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THE EFFECT OF RELATION BETWEEN DIGITAL LEADERSHIP PRACTICE AND LEARNING ORGANIZATION ON THE PERCEPTION OF INDIVIDUAL PERFORMANCE

Araştırma

Samime Derya Artüz
Sorumlu Yazar (Correspondence)
İstanbul Ticaret Üniversitesi
sderya.artuz@istanbulticaret.edu.tr
Osman Bayraktar
İstanbul Ticaret Üniversitesi
obayraktar@ticaret.edu.tr

Samime Derya Artüz, sırasıyla İşletme lisans ve İnsan Kaynakları Yönetimi Yüksek Lisans programlarından mezun olmuştur. İstanbul Ticaret Üniversitesi İşletme Doktora programı öğrencisidir. Özel sektörde çalışmaya devam etmekte ve alanında araştırmalar yayınlamaktadır.

Osman Bayraktar, İnsan Kaynakları alanında yüksek lisans ve doktora dereceleri, Yönetim ve Strateji alanında doçent unvanını almıştır. İstanbul Ticaret Üniversitesi'nde öğretim üyesidir. 2014 yılından bu yana İnsan Kaynakları Yöneticiliği Yüksek Lisans Program Başkanı sorumluluğunu yürütmektedir.

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Samime Derya Artüz
sderya.artuz@istanbulticaret.edu.tr
Osman Bayraktar
obayraktar@ticaret.edu.tr

ABSTRACT

Rapid changes in the technological field affect management practices and create new concepts. Digital leadership is one of the concepts that have entered the literature in recent years. In this study, the perceptions of digital leadership and learning organization were investigated. The primary hypothesis of the study is the assumption that there is a positive correlation between the perception of digital leadership application and organizational learning. The scales that were developed by Ulutaş and Arslan (2018), Şahin, Çakır and Öztürk (2014), and Karakurum (2005) were combined and used in this study. The research was conducted in banking and finance sector. 234 people participated in the online survey, and the questionnaires of 193 participants were available for analysis. The data was statistically analyzed with SPSS 25.0. As a result of the analysis, the effect of the relationship between digital leadership and learning organization on individual performance was found as statistically significant and the primary hypothesis of the study was accepted (p=0,000; p<0,001). Statistical analyzes were also conducted on demographic variables and the perception of individual performance and statistical significances were not found. The fact that digital leadership is explained conceptually and being the first research on the relationship between digital leadership and learning organization in the banking sector stands out as the original aspect of the study.

Purpose: In this study, the perceptions of digital leadership and learning organization were investigated.

Method: The research was conducted in banking and finance sector. 234 people participated in the online survey, and the questionnaires of 193 participants were available for analysis. The data was statistically analyzed with SPSS 25.0.

Findings: As a result of the analysis, the effect of the relationship between digital leadership and learning organization on individual performance was found as statistically significant and the primary hypothesis of the study was accepted (p=0,000; p<0,001) and analyzes on demographic variables and the perception of individual performance and statistical significances were not found statistically significant.

Originality: The fact that digital leadership is explained conceptually and being the first research on the relationship between digital leadership and learning organization in the banking sector stands out as the original aspect of the study.

Keywords: Digital Leadership, Digitalization, Learning Organization, Individual Performance
JEL Classification: M54

DİJİTAL LİDERLİK UYGULAMASI İLE ÖĞRENEN ÖRGÜT İLİŞKİSİNİN BİREYSEL PERFORMANSA ETKİSİ

ÖZET

Teknolojik alandaki hızlı değişmeler yönetim uygulamalarını da etkilemekte ve ortaya yeni kavramlar çıkmaktadır. Dijital liderlik, alan yazına son yıllarda giren kavramlardan birisidir. Bu çalışmada dijital liderlik algısı ile öğrenen örgüt ilişkisinin bireysel performansa etkisi araştırılmıştır. Araştırmanın temel hipotezi, dijital liderlik uygulama algısı ile öğrenen örgüt ilişkisinin bireysel performansa etkisi üzerinde pozitif yönlü bir ilişki olduğu varsayımıdır. Bu çalışmada Ulutaş ve Arslan (2018), Şahin ve diğerleri (2014) ve Karakurum (2005) tarafından geliştirilen ölçekler birleştirilerek kullanılmıştır. Araştırma bankacılık sektöründe gerçekleştirilmiştir. İnternet üzerinden gerçekleştirilen ankete 234 kişi geri dönüş yapmış, 193 katılımcının anketleri kullanılabilir nitelikte bulunmuştur. Veriler SPSS 25.0 yazılım programı ile analiz edilmiştir. Analizler sonucunda "dijital liderlik uygulaması ile öğrenen örgüt ilişkisinin bireysel performansa etkisi" arasında istatistikî anlamlılık ($p = 0{,}000$; $p < 0{,}001$) bulunarak, araştırmanın temel hipotezi kabul edilmiştir. Demografik değişkenler ile bireysel performans algısı üzerine de istatistikî analizler yapılmıştır. Analizler sonucunda demografik değişkenler ile bireysel performans algısı arasında istatistikî anlamlılık bulunamamıştır. Dijital liderlik olgusunun kavramsal olarak açıklanması, dijital liderlik ve öğrenen örgüt ilişkisi arasında bankacılık sektöründe yapılan ilk araştırma olması çalışmanın özgün yanı olarak öne çıkmaktadır.

Amaç: Bu çalışmada dijital liderlik algısı ile öğrenen örgüt ilişkisinin bireysel performansa etkisi araştırılmıştır.

Yöntem: İnternet üzerinden gerçekleştirilen ankete 234 kişi geri dönüş yapmış, 193 katılımcının anketleri kullanılabilir nitelikte bulunmuştur. Veriler SPSS 25.0 yazılım programı ile analiz edilmiştir.

Bulgular: Analizler sonucunda "dijital liderlik uygulaması ile öğrenen örgüt ilişkisinin bireysel performansa etkisi" arasında istatistikî anlamlılık ($p = 0{,}000$; $p < 0{,}001$) bulunarak, araştırmanın temel hipotezi kabul edilmiş ve demografik değişkenler ile bireysel performans algısı arasında istatistikî anlamlılık bulunamamıştır.

Özgünlük: Dijital liderlik olgusunun kavramsal olarak açıklanması, dijital liderlik ve öğrenen örgüt ilişkisi arasında bankacılık sektöründe yapılan ilk araştırma olması çalışmanın özgün yanı olarak öne çıkmaktadır.

Anahtar Kelimeler: Dijital Liderlik, Dijitalleşme, Öğrenen Örgüt, Bireysel Performans
JEL Sınıflandırması: M54

INTRODUCTION

Digital transformations and the use of information technologies are becoming common in almost all business processes and applications. The development of technology directly affects not only the business and service processes, but also the company's position in the market, its ploys and strategies against its competitors. These systems are particularly important in the process and storage of knowledge capital, which is one of the scarce resources of businesses. Processing, archiving and transferring the knowledge capital to potential employees are vital for businesses.

Thus, the expectations of leadership style and perceptions of the new generation employees have started to transform accordingly with the trend of digital transformation. This has recently prompted global consultants, managers and researchers to conduct deeper research into the concept of digital leadership.

The fact that businesses are pioneers in the sector with their information infrastructures primarily depends on digital leaders who are aware of recent technological requirements rather than classical management approaches. Leaders who adopt the learning organization structure and ensure optimum efficiency by increasing employees' individual performances may thought to be the result of sectoral demands.

In this study, firstly, the level of relationship between digital leadership practice and learning organization perception was examined. In the second stage, it was investigated how this relationship affects the individual performance of the employee. On the other hand, the effects of demographic variables on digital leadership were also examined.

We declare that we received the necessary approval from the Istanbul Commerce University Ethics Committee for the survey forms we used and the application form of the research, with a petition numbered 65836846-044 on 31.05.2019.

LEADERSHIP CONCEPT

Leaders are people who shape the community they live in, affect and motivate people, and make great contributions by encouraging the society to achieve its goals. The drive to get power generally manifests itself in society in two ways: people either become leaders or follow the leader.

According to Akdemir, Konakay, and Demirkaya (2014), leadership can be expressed as the ability to influence a group of people to achieve a goal with its simplest definition (p. 21). While those who have power in society are positioned as leaders, those who do not feel strong will follow the power owner in order to be close to this power and provide a sense of trust. According to Şimşeker and Ünsar (2008), managers can trust their technical experience and local success in their past, but this is a different situation when it comes to leadership required by global conditions (p. 1031).

Leadership Theories

Many scientific researches and approaches have been developed about the concept of leadership. Although different leadership theories have emerged over the years, they can be classified historically under eight headings. Among these titles, Great Man Theory, Trait Theory, Behavioral Theory, and Contingency Theory are pioneering theories in the first half of the 1900s.

In the recent period, studies on new approaches are going on, considering social, economic, political and technological changes among years. These new approaches are also called as new age leadership theories, such as; Transformational, Charismatic, Adaptive, Strengths-Based and Servant Leadership Theories (Bess & Goldman, 2001, pp. 425-427). In this context, Digital Leadership theory is developed based on today's technological developments and the need for a new leadership model in the industry.

Digital Leadership Theory

Throughout history, the fact that leaders create an environment of trust in changing conditions, motivate employees and their communication has been influenced by technological developments as Ulutaş and Arslan (2018) draw attention (p. 109). Organizations are looking for new leadership models that follow the digital path for business processes, as well as agile, diverse and younger leaders.

The new social conditions are introducing new forms of leadership necessary to initiate and sustain transitions towards more knowledge-intensive societies. In the digital age, leadership needs new attitudes, new skills, and new knowledge that respond to social changes and are acquired through unique professional experiences (Wilson III, 2004, p. 2). The leadership skills required to succeed in the digital world are shown in Table 1.

Table 1. Transformed Leadership Skills

Cognitive transformations	Behavioral transformations	Emotional transformations
Conceptualizing possibilities in the virtual world	Being compatible with the ever-changing power and influence areas	Being able to tolerate the risk and uncertainty environment
Overcoming accelerating cognitive complexity	Collaborating with different teams	Showing flexibility in ever-changing conditions
Thinking new ways to do different things	Valuing the contribution of new partners / groups	Demonstrating courage to change business processes
Making practical decisions without all the information	Learning and trying again with high energy and motivation after failures	Having enough self-confidence to lead the change

Ref.: (revised by the authors): Abbatiello, A., Knight, M., Philpot, S., & Roy, I. (2017). Rewriting the rules for the digital age: 2017 Deloitte Global Human Capital Trends. UK: Deloitte University Press., 79.

Companies are getting stronger by pushing the limits of traditional leadership hierarchies with a new leadership understanding that can read rapid change. Leaders need to think, act and react differently to make their organization successful in the digital world. For this reason, the most critical need for most companies is that leaders develop digital capabilities (Abbatiello at al., 2017, pp. 77-83).

As the leadership model of the new age, the digital leader should always be willing to carry her/his knowledge and skills forward and should take continuous learning as a principle, which will take the leader and organization one step ahead of the competitors (Kırmaz, 2010, p. 214).

According to Kırmaz (2010), the leader of the information age should create a culture of high performance by guiding the change process; according to Ünal (2012), the digital leader should be able to transform the data into a way that can attract people's attention and activate them; also according to Ulutaş and Arslan (2018), the leader should be able to direct the organization with the power of information and communication.

Use of Information Technology Systems

Information Technology Systems used by enterprises are divided into two groups as managerial and functional systems. Managerial information systems; management information systems, office automation systems, electronic data exchange, decision support and expert systems are the systems that help managers form strategies. Functional systems, on the other hand, are systems that support functional decisions such as human resources management, production, marketing, logistics and financing and execution of applications (Tekin el al., 2005, pp. 117-119).

As a result of globalization and the development of information technologies, electronic systems have been widely used in almost all business processes. Nevertheless, organizations with increasing number of competitors have started to move away from their crowded and hierarchical structures. This situation brings downsizing for companies and business processes. As a natural result of this new digitalized system, the economy of information era is formed (Ünal, 2012, p. 299).

All applications of new age organizations are progressing over Information Technology Systems. Thus, the only way to keep the company up to date is through leading the knowledge capital, and the

way to keep the organization up to date is through digital transformation (Şimşeker & Ünsar, 2008, pp. 1030-1037).

The Necessity of Digital Transformation

The differentiation of communication tools and the widespread use of information technology systems enable employees, who are trained in different cultures, to work in the same organizations. In this context, the workforce is globalizing and business processes are rapidly beginning to integrate with digital infrastructures. Integration of digital technologies mostly affects production, business processes, sales channels and supply chains. As a result of this, digital transformation strategies primarily focus on the digital transformation of companies' IT, business development and human resources functions.

Starting from the first planning phase, the support of senior managers is required throughout the transformation process. Such large transformations in companies can result in resistance from different units of the organization. Overcoming resistance and initiating transformation require digital leadership skills, and the active involvement of diverse stakeholders, affected by transformation, is crucial to the digital transformation process (Matt et al., 2015, pp. 339-341).

Digital leaders increase the efficiency levels of the organizations they manage. Digital transformation directly affects organizational structures, business processes and strategies together with people living and working in the new reality (Meffert & Swaminathan, 2018, p. 44). Digital transformation is a continuous initiative that shapes companies and operations. Therefore, assigning adequate and clear responsibilities to managers for the implementation of the digital transformation strategy is of great importance.

LEARNING ORGANIZATION

Since the late 1970s, changes occurred in the management practices and organizational structures as a result of developing technology and globalization. Human capital, measured in quantity, has been replaced by qualitatively evaluated knowledge capital. In order to keep up with competition and rapidly changing conditions, businesses have the advantage of sustainable competition by storing, developing and transferring their knowledge capital to their potential employees. Businesses need not only the information itself, but also the skills to implement it. The concept of the learning organization that supports continuous adaptation and development ensures survival in constantly changing conditions.

Previous Studies on Learning Organization

While Öge (2005) defines the learning organization concept as the organization that develops its continuous capacity and ability for adaptation and change, Harvey and Denton (1999) perceived it as the cost of obtaining information, as Gümüştekin (2004) associated it with the success of creating value in the new economy by using knowledge continuously.

As long as the learning efforts are appreciated, motivated, rewarded and sustained within the organisation, the individual's capability to learn is improved and the total learning capacity of the organization is also multiplied accordingly. In a way, community increase its potential thru learning. In learning organizations, individuals usually increase their potential to create the consequences they honestly desire, they create new and vast ways of thinking are nurtured, and there, individuals are constantly mastering how to improve collectively (Senge, 1994, p. 3).

In order to create a learning organization, it is necessary to provide an efficient learning, dialogue and inquiry environment within the organization, to support teamwork, vision sharing, distribution of authority and leadership model that motivates learning through open communication channels within the organization (Marsick & Watkins, 2003, pp. 134-137). Briefly, while the concept of learning organization defines an ongoing learning process, the concept of organizational learning defines the outcome of the process.

Relation Between Digital Leadership and Learning Organization

Information management and organizational learning are considered to be related conceptually. Information management is defined as the critical capability that gives businesses a competitive advantage. In this case, providing continuous learning is one of the institutional advantages that helps the efficient implementation of information management. Organizational learning refers to the way companies create, support and organize experiences and processes around their activities and cultures. Therefore, the adaptation of information technologies to the enterprise for the recording, sharing and processing of information contributes to the formation of learning organizations (Qi & Chau, 2018, p. 32).

Managers, who provide strategic leadership, act as intermediaries to enable organizations to reach their learning efforts. For this reason, organizations led by managers who adopt and support the strategic role of learning are getting closer to the goal of becoming a learning organization by making efficient technological investments. Due to the rapid digitalization of business processes, managers need to follow different cultures in terms of technological effects in order to have better understanding of organizational learning in the world. It is believed that leaders can evaluate the effects of technology on learning organizations and increase their awareness by conducting such studies, and will guide the structuring of learning processes and techniques of multinational companies in a better way (Ege, Esen, & Aşık Dizdar, 2017, p. 454).

INDIVIDUAL PERFORMANCE

Individual performance, in general, is a concept that determines the point reached individually and the quality and quantity of the achievements in accordance with the plans for a determined purpose. Performance measurement in terms of business is defined as an important process managed by human resources units where employees are systematically evaluated in terms of talent, efficiency, adaptation, habit, behavior and potential. In order for the performance evaluation system to be

successful, the training and development needs of the employees should be determined with the data obtained, and the rewarding and career management processes should be implemented properly.

Previous Studies on Individual Performance

Organizations are created for specific purposes and are managed with strategic plans to achieve these goals. In this context, their progress towards the same goal is one of the main factors that keep organizations alive. Individual contributions of the employees in achieving the ultimate goal of the organization are measured by performance evaluation.

The relationship between HRM and performance is examined at the group level, at the individual level and at the organizational level. Issues such as expectations, job satisfaction and commitment to work are measured on an individual basis, while profitability, employee turnover and productivity are measured on an enterprise basis (Akın & Çolak, 2012, p. 90). Employees' abilities and competencies have a direct impact on their individual performance indicators. In this respect, individual performance is open to change and the influence of external factors. There are three basic elements that make high individual performance possible which can be expressed as; focus, competence and commitment to work (Büte, 2011, pp. 177–179).

The levels of individual and group performances are indicative of the level at which the goals and standards have been reached, both on an individual and organizational basis. Individual and group performances reflect the total performance of the organization. It is assumed that the superior performance expected from the organization stems from organizational capabilities, group competencies, motivation, opportunities, norms, strategic goals and action plans (Soysal & Kılınç, 2016, pp. 328–329).

Relation Between Digital Leadership and Individual Performance

Although the concept of digital leadership has not been studied sufficiently in the literature, there are various studies about the effects of digitalization of business processes on individual performance. With the digitalization of business processes due to the utilization of information and telecommunication technologies, the information flow between the units becomes easier and provides timesaving solutions for the organizations. In addition to these features, digitalization ensures that the tasks and responsibilities are completed in time and with the least error rate, and it increases the motivation, job satisfaction and job quality of the employees and increases their individual performance (Altınöz, 2008, p. 55).

It is of utmost importance for businesses to manage their human resources and consequently the knowledge capital correctly in terms of providing sustainable competitive advantage in globalizing conditions. The individual successes of the employees also make the organization's success possible. The differences in the personalities, experiences, educational levels and expectations of the

employees affect their individual performances. For this reason, it is not expected that each individual employee perform the same level of performance.

Associating teams with digitalized business processes, overlapping personal expectations and goals, and supporting the performance evaluation process with feedback, rewarding, and career management in a tangible way enables employees to meet their organizational goals at certain levels with individual performance increase (Ateş, 2017, pp. 1–3). Digital transformations that are compatible with business needs and processes directly affect the individual performance of employees. For this reason, it is very important for leaders to follow the digital trends and lead the organization in the process of sustainable digital transformation.

RESEARCH METHOD

The aim, model and related hypotheses of the research are emphasized under this title. The purpose of the research is to investigate whether there is a relation between learning organization and digital leadership practice, and if so, to discover its effect on individual performance perception. In this article, both the previous studies and new statistical findings are presented on digital leadership, learning organization and individual performance perceptions. As this topic has not been studied in the banking sector so far, it stands out as the original aspect of the research.

This study was carried out in the Turkish banking sector in Turkey with the participation of public and private banks' employees on different departments. As a result of the research, by learning that the relationship between the learning organization and the digital leadership has an impact on the individual performance, managers will consider the importance of digital leadership practice and the learning organization in order to manage the individual performances of the employees in the banking sector. Thus, it will give a deeper perspective to performance management applications.

Research Model

The research model was designed within the context of quantitative and descriptive study. The results of the research are related to the banking sector, which uses digital infrastructures intensively and maintains digitalization as a competitive strategy. As shown in Figure 01; The effects of independent variables as; (a) Digital Leadership Practice, (b) Learning Organization, (c) Age, (d) Education, (e) Status, (f) Seniority levels, on the perception of "Individual Performance" as the dependent variable.

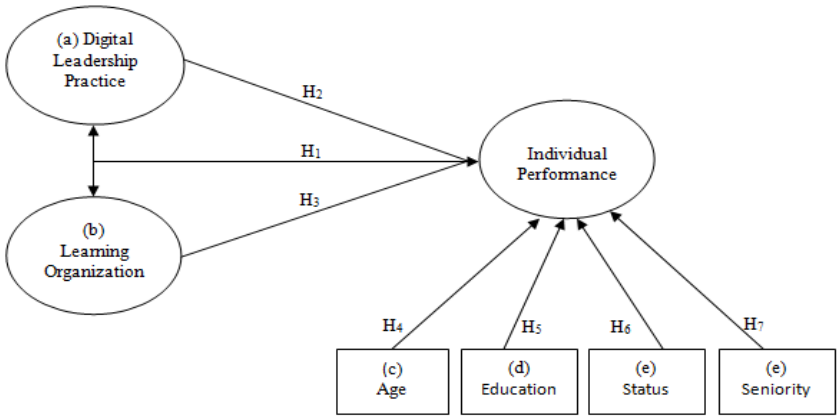

Figure 1. Research Model

In addition to digital leadership and learning organization factors, it was predicted that Individual Performance perception may be affected by demographic factors such as “age”, “education”, “status” and “seniority level” in the banking sector.

In the study, The Informatics Leadership Scale (ILS) developed by Ulutaş and Arslan (2018) was used to measure participants' digital leadership perceptions (pp. 109–118). ILS consists of 18 expressions. The Learning Organization Profile Scale (LOPS), which was adapted to Turkish by Şahin, Çakır, and Öztürk (2014), was used to measure learning organization perceptions of the participants (pp. 153–168). LOPS consists of 36 expressions. The Individual Performance Scale (IPS) developed by Karakurum (2005), was used to measure the participants' individual performance perceptions (p. 111). IPS consists of 11 expressions.

Population and Sample

The target group consists of 193 employees working in the banking sector throughout Turkey. The sample was collected randomly from the predetermined target group and no systematic experimental examination has been performed on the same subject in the selected sectoral group so far. In the light of the data obtained, it is aimed to obtain the preliminary information required for further detailed research on the subject. The identities of the participants were kept anonymous throughout the research.

Bank employees, who have different seniority levels and work using computer infrastructure in different units, participated in the research regardless of their managerial positions. The population was chosen as easy to access and application. Due to time and cost limitations, convenience sampling method was preferred and all participants who answered the questionnaire completely were included in the population.

Data Collection and Analysis

The survey was conducted between 13th June and 15th August 2019. The scales used in the study include five demographic questions and 65 expressions in total measuring the perceptions. GoogleDocs and Surveymonkey applications were preferred to use as online survey tools. Those tools were utilized in order to distribute and follow up the questionnaire forms and collect all the feedbacks from the target group more effectively. IBM SPSS Statistics 25.0 program was applied for data analysis. Likert-type expressions were classified from negative to positive as; "Strongly Disagree (1)", "Disagree (2)", "Undecided (3)", "Agree (4)" and "Fully Agree (5)".

In the analysis of the data; validity, reliability, variance and standard deviation values were calculated. In the study, Kolmogorov-Smirov (K-S) test was performed to analyse the sample distribution and normality assumption. One-Way Correlation Analysis was used to determine the positive correlation of variables, and One-Way ANOVA was used to determine whether arithmetic averages or median values differ statistically from groups. In order to test the primary hypothesis, multiple and linear regression analysis were realized. In the research, the level of significance was foreseen as $p < 0.05$.

Research Limitations

The study was carried out with the participation of 234 people working in banks with a large-scale domestic and foreign capital partnership structure, based on the banking sector. There are 193 people completed the survey fully and this number is equivalent to about 0.1% compared to the total number of bank employees across Turkey.

Within the scope of the research limitations, the sampling was planned for 200 employees and the survey could be transmitted to 234 people via electronic survey panels. The vast majority of employees responded to the survey questions completely and provided feedback based on volunteerism. However, since 41 of 234 people made partial returns, the results of the study could be evaluated on a total of 193 participants.

Another research limitation is that most of the questionnaires were not applied on-site and distributed by the researchers remotely through online survey tools. It should be noted that this study can be carried out with more institutions and participants in banking, communication, informatics, production or other digitalizing sectors, and that more comprehensive results can be obtained for future studies.

Hypotheses

In this study, seven hypotheses are presented. Three of them were identified as primary hypotheses and four of them as sub-hypotheses. The primary hypotheses are related to the correlation and regression between each scale. Additionally, the findings that statistically reveal the relation between demographic variables and individual performance perception are studied as sub-hypotheses.

Hypothesis 1. In the first hypothesis, it is assumed that the organizations will evolve into the learning organization structure faster by supporting the digital transformation in banking services and business processes, and that employees' individual performance perceptions will increase accordingly. The effect of average scores of employees on digital leadership practice and learning organization scales on individual performance scores was tested by multiple regression analysis. H_1: The degree of relation between digital leadership practice and learning organization perceptions of employees affect their individual performance perception scores.

Hypothesis 2. In the second hypothesis, it was assumed that the perception of managers as technologically competent, pioneering and encouraging in the banking sector, positively affects the individual performance of the employees. Based on this, the effect of participants' digital leadership practice scores on their individual performance scores was tested using simple linear regression analysis. H_2: The increase in digital leadership practice perception scores increases the individual performance perception scores of the employees.

Hypothesis 3. In the third hypothesis, it is assumed that the increase in the perception level of the learning organization of the employees will increase their individual performance perception, based on the belief that the capacity, skill and knowledge of the employees are constantly increasing in the learning organization structures. H_3: The increase in learning organization perception scores increases the individual performance perception scores of the employees.

In this study, four sub-hypotheses were created to measure the effect of demographic variables. It was assumed that there was statistical significance between the participants' age, education, status and seniority levels and their perceptions of individual performance, respectively H_4, H_5, H_6 and H_7. The sub-hypothesis group is tested with one-way ANOVA and explained in detail in the findings section.

Hypothesis 4. In the fourth hypothesis, based on the intergenerational differences in business life, it is assumed that there is a statistical significance between the participants' age ranges and their perceptions of individual performance. H_4: There is a statistical significance between the age variable of the employees and their individual performance perception scores.

Hypothesis 5. As mentioned in previous studies, the increase in the education level of the employees arises from the need to increase individual performance through continuous learning. In the fifth hypothesis, it is assumed that there is a statistical significance between the education variable and the perception of individual performance. H_5: There is a statistical significance between the education variable of the employees and their individual performance perception scores.

Hypothesis 6. Employees generally desire to be promoted to executive positions in order to increase their initiatives and responsibilities in the organization with the need to make every effort to increase their status and increase their individual performance (Tunçer, 2013, p. 101). It is important for the employee to determine a career path within the scope of personal career planning, evaluate his

individual performance, and analyse threats and opportunities. In the sixth hypothesis, it is assumed that whether the employees are in the first, middle or top managerial levels have statistical significance with their perception of individual performance. H_6: There is a statistical significance between the status variable of the employees and their individual performance perception scores.

Hypothesis 7. In the effectively managed performance management process, the contribution of employees to organizational performance, production and management processes is expected to increase accordingly as seniority levels increase within the sector (Bilgin, 2015, p. 28). In the seventh hypothesis, it is assumed that there is a statistical significance between the employees' seniority levels in the sector and their perceptions of individual performance. H_7: There is a statistical significance between the seniority level variable of the employees and their individual performance perception scores.

FINDINGS

In this chapter, it was analysed that whether there is a meaningful significance of the primary hypotheses ($H_1/H_2/H_3$), and whether there is a significant difference between individual performance perception and demographic variables as detailed in the sub-hypotheses section of this study ($H_4/H_5/H_6/ H_7$).

Distribution of Demographic Variables

The total number of bank employees participating in the research is 234. However, the total number of participants whose full feedback has been provided and evaluated in this study is 193. Considering the distribution of the participants' demographic characteristics, 30.1% of the participants are between the ages of 18 and 30, 50.3% are between the ages of 31 and 40, and 19.7% are between the ages of 41 and over. In terms of education, 10.9% of the participants have high school or lower degrees, 66.3% have associate or bachelor's degree and 22.8% have graduate degree. According to the distribution in managerial status, 66.8% of the participants are not managers, 8.3% are first level, 19.2% are mid-level, and 5.7% are top-level managers. In terms of seniority levels, 22.8% of the participants have less than three years of seniority, 37.8% have three to seven years of seniority and 39.4% have eight or more years of seniority in the banking sector. The distribution of participants' demographic variables is shown in Table 2.

Table 2. Distribution of Participants' Demographic Variables.

Demographic variables	Range	N (193)	%
Age	18–30	58	30.1
	31–40	97	50.3
	41 and over	38	19.7
Education	High school or lower	21	10.9
	Associate or Bachelor's	128	66.3
	Graduate	44	22.8
Status	Not manager	129	66.8
	First level manager	16	8.3
	Mid-level manager	37	19.2
	Top-level manager	11	5.7
Seniority	less than 3 years	44	22.8
	3–7 years	73	37.8
	8 years or more	76	39.4

When the descriptive statistics are evaluated regarding the scale of digital leadership perception, the average score of the participants between the ages of 18 and 30 are higher than the participants in the other age ranges (M = 3.88); the average score of mid-level managers are higher than those in other status ranges and non-managers (M = 3.74); The average score of those with high school or lower education degrees are higher than those in the other education ranges (M = 3.84) and finally, those with a seniority level of 0 to 3 years have higher average score than those in the other seniority ranges (M = 3, 95).

As the descriptive statistics regarding the learning organization scale are evaluated, the average score of the participants between the ages of 18 and 30 are higher than the participants in the other age ranges (M = 4.06); the average score of first-level managers are higher than those in other status ranges and non-managers (M = 4.32); The average score of those who have high school or lower education degrees are higher than those in the other education ranges (M = 4.17) and finally the average score of those with a seniority level of 0 to 3 years are higher than other seniority ranges (M = 4.10).

When the descriptive statistics regarding the individual performance scale are evaluated, the average score of the participants in the age range of 41 and over are higher than those in the other age ranges (M = 4.30); the average score of first-level managers are higher than those in other status ranges and non-managers (M = 4.46); The average score of those who have high school or lower education degrees are higher than the other education ranges (M = 4.30) and finally, those with 4-7 years of seniority levels have higher average scores compared to other seniority ranges (M = 4.28). (M = 4.28).

Analysis of Primary Hypotheses Group

Within the scope of primary hypotheses analysis, first of all, the relation between the digital leadership practice variable and the learning organization dependent variable was tested by simple linear

regression analysis. The aim was determining whether the learning organization variable could be predicted with the estimation variable.

Secondly, the average scores from digital leadership and learning organization scales both showed the level of relationship and formed another independent variable. The effect of this relationship on the dependent variable of individual performance perception was tested by multiple linear regression analysis. The aim was to determine whether the perception of individual performance could be predicted by the estimation variable.

Before applying the regression analysis, the condition of meeting the prerequisites of the test was examined. Among these prerequisites; Linearity and Normality plots, Independence of Errors, Variance of Errors were examined. The results of regression analysis and confidence interval values were also tested prerequisites were provided substantially.

Sub-Dimensions of The Scales

Structural validity analyzes were made for the digital leadership scale, and it was determined that the scale had two sub-dimensions: information and communication. In the information sub-dimension, the KMO test determined 0.935 and Bartlett's sphericity test result was found to be significant in 1037.859 (df = 28; p = 0.00). In the communication sub-dimension, the KMO test was found to be 0.992 and the Bartlett sphericity test result was found to be significant at 1190.408 (df = 45; p = 0.00). The Cronbach alpha coefficient value of the digital leadership scale as 0,958 is also an important indicator for the structural validity of the scale

Validity analyses were made for the learning organization scale, and it was determined that the scale had two sub-dimensions: action and sensitivity. The KMO test value of the action sub-dimension was found to be 0.960, and the Bartlett sphericity test result was found to be significant at 3118.411 (df = 136; p = 0.00). The sensitivity sub-dimension's KMO test value was found to be 0.965 and Bartlett's sphericity test result was found to be significant at 4284.608 (df = 171; p = 0.00). The Cronbach alpha coefficient value of the learning organization scale as 0,981 is also an important indicator for the structural validity of the scale.

Validity analyzes were made for the individual performance scale, and it was determined that the scale had two sub-dimensions, Task performance and Situational performance. The KMO test value of the task performance sub-dimension was found to be 0.888 and the Bartlett sphericity test result was found to be significant at 781.751 (df = 21; p = 0.00). The KMO test value of the situational performance sub-dimension was found to be 0.734 and Bartlett's sphericity test result was found to be significant at 220.844 (df = 6; p = 0.00). The Cronbach alpha coefficient value of the individual performance scale as 0,910 is also an important indicator for the structural validity of the scale.

Table 3. Number of Items and Correlation Values of Scales and Sub-Dimensions.

Scales and sub-dimensions	N of items	Correlation coefficient values
Digital leadership Scale	18	
Information sub-dimension	12	0.882
Communication sub-dimension	6	
Learning Organization Scale	36	
Action sub-dimension	16	0.742
Sensitivity sub-dimension	20	
Individual Performance Scale	11	
Task performance sub-dimension	8	0.700
Situational performance sub-dimension	3	

As stated in the literature, the correlation coefficient value must remain below 0.850 in order for the factors to exhibit a good separation. The correlation coefficient value between the sub-dimensions of the digital leadership scale was found to be 0.882. The correlation coefficient value between the sub-dimensions of the learning organization scale was found to be 0.742. The correlation coefficient value between the sub-dimensions of the individual performance scale was found to be 0.700. The item numbers of all the scales and correlation coefficient values between sub-dimensions of each scale are presented in Table 3.

Findings of Primary Hypotheses Group

The relationship between digital leadership and learning organization variables and the individual performance dependent variable was tested by multiple regression analysis method. The estimation variable was found to explain 0.434 of the variance, and the effect of the relationship degree between digital leadership and learning organization on individual performance was found to be statistically significant (R2=0.434; F=74.618; p=0.000).

In this case, the relationship between the three conceptual structures was found statistically significant. In other words, the increase in the interaction between the employees' digital leadership and learning organization perceptions will increase their individual performance perception scores positively. As a result, the null hypothesis was rejected and the alternative hypothesis (H_1) was accepted statistically significant (p=0.000; p<0.001).

Linear regression analysis was carried out to determine whether the participants' digital leadership scale scores provided an opportunity to estimate their individual performance perceptions. It was found that the estimation variable explained 0.235 of the variance and the degree of digital leadership practice perception provided the opportunity to explain individual performance perception statistically (R2=0.235; F=58.74; p=0.000). The relationship between the two conceptual structures was found statistically significant. In other words, the increase in digital leadership practice perception scores of the employees will also increase their individual performance perception scores. As a result, the success of the null hypothesis was rejected and the alternative hypothesis (H_2) was accepted statistically significant (p=0.000; p<0.001).

Another linear regression analysis was conducted to determine whether the degree of learning organization perception provided a statistically significant estimate of participants' individual performance perceptions. It was found that the estimation variable explained 0.438 of the variance the degree of perception of learning organization provided the opportunity to explain individual performance perception statistically (R2=0.438; F=149.151; p=0.000). The relationship between the two conceptual structures was found statistically significant. In other words, the increase in learning organization perception scores of the employees, will also increase their individual performance perception scores (p=0.000; p<0.001). As a result, the success of the null hypothesis was rejected and the alternative hypothesis (H_3) was accepted statistically significant (p=0.000; p<0.001).

Analysis of Sub-Hypotheses Group

The scope of the sub-hypothesis group is to determine whether there is a significant relationship between demographic variables and individual performance perception scores, and if any, to determine the degree of this relationship.

In this context, one-way ANOVA was performed to measure the statistically significant relationship between the age variable and individual performance perception scores. Prior to ANOVA, some pre-tests were applied as; Shapiro-wilk test for normality, DWD test for independence of errors and Levene statistic for conjecture of variance and their results were shown in Table 4.

Table 4. Pretest Results of Age Groups and Individual Performance Relationship.

Description	Shapiro-wilk			DWD	Levene
	18-30	31-40	40 and over		
Expected value	p>0.05	p>0.05	p>0.05	0 - 4	p>0.05
Tested value	.000	.002	.010	1.575	.451

According to the findings of the Saphiro-Wilk normality test, it was observed that the normal distribution assumption could not be achieved in all age groups. Durbin - Watson test was used to evaluate the independence of the errors and the fair value of 1,575 was obtained. In line with Levene statistic findings, it was seen that the assumption of the coexistence of errors was met. The homogeneity of variances was tested with the one-way ANOVA method. Since the significance value was .858 (p> 0.05), the result was found as there is not any statistical significance between age variable of the employees and their individual performance perception scores. Accordingly, the alternative hypothesis (H_4) was rejected. ANOVA findings regarding H_4 are shown in Table 5.

Table 5. ANOVA Findings Regarding H_4.

	Sum of squares	df	MS	F.	Sig.
Between groups	.099	2	.050	.153	.858
Within groups	61.576	190	.324		
Total	61.675	192			

The fifth hypothesis of the study is to determine whether there is a statistical significance between education level and individual performance perception scores and the extent of this relationship. Therefore, one-way ANOVA analysis was used. Prior to ANOVA, some pre-test studies were applied as; Shapiro-wilk test for normality, DWD test for independence of errors and Levene statistic for conjecture of variance and their results were shown in Table 6.

Table 6. Pretest results of education level groups and individual performance relationship.

Description	Shapiro-wilk			DWD	Levene
	High school or lower	Associate or Bachelor's	Graduate		
Expected value	p>0.05	p>0.05	p>0.05	0 - 4	p>0.05
Tested value	.340	.000	.000	1.586	.927

According to the findings of the Saphiro-Wilk normality test, it was observed that the normal distribution assumption was achieved in High school or lower education group. Durbin - Watson test was used to evaluate the independence of the errors and the fair value of 1,586 was obtained. In line with Levene statistic findings, it was seen that the assumption of the coexistence of errors was met. The homogeneity of variances was tested with the one-way ANOVA method. Since the significance value was .782 (p> 0.05), the result was found as there is not any statistical significance between education variable of the employees and their individual performance perception scores. Accordingly, the alternative hypothesis (H_5) was rejected. ANOVA findings regarding H_5 are shown in Table 7.

Table 7. ANOVA Findings Regarding H_5.

	Sum of squares	df	MS	F.	Sig.
Between groups	.159	2	.080	.246	.782
Within groups	61.516	190	.324		
Total	61.675	192			

The sixth hypothesis of the study is to determine whether there is a statistical significance between status and individual performance perception scores and the extent of this relationship. Therefore, one-way ANOVA analysis was used. Prior to ANOVA, some pre-tests were applied as; Shapiro-wilk test for normality, DWD test for independence of errors and Levene statistic for conjecture of variance and their results were shown in Table 8.

Table 8. Pretest Results of Status Groups and Individual Performance Relationship.

Description	Shapiro-wilk				DWD	Levene
	Not manager	First level manager	Mid-level manager	Top-level manager		
Expected value	p>0.05	p>0.05	p>0.05	p>0.05	0 - 4	p>0.05
Tested value	.000	.122	.026	.781	1.585	.168

According to the findings of the Saphiro-Wilk normality test, it was observed that the normal distribution assumption was achieved in first-level and top-level manager groups. Durbin - Watson

test was used to evaluate the independence of the errors and the fair value of 1,585 was obtained. In line with Levene statistic findings, it was seen that the assumption of the coexistence of errors was met. The homogeneity of variances was tested with the one-way ANOVA method. Since the significance value was .642 (p> 0.05), the result was found as there is not any statistical significance between status variable of the employees and their individual performance perception scores. Accordingly, the alternative hypothesis (H_6) was rejected. ANOVA findings regarding H_6 are shown in Table 9.

Table 9. ANOVA Findings Regarding H_6.

	Sum of squares	**df**	**MS**	**F.**	**Sig.**
Between groups	.544	3	.181	.561	.642
Within groups	61.131	189	.323		
Total	61.675	192			

The seventh hypothesis of the study is to determine whether there is a statistical significance between seniority level and individual performance perception scores and the extent of this relationship. Therefore, one-way ANOVA analysis was used. Prior to ANOVA, some pre-tests were applied as; Shapiro-wilk test for normality, DWD test for independence of errors and Levene statistic for conjecture of variance and their results were shown in Table 10.

Table 10. Pretest Results of Seniority Levels and Individual Performance Relationship.

Description	**Shapiro-wilk**			**DWD**	**Levene**
	0-3 years	**4-7 years**	**8 years or more**		
Expected value	p>0.05	p>0.05	p>0.05	0 - 4	p>0.05
Tested value	.001	.006	.000	1.702	.461

According to the findings of the Saphiro-Wilk normality test, it was observed that the normal distribution assumption was not achieved in any seniority level groups. Durbin - Watson test was used to evaluate the independence of the errors and the fair value of 1,702 was obtained. In line with Levene statistic findings, it was seen that the assumption of the coexistence of errors was met. The homogeneity of variances was tested with the one-way ANOVA method. Since the significance value was .742 (p> 0.05), the result was found as there is not any statistical significance between seniority level variable of the employees and their individual performance perception scores. Accordingly, the alternative hypothesis (H_7) was rejected. ANOVA findings regarding H_7 are shown in Table 11.

Table 11. ANOVA Findings Regarding H_7.

	Sum of squares	df	MS	F.	Sig.
Between groups	.194	2	.097	.299	.742
Within groups	61.481	190	.324		
Total	61.675	192			

CONCLUSION AND DISCUSSION

Throughout history, data has never been more important and there was no need to process the data at this speed. In this context, businesses need leaders who believe in the necessity of digitalization and can make the transformation throughout all processes and applications. For this reason, the formation of the idea of transformation, the adoption of this idea by the whole organization and its implementation with determination are seen as the success of the digital leader. The digitalization efforts and the establishment of a continuous learning culture are possible with the digital leader's strategy, foresight and determination.

In this study, the effect of relation between digital leadership practice and learning organization on the perception of individual performance is examined. In addition to digital leadership and learning organization variables, the issue of whether the demographic variables show statistical significance on the perception of individual performance is examined.

Within the scope of preliminary analyzes, the validity and reliability of the scales and the correlations between variables were tested. Relations between average scores of the scales were analysed by multiple and linear regression analysis. According to the results of the analysis, the primary hypotheses of the study (H_1, H_2, and H_3) were statistically confirmed. As a result of ANOVA tests, no statistical significance was found between the demographic variables and individual performance perceptions of the employees. For this reason, alternative sub-hypotheses (H_4, H_5, H_6, and H_7) were rejected statistically.

As a result of the literature review conducted to explain the concept of digital leadership, it has been understood that a limited number of studies have been carried out until today. However, when the business management literature was examined, countless theoretical and empirical studies on learning organizations and individual performance were encountered. In addition, associating the concept of digital leadership with the concepts of learning organizations and individual performance for the first time reveals the unique aspect of this study.

Due to its structure waiting to be discovered in terms of literature, more studies need to be done in order to define the concept of digital leadership more clearly based on the criteria set out in the previous studies. It is necessary to determine which subjects differ from each other by considering the specific dynamics of the sectors. The multi-disciplinary examination of the subject is important both for determining the impact areas in the process and for creating a literature for other studies.

This study was conducted as an electronic survey with a limited target group in the banking sector. Thus, the information and findings obtained through the study may be inadequate to generalize. However, it is possible to argue that the study in question enriches the conceptual structure of digital leadership practice for future studies.

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