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A Review on Agile Leadership and Digital Transformation

Çevik Liderlik ve Dijital Dönüşüm Üzerine Bir İnceleme

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ABSTRACT

Digital Transformation is predicted to be one of the fastest market intruders in organizational sciences. Numerous organizations are embracing this transformation because of its long-term advantages. Digital transformation introduces the innovative capability of a particular organization where digital technology is employed to foster productivity and attain better business performance outcomes. The leadership group is believed to be crucial for this transformation process, and one of the attributes of leadership is agility is being reviewed in this paper. This study aims at testing the role of agile leadership in the context of digitization trends being introduced in the market. The study evaluated that leadership agility performs a significant role in the smooth and successful implementation of digital transformation in organizational functionality and structure. Furthermore, the study reviews factors including workforce transformation, dynamic capability, and strategic flexibility as important for digital transformation and what role agile leadership plays in integrating these factors into the organizational context.

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ÖZ

Dijital Dönüşümün, organizasyon bilimlerinde en hızlı pazar davetsiz misafirlerden biri olduğu tahmin edilmektedir. Çok sayıda kuruluş, uzun vadeli avantajları nedeniyle bu dönüşümü benimsiyor. Dijital dönüşüm, üretkenliği artırmak ve daha iyi iş performansı sonuçları elde etmek için dijital teknolojinin kullanıldığı belirli bir kuruluşun yenilikçi kapasitesini sunar. Liderlik grubunun bu dönüşüm süreci için çok önemli olduğuna inanılmaktadır ve liderliğin özelliklerinden biri de bu yazıda çevikliklerdir. Bu çalışma, pazarda tanıtılan dijitalleşme trendleri bağlamında çevik liderliğin rolünü test etmeyi amaçlamaktadır. Çalışma, örgütsel işlevsellik ve yapıda dijital dönüşümün sorunsuz ve başarılı bir şekilde uygulanmasında liderlik çevikliğinin önemli bir rol oynadığını değerlendirdi. Ayrıca, çalışma, dijital dönüşüm için önemli olan iş-gücü dönüşümü, dinamik yetenek ve stratejik esneklik gibi faktörleri ve bu faktörleri kurumsal bağlama entegre etmede çevik liderliğin oynadığı rolü incelemektedir.

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INTRODUCTION

The digital era in organizational sciences has well and truly arrived. Businesses around the world are getting good support from technological innovations. Emerging technologies such as cloud computing, data sciences, artificial intelligence, high-performance computing, machine learning, and other digital innovations have brought great opportunities to the table where organizations are capable to yield performance in a completely different and more effective way (Prasad et al., 2018).

Different technological resources are available to organizations with just a single connection connecting them to the pool of innovative capabilities (Mu, 2013). Organizations of all types, regardless of their sizes and types, are in a position to adopt technological innovations to improvise their performance capabilities in the industry and are moving gradually toward digital transformation.

The push for organizations toward digital transformation is also derived from the competition in the industry. Today's market has been saturated, demanding increased and sustainable performance from respective organizations. Digital innovations have further increased the intensity of competition as better technology helps organizations to gain a competitive edge in the market. Casalino et al. (2019) state that digital transformation is positively interconnected with organizational performance as it helps organizations to attain sustainability and progressiveness from a business point of view.

Service availability, cost affordance, human resources, technological awareness, and other hindrances in digital transformation. While technological innovations provide meaningful opportunities for organizations to achieve better performance capabilities, the challenge for some organizations to go digital remains critical; digital transformation requires healthy internet connectivity and other digital resources. Organizations, especially those of small sizes and developing countries, have low readiness for this transformation (Warner & Wager, 2019). Hence, this is generally a problem for all stakeholders of organizations to timely address.

The first thing that comes in digital transformation is general awareness. The more stakeholders of organizations are informed about the specific technological innovations, the more it would push them to transform their operating model into a digital one. Cenamore et al., (2019) asserted in their study that the internet, particularly social media, had proved to be vital in expanding the market and encouraging organizations to adopt innovation capabilities at local and international levels. The advantages and exponential betterment in the performance of organizations worldwide have accelerated digital transformation. Those organizations are believed to lead from the digital economy front.

Digital transformation has expanded the capabilities of organizations' business models. The innovativeness offered

by transformation ensures that companies are operating in a more efficient way that leads to effective and sustainable performance. In general, digital transformation expands an organization's marketing level to a wider audience. For instance, companies with a digital connection with their customer base can interact and facilitate them innovatively and attract more customers through online marketing and other techniques (Mayar & Ramsey, 2011).

Among several advantages provided by digitization, better customer-to-organization connectivity is considered to be a significant one. It offers meaningfully convenient and effective resources to origination where they offer value to their customer base and employ various techniques and methods to satisfy their customers.

In specific, digitization provides a platform where organizations move toward a customer-centric approach in an efficient manner. The relationship between customers and organizations creates a better environment for business, leads to profitability for the organization, and ensures its sustainability in today's highly saturated market, where customers are considered to be a focused entity (Foltean et al., 2019).

In the existing literature, digitization has been studied and found to be a way to go in the future. It is credited with being one of the fastest market intruders. The leading organizations worldwide that are considered the backbone of the economy are first in line to transform their operational model into digital, partially or completely. Accenture Technology Vision (2019) projected in their literary work that a quarter of the economy will be derived from the digitization of business organizations by the year 2020.

In order to transform a particular organization into a digital era requires readiness from various perspectives. This requires a comprehensive strategy that directs organizations towards digitization gradually. In specific, transformation requires human resource readiness. The workforce at a particular organization requires awareness and knowledge regarding innovative capabilities which are being introduced as a part of the process of digital transformation of the organization. The workforce that is ready to adopt innovative capabilities is said to be impactful in a positive way for any organization. Consequently, it paves the way for other parts of the organization to adopt digital transformation and plays the anchor role in the foundation of innovative capabilities.

The development of an organization requires a mature strategy at the internal and external levels. Understanding an organization's market dynamics and internal environment is essential for successful development, and more importantly, these factors lead to sustainable business performance. This concept is termed in organizational sciences as agility in the workplace environment.

The concept of agility in organizational science is referred to the capability of a particular organization that is

ready to renovate its structural and operational dynamics, adapt to the necessary determinants change with quick succession, and perform successfully in an abruptly changing, uncertain, turbulent industry environment (Fachrunnisa et al., 2020).

The leadership group within the organization plays a key role in bringing agility into the organizational setup. Agile leadership refers to the leadership context style that aims at making the organization environment significantly effective and productive (Theobald, 2020). Agile leadership brings the workforce of the organization into a team working together to achieve better network performance. The more the leadership group is agile toward the organization, the better it would produce the business outcomes and help in attaining sustainability (Theobald, 2020).

Leadership agility is perfectly applied to the digital transformation of the organization. The role that leadership groups play in bringing agility into various facets of the organization may also be related to digitization in one or another manner. This study's fundamental objective is to find out what role agile leadership plays in the organization's digital transformation and how these two variables correlate with each other.

The existing studies present a comprehensive concept of agile leadership and digital transformation along with various other variables impacting these variables. However, there is still a gap in the literature regarding these variables in the context of small and medium-sized organizations (SMEs) capability for transformation. These organizations usually have a limited number of resources that are required for quick and successful transformation to the digital era. This is where the leadership group of these organizations is tested.

The role of agile leadership for digital transformation, in the context of SMEs, is believed to be vital in large-scale organizations. This study will examine how agile leadership brings the digital age to their organization with a limited number of resources available for them to incorporate into the organizational environment.

This study employs two variables and investigates their correlation in organizational science. The dependent variable agile leadership is considered to be important for any organization in a digital age where organizations are making the most out of the advantages that digitalization provides in today's highly compact and competitive market. Furthermore, this study aims to acquire the outcomes in the context of SMEs who are considered less capable of digital transformation, given their available resources.

The agility in the leadership group of the SMEs is tested as how they learn from the success of large-scale organizations in the way of the transformation. In general, the fundamental aim of the research is to study the variables mentioned above and point out their relationship in the organizational context.

DIGITAL TRANSFORMATION OF ORGANIZATIONS

Digital transformation, in general meaning, is referred to introducing digital technology to the already existing operational model of a particular organization. Sunarti (2013) described the term transformation as an inclusive change for individuals in an organization regarding appearance, behavior, or character. Moreover, it is also defined as the complete change in structure and functionality of an organization from one environment to another (Kinosian et al., 2016; Margolis et al., 2017).

Digital Transformation of an organization, in specific, is referred to as bringing digital changes in an organization's overall structural and functional model. These transformations are significantly linked with digital technology in organizations related to changes in production, structure, or automation.

In the existing literature, digital transformation is defined as employing digital and innovative technologies of different types including social media, embedded devices, analytics tools, and others, as improving various facets of the organization's key business areas (Fitzgerald et al., 2014). The authors further argue that digital change leads the organization to attain better business outcomes with improved customer experience, streamlining various operations, creating new business opportunities, and others. Furthermore, Liu, Chen, & Chou (2011) explain digital transformation as integrating digital technology and other business procedures in the digital economy. The technology comes together to redesign the organization from a structural and functional point of view in a changing environment.

Digital transformation also incorporates strategy along with digital technology. Real transformation deals with the overall strategy employed at a particular organization. Everyone from individual workers to senior management groups are involved in the change process. In this regard, the leadership group is believed to play an important role in smooth and successful implementation.

The group's ability to offer a comprehensive strategy that looks after the transformation process ensures that transformation is planned to produce outcomes. The leadership team must introduce strategic flexibility (Fachrunnisa et al., 2020). The authors further described flexibility in the transformation strategy should open to adopting changes in the vibrantly changing business market that increases competitiveness.

According to Warner & Wager (2019), the structure of an organization in terms of digital transformation is about innovation ecosystem, reforming internal structure, and improving digital maturity. In addition to strategy, digital transformation is also about the organization's changing structure and the use of technological innovation to address business needs in the digital age. The change required by digital transformation with respect to organizational struc-

ture is to redesign the organization's operational model and bring an innovative ecosystem. This change is a developmental process and is not finished at once.

Li et al. (2018) studied digital transformation related to SMEs, particularly their ability for change. The authors explained that small-scale organizations use all available resources to go digital. However, resource limitations are considered a major challenge for the leadership group to address. Torres, Marshal, & Sydnor (2018) further added that the core aim of SMEs is to improve the capability of all members and sections of the organization and make them ready for the transformation in the best possible option available to them.

Besson & Row (2012) stressed management's role in the smooth and successful transformation of the organization. It entails managerial abilities that include the redesigning process, formation of business strategy, human resource training for digital literacy, and others. Moreover, the authors stated that digital transformation mainly focuses on improving business performance and incorporates automation, simulation, analytics, and redesigning the production cycle by using the internet and other digital technology for business processes.

The utilization of these digital services affects positively business outcomes. Therefore, it can be determined that organizations that adopt digital transformation aim to improve their products and services and gain a key edge in market competitiveness.

WORKFORCE TRANSFORMATION

Shaughnessy (2018) defined workforce transformation as changes that work employees adopt concerning circumstances at a particular organization. The author termed it as a fundamental change in organizational transformation, and its effects on the culture, attitude, and mindset of the workers employed at a particular organization. Moreover, it is referred to, in other words, as the change in human understanding that significantly transforms one's mindset and livelihood (Pan et al., 2019).

In general, transformation means a change from one form to another, but in a more descriptive sense, it is the change in relational, cognitive, and holistic orientation (Bertola & Teunissen, 2018). Similarly, workforce transformation is an alteration of the characteristics of workers in an organization's setup.

Gibson et al. (2015) studied workforce transformation. They provided several parameters for the transformation, including data capture, access and disclosure, identity management, information management, knowledge asset management, information integrity, content compliance, customer support, data analysis, and intelligent business analysis. The authors stated that these parameters are meaningfully altered in the process of workforce transformation in an organization.

Shaughnessy (2018) gave various other dimensions for determining the transformation of the workforce which include scalable visualization, flexibility in working concept, quick and adaptive attitude on daily basis, acceptance of social norms and values, and putting work in prioritization in work based on its value.

Similarly, Stevens (2018) provided more dimensions regarding measuring workforce dimensions based on workers' personal characteristics. The dimensions provided in his literary work are the skillset of workers to perform changed working operations, qualities of the workforce, communication, consistency, and humor. Hence, this review closely studied these dimensions provided by various scholars in the existing literature particularly for measuring workforce transformation.

Based on the existing literature, the concept of workforce transformation holds significant importance. As digital transformation requires everything in the organization to be transformed with digital technology, the workforce dealing with these innovations must be well-informed and aligned with digital technologies that are being adopted as a part of the transformation. All the dimensions for measuring workforce transformation, which was discussed earlier, may necessarily be required for the digital transformation of the organizations. In this regard, the role of the leadership group comes into the act. Agile leaders who are focused on making the smooth, quick, and successful way for change for digital technology are believed to be significantly crucial.

Since the workforce is believed to be a significant resource for any organization, it is essential for leadership groups to prepare them for innovative changes introduced by the digital era. The workforce is essentially required to be educated and informed about the technology changing in the organizational environment. In literature, this transformation of the workforce with respect to technology has been termed the mother of all transformation (Uimonen, 2016). The leadership group will only be able to plan the digital transformation for implementation once its workforce is completely ready to use it.

DYNAMIC CAPABILITIES

The term dynamic capability refers to organizational attributes where organizations possess the capability to embrace changes that are introduced at the internal and external levels of the organizational environment (Eisenhardt & Martin, 2000; Gaur et al., 2014). Furthermore, the authors added that the capability to deal with changes is to be addressed with an organization's existing competency. The organization's environment is said to be dynamic when it is prepared to adapt to incoming changes abruptly and timely.

Wilden et al. (2013) arguably termed the dynamic capability of a particular organization as a competitive agent, which ensures that required changes for the resources are

being introduced and implemented with succession in today's continuously changing and highly competitive market environment. Consequently, when organizations do not have the presence of dynamic capability, it may lead them to unsustainable performance levels in an ever-changing organizational setup (Gnizy et al., 2014). The dynamic capability of an organization is credited with facilitating adaptation, but at the same time, it is not evaluated as affecting the organization's performance directly in quick succession. However, the concept of dynamic capability deals with catering changings being introduced at internal and external levels so that it can remain competitive to produce long-term organizational performance success, which the scholars term as the sustainable business performance of the organization.

Gnizy et al. (2014), in their research study, provided two dominant dimensions for measuring the dynamic capability of an organization which include marketing plan adaptation and integration of locally existing factors at a particular organization. Furthermore, in another research, Oliva et al. (2018) gave more dimensions for determining an organization's dynamic capability, and that is the expertise of personnel working at a particular organization, cultural factors in the organization's environment, strategic efficiency, and agile leadership group. As per the authors, agile leadership is one of the factors evaluated as significantly dominant for the dynamic capability of a successful organization.

Similarly, the existing literature provides various other factors to determine dynamic capability. Teece et al. (2016) assert that one of the important dimensions of dynamic capability is management, which is capable to develop entrepreneurial skills, which, according to authors, hold significant status for the digital transformation of businesses. Park et al. (2018) state that dynamic capability incorporates market, technology, and regulations as key factors for determining it in the organizational context.

Tallott and Hilliard (2016) state that dynamic capability includes sensing, seizing, and transforming as essential factors for organizations. The authors defined sense as the ability of the leadership group of a particular organization to identify new business opportunities and capitalize on them. Seizing refers to the ability to absorb new incoming knowledge from the external source and assimilate it with knowledge already existing at the internal level of the organization. Lastly, the transforming factor is defined as the ability to transform the acquired knowledge from the external and internal levels into new and better services, products, strategies, approaches, operations, and overall processes.

Thus, it is evident from the existing literature that dynamic capability is essential for organizational transformation as it helps them to incorporate important dimensions required for transformation. Moreover, in the context of digital transformation of the organization, these dimensions are determined as playing a similar role throughout the transformation process and leadership agility, once again, plays a key role in making a particular organization as dynamic as it is necessarily required for the quick and

successful transformation of organization at the external and internal level.

STRATEGIC FLEXIBILITY

Strategic flexibility is believed to be playing a central role as part of the responsibilities of agile leadership in the process of digital transformation. In an organizational context, strategic flexibility is defined as the ability of an organization to respond to uncertain events constantly occurring by adjusting its goals with support provided by its knowledge base and other essential capabilities (Fachrunnisa et al., 2020). Furthermore, strategic flexibility provides a comprehensive strategy for organizations to support current challenges and, more importantly, future developments to respond quickly and efficiently to changing internal and external organizational environments in today's highly vibrant market.

Sanchez (1995) asserts that it is strategic flexibility that develops a fundamental approach for organizations to deal with transformation in a more effective and successful manner in a competitive industry environment. The author further argues that strategic flexibility provides an essential competitive advantage as the organization is always ready to adopt changes and make decisions according to the situation.

In the existing literature, various authors study strategic flexibility as a key factor affecting organizational performance with respect to transformation. Warner (2013) determines strategic flexibility in his study with strategic sensitivity, leadership qualities, and resource fluidity in the organizational context. Zhou & Wu (2010) assert that strategic flexibility has a significantly dominant impact on technological innovation capability. The authors prove that strategic flexibility possess a positive correlation with organizational transformation in term of expanding the company's structural and functional boundaries to a higher level.

Therefore, it is concluded that strategic flexibility has a significant role in transforming the organization as it provides flexible options in a changing environment that provides a competitive advantage to the organization. Moreover, the role of the leadership group in the construction of the strategy also holds importance, as the leadership group of any organization is responsible for making an organizational strategy that is as flexible as it should be for obtaining an advantage in the competitive market.

THE ROLE OF AGILE LEADERSHIP

Among several roles that agile leadership is credited to be playing in digital transformation, the most prominent responsibilities are workforce transformation, dynamic capabilities, and strategic flexibility (Fachrunnisa et al., 2020). Workforce transformation deals with the readiness of workers employed at a particular organization to be familiarized

with the digital technology being introduced. An educated and prepared workforce is believed to be important for the quick and successful transformation of the organization in the digital era.

Dynamic capabilities refer to the ability of the organization to be dynamic in the sense that it must be able to respond to changes occurring at the internal and external levels of the organizational environment. Also, there is a meaningful role of agility in leadership groups to make the organization dynamic. Lastly, strategic flexibility deals with the capability of an organization to make its strategy flexible enough to embrace changes in its current operational model and, more importantly, develop a future strategy that should be open to multiple options having the ability to make decisions according to situations.

The leadership group of an organization has a mediating role to play in the context of organizational transformation. The group integrates workforce transformation, dynamic capability, and strategic flexibility in an organizational setup. These factors are discussed in existing literature with comprehensive definitions. This part of the paper reviews these definitions and evaluates the role of agile leadership in the digital transformation of the organization.

A successful digital transformation is implemented when there is agile leadership behind it. As discussed earlier in the chapter that agile leadership has a meaningful responsibility for the transformation. It is the leadership group that plans and employs various digital capabilities that ensures profitable business outcomes. Perker, Holesgrove, & Pathak (2015) described agile leadership as a group of individual leaders who have the ability to make their team ready for transformation and continually guide the team by explaining, controlling, and maintaining the transformational developments of the organization.

The main focus of agile leaders revolves around providing greater value to their respective organization's customers. In this way, agile leaders lead agile organizations by adopting a customer-centric approach (Denning, 2018). The leaders inform workers to address customer focus on priority. The further authors state that everyone working at the organization may have a clear view and analyze whether their work is offering value to their customers that they expect from their respective organizations. This environment created by agile leadership influences the productivity of the organization and, more importantly, helps the organization in the mission of digitization.

Marquest (2018) argued that agility is one of the most significant elements currently for organizations to remain in business. The competition in the market is rising exponentially, and businesses are dynamically employing various ways to improve their productivity. Agile leadership is easing their way towards better performance and making a great difference for them. Hence, agility is believed to be one of the most effective skills for the management and leadership group of a particular organization.

Buhler (2010) asserted in his study that agile leaders who possess this skill can make way for progress for their organizations and prepare them for broader challenges in the highly competitive and ever-changing dynamics of the market. Therefore, it can be determined that agile leaders possess a great influence on the positive environment of the organization and are responsible for guiding the workforce and continuously swaying their behaviors. Gardner, Avolio, & Walumbwa (2005) stated that agile leadership incorporates intrinsic ability; organizational vision, adaptive environment, customer-centric approach, problem-solving culture, automation, adaptability, and production management.

Moreover, (Denning, 2018) gave other dimensions of leadership agility that include a focus on planning, constant efforts to create new business opportunities, adopting a risk-taking approach, enriching new effective skills and turning them into business success, shared responsibility, recognizing problems and challenges, and providing their just solution are some of the key managerial skills of the agile leaders.

However, Sanatigar, Peikani, & Gholamzadeh (2017) also provided comprehensive dimensions for determining leadership agility. According to the author, cooperation in teamwork, embracing diversity in the workplace, open to innovation and creativity, flexibility in functionality and structure, competitiveness, regulations, fairness, rule of merit, trust, encouragement, proper procedures for work, robust hardware, and software resources, and other facets that contribute to organizational goal in one or other way are considered as key skills that determine the level of agility in the leadership group of the organization.

According to existing literature, agile leadership possesses a great influence on the overall success of organizations. Along with the successful implementation of digital transformation, the leadership group would make sure that constant changes are being implemented. Thus, it may be fascinating to investigate the variable agile leadership with respect to the digital transformation of organizations. Fachrunnisa et al. (2020) concluded in their study that agile leadership has a definite role in introducing digital technology in an effective manner. The authors further added that agility of leadership has a mediating role and possesses a positive relationship with the digital transformation of the organization.

CONCLUSION

In organizational science, leadership attributes possess great significance along with how these attributes impact organizational success. Agility is determined as one of the most important attributes. Also, the changing dynamics of the market where digital technology has witnessed exponential rise has made it more significant for organizations' leadership groups to make their organizations relevant

and, more importantly, gain a competitive advantage in the changing dynamics of the industry.

Among various changings in the dynamics of the market, digitization is gaining fair recognition. Organizations of all sizes and types are gradually introducing innovative capabilities into their structure. This study presents how the digital area is making it important for organizations to adopt digitization by embracing digital technology, the concept termed the digital transformation of the organizations.

The discussions in this study mentioned that digital transformation is referred to the capability of the organization to introduce digital innovations into its functional and structural business model that aims at improving the overall performance of the organization. However, the role of leadership in bringing this transformation is determined to be very important for successful implementation.

Among various skills of the leadership group, agility is investigated in the existing literature as crucial for the digital transformation of organizations. Leadership agility integrates numerous organizational attributes that may include cooperation in teamwork, embracing diversity in the workplace, open to innovation and creativity, flexibility in functionality and structure, competitiveness, regulations, fairness, rule of merit, trust, encouragement, proper procedures for work, robust hardware and software resource, use of internet along with other networking cloud services and other. Hence, it can be concluded that agile leadership is of very significance for organizational success as it helps organizations to attain successful business outcomes along with gaining a competitive advantage in the market.

Finally, it is evident in the literature and discussion in this study that agility of leadership plays a meaningfully positive role in the quick transformation of organizations in the digital age. The leadership group of that particular organization brings several advantages to the table that are required for the smooth and successful transformation of those organizations.

An agile leadership makes the workforce ready for the gradual introduction of digital technology, like the usage of the internet, social media marketing, technological innovations, customer-centric approaches, and others. These are all collectively promoted within the workplace by agile leadership group and results in better business performance in today's competitive marketplace.

Furthermore, there is a significant role of agile leadership in making the organization dynamic enough to respond to changes occurring at the internal and external levels of the organization in a meaningfully effective manner. Lastly, the leadership group develops a strategy that is flexible to cater to changes and deal with future challenges for organizations. Overall, the leadership group plays mediating role in integrating various factors that are believed by scholars as essential for the digital transformation of the organization.

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