*, 43(2), 569–586. [CrossRef]
- Bennett, N., & Lemoine, G. J. (2014). What a difference a word makes: Understanding threats to performance in a VUCA world. *Business Horizons*, *57*(3), 311–317. [CrossRef]
- Borcan, I. 2021. The role of dynamic capabilities, business model and organizational culture in the digital transformation of a traditional organization. *Management and Marketing Journal*, 19(1), 108–124.
- Bousdekis, A., Lepenioti, K., Apostolou, D., & Mentzas, G. (2021). A review of data-driven decision-making methods for industry 4.0 maintenance applications. *Electronics*, 10(7), Article 828. [CrossRef]
- Boz, N., & Serinkan, C. (2022). Türkiye'de Dijital Girişimcilik ve KOBİ'ler. *Girişimcilik İnovasyon ve Pazarlama Araştırmaları Dergisi*, 6(12), 102–117. [CrossRef]
- Buch, K., & Wetzel, D. K. (2001). Analyzing and realigning organizational culture. *Leadership & Organization Development Journal*, 22(1), 40–44. [CrossRef]
- Bunker, D. (2020). Who do you trust? The digital destruction of shared situational awareness and the COVID–19 infodemic. *International Journal of Information Management*, 55, 102201–102201. [CrossRef]
- Büschgens, T., Bausch, A., & Balkin, D. B. (2013). Organizational culture and innovation: A meta-analytic review. *Journal of Product Innovation Management*, 30(4), 763–781. [CrossRef]
- Byrd, M. Y. (2022). Creating a culture of inclusion and belongingness in remote work environments that sustains meaningful work. *Human Resource Development International*, 25(2), 145–162. [CrossRef]
- Cameron, K. S., & Quinn, R. E. (1999). Diagnosing and changing organizational culture: based on the competing values framework. Addison-Wesley.
- Cameron, K. S., & Quinn, R. E. (2011). Diagnosing and changing organizational culture: based on the competing values framework. San Francisco.
- Chandler, G. N., Keller, C., & Lyon, D. W. (2000). Unraveling the determinants and consequences of an innovation-supportive organizational culture. *Entrepreneurship Theory and Practice*, 25(1), 59–76. [CrossRef]
- Chapman, D., Reeves, P., & Chapin, M. (2018). A lexical approach to identifying dimensions of organizational culture. *Frontiers in Psychology*, 9. [CrossRef]

- Chatman, J., & Cha, S. (2003). Leading by Leveraging Culture. *California Management Review*, 45, 20–34. [CrossRef]
- Creswell, J. W., & Creswell, J. D. (2018). Research design: Qualitative, quantitative, and mixed methods approaches. Sage Publications.
- Crowley, D. & Heyer, P. (2010). İletişim tarihi teknoloji kültür toplum. Ankara: Phoenix Yayınevi.
- Çubukcu, B. B., & Topçuoğlu, Ö. (2023). Turizm Sektöründe Dijitalleşme ve Verimlilik İlişkisini İnceleyen Akademik Araştırmaların Bibliyometrik Analizi. *Third Sector Social Economic Review*, 58(1), 598–610.
- D'Innocenzo, L., Mathieu, J. E., & Kukenberger, M. R. (2016). A meta-analysis of different forms of shared leadership-team performance relations. *Journal of Management*, 42(7), 1964–1991. [CrossRef]
- Deal, T. E., & Kennedy, A. A. (1982). Corporate cultures: The rites and rituals of corporate life. Addison-Wesley. [CrossRef]
- Demirhan, M. (2021). Sektörel bakış: Türk bankacılık sektöründe dijitalleşmenin şube dağıtım kanalına etkileri. *Erciyes Akademi*, 35(1), 1–19.
- Denison, D. R. (1990). Corporate *Culture and Organizational Effectiveness*. Wiley.
- Denison, D., & Mishra, A. (1995). Toward a theory of organizational culture and effectiveness.. *Organization Science*, 6, 204–223. [CrossRef]
- Deuze, M. (2006). Participation, remediation, bricolage: Considering principal components of a digital culture. *The Information Society*, 22(2), 63–75. [CrossRef]
- Dubey, R., Bryde, D. J., Dwivedi, Y. K., Graham, G., Foropon, C., & Papadopoulos, T. (2023). Dynamic digital capabilities and supply chain resilience: The role of government effectiveness. *International Journal of Production Economics*, 258, Article 108790. [CrossRef]
- Duerr, S., Holotiuk, F., Wagner, H. T., Beimborn, D., & Weitzel, T. (2018). What is digital organizational culture? Insights from exploratory case studies. *Proceedings of the 51st Hawaii International Conference on System Sciences*, 5126–5135. [CrossRef]
- Etimoloji Türkçe, (2024, 15 March), *Kültür*,https://www.etimolojiturkce.com/arama/k%C3%BClt%C3%BCr
- Gerçek, M. (2023a). İnsan kaynakları yönetimi (İKY) için "Çevik" ne anlama geliyor? İKYve çeviklik kavramına ilişkin bir sistematik derleme çalışması. *Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 25(2), 708–739. [CrossRef]
- Gerçek, M. (2023b). Çevik/Agile örgütler: Kuram ve uygulama. Nobel Akademik.
- Gerçek, M., & Yılmaz Börekçi, D. (2021). Developing a capacity for operational and relational resilience through HRM practices. *International Journal of Management Practice*, 14(6), 682–700. [CrossRef]
- Goldman, S.L., Nagel, R.N., & Preiss, K. (1995). Agile competitors and virtual organizations. Van Nostrand Reinhold.

- Goncalves, D., Bergquist, M., Bunk, R., & Alänge, S. (2020). Cultural aspects of organizational agility affecting digital innovation. *Journal of Entrepreneurship, Management and Innovation*, 16(4), 13–46. [CrossRef]
- Gökalp, E., & Martinez, V. (2021). Digital transformation maturity assessment: development of the digital transformation capability maturity model. *International Journal of Production Research*, 60, 6282–6302. [CrossRef]
- Gürol, Y., Sarp, P., Atila, M., Yeke, S., & Binici, C. M. (2024). Historical Development of SHRM: Bibliometric Analysis of SHRM Based on Web of Science. *International Journal of Management Studies (IJMS)*, 31(1), 1–34. [CrossRef]
- Harris, S. G., & Mossholder, K. W. (1996). The affective implications of perceived congruence with culture dimensions during organizational transformation. *Journal of Management*, 22(4), 527–547. [CrossRef]
- Hartl, E., & Hess, T. (2017). The role of cultural values for digital transformation: Insights from a Delphi study. Twenty-third Americas Conference on Information Systems Proceedings (pp. 1–10). Boston.
- Hatch, M. (1993). The dynamics of organizational culture. *Academy of Management Review, 18,* 657–693. [CrossRef]
- Hensellek, S. (2020). Digital leadership: a framework for successful leadership in the digital age. *Journal of Media Management and Entrepreneurship*, 2(1), 55–69. [CrossRef]
- Heyder, T., Passlack, N., & Posegga, O. (2023). Ethical management of human-AI interaction: Theory development review. *The Journal of Strategic Information Systems*, 32(3), Article 101772. [CrossRef]
- Hinings, B., Gegenhuber, T., and Greenwood, R., (2018). Digital innovation and transformation: An institutional perspective. *Information and Organization*, 28(1), 52–61. [CrossRef]
- Hoeven, C., Zoonen, W., & Fonner, K. (2016). The practical paradox of technology: The influence of communication technology use on employee burnout and engagement. *Communication Monographs*, 83, 239–263. [CrossRef]
- Hofstede, G. (1980), *Culture's consequences: İnternational differences in work-related values*, Sage Publications.
- Hofstede, G. (1984). Cultural Dimensions in Management and Planning. *Asia Pacific Journal of Management*, 1(2), 81–99. [CrossRef]
- Hofstede, G. (1998). Identifying Organizational Subcultures: An Empirical Approach. *Journal of Management Studies*, 35, 1–12. [CrossRef]
- Hofstede, G., Hofstede, G. J. & Minkov, M. (2010). *Cultures and organizations: Software of the mind.* McGraw-Hill.
- Hogan, S., & Coote, L. (2014). Organizational culture, innovation, and performance: A test of Schein's model. *Journal of Business Research*, *67*, 1609–1621. [CrossRef]
- Holford, W. D. (2019). The future of human creative knowledge work within the digital economy. *Futures*, *105*, 143–154. [CrossRef]
- Isensee, C., Teuteberg, F., Griese, K., & Topi, C. (2020). The relationship between organizational culture, sustainability,

- and digitalization in SMEs: A systematic review. *Journal of Cleaner Production*, 275, Article 122944. [CrossRef]
- Jarrahi, M. H. (2018). Artificial intelligence and the future of work: Human-AI symbiosis in organizational decision making. *Business horizons*, 61(4), 577–586. [CrossRef]
- Karaboga, T., Gurol, Y. D., Binici, C. M., & Sarp, P. (2020). Sustainable Digital Talent Ecosystem in the New Era: Impacts on Businesses, Governments and Universities. Istanbul Business Research, 49(2), 360–379. [CrossRef]
- Kim, H. S., Baik, K. B., & Kim, J. H. (2015). Mediating Effects of Emotional Commitment between Downward Benevolence and Team Satisfaction & Team Innovative Behavior. *The Journal of the Korea Contents Association*, 15(1), 437–450. [CrossRef]
- Korherr, P., Kanbach, D. K., Kraus, S., & Jones, P. (2023). The role of management in fostering analytics: the shift from intuition to analytics-based decision-making. *Journal of Decision Systems*, *32*(3), 600–616. [CrossRef]
- Korherr, P., Kanbach, D. K., Kraus, S., & Mikalef, P. (2022). From intuitive to data-driven decision-making in digital transformation: A framework of prevalent managerial archetypes. *Digital Business*, *2*(2), Article 100045. [CrossRef]
- Krackhardt, D., & Kilduff, M. (1990). Friendship patterns and culture: The control of organizational diversity. *American Anthropologist*, 92, 142–154. [CrossRef]
- Leal-Rodríguez, A. L., Sanchís-Pedregosa, C., Moreno-Moreno, A. M., & Leal-Millán, A. G. (2023). Digitalization beyond technology: Proposing an explanatory and predictive model for digital culture in organizations. *Journal of Innovation & Knowledge*, 8(3), Article 100409. [CrossRef]
- Li, Q., Wang, Z., Li, W., Li, J., Wang, C., & Du, R. (2013). Applications integration in a hybrid cloud computing environment: modelling and platform. *Enterprise Information Systems*, 7, 237–271. [CrossRef]
- Lu, J., Zhang, Z., & Jia, M. (2019). Does servant leadership affect employees' emotional labor? A social information-processing perspective. *Journal of Business Ethics*, 159, 507–518. [CrossRef]
- Lund, J. (2014). Activities to address challenges in digital innovation. *IFIP Advances in Information and Communication Technology*, 446, 115–131. [CrossRef]
- Luthans, F., & Youssef, C. M. (2007). Emerging positive organizational behavior. *Journal of Management*, 33(3), 321–349. [CrossRef]
- Mack, O., & Khare, A. (2016). Perspectives on a VUCA World. In Eds. Mack, O., Khare, A., Kramer, A., & Burgartz, T. *Managing in a VUCA World* (pp. 3–19). Springer. [CrossRef]
- Marcoulides, G., & Heck, R. (1993). Organizational culture and performance: Proposing and testing a model. *Organization Science*, 4, 209–225. [CrossRef]
- Martensen, H., Martensen, M., & Asanger, J. (2023). Gamified Recruitment: A Way to Win the Talent of Tomorrow?. *Managerial Economics*, 23(1), 49. [CrossRef]

- Martínez-Caro, E., Cegarra-Navarro, J. G., & Alfonso-Ruiz, F. J. (2020). Digital technologies and firm performance: The role of digital organisational culture. *Technological Forecasting and Social Change*, *154*, Article 119962. [CrossRef]
- Martins, E., & Terblanche, F. (2003). Building organisational culture that stimulates creativity and innovation. *European Journal of Innovation Management*, 6, 64–74. [CrossRef]
- McEvily, B., Soda, G., & Tortoriello, M. (2014). More formally: Rediscovering the missing link between formal organization and informal social structure. *Academy of Management Annals*, 8(1), 299–345. [CrossRef]
- Minkov, M. (2007). What makes us different and similar: A new interpretation of the World Values Survey and other cross-cultural data. Klasika i Stil Publishing House.
- Müller, S. D., Obwegeser, N., Glud, J. V., & Johildarson, G. (2019). Digital innovation and organizational culture: the case of a Danish media company. *Scandinavian Journal of Information Systems*, 31(2), 3–34.
- Naranjo-Valencia, J. C., Jimenez-Jimenez, D., & Sanz-Valle, R. (2011). Innovation or imitation: The role of organizational culture. *Management Decision*, 49(1), 55–72. [CrossRef]
- Narayan, R., Gehlot, A., Singh, R., Akram, S. V., Priyadarshi, N., & Twala, B. (2022). Hospitality feedback system 4.0: digitalization of feedback system with integration of industry 4.0 enabling technologies. *Sustainability*, 14(19), Article 12158. [CrossRef]
- Oberländer, M., Beinicke, A., & Bipp, T. (2020). Digital competencies: A review of the literature and applications in the workplace. *Computers & Education*, 146, Article 103752. [CrossRef]
- Oney-Yazıcı, E., Giritli, H., Topcu-Oraz, G., & Acar, E. (2007). Organizational culture: The case of Turkish construction industry. *Engineering, Construction and Architectural Management*, 14(6), 519–531. [CrossRef]
- O'Reilly, C. A., Chatman, J., & Caldwell, D. F. (1991). People and organizational culture: A profile comparison approach to assessing person-organization fit. *Academy of Management Journal*, 34(3), 487–516. [CrossRef]
- Overby, E., Bharadwaj, A., & Sambamurthy, V. (2006). Enterprise agility and the enabling role of information technology. *European Journal of Information Systems*, 15, 120–131. Ozenc, F., & Hagan, M. (2017). Ritual design: Crafting team rituals for meaningful organizational change. CSN: Business (Topic). [CrossRef]
- Pandey, S., & Pandey, S. (2017). Applying natural language processing capabilities in computerized textual analysis to measure organizational culture. *Organizational Research Methods*, 22, 765–797. [CrossRef]
- Panneerselvam, S., & Balaraman, K. (2022). Employee experience: the new employee value proposition. *Strategic HR Review*, 21(6), 201–207. [CrossRef]
- Patterson, M., Warr, P., & West, M. (2005). Organizational climate and company productivity: The role of employee affect and employee level. *Journal of Occupational and Organizational Psychology, 78*, 193–216. [CrossRef]

- Pfaff, Y. M., Wohlleber, A. J., Münch, C., Küffner, C., & Hartmann, E. (2023). How digital transformation impacts organizational culture–A multi-hierarchical perspective on the manufacturing sector. Computers & Industrial Engineering, 183, Article 109432. [CrossRef]
- Porath, C., Spreitzer, G., Gibson, C., & Garnett, F. G. (2012). Thriving at work: Toward its measurement, construct validation, and theoretical refinement. *Journal of Organizational Behavior*, 33(2), 250–275. [CrossRef]
- Porter, M. E., & Heppelmann, J. E. (2014). How smart, connected products are transforming competition. *Harvard Business Review*, 92(11), 64–88.
- Quinn, R. E., & Rohrbaugh, J. (1981). A competing values approach to organizational effectiveness. *Public Productivity Review*, 122–140. [CrossRef]
- Rowles, D., & Brown, T. (2017). Building digital culture: A practical guide to successful digital transformation. Kogan Page Publishers.
- Schein, E. H. (1983). Organizational culture: A dynamic model. Massachusetts Institute of Technology.
- Schein, E. H. (1985). *Organizational culture and leadership*. Jossey-Bass.
- Schein, E. H. (1985). Organizational culture and leadership. Jossey-Bass.
- Schein, E. H. (1992). *Organizational culture and leadership*. Jossey-Bass.
- Schein, E. H. (1999). *The corporate culture survival guide*. Jossey-Bass.
- Schein, E. H., & Schein, P. (2016). Organizational culture and leadership. Wiley.
- Schein, E.H., 1983. The role of the founder in creating organizational culture. *Organ. Dynam. 12* (1), 13–28. [CrossRef]
- Schiuma, G., Schettini, E., Santarsiero, F., & Carlucci, D. (2022). The transformative leadership compass: six competencies for digital transformation entrepreneurship. *International Journal of Entrepreneurial Behavior & Research*, 28(5), 1273–1291. [CrossRef]
- Schneider, B., Ehrhart, M. G., & Macey, W. H. (2013). Organizational climate and culture. *Annual Review of Psychology*, 64, 361–388. [CrossRef]
- Scott, T., Mannion, R., Davies, H., & Marshall, M. (2003). The quantitative measurement of organizational culture in health care: a review of the available instruments. *Health services research*, 38 (3), 923–945. [CrossRef]
- Setia, P., Setia, P., Venkatesh, V., & Joglekar, S. (2013). Leveraging digital technologies: How information quality leads to localized capabilities and customer service performance. *MIS Quarterly*, 565–590. [CrossRef]
- Sheninger, E. (2014). Pillars of digital leadership. *International Center for Leadership in Education*, 1(4), 1–4.
- Shin, J., Mollah, M. A., & Choi, J. (2023). Sustainability and organizational performance in South Korea: The effect of digital leadership on digital culture and employees' digital capabilities. Sustainability, 15(3), Article 2027. [CrossRef]

- Shivaraj, G. (2021). A Study on the Digitalized Human Resources (HR) Practices in Digitalized Business Era in India. *Management Science*, 8, 83–89. [CrossRef]
- Siachou, E., Vrontis, D., & Trichina, E. (2021). Can traditional organizations be digitally transformed by themselves? The moderating role of absorptive capacity and strategic interdependence. *Journal of Business Research*, 124, 408–421. [CrossRef]
- Siakas, K. V., & Siakas, E. (2007). The agile professional culture: A source of agile quality. *Software Process: Improvement and Practice*, 12(6), 597–610. [CrossRef]
- Sievert, H., & Scholz, C. (2017). Engaging employees in (at least partly) disengaged companies. Results of an interview survey within about 500 German corporations on the growing importance of digital engagement via internal social media. *Public Relations Review, 43*, 894–903. [CrossRef]
- Smircich, L. (1983). Concepts of culture and organizational analysis. *Administrative Science Quarterly*, (28), 339–358. [CrossRef]
- Snow, C. C., Fjeldstad, Ø. D., & Langer, A. M. (2017). Designing the digital organization. *Journal of Organization Design*, 6(1). [CrossRef]
- Snow, C., Fjeldstad, Ø., & Langer, A. (2017). Designing the digital organization. Journal of *Organization Design*, 6, 1–13. [CrossRef]
- Somohano-Rodríguez, F. M., Madrid-Guijarro, A., & López-Fernández, J. M. (2022). Does Industry 4.0 really matter for SME innovation?. *Journal of Small Business Management*, 60(4), 1001–1028. [CrossRef]
- Sultan, Y., & Suhail, K. (2019). The impact of significant factors of digital leadership on gamification marketing strategy. *International Journal for Advance Research and Development*, *4*, 29–33.
- Teece, D., Peteraf, M., & Leih, S. (2016). Dynamic capabilities and organizational agility: Risk, uncertainty, and strategy in the innovation economy. *California Management Review*, 58(4), 13–35. [CrossRef]
- Trenerry, B., Chng, S., Wang, Y., Suhaila, Z., Lim, S., Lu, H., & Oh, P. (2021). Preparing Workplaces for Digital Transformation: An Integrative Review and Framework of Multi-Level Factors. *Frontiers in Psychology*, 12. [CrossRef]
- Tolfo, C., Wazlawick, R. S., Ferreira, M. G. G., & Forcellini, F. A. (2011). Agile methods and organizational culture: Reflections about cultural levels. *Journal of Software Maintenance and Evolution: Research and Practice*, 23(6), 423–441. [CrossRef]
- Trompenaars, F. & Hampden-Turner, C. (1998). Riding the waves of culture: understanding cultural diversity in business, McGraw-Hill.
- Turner, S., Cardinal, L., & Burton, R. (2017). Research Design for Mixed Methods. *Organizational Research Methods*, 20, 243–267. [CrossRef]
- Tylor, E. B. (1871, 2012). Religion in Primitive Culture. A Reader in The Anthropology of Religion. Ulan Press.

- Uhl, A., & Gollenia, M. L. A. (Eds.). (2014). Digital enterprise transformation: A business-driven approach to leveraging innovative IT. Ashgate Publishing, Ltd.
- Valencia, J., Valle, R., & Jiménez, D. (2010). Organizational culture as determinant of product innovation. *European Journal of Innovation Management*, 13, 466–480. [CrossRef]
- Varghese, J., & Deepa, R. (2023). Gamification as an effective employer branding strategy for Gen Z. NHRD Network Journal, 16, 269–279. [CrossRef]
- Velyako, V., & Musa, S. (2023). The Relationship between Digital Organizational Culture, Digital Capability, Digital Innovation, Organizational Resilience, and Competitive Advantage. *Journal of the Knowledge Economy*, 1–20. [CrossRef]
- Verhoef, P. C., Broekhuizen, T., Bart, Y., Bhattacharya, A., Dong, J. Q., Fabian, N., & Haenlein, M. (2021). Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research*, 122, 889– 901. [CrossRef]
- Vial, G. (2019). Understanding digital transformation: A review and a research agenda. In Eds. Hinterhuber, A., Vescovi, T. And Checchinato, F. Managing Digital Transformation (pp. 13–66), Taylor and Francis. [CrossRef]
- Vial, G. (2021). Understanding digital transformation: A review and a research agenda. *Managing Digital Transformation*, 13–66. Vrontis, D., Christofi, M., Pereira, V., Tarba, S., Makrides, A., & Trichina, E. (2022). Artificial intelligence, robotics, advanced technologies and human resource management: a systematic review. *The International Journal of Human Resource Management*, 33(6), 1237–1266. [CrossRef]
- Walkiewicz, J., Lay-Kumar, J., & Herzig, C. (2021). The integration of sustainability and externalities into the "corporate DNA": A practice-oriented approach. *Corporate Governance: The International Journal of Business in Society*, 21(3), 479–496. [CrossRef]
- Warner, K. S., & Wäger, M. (2019). Building dynamic capabilities for digital transformation: An ongoing process of strategic renewal. *Long Range Planning*, 52(3), 326–349. [CrossRef]
- Weill, P., & Woerner, S. L. (2015). Thriving in an increasingly digital ecosystem. *MIT Sloan Management Review*, 56(4), 27.
- Weiner, B. J. (2009). A theory of organizational readiness for change. *Implementation Science*, *4*, 1–9. [CrossRef]
- Yetim, N., & Yetim, U. (2006). The Cultural Orientations of Entrepreneurs and Employees' Job Satisfaction: The Turkish Small and Medium Sized Enterprises (SMEs) Case. Social Indicators Research, 77, 257–286. [CrossRef]
- Yıldız, M., & Altan, M. (2023). Literature review of the sharing economy: Socio-cultural perspective. *Journal of Community & Applied Social Psychology*, 33(5), 1112–1136. [CrossRef]
- Yin, R. K. (2018). Case study research and applications: Design and methods. Sage Publications.

- Yusuf Yahyagil, M., & Begüm Ötken, A. (2011). Cultural values from managers' and academicians' perspectives: the case of Turkey. *Management Research Review*, *34*(9), 1018–1041. [CrossRef]
- Yusuf, Y. Y., Sarhadi, M., & Gunasekaran, A. (1999). Agile manufacturing: The drivers, concepts and attributes. *International Journal of Production Economics*, 62(1-2), 33–43. [CrossRef]
- Zahra, S. A., Hayton, J. C., & Salvato, C. (2004). Entrepreneurship in family vs. non-family firms: A resource-based analysis of the effect of organizational culture. *Entrepreneurship Theory and Practice*, 28(4), 363–381. [CrossRef]
- Zammuto, R., Clegg, S., Hardy, C., & Nord, W. (1997). Handbook of organization studies. *Administrative Science Quarterly*, 43, Article 728. [CrossRef]
- Zhang, G., & Tang, C. (2017). How could firm's internal R&D collaboration bring more innovation?. *Technological Forecasting and Social Change*, 125, 299–308. [CrossRef]
- Zhen, Z., Yousaf, Z., Radulescu, M., & Yasir, M. (2021). Nexus of digital organizational culture, capabilities, organizational readiness, and innovation: Investigation of SMEs operating in the digital economy. *Sustainability*, 13(2), Article 720. [CrossRef]