

**THE REPUBLIC OF TURKEY
BAHCESEHIR UNIVERSITY**

**THE EFFECT OF DIGITAL TRANSFORMATION ON THE
LEADER BEHAVIORS: AN IMPLEMENTATION AT
INTERMEDIATE GOODS INDUSTRY**

Master's Thesis

HAKAN KAPUCU

ISTANBUL, 2020

**THE REPUBLIC OF TURKEY
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**THE INSTITUTE OF SOCIAL SCIENCES
MASTER OF BUSINESS ADMINISTRATION**

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Supervisor: PROF. DR. UĞUR YOZGAT

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**THE GRADUATE SCHOOL OF SOCIAL SCIENCES
MASTER OF BUSINESS ADMINISTRATION**

Name of the Thesis: The Effect of Digital Transformation on the Leader Behaviors: An Implementation at Intermediate Goods Industry

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Date of the Defense of Thesis:

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To Evrim Feyza Geboloğlu.



ACKNOWLEDGMENTS

I thank Prof. Dr. Uğur Yozgat for the motivation that he gave during this work.

AUGUST 2020

HAKAN KAPUCU



ABSTRACT

THE EFFECT OF DIGITAL TRANSFORMATION ON THE LEADER BEHAVIORS: AN IMPLEMENTATION AT INTERMEDIATE GOODS INDUSTRY

Hakan Kapucu

Master's Program in Master of Business Administration (MBA)

Thesis Supervisor: Prof. Dr. Uğur Yozgat

August 2020, 55 Pages

Societies, climate, nature, individuals, and the world have shifted from slow-motion incremental alterations to rapid and radical changes. This new order reminds disruptions and turmoil with a proliferation. Yet, while these majorly linear changes compared with the technology, the technology develops more rapidly and spills over its revolutionary and exponential conversion. Human behaviors affected by these rapid-change conditions, and so did leaders. Leaders are playing essential roles in shaping the planet, world, and businesses. Like all the other organisms, they communicate with the outside world. On one side, leaders affect the outside world, and on the other, leaders also affected by it. With the outside world's impacts on the leader, the process becomes an interaction, and circumstances turn out to be mutual. Humanity has reached a point that technology as scientific knowledge and designed machines considered an indispensable factor, a backbone. Thus, technology, digital transformation comes into prominence as one of the main factors in affecting leaders' behaviors and the skillset expected from them, actually, a critical component that creates them.

The technological advancement affects leaders' behaviors, decisions, insights, lifestyles, and it even impacts leaders' selves. Although digital transformation has become so central, it has dominant confrontations for leaders and organizations; the studies are deficient in the quantity that links and associates leader and digital transformation. In this context, this thesis deals with answering two clear and vital questions: *Which characteristics create effective business leaders, and how these behaviors are affected by digital transformation.* The objectives of this paper are especially to enlighten, determine, and reveal the characteristics that enable leaders to give sound reactions, take necessary actions, and make the right decisions. These would guide us to understand how leadership disrupted because of digital transformation and where it will evolve next. Other measures of progress are to emphasize the leaders' interplay with technology, leadership spectrum, and what requires leaders to adopt and adapt to the changing world from technological and universal perspectives. For accomplishing the objectives and goals of this research, an algorithmic approach applied. Field studies conducted, for example, being a full-time participant to a leadership summit for understanding highest-level leaders from different industries, which lasted two days. To compare the findings and take the study one step

further, the most recent pieces of research that cover 365,191 leaders and employees examined, which conducted by respectable institutions. Robot exhibition visited, as another field study. Four-week-length course, by a respected university and institution, completed related to digital transformation. Intensive literature review followed by interviewing leaders. *This research finds key behaviors the leader of today and future possesses*, which potential leaders can adopt and employ. On the other side, *it reveals the challenges this disruption causes and its effect on leaders*. Moreover, it brings a holistic approach to provide a paradigm for leadership. Ultimately, it entitles, designates, and propounds a new leader for today and the future.

Keywords: Leader and Technology Interaction, Leader Behaviors, Effective Leaders, Digital Transformation, Technoversal Leader



ÖZET

DİJİTAL DÖNÜŞÜMÜN LİDER DAVRANIŞLARINA ETKİSİ: ARA MAL ENDÜSTRİSİNDE UYGULAMA

Hakan Kapucu

İşletme Yüksek Lisans Programı (MBA)

Tez Danışmanı: Prof. Dr. Uğur Yozgat

Ağustos, 2020, 55 Sayfa

Toplumlar, iklim, doğa, bireyler ve dünya yavaş gerçekleşen değişikliklerden hızlı ve köklü değişimlere geçiş yapmıştır. Bu yeni düzen hızla büyüyen bir meydan okuma ve kargaşayı anımsatmaktadır. Yine de büyük ölçüde doğrusal olan bu değişiklikler teknoloji ile kıyaslandığında, teknoloji daha hızlı gelişmekte, devrimsel ve üstel dönüşümünü yaymaktadır. İnsan davranışları bu hızlı değişen koşullardan etkilenmiş, böylelikle liderler de bu değişimin parçası olmuşlardır. Liderler dünyayı ve içindekileri, böylelikle işletmeleri şekillendirmekte önemli rol oynamaktadırlar. Diğer tüm canlılar gibi dış dünya ile iletişim halinde olup, bir taraftan dış dünyaya etki ederken, diğer taraftan da dış dünyadan etkilenirler. Dış dünyanın lider üzerine etkileri ile süreç bir etkileşim haline gelir ve karşılıklı bir hal alır. Teknoloji, bilimsel bilgi ve dizayn edilen makineler anlamında, insanlık için vazgeçilmez bir unsur, bir bel kemiği noktasına ulaşmıştır. Böylelikle, teknoloji, dijital dönüşüm, liderlerin davranışlarını ve onlardan beklenen becerileri etkileyen ana unsurlardan biri olarak ön plana çıkmakta, aslında liderliği yaratan temel bileşenlerden biri haline gelmektedir.

Teknolojik ilerleme, liderlerin davranışlarını, kararlarını, anlama biçimlerini, yaşam tarzlarını, hatta liderlerin benliklerini dahi etkilemektedir. Her ne kadar dijital dönüşüm çok merkezi bir hal almış, liderler ve organizasyonlar için baskın meydan okumalar barındırıyor olsa da lider ve dijital dönüşümü birbirine bağlayan, ilişkilendiren çalışmalar miktar bakımından yetersizdir. Bu bağlamda, bu tez iyi belirlenmiş ve çok ehemmiyetli iki soruyla ilgilenmektedir. *Hangi davranışların etkin iş liderleri yarattığı ve bu davranışların dijital dönüşümden nasıl etkilendiği.* Bu çalışmanın ilerleme kıstasları, bilhassa, liderlerin sağlıklı tepkiler vermesini, gerekli önlem ve doğru kararlar almasını sağlayan özellikleri belirlemek, ortaya çıkarmak ve bunlara ışık tutmaktır. Bunlar da bizlere liderliğin dijital dönüşümle nasıl radikal değişimlere uğradığını ve bir sonraki noktada nereye evrileceğini anlama noktasında rehberlik edecektir. Araştırmanın diğer ilerleme kriterleri, evrensel ve teknolojik bir bakış açısı ile liderlerin teknoloji ile olan etkileşimlerine, liderliğin geçmişten günümüze nasıl farklılaştığına, liderlerin değişen dünya penceresinden bakıldığında neleri benimsemeleri ve nelere adapte olmaları gerektiği noktalarına vurgu yapmaktır. Bu amaçları gerçekleştirmek için algoritmik bir yaklaşım uygulanmıştır. Saha çalışmaları yapılmıştır, örnek olarak, farklı sektörlerden en

üst düzey liderleri anlamak için iki gün süren liderlik zirvesine tam zamanlı katılım sağlanmıştır. Farklı çalışmaların ortak bulgularını karşılaştırmak ve çalışmayı bir adım daha ileri götürmek için, saygın kurumlar tarafından yürütülen 365,191 lider ve çalışanı kapsayan en güncel araştırmalar incelenmiştir. Başka bir saha çalışması olarak robot sergisi ziyaret edilmiş, saygın bir üniversite ve kurum tarafından dijital dönüşümle ilgili dört haftalık eğitim tamamlanmıştır. Yoğun literatür taraması ardından liderlerle mülakatlar yapılmıştır. *Bu araştırma bugünün ve geleceğin liderinin sahip olması gereken, potansiyel liderlerin benimseyebileceği ve kullanabileceği kilit davranışlar ortaya çıkartmıştır. Öte yandan bu dijital yıkımın meydana getirdiği zorlukları ve liderler üzerine etkisini ortaya koymaktadır.* Diğer taraftan, liderlik için açık bir örnek teşkil etmek amacıyla bütüncül bir yaklaşım getirmiştir. Nihayetinde ise, bugün ve gelecek için yeni bir lideri tartışmaya açmış ve isimlendirmiştir.

Anahtar Kelimeler: Lider ve Teknoloji Etkileşimi, Lider Davranışları, Etkili Liderler, Dijital Dönüşüm, Technoversal Lider



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ABBREVIATIONS

AI	: Artificial Intelligence
AIT	: Advanced Information Technology
AM	: Additive Manufacturing
CA	: Content Analysis
CBO	: Chief Behavioral Officer
CEO	: Chief Executive Officer
CIO	: Chief Information Officer
C-Level:	Chief-Level
CPS	: Cyber-Physical Systems
IT	: Information Technology
MBA	: Master of Business Administration
MIT	: Massachusetts Institute of Technology
QCA	: Qualitative Content Analysis
VUCA	: Volatility, Uncertainty, Complexity, Ambiguity
3D	: Three-Dimensional

1. INTRODUCTION

In addition to the leader and follower interaction, which naturally boils down to the essence of leadership along with task completion; technology began disrupting leader behaviors—as it disrupted the way that we live, environment shapes, and businesses run.

Considering the roles of leaders in shaping the environment and businesses, the interplay of leader and digital transformation necessitates a more comprehensive understanding both in academia and business-related research institutions. Yet the gap, at various dimensions of this significant subject, exists (Bolden & O'Regan, 2016, pp. 438-439; Khan, 2016; Avolio et al., 2014, pp. 105-126).

Concerning the need for this research and its potential value, this thesis has two primary questions and other relevant questions which are both bringing different insights for different aspects of the study and leading to answer the primary questions. To understand how the leaders changed and to where leadership evolves in the future, it seemed necessary to analyze from the initial point to the progression that leadership goes through. Comprehension of what leadership currently is and will possibly be in the future needed to understand: What leadership was, which behaviors created, and currently keeps creating effective leaders. So the first primary question showed up as to *Which characteristics create effective business leaders*. And once the effective leadership and its constituents have comprehended, then, it was possible to ask the second question: *How these behaviors are affected by digital transformation*. Where exactly the leadership has reached in the digital era, and where will it possibly morph.

In parallel with the primary questions, one of the goals of this thesis is to provide a clear insight into which skills and behaviors an individual should focus on to become an effective and efficient leader, without losing time. Some measures of progress can be listed as emphasizing leaders' interplay with technology, understanding leadership continuum, what challenges leaders do come up against when they lead in the digital era, and which key factors leaders need to adopt and adapt from technological and universal perspectives for overcoming these challenges and getting ahead.

For accomplishing the objectives and goals, a systematic, algorithmic, and holistic approach planned and adopted. While executing this approach, different means employed. Briefly, participation to a leadership summit that gave the chance to address questions to the highest-level executives from different industries and observe them, where leaders shared their experiences and thoughts about leadership; in total 13 leaders observed for two days, and which lasted 15 hours (Deegan et al., 2020). As a starting point of digital transformation for having an overall understanding related to this subject, a course completed, which scheduled for four weeks.¹ Webinars related to digitalization's effect on human and work relations followed and ensured participation in a robot exhibition for another understanding of technology. An analysis has executed which combines the results of different pieces of research conducted by respected organizations about effective leader behaviors. Also, researchers' findings from academic or non-academic environments contributed to this analysis. Exerting an effort in finding these common behaviors gave the chance to compare the results in a large population (N= 365,191). As it comes to the literature review, firstly, a detailed review separately conducted on each of the leadership, digital transformation, and their interaction: the primary constituents. Secondly, a more narrowed review followed by using the customized headings in this research, which enabled pinpointing the connections that link each of these constituents, and helped to bring the complete thesis into a form that is a single and standing alone piece of work. Considering the context of the thesis subject, the references narrowed down to the year 2015 and later, at 91 percent; and when the rest of the references included, the fact that all the sources belong to the last decade, with the hope of preparing the most up-to-date research. Interviews with leaders from the intermediate goods industry implemented with the expectation of gaining other additional opinions related to the digital transformation and leader interaction.

The achievement of objectives and goals of this thesis will be significant both for the people who want to possess leader behaviors and also to the researchers who study leadership and its interaction with technology.

¹ University of Virginia & Boston Consulting Group, (2018a). Module 1: How technology changes business. In *Digital Transformation*. Retrieved April 17, 2020, from <https://www.coursera.org/learn/bcg-uva-darden-digital-transformation>

In line with the aim of this research to bring compendious and systematic explanations, this thesis will respectively explain the essentials of leadership, secondly, will go through fundamentals of digital transformation which will hopefully facilitate the understanding of leader and digital transformation interaction.



2. LITERATURE REVIEW

The review delves into the literature for finding relevant knowledge of the individuals with the highest potential to lead in today and future, the behaviors that are changing potential leaders into effective ones, how technology is transforming the perception of leadership, and leaders' interaction with the digital era.

2.1 THE TRANSITION FROM CONVENTIONAL to NEW ERA LEADERSHIP

Literature has various leadership styles. One of the goals for this research is finding the ideal and successful leader of today—digital era—and future. In this sense, new-era leadership refers to the expectations from leaders of today and the future to apply (behaviors, abilities, and skills).

This research brings a holistic approach related to the effective leader's qualities. Rather than researching a leader's adopted style, it aims to study all the core qualities driving a potential leader to success, and to become the leader of today and future, it aspires to reveal all prominent qualities possessed by various types of leaders. Hesse reports that, without defining which leadership outcome affected, digital transformation interpreted as a facilitator for leadership. On the other hand, he adds that digital transformation brings on serious confrontations for business leaders. And they have to deal with data-driven decision making, disruptive changes on landscape of commercial activities, work organized via digital services, manpower with ubiquitous access to information, and this power adding new methods of communication (2018).

A digital leader is harmonizing the traditional challenges with the alignment of new technologies with existing IT and support from technological partners (della Corte et al., 2019). Digital leadership is not only managing businesses in the age of artificial intelligence but also requires possessing the right skillset to stimulate technological advancement and innovation. The digital leader creates engaged and skilled teams (Bawany, 2019, p. 28; della Corte et al., 2019). On the other hand, the transformation of a business into a digitally capable platform is not only about technology, it is more about long-term plans, new ways of thinking, and strategy. The mindset of an entire organization signifies more than IT infrastructure. The expansion of new digital

technologies along with the rise of new disruptive threats is permeating to the core of businesses, hence digitalization becomes an important assignment for companies to accomplish (Rogers, 2016). Despite the digitalization's effects on organizations and leaders, a gap has happened amid the research of contemporary leadership and digital transformation (Khan, 2016).

However, not only contemporary leadership but also other leadership theories appear not particularly bringing a strong focus on the interaction of technology and leader behavior. In the light of leadership history, academic institutions and scholars of early leadership theories of trait and behavior and contingency theories seemingly did not consider technology as a key variable on leaders' behavior (Early, n.d; Coggins, 2016; Robbins & Coulter, 2016). In the era of digitization and technology, there is a need for more pieces of research that will reveal the effect of digital transformation on leaders.

2.2 REQUIREMENTS for LEADERS to ADOPT and ADAPT to the CHANGING TECHNOLOGICAL WORLD

Khan reports characteristics of digitalization as increasing speed ("diminishing time lag"), integration and connection, acceleration of complexity and transparency, decrease in the hierarchy and free movement of information, facilitation of decision making, the interdependence of robots, computers, and humans (2016). In these listed characteristics, however, the interdependence of robots, computers, and humans comes fore as a basic but prominent one. While few of these characteristics (such as complexity and velocity) correlate with the environmental challenges that are difficult to control, which defined as complexity, ambiguity, uncertainty, volatility (VUCA), and originates back in the late 20th-century.²

It appears the challenges—rooting from the digital transformation, and causing an environment that is difficult to control because of the reasons like complexity, volatility—are also creating its solution with the development of technology. Put simply, technology ignites challenges, and then technology responds to this challenge that is created by itself,

² U.S. Army Heritage & Education Center, 2019. Who first originated the term VUCA (volatility, uncertainty, complexity and ambiguity)? Retrieved June 01, 2020, from <http://usawc.libanswers.com/faq/84869>

and then it creates another new challenge. In some cases, *it turns into a self-created-problem-solution cycle*.

For example, complexity defined as a key matter to be handled by leaders (Arkenberg, 2019; Kraaijenbrink, 2018); while an excessive amount of stored data makes it hard for *the human mind* to perceive this exponentially-grown complex structure of data on one side; the exponential processing power and communication speed of data (technology itself) is bringing the solution to analyze and interpret this large mass of data.

This era requires also leaders who comprehend technology. Because technology as a solution mechanism to many problems may trigger simultaneous informational and environmental matters because of human errors and feelings are coming into play as a variable. Not as an environmental but as a business-related-informational problem, Cortellazzo et al. (2019) reports that new ethical concerns that arise from digital transformation are an issue for leaders, for instance, excessive use of digitalization processes inflicting information overload on employees and making the lines indistinct that separate personal and work life, which they called the dark side of digital transformation.

According to Prince (2017), the industry 4.0 and digital transformation processes are more efficient and effective with particular attitudes, knowledge, and skillset, *at this point, there is a common view* among Korn Ferry³, 2019; Neubauer et al., 2017, and The Economist Intelligence Unit⁴, 2017. And Prince adds that digital leadership framework grounds on a matrix that links transactional, transformational, and authentic leadership (2017, pp. 132-139). Grant reports the individual learns counterpoising rational intelligence along with emotional and spiritual qualities for excellent leadership, which is transpersonal (2020, pp. 43-44).

Effective leadership research tends to *combine different leadership styles or skillsets*.

³ Korn Ferry, 2019. *The self-disruptive leader*. Retrieved from https://focus.kornferry.com/wp-content/uploads/2015/02/KF-Disruptive-Leader-Final-Digital-Spreads_FINAL.pdf

⁴ The Economist Intelligence Unit, 2017. *Building leaders without silos*. Retrieved from <https://eiperspectives.economist.com/strategy-leadership/building-leaders-without-silos/white-paper/building-leaders-without-silos>

Coming to the type of ideal leadership in the digital era and future, there are many different opinions. Just a few of these ideal leader figures: Transformational leadership is an exemplary model that gives the potential to avail all stakeholders of the organizations (Giroux & Mclarney, 2014, p. 863); or more recent ones, such as self-disruptive leaders of Korn Ferry (2019); transpersonal leader (Grant, 2020, pp. 43-44); agile leaders (Neubauer et al., 2017) found better compared to other ones in answering effective leadership and organizations' needs.

There is not a consensus related to the type of leadership that will lead in the digital age, which also becomes apparent owing to the *increasing number of leadership names* especially created in the last couple of decades.

As digitalization accelerates many things, it appears that digital disruption also accelerated the process of searching for a successful leader that fits better into this era. There was an earlier search of an ideal leader than the above-mentioned leadership styles, which extends from contingency theories to transactional leaders, and the continuum goes back to 1840, the great man theory (Early, n.d; Coggins, 2016). Part of digital transformation or not, leadership was a topic of interest since the dawn of man (Coggins, 2016).

Since leadership styles vary too much to choose an ideal leader from them for leading in the digital era and future, there appears another solution. The solution is not combining leadership styles this time, but which is finding distinctive, common, overlapping skill sets and behaviors that define effective leaders which are particularly used while creating these leadership styles. It will be done in the light of recent pieces of research, which conducted by respected organizations that cover 365,191 employees and leaders from all levels. Also by analyzing 13 top-level executives for two days (15 hours), and other than that interviews executed with another group of leaders.

According to a piece of research, which conducted by The Economist Intelligence Unit related to leadership roles and necessary skills of leaders along with an examination of digital transformation's effect on the executives' career plans, surveyed in the UK, France, Netherlands, and Germany. The research realized among 800 executives that are revealing the skills, which will change in importance as a result of digital disruption. It demonstrates that motivating ability, innovation, stress management, being empathetic,

and transparency would be significant in the next three years (2017). Although these skills are important and around three years passed, the later research and another piece of almost simultaneous research, to some extent, brought different skillset into consideration about the digital era than The Economist Intelligence Unit did, cf., Korn Ferry (2019) and Neubauer et al. (2017).

Being visionary, humble, and engaged are distinguishing characteristics of *agile* leaders. Agile leaders have also *adaptive behavior*. In digital disruption, the leadership effectiveness partakes many characteristics that are the same with more stable environments. However, these exceptional qualities are marking leaders as different. In surroundings that digitally disrupted, agile leaders perform better related to the effectiveness and work engagement, according to a piece of research conducted by the Global Center for Digital Business Transformation among 1061 leaders (Neubauer et al., 2017). During the *Management and Leadership Summit* held in Istanbul, *agility* and *adaptation* characteristics, once again, came into prominence as key elements that leaders require in a digital era (Deegan et al., 2020). Agile organizations are quite more efficient at decision making, product development, and skillfully allocating resources; agile enterprises designed for the digital economy (de Smet et al., 2019, pp. 28-34). As it comes to leaders, agility is a key behavior in the success of a leader as regards de Smet et al. (2019) and Korn Ferry (2019). For leaders to be effective in a more digitalized world, adapting is another indispensable factor (Neubauer et al., 2017).

There is a need for an industry 4.0 related leadership because digitalization transforms various functions and means such as production, human resource management, logistics, communication in organizations. New methods require for value creation. Organizational capability must adapt to new challenges: change management, design thinking, analytical methods for increasing competitiveness (Oberer & Erkollar, 2018). A primary challenge for organizations is not only implementing the right technology, but it is also culture and skills in the organization; the perspective and attitudes of an entire organization signify more than IT infrastructure (Oberer & Erkollar, 2018; Rogers, 2016). Leaders have not only been affected by this culture, but also according to Cortellazzo et al. (2019), they play a key role in the development of digital culture.

A long-term economic cycle in prices of commodity and others, considered to be resulting from technological advancement, which causes long-period prosperity, called Kondratiev wave. It founded by Nikolai D. Kondratiev; according to his belief, these cycles repeat periods and self-correction, and approximately, the waves last 50 years. It must be added that it is not a generally accepted theory by economists, and it can be interpreted as a statistical illusion (Chappelow, 2020). Yet, there is another point of view, which reported by Rios et al. that the capitalist expansion built on information and communication technologies could be considered as a rising Kondratiev wave, from the beginning of 1980s until the financial crisis in 2008. This fifth Kondratiev might either cause another wave built on artificial intelligence or might begin a long period of global instability. The digital technology's being disruptive rather than integrating can be related to the absence of counterweights of United States institutions and deregulation. World powers except for China, have become just users of digital products made by the USA. Thus, China has become a politico-institutional competitor against the USA, and monopolies originated from there. This competition goes beyond traditional trade and the market. The world is experiencing a period before a struggle for hegemony (2018, p. 270). Technology does not only change production processes but also it changes the way that people live. Following steam, steel, petrochemical, and electricity, digitalization becomes the new revolutionary driving force in the business and private life. Long economic waves also known as Kondratiev waves relate to these inventions and technologies (Vogelsang, 2010, p. 3).

Whether the research proves or opposes the plausibility of these long waves; a couple of things become clear related to the cycles: Technology and digital transformation will continue to represent a large field in economics, it will progress by bringing many novelties along with challenges. And it will increasingly keep leaders' agenda busy for a very long time, and maybe irrevocably.

Digitalization changes the operations of a business, however, it does not realize this by itself. Organizational requirements associated with its leader's decision making enables such a change achievable. The way that leaders perceive and infuse business culture at which technology used as a means for synthesizing data more than being fully technology dependent is critical in an organizational transformation, which largely depends on leaders (Sainger, 2018, pp. 2-5). The creation of engaged and skilled teams appears as a

requirement for leaders in the digital age (Bawany, 2019, p. 28; della Corte et al., 2019); Sainger also emphasizes that organizations and leaders must realize that the most important challenge of digital transformation comes from necessary talent absence (2018, pp. 2-5); digital transformation may increase the need for talented teams, however, it must be remembered that team creation and teamwork are essential almost for all organizations that majority of leadership styles require.

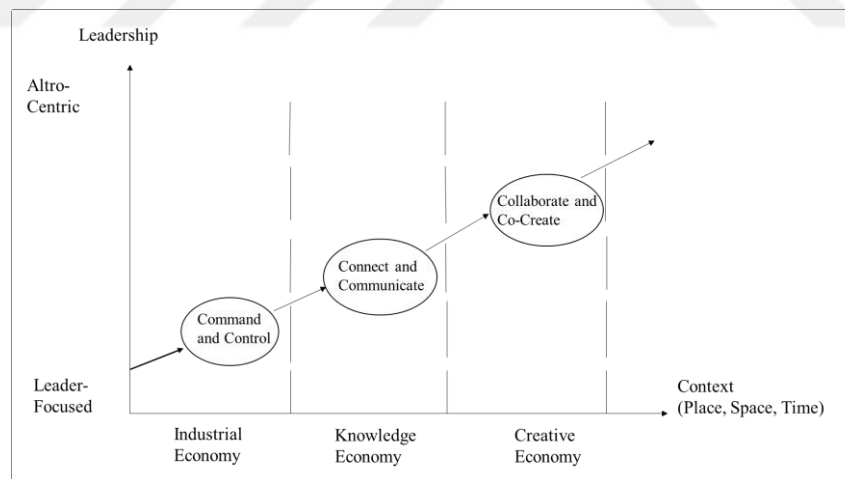
Avolio et al. (2014) argue that factors such as cultural consideration, time, and distance, matter to e-leaders. We have little understanding of advanced information technology (AIT) and its possible effects on the leadership inside or outside the organization. The impact and importance of AIT perceived clearly by scholars, yet the interplay of this technology on how people work together and on leadership keep remaining at the very nascent levels—later studies showed that this gap, for different leadership styles, related to the technology and leader interaction still exists (Khan, 2016). As of 2020, in the light of *The Effect of Digital Transformation on the Leader Behaviors*, these last few years have not significantly changed the research progress at this particular subject. Avolio et al. point out ethical considerations that happen because of AIT will be critical for leaders, and they emphasize the significance of gamification (2014, pp. 105-126). Gamification can be defined as the use of gamelike elements for various objectives, such as encouraging participation, improving behaviors, or leader creation, i.e, using in non-game contexts. Although this method sounds promising, so far, one of the basic findings is that there is a rapidly-changing environment which requires leaders to adopt new behaviors for success, thus, new content and design into the gamification: Behavioral content and design of the games, in a long-term strategy, can be determinants for companies that are investing in gamification and for the leaders' success who are involved in such programs.

The role and four leadership foci of digital business transformation defined as leading cultural change, strategy, leading network, and enabling. Instead of hierarchical leadership, which is unsuitable for the new business environment, the leader provides support and enables employees to reach their goals. In doing this, the leader promotes dialogue and recognize that employees are expert at what they do, and this challenges the traditional leader's role. Leading network, on the other side, is leadership-related, and organizations must use new means of communication to reach its customers often (Larjovuori et al., 2018, pp. 1-7). They must develop and improve their operations and

services through new collaborations and partnerships according to Larjovuori et al. (2018, pp. 1-7) and the University of Virginia & Boston Consulting Group.⁵

The old methods of leading people are no more functional in the creative economy (Larjovuori et al., 2018, pp. 1-7; Jakubik & Berazhny, 2017, pp. 471-483), at which competitive advantage bases on learning and innovation. Collaborative learning, co-creation, building networks, and communicating in them, and connecting people have strong influence rather than a command and control mechanism (Jakubik & Berazhny, 2017, pp. 471-483). On the other hand, Jakubik and Berazhny (2017) consider communication as the most essential practice of leaders. Although communication, as a means to lead people, has primary importance; yet the digital transformation is bringing other key behaviors for leaders, which are as important as communication. And, according to Jakubik and Berazhny (2017), a new leadership model is emerging. In figure 2.1, the graph illustrates that the leader-focused (egocentric) leadership model is ineffective in knowledge and creative economies. And the necessity of a leader who distributes the authority and employs altrocentric leadership.

Figure 2.1: Shift from egocentric toward altrocentric leadership



Source: Adapted from “A New Leadership Paradigm Is Emerging,” “Evolving Leadership Practices” M. Jakubik, 2017.

⁵ University of Virginia & Boston Consulting Group, (2018b). Module 4: Your path to digital transformation. In *Digital Transformation*. Retrieved April 17, 2020, from <https://www.coursera.org/learn/bcg-uva-darden-digital-transformation>

Few key characteristics of autocratic leadership can relate to servant leadership, such as empathy or primary concern for the others. Or delegating power, distributing authority can also interrelate as another common aspect of these two leaderships. Although both of these styles have intellectual, humanistic, and thus, outstanding qualities; this must be remembered that servant leadership originates from very earlier periods. And, modesty and meekness perceived as its weaknesses in societies at which domination is stronger than sharing power with others (Gandolfi et al., 2017, pp. 351-356). It becomes apparent that leaders require other additional key qualities, especially in the digital era.

Traditional methods of managing and working will become different in many ways as geography and physical presence come to be less significant combined with redefined scopes in education and economics. In the businesses, the significance of geography and presence will lessen in the workplace, which will refer to diminishing hierarchies and fluid loyalties. The ideal leaders of the future are courageous enough to adapt for remodeling their organizations. Being culturally sensitive and adaptive will be critical for leaders (Tshabangu, 2015, p. 104).

Although technology knowledge alone does not appear to be enough for leaders to control, leaders still require to adopt and obtain it. Because leaders will have to deal with data-driven decision making, which is a challenge for leaders (Hesse, 2018); thus, the new role of a leader imagined as a data and information mentor (Jakubik & Berazhny, 2017, pp. 471-483). Jakubik and Berazhny also add challenges that digitalization brings on leadership: communication skills include face-to-face connection and human touch. Even though the behavior—agility—has not been emphasized, it is still mentioned that there is a demand for a new type, an agile leader (2017, pp. 471-483), which actually could be emphasized as another key finding.

Along with Bolden and O'Regan (2016); Khan (2016); Avolio et al. (2014); address the implications of digital technology on leadership theory, and they lay stress on that it is unexplored in academic literature. In addition to beginning their work with this gap, Bolden and O'Regan (2016) include in their paper that leadership is a specific context, so there are various specific approaches, and leadership must adapt to the needs of the day. To some extent, this becomes parallel with the progress of leadership—similar to the very need of transition from trait to behavioral theories, and then, to contingency, and modern

leadership theories. Although this transition and contingency may continue, there is still the fact that some leader behaviors have more impact than others owing to the nature of this new environment; the behaviors that leaders can get ahead by the exhibition of them.

2.3 TRIUMPHANT LEADER of DIGITAL ERA

Digitalization offers new possibilities like virtual teams, introduces new means of communication, increases speed and access to information, impacts power structures, thus, causes efficiency, standardization, and smart working. The primary skills that leaders need for benefiting from this transformation: using digital assets as communication tools, decision making at high speed, building networks, leading in a disruptive environment, and the shift from emotional and social intelligence to technical skills (Cortellazzo et al., 2019, pp. 1-13). However, Kazım (2019) has found that there are issues in leadership skills and acquiring competencies that align with digital transformation practices. On one side, dealing with traditional business and on the other side, focusing on innovative disruption; ambidexterity considered as a goal that carries great significance for leaders to survive digital transformation.

What makes a person into a leader is more related to instincts than a thinking process (Tobak, 2015). But, according to Robert House, who contributed path-goal theory, leaders can tailor themselves into different styles depending on circumstances. By doing this, leaders eliminate the drawbacks, thus, the followers can successfully carry out the goals of their organizations. And, contentment and performance of employees rise when the leader opts for a style that clears imperfections of work setting. Behavior can be the key. The nature of leadership could be fathomed better with the analyses of behavior (Robbins & Coulter, 2016, pp. 524-535). However, the percentage of leaders who carry the necessary properties is considerably-low, so businesses immediately need to develop new leaders. On a global scale, as regards Korn Ferry, the majority of investors think the current leadership will not answer the needs of the future (2019). So, by exhibiting which behaviors a leader can get ahead! Not hierarchical but collective leadership is more convenient today. Being an omnipotent ruler is no longer useful—trying to have unlimited authority over people—and trying to be omniscient leader, who is aware of all, is also obsolete. Leaders must be ready to collaborate with others who are better than them (Rodríguez et al., 2019, pp. 22-24). The complexity of leadership roles requires an

effective leader to acquire new behaviors and to enact them. Neither the tendency to depend on the past only nor avoiding to use the obtained experience in the past will bring about success (Grigsby, 2015, pp. 125-128). Also for being digitally transformed, leaders need to equip themselves with experience and skills (Bawany, 2019, p. 28). A leader can get ahead by the exhibition of specific behaviors, today and future. For example, according to Rodríguez et al. (2019), adaptation to the change is an indispensable characteristic that must be possessed by leaders. Agility—finding agile mindsets, creating an agile team, and finally, reaching an organizational agile structure is a challenge (Deiser, 2019, pp. 43-56).

Like two key behaviors—agility and adaptation—that are coming fore as common findings of different pieces of research by different institutions, researchers, or academicians, which are relevant to effective leader behaviors; there are also other few characteristics which are common finding of different studies. The essential behavior to enhance the influence and efficiency is respect; it significantly affects employees in terms of their involvement and commitment (Smith, 2019, pp. 55-58; Porath, 2015). Problem-solving efficiency is another important and common skill that becomes prominent (Feser et al., 2015; Clarke, 2013, pp. 26-33). The behavior of seeking different perspectives and encouraging people to look from different perspectives associates with leadership success (Kane, 2018; Feser et al., 2015).

3. DATA AND METHOD

Producing this research and creating value are results of multistage workings. Each stage has a distinctive approach, and the linkage of these approaches brings about complete and well-established work. Thus, for facilitating the understanding and designing a simple structure, the method has divided into five subcategories, each of which provides understanding, perspective, and serves to answer research questions. Management and leadership summit, education for gaining knowledge about digital transformation, webinar and robot exhibition, literature review (including combining the results of different pieces of research by respected institutions), and interviews can be headings of these subcategories.

Before passing to detail these five subcategories that can be categorized further, it may be useful to clarify a couple of points related to the methodological choices.

- i. There are many leadership styles in literature, and new styles keep adding on. Studying on a specific leadership style may cause not to find key characteristics that are possessed by other leadership styles. And, a study on effective business leaders will elicit that a leader can exhibit more than one leadership style (Kapucu, 2019). So, focusing on a single leadership may bring about to miss even one leader's key behaviors, who adopted different styles, on the other side. Thus, this research concentrating on key characteristics universally that make different leaderships successful and how these leaders affected by digital transformation rather than focusing on characteristics possessed by a single leadership style and revealing the impacts of digital transformation on this particular leadership style.
- ii. In headings or the text, each question arising from this research aims to bring an approach or insight for these particular points. On the other hand, answers to these questions also help to answer the primary research questions. They guide to clear and effective explanations and improve the holistic perspective for the complete subject.

In March 2020, the *Management and Leadership Summit* held in Boğaziçi University, Istanbul, Turkey, with the participation of 13 top-level executives (Deegan et al., 2020). It was a primarily-taken step in advancing the research. It was the hub at the beginning.

The leadership summit was before beginning the literature review. So, An Analysis of Leaders for Finding Their Common Behaviors (appendix-1) has conducted earlier. Its goal has been objectively to reveal the set of behaviors that are dominant among the highest-level business leaders of Turkey in their fields. While keep researching the effect of digital transformation, later research on literature review, demonstrated significant common findings in parallel with this analysis (de Smet et al., 2019, pp. 28-34; Korn Ferry, 2019; Neubauer et al., 2017).

In the summit, leaders have narratively shared their experiences. Except for a few occasions, they naturally presented without being directed to a specific question related to the leadership. As speakers, they pointed out these characteristics as a result of their failures and successes. In total 13 leaders observed for two days, and which lasted 15 hours. Executives are from different industries such as human resources, banking, holdings, sport, pension company, fast-moving consumer goods companies, tobacco companies, telecommunications, and pharmaceutical companies.

Content analysis adapted to the data obtained from the summit. This analysis can be considered as a blended method approach: category assignment to the text as a qualitative step and working through text passages and analyzing category frequencies as a quantitative step (Mayring, 2014, pp. 10-15).

Although digital transformation is part of people's lives, it has still required to have a deeper understanding to be able to notice key points that are hidden in technology, which relates to humans and plays a role in human and machine interaction. Thus, as a starting point of digital transformation for having an overall understanding related to this subject, a course completed, which scheduled for four weeks.⁶ The education designed for approximately 10 hours (four weeks), yet it has taken more than 30 hours to delve further and complete successfully. Basics, economics, trends, and strategy of digital transformation analyzed further meanwhile. It was supportive while executing the literature review. This was the second stage.

⁶ University of Virginia & Boston Consulting Group, (2018a). Module 1: How technology changes business. In *Digital Transformation*. Retrieved April 17, 2020, from <https://www.coursera.org/learn/bcg-uva-darden-digital-transformation>

For comparing and testing the knowledge at an academic platform, which has gained related to digital transformation so far, a couple of webinars followed. These webinars prepared by Bahcesehir University for graduate levels. One of them is “Digitalization’s Effect on Work and Human Relations.” It has observed that the information provided at these webinars has already covered in earlier studies, so it was convenient to see that the sufficient amount of knowledge gained for writing about digital transformation. As another field study, “Next-Generation Robots Exhibition” visited. The purpose of ensuring this participation has been understanding the integration of digital transformation in robots and having another understanding of technology.

The literature review is another building block, and it is the fourth step. This stage comprises of various components. Peer-reviewed articles, large pieces of research conducted by respected institutions, books, journals, proceedings, conferences, courses, business magazines, reports, webinars, summits, complementary information on matters by various resources, and field studies are them. These parts together construct the body of the literature review and the essence of the paper. The chronology and the design of the research organized so that they can be understood easily. And until the end of the paper, the scholar can find the answers to research questions along with information that will contribute to perspective and knowledge.

The research divided into categories: leadership, digital transformation, and effect, interaction. Followingly, a detailed review carried on each of these parts. While preparing parts of research, the factors that link each part, and their correlation determined. Thus, along with algorithmic and systematic analysis, an overall holistic approach adopted. When searching for relevant literature, approximately 6,000 data raked for elimination. Yet, the use of sources has consequently remained at around one percent (references/data). From these data, a more narrowed review obtained by using the customized headings or the parts of headings in this research. This enabled pinpointing the connections that link each of the research parts, which helped to bring the complete thesis into a form, which is a whole stand-alone piece of work. Considering the context of the thesis, the dates of references narrowed down to the year 2015 and later, at 91 percent. When the rest of the references included, all the sources belong to the last decade, with the hope of preparing the most up-to-date research. Institutions that are researching for ideal leadership obtain various results. Although there are critical points that

commonly intersect and come fore in these pieces of research, for the sake of being distinctive, there is expectably an avoidance of comparing the outcomes. At this point, an objective third party's observation, analysis, and comparison can be useful in finding: Which leader behaviors and skills commonly matter most for a massive number of leaders and employees (N= 365,191). This numeral represents only the population in the research that examines the behavioral aspect of ideal leaders, and it only includes institutions. And it does not include research done by academicians and researchers, or it does not include institutions' research other than the behavioral aspect either.

In finding a successful leader's common behaviors, academicians' and researchers' findings assessed to support the common findings' of institutions, or they have used in enlightening the other aspects of the study. Other than these institutions represent the behavioral aspect, other institutional research also used for supporting different points of view. In this thesis, *a key factor in determining the ideal leader's common behaviors was not popularity (not only the mention), but these behaviors being chosen by employees and leaders, what makes a leader successful in the eye of them.* Selection criteria are that the behavior must be common in one or more than one large observation group, or additionally, it can also be supported by individual researchers or academicians in addition to the institutions.

And, interviews have followed all these pieces of work and analyses. So, they have come after the leadership summit, which covered *top-level* leaders and companies *from different industries*. And since interviews have been the final stage, they have also taken place after analyzing respected institutions' studies, which *globally* has covered *employees and leaders from all levels and different sectors. Until the interviews, the observation groups that have analyzed in this research have been diverse, from different industries, and usually large companies. In light of this information, interviews extended to another industry to gain an additional perspective.* For the industry to give an additional point of view, the industry has chosen that is not studied earlier in this framework (digitalization in this research). While making this choice, its relation with digital transformation considered. A median point has targeted. For example, choosing relatively highly-digitalized industries, such as software or banking could deviate, or a mix of industries could give similar results with the leadership summit or the other analysis (the combination of institutional studies). So, *a different industry, which has impacts and*

relation with other sectors on a large scale, has chosen with the expectation of extracting another understanding related to digital transformation and leader interaction. *Different company size* (selecting small-medium sized enterprises) has been another point in differentiating. For covering an area as large as possible, this research has targeted to bring diversity. *Earlier analyses in this research have applied to large corporations from different industries and leaders from all levels and employees.* Thus, the interview criterion has done by considering the *mean and standard deviation of industry, company size, be subject to such a study for the first time, its impact, also creating a difference in this research.* All these factors together are expected to gain an additional perspective in interviews, and finally *being as inclusive as possible.* Interviews are not the heart, yet they are a stage to complement this research.

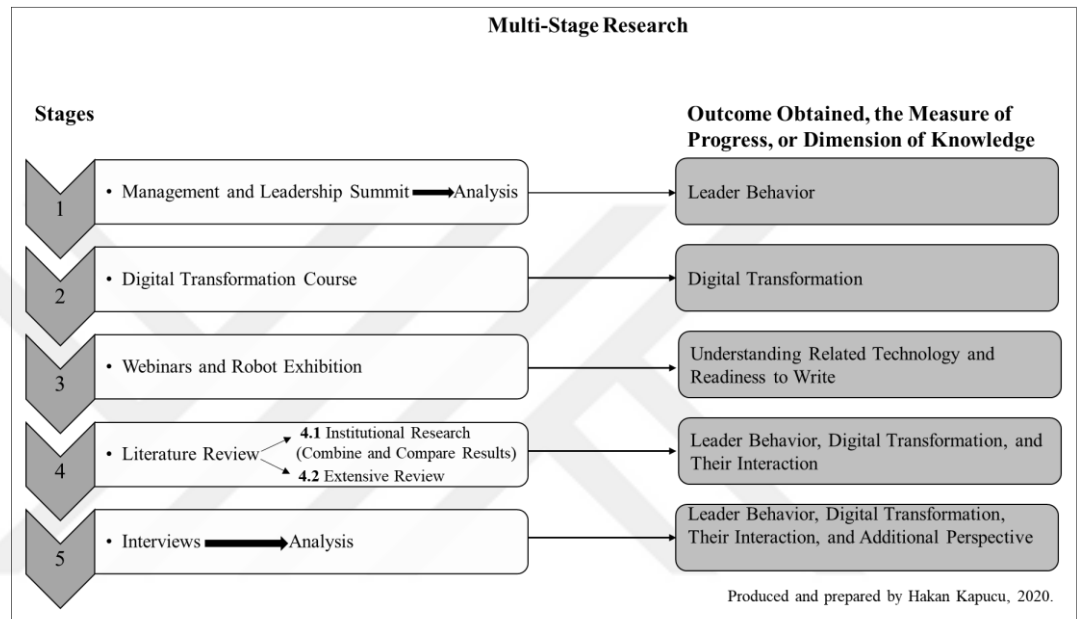
While determining and preparing interview questions, factors such as subject content, industry, relevance, and revealing leader technology interaction considered neatly. After the preparation of a few critical questions, these questions integrated into the questions of earlier research conducted in Germany (Hesse, 2018). The purpose of integration is also to apply questions that gave results in another research, and thus, it is for leveraging the effectiveness of questions and interviews. The basic statistics of interviews resulted as follows. *Nine companies' obtained* to participate in interviews. With the hope of gaining additional perspective, the interviews executed in the intermediate goods industry among the small and medium-sized enterprises (less than 250 employees). 13 leaders interviewed. Each interview took 39 minutes on average. Leaders' average age 41.4 with 17 years average experience (appendix-4). Interviews are structured. All relevant correspondences and interviews recorded in written format. They conducted on digital platforms considering the current global situation (outbreak of pandemic) for not risking health. Interviews scheduled earlier months of 2020, and they realized in July 2020.

For analyzing the interviews, qualitative content analysis is adopted (QCA). Content analysis (CA) used as a general phrase to define the process of decreasing textual data into smaller and quantifiable segments after coding. CA includes define the research problem, obtain the source of material, identify categories or focus of research, and count the occurrence of categories (Marvasti, 2019). QCA, on the other hand, is a procedure that systematically describes the meaning of qualitative material, which is done by the classification of material as instances of categories of coding (Schreier, 2012, p.1).

According to Marvasti, QCA analytically positioned between the qualitative and the quantitative views of qualitative research (2019). Computer-aided analysis applied to the interviews.

In figure 3.1, the diagram illustrates the stages of this research and the outcomes obtained from relevant parts.

Figure 3.1: Multi-stage research



Source: Figure 3.1 produced and prepared by Kapucu, H., 2020.

4. INTERIORIZING LEADERSHIP and DIGITAL TRANSFORMATION

Leadership, digital transformation, leaders, history of leadership from past to today, products, challenges of the digital era are needed to assess for a better understanding of outcomes. On the other hand, a new leader type named, designated, and propounded in this part (chapter 4.8).

4.1 A WORKAHOLIC, a DICTATOR, or an INFLUENCER: The WAYS LEADERS DIFFER or EXHIBIT COMMON BEHAVIORS

Every organism on the earth accepted as part of natural phenomena: plants, animals, people. They interact, influence or impact one another. In this circle, while many take the role of a worker or a soldier and only a few of them take the role of a leader.

Regardless of which species they belong, there is a pecking order, not only in human beings but also in Animalia. While alpha gorillas are the dominant one of troops, queen bees are at the center of the hive. Since the very beginning, human beings used to group around leaders too. Organizational formations such as corporations, communities, and clans are not the outcomes of extraordinary brilliance but instinctive survival. What makes a person into a leader is more related to instincts than a thinking process (Tobak, 2015).

Some leader skills can be thought, however, the leaders' inherent qualities that are related to their biology might also be a key to comprehend *how do leaders differ from the rest!* Until the 20th century, the change in leader behaviors was *evolutionary*, it was happening gradually. In the second half of the 20th century, however, with the effect of rapidly-spreading mechanization, leaders found themselves in an obligation to adapt to the fast-paced environment. This sudden change ignited a *revolutionary* change in leader behaviors, more than ever happened in history.

4.2 INDIVIDUATION of EVERYDAY MANAGER FROM the VICTORIOUS LEADER

In the business world and academia, many leadership styles defined and explained. In recent years, it kept adding new ones to the existing literature: A few of them are bold

leaders, self-disruptive leaders, digital leaders, and virtual leaders. This research, on the other hand, focuses also on the leaders that acted as a part of changing the history: transformational leaders, transactional leaders, and autocratic leaders. In other words, influencers the ones who transform, workaholics the ones who transact, and autocrats the ones who dictate!

Transformational leaders urge and invigorate followers to accomplish outstanding results. Transactional leaders introduce objectives and provide rewards in return. And, autocratic leader, on the other hand, mandates unilateral decisions and limited personnel engagement (Robbins & Coulter, 2016, pp. 525, 532).

Even, the features (appearances) of the people with authority can be influential while they are leading, their set of skills (learned or thought), and their abilities (innate qualities) notably come into prominence. And with the set of these behaviors, characteristics, and traits, they conduct their followers to efficiency and effectivity. Leaders with these aspects are discerned from the rest of administrators and directors.

Table 4.1: Comparing the leaders with the managers

Base	Leader	Manager
Definition	Invigorates subordinates to accomplish specific goals.	Plans, coordinates, and controls an organization.
Way	Puts direction.	Arrange details.
Attribute	Have a vision.	Concerns of today.
Subordinates	Admirers.	Workers.
Style	Is transformative.	Is task-oriented.
Judgment	Eases to take decisions.	Takes decisions.
Objective	Is developing.	Do the necessary.
Change	Supports.	Reacts.
Dissent	Values dissents.	Refrains.
People	Aligns them.	Puts them in order.
Endeavor	To be effective.	To be efficient.
Concentrate	People	Agenda and formality.

Source: Adapted from the Difference Between Leader and Manager, Surbhi, S. 2018

As it is observed, leaders even differ from other managerial positions in many aspects, thus, they do differ from the rest of the people. So, what are the characteristics that are making the leaders the driving force in the organizations?

There is an ongoing debate for understanding the essence of leadership. In March 2020, *Management and Leadership Summit* held in Boğaziçi University, Istanbul, Turkey, with the participation of 13 top-level executives included: CEO of Vodafone Turkey, Business Executive Officer of Nestle Turkey, CEO of GlaxoSmithKline Turkey, CEO of Pfizer Turkey, CEO of British American Tobacco Turkey, Sourcing Unit Director of Unilever Turkey, Honorary Chairman of Korn Ferry Turkey, Phillip Morris International Group Manager of Turkey, Vice General Director of Yapı Kredi Turkey, President of Beşiktaş JK, CIO of Yıldız Holding Turkey, CEO of Hayat Emeklilik and Bankasürans Turkey, Talent Management Executive of Anadolu Grubu Turkey.

According to the leaders, the set of behaviors and qualities that any leaders should have: Being altruist (concerning for others), being amenable (to know to agree with others), resilience(to cope with difficulties, to not to give up), learning agility, adapt to the digital era, being visionary, teamwork, adaptation, being distinctive as a person (using personal qualities as an asset), agility, being innovative, creativity, and emotional intelligence (Deegan et al., 2020).

- i. From these behaviors and qualities, various kinds of *adaptation*—adapt to the digital era and adaptation—come into prominence. Eight leaders perceive them as a key to be a successful leader.
- ii. *Learning agility and agility* are increasing their values in the eyes of leaders—five leaders indicated the importance of learning agility, and one leader indicated agility.
- iii. *Resilience* commonly credited by five leaders as another irreplaceable element for being successful.
- iv. Being amenable to know to agree with others, to reconcile differences mentioned as an important behavior by five leaders.
- v. Being distinctive as a person, using personal qualities that makes oneself original as an asset valued by four leaders.

As a result, few behaviors and qualities such as adaptation, agility, and resilience considered as very important tools that equip the victorious leader to handle the pressure of today's business arena.

4.3 COMPREHENDING YESTERDAY and TODAY of the PEOPLE WITH AUTHORITY

In the *Management and Leadership Summit*, adaptation, agility, and resilience behaviors have been at the forefront. Without being directed to any particular question and answer, the top-level executives, during their speeches, have naturally chosen these behaviors by depending on their life-time experiences—their successes and failures (Deegan et al., 2020).

The process of leading people alters in any era, so it does require adapting the necessary skills. This concept was different in the past than it is today. Researching the past will advise us to realize today and anticipate the future of the leadership process.

4.3.1 Phases of the Leadership Theories From Past to Today

Cultivating certain attitudes and behaviors and doing these good deeds endorse the leader of the future in this path. In addition to that, the one who builds charisma by extroversion, focusing on others, invigorating passion as a catalyst for communication, arousing or calming emotions, and self-confidence would get an additional asset on his or her means. On the other hand, as the process of influencing an organization for the successful fulfillment of goals, the leadership evolved as an organizational behavior argument. There were many theories and new theories are keeping added onto the existing ones.

Leadership theories divided into categories as early leadership (theories of trait and behavior), theories of contingency (model of Fiedler, the situational theory of Hersey and Blanchard, and model of path-goal), contemporary views (exchange of leader-member, transactional-transformational view, and visionary-charismatic view (Robbins & Coulter, 2016, pp. 524-535).

Researching theories of leadership goes back to the early 20th century, although leadership was essential ever since people started gathering as groups. Studies in the 1920s-1930s concentrated on traits such as appearance and stature, although researchers

realized that traits alone were not satisfactory to unravel the leadership without observing leaders' interaction with others and situational factors that surround them. Because of that, the researchers focused on the ideal behavioral styles that leaders exhibit. The behavior could be the key. The nature of the leadership could be fathomed better with analyses of behavior.



Table 4.2: Early leadership theories of behavior

Study	Dimension of Behavior	Result
University of Iowa	The democratic leader connects employees, assigns responsibility to the subordinates, and urges on participation. An autocratic leader imposes unilateral decisions and methods, restricts participation. Laissez-faire is providing freedom at work to complete tasks.	Even though democratic leaders have been doing the right things, and they have been most effective in these, the following research revealed mixed results.
University of Ohio State	Consideration defined as being considerate of followers beliefs and sentiments. Initiating structure refers to an arrangement of work and job relationships to achieve the objectives.	The type of high-high leader—both successful in initiating structure and consideration—caused to satisfactory subordinate performance, however, it was not for all cases.
University of Michigan	Employee oriented leader focused on social relationships and looked out for employees' wishes. Production oriented leader accentuates technical or functional aspects of work.	Employee oriented leader correlated with productivity and job satisfaction.

Source: Adapted from Behavioral Theories of Leadership, Robbins, S. P. & Coulter, M. A., 2016

On the other side, the businesses have many leaders that are becoming inadequate since they fail to grasp the situation they are in. Contingency theories tried to describe leaders' style and the set of circumstances that surrounds them. They set out to answer the question, what if there is a specific situation, which leadership style would be best to employ. Model of Fiedler prepared by Fred Fiedler, he studied leadership in two dimensions: The first dimension was to reveal a leader's style and the second one was defining environmental factors. He assumed that a person's leadership style is nonvolatile. As a result, if the leader were not effective, his model was offering either replacing the leader or changing the situation so that the leader can handle it. Assuming people cannot change their style is a flaw, however, the model demonstrated that situational factors may be crucial. The situational theory of Hersey and Blanchard created by Paul Hersey and Ken Blanchard. This theory concentrates on the skills and willingness of followers to get something done, which has assigned to them. It takes their readiness as a factor for completing the given task on the other hand. Another model to perceive leadership is the path-goal, which contributed by Robert House. This model depends on the belief that leaders eliminate the drawbacks, thus, followers can successfully carry out the goals of their organization. House defended that leaders can tailor themselves into different styles depending on circumstances. Contentment and performance of workers rise when the leader opts for a style that clears imperfections of work setting. Contemporary view groups exchange of leader-member, transactional-transformational, and visionary-charismatic views under it. The exchange of leader-member tells that in the earlier stages of leader and subordinate relationship, a leader will imperceptibly split members into categories (Robbins & Coulter, 2016, pp. 524-535).

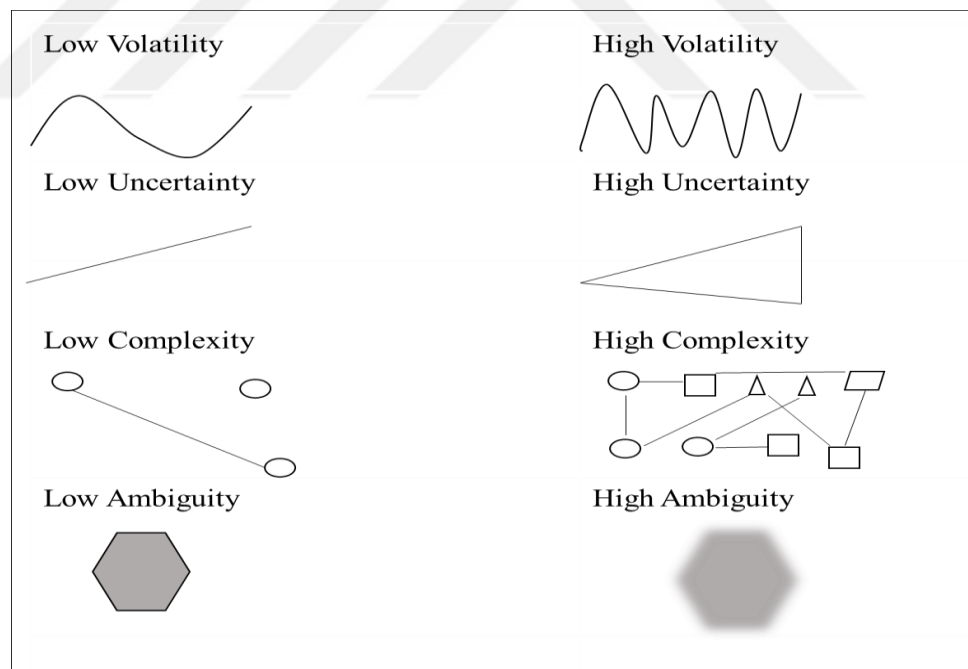
Transactional leaders introduce tasks and provide rewards in return, on the other side, transformational leaders urge and inspire followers to accomplish outstanding results. The charismatic leader has certitude and zeal, thus he or she influences people. The visionary leader is the one who holds ideas about the future, the ideas which are prudent and will make the current situation better.

4.3.2 Continuum of Leadership Concept—Today to the Future

Leaders require new capabilities to be excellent to overcome today's turmoil. The choices have to be done in flux. Amid the flux and turmoil, leaders try to keep pace with changing environmental conditions.

Many terms endeavored to express what happens around human beings: turbulence, hyper-competition, high-velocity markets. In recent years, the terms volatile, uncertain, complex, ambiguous (VUCA), are gaining momentum to fill in the various dimensions of this recalcitrant environment. Volatility is indicating the haste of change throughout the globe, and one of the reasons for volatility is high dynamism. Uncertainty denotes an environment that is difficult to predict and project. Complexity refers to an ample quantity of factors to be taken into consideration. Ambiguity, on the other hand, applies to the absence of clarity (Kraaijenbrink, 2018). In figure 4.1, the image illustrates the adversities that a potent leader has to contrive ingeniously in the 21st century and future.

Figure 4.1: Augmented difficulties that challenge leaders of today and future



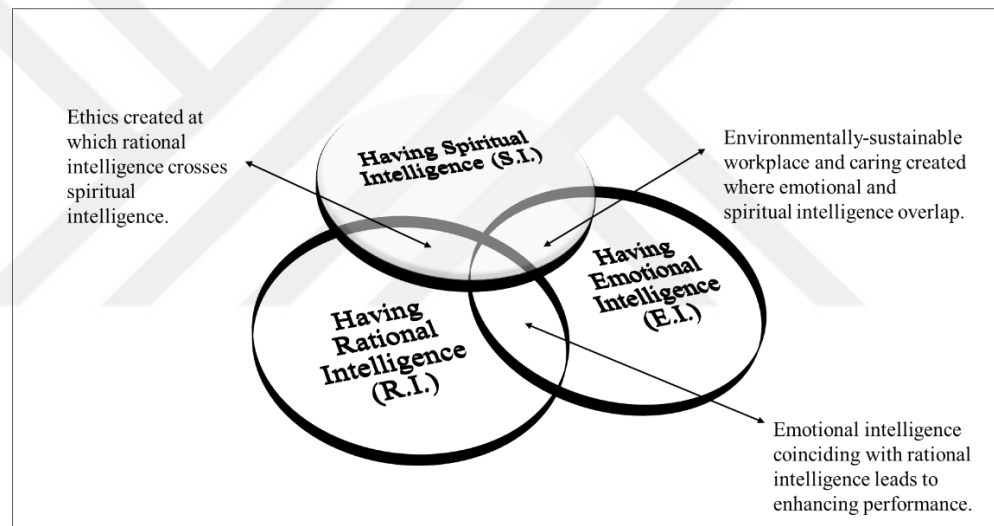
Source: Adapted from "What Does Vuca Really Mean?" by J. Kraaijenbrink, 2018, *Forbes*. Copyright 2018 by Jeroen Kraaijenbrink.

Along with these increasing challenges which make it hard to design the future, leaders are having to gain new skills and researchers are studying to discover and find out which new qualities fit well into the current situation.

And against those negations that are causing to noncompletion of tasks and impeding or hampering the advancement, conversely, each skillset is covering and removing an inability of the everyday manager and transforming an ordinary individual into a capable leader.

Over time, new skills expected from the leaders, and the terms assigned to define these skills. Transpersonal is one of these terms, which refers to going beyond the individual.⁷ As a transpersonal leader, on the other side, the individual needs to learn counterpoising rational intelligence along with emotional and spiritual qualities (Grant, 2020, pp. 43-44). In figure 4.2, the diagram illustrates the abilities and set of skills that a transpersonal leader needs. And which business dimension affected by the overlap of these qualities.

Figure 4.2: Transpersonal leader counterpoising different types of intelligence



Source: Adapted from "Excellent Leadership Is Transpersonal," Grant, 2020.

An individual's spiritual and rational intelligence combination guides this leader to be ethically responsible. On the other hand, while emotional intelligence coincides with rational intelligence, the leader motivates employees to enhance performance. When spiritual and emotional intelligence overlap, it is leading a sustainable environment. And, any individual having all these characteristics and traits is excelling as it would be expected.

⁷ Merriam-Webster, (n.d.). Transpersonal. In *Merriam-Webster.com dictionary*. Retrieved March 17, 2020, from <https://www.merriam-webster.com/dictionary/transpersonal>

There have never been more research and analyses than today related to effective leadership attributes, adaptation is an important factor to be successful in the global markets. And transformational leadership is an exemplary model that gives the potential to avail all stakeholders of the organizations (Giroux & Mclarney, 2014, p. 863).

Not hierarchical but collective leadership is more convenient today. Being an omnipotent ruler is no longer useful—trying to have unlimited authority over people—and trying to be an omniscient leader, who is aware of all, is also obsolete. Leaders must be ready to collaborate with others who are better than them. The best properties that leaders have are soft skills such as communication, focusing, and openness. Another indispensable characteristic that must be possessed is the adaptation to the change. On the other side, key variables for foreseeing a person's potential to become a leader: insight, engagement, determination, and curiosity. Such behavioral necessities are creating terms such as Chief Behavioral Officer (CBO). Performance is an outcome of behavior, so Chief Executive Officer, on the other hand, should adapt to become a Chief Behavioral Officer (Rodríguez et al., 2019, pp. 22-24).

4.4 AN INSIGHT INTO the 21st CENTURY LEADERSHIP: The LAST PHASE of LEADER ADAPTATION

The status quo of the leadership may give a comprehension of its prior distinctive facets through the revolution it exposed, and it lights the way for comprehending the leadership's future.

Servant leadership originates from very earlier periods, however, the studies that measure its potential majorly depend on the last two decades. Modesty and meekness perceived as its weaknesses in societies at which domination is stronger than sharing power with others. Despite this perception, servant leader has outstanding characteristics: listening to the people, empathy, helping others, mindfulness, convincing, conceptualization, prescience, stewardship, devotion to the people's development (Gandolfi et al., 2017, pp. 351-356). Learning these abilities can be a lesson from the past. These characteristics, which may well be a part of qualities that conforms to the 21st-century leader, may bring harmony. These sets of skills can also balance authoritative leader styles into more adaptive ones.

Accreting the complexity of leadership roles requires an effective leader to acquire new behaviors and to enact them. Neither the tendency to depend on past only nor avoiding to use the obtained experiences in the past will bring about success. Instructing new leadership behaviors necessitates a “behavioral protocol,” which consists of heuristic rules for following under a certain situation. These rules, after defining the frame of contingency that the leader surrounded, will shape the behaviors. Gaining these rules makes the leader pass beyond knowing but verily doing (Grigsby, 2015, pp. 125-128). This training includes a set of specific questions, keywords, phrases, sentences, and methods with psychological aspects; these effectuate leader’s orientation and engagement to the new behavior.

Behaviors characterized by being trustable, showing confidence, providing feedback, and proactively approaching the problems are ameliorating workplaces and well-being of employees (Clarke, 2013, pp. 26-33).

Respecting the employees, including team members into the matters (discussing work-related functions, inclusion), either modeling behaviors that team members will repeat or displaying the methods to complete various tasks, rewarding them for their performance, and improving their strengths. These behaviors are key for leaders to keep their most productive staff (Smith, 2019, pp. 55-58).

According to the research done by McKinsey & Company, which delves into leader behaviors and covers 189,000 employees in 81 different organizations located at distant geographical areas (Latin & North America, Asia, Europe) from different industries (real property, consulting companies, government agencies, energy sector, agriculture, insurance companies, and mining industries, which are ranging 7,500-300,000). Among 20 options that are chosen from academic resources and company experience, only four of them have been the most effective behaviors, account for 89 percent, and associate with leadership success. Those are being supportive, strong result orientation, seeking different perspectives, and problem-solving efficiency (Feser et al., 2015).

A piece of research that took place in approximately 20,000 people—conducted with Harvard Business Review—demonstrated that the essential behavior to enhance the influence and efficiency is respect. Respect favorably correlated with being a leader, and

no other behavior had a greater effect on employees in terms of their involvement and commitment (Porath, 2015).

Technology, more than ever, is becoming a key element in shaping leader behaviors. With the revolutionary technological advancement, leaders are developing too. Because they find themselves in an environment, which forces them to challenge and adapt, makes them embrace new phenomena, new models, and new styles. Virtual, digital, disruptive leadership styles, and leadership 4.0 concepts have risen in the last few decades or even more recently.

Leadership 4.0 is about linking goals of a business to organizational structure, aligning employees in this new structure, and creating a digital transformation plan accordingly. For being digitally transformed, leaders need to equip themselves with experience and skills. Leadership 4.0 also refers to a digital leader that creates teams, keeps this team together and committed; a leader who is innovation-oriented, tolerating risks, and who is incessantly improving (Bawany, 2019, p. 28).

In these times, finding talented people and increasing their skills for being a leader is certainly arduous since leaders not only need to adapt their style and organization to the surroundings but also obtain these capabilities that they have not needed before. And research conducted by MIT Sloan Management Review and Deloitte Digital related to digital business, globally covering 4,300 executives, demonstrates that 68 percent of executives think their organizations require new leaders to be competitive in the digital era. And the executives listed common behaviors of most effective digital leaders, respectively: delivering vision and purpose (direction), a business environment suitable for experimenting (innovation), encouraging people to look from different perspectives (execution), getting them to collaborate without boundaries (collaboration), influencing employees to follow the leader (inspirational leadership). Technical skills, on their own, are not preconditions for potent digital leadership, by its nature (Kane, 2018).

The habitual face-to-face interaction develops new angles since the term propinquity has gained a new sense. The communications remotely take place via various means of technology in the virtual environment. Traditional communications that are occurring in the physical world are becoming less routine and less effective in the globalizing world. And organizations are aiming to find growth opportunities and looking for ways to be

global, so traditional leadership that includes tête-à-tête conversations and in-person meetings may cause them to get drawbacks in finding an international competitive advantage. Leadership behaviors and dynamics of effective virtual organizations are motivation and inspiration, concern for humans, trust, training, and communication (McCann & Kohntopp, 2019, pp. 26-29).

Self-disruptive leaders have exceptional qualities and behaviors, these future-ready masters will guide organizations to adapt, collaborate, and excel in these challenging times. According to Korn Ferry Institute's research, which conducted among 150,000 leaders for analyzing leadership profiles, future-focused and effective leadership has five key qualities. These skills associated with a country's capability of innovation and a company's probability of being a praised brand. For companies to be successful in a rapidly-changing environment, a new leadership style is necessary. As per Korn Ferry Institute, the ideal leaders of the disruptive business world will be self-disruptive leaders. These leaders appraise the flow of experience and information, and they master at opportunity creation. The percentage of leaders who carry the properties of a self-disruptive leader is considerably-low, at 15 percent. So, businesses immediately require to develop new leaders. Chief executive officers' skill sets are very important for an organization's achievements, according to a piece of research, which conducted by Korn Ferry, 83 percent of analysts and investors emphasize that a CEO play a critical role at an organization's achievements. According to the majority, high-level skillsets also required for C-level executives—retinue—and senior leadership team for high company performance. On a global scale, 67 percent of investors think the current leadership will not answer the needs of the future. Self-disruptive leaders demonstrate characteristics such as learning agility, self-awareness, intelligence, result-orientation, and humbleness. The core concepts that leaders need to comprehend for accomplishing tasks related to the business listed: Anticipate—anticipate refers to the ability to defining interrelated conditions of business. Drive—drive means keeping people motivated. Accelerate—using agility as a means. Partner—enabling the share of ideas and creating partnerships. Trust—using relationships as a means for increasing employee performances (2019).

4.5 FROM BEGINNING of the INDUSTRIAL REVOLUTION to DIGITAL ERA

Like all the other organisms, leaders communicate with the outside world, and they especially play an important role in shaping the environment. Leaders, as decision-makers, influence it, and this influence is including the businesses. As leaders affect their surroundings, they get reactions back. Thus, the outside world impacts the leader, and the circumstances turn out to be mutual.

Technologies, as scientific knowledge and designed machines, are becoming more important means. The world has come to a point at which technologies are considered indispensable factors. Under these circumstances, technology comes to the fore. And technological advancement is not only affected by leader decisions but also impacts leaders' behaviors, decisions, insights, lifestyles, and it even impacts leaders' selves. At this particular point, technology and leader mutually interact, hence technology becomes a subject in finding effective leaders and the key behaviors that are creating them.

We are living on the brink of a technological revolution that radically changes the ways that we live in, work, communicate. In its size, ambit, and turmoil this transformation will be different from everything that humans ever experienced before (Schwab, 2016).

Industrial revolutions added new sources and resources on former revolutions used, the first one applied steam power and water for mechanization of the production, the second revolution used electric power for realizing the mass production, the third employed electronics, information technologies for the automatization of production, and the fourth industrial revolution is currently constructing on the third one ever since the digital transformation that has been taking place from the middle of the last century. This digital revolution particularized by a fusion of technologies that are making the lines vague among physical, biological, and digital spheres. The three main reasons that digital transformation is not the only extension of the third industrial revolution but also a distinctive period: the impact of systems, speed, and scope (Schwab, 2016).

In figure 4.3, the infographic illustrates the dominant pieces of information and types of productions that are driven by this information during the four industrial revolutions.

Figure 4.3: Core concepts of four industrial revolutions

Revolution	Year	Phenomena
	1st 1784	Water, steam, equipment for mechanical production
	2nd 1870	Electricity, mass production, and division of labor
	3rd 1969	Automated production, information technologies, electronics
	4th ?	Cyber-physical systems

Source: Adapted from “Navigating the Next Industrial Revolution,” by B. von Loebell, 2015, *World Economic Forum*. Copyright 2015 by World Economic Forum and Benedikt von Loebell.

4.6 GLOBAL CHALLENGES of DIGITAL TRANSFORMATION

The human mind is more adapted to linear alterations, however, digital transformation has a rapid exponential change, especially in the last few decades. The processing power, communication speed, and storage capacity of data have increased massively. Additionally, technological advancement is so blistering that it is hard for people to keep pace with it. This revolution was ever so disruptive in human history, so it is bringing various challenges to the people. Every day, new gadgets, instruments, and machines are integrating into humans’ life, hence people are needing to increase their learning agility. Leaders, as important parts of this world in all senses, are being the primary components who need to adapt and evolve most quickly since they are the role model for the followers. So, their perception and embracement of these challenges matter substantially.

In technological terms, disruption means challenging the existing state—status quo—by the creation of a new market or technology. The term disruption applies to novelties that improve on products that the market does not expect. This challenging phenomenon, the disruption is arguably a natural product of a free-market economy. The fundamentals of

digital transformation and its essentials appeal to the power of processing, speed of communication, and storage capacity of data.⁸

Recently, digital transformation has become a term used at the utmost. In essence, it refers to ceaseless deployment and progression of new technology to meet changing business environment and customer expectations. From employees to clients, customers, this transformation directed by the expectancies of all the individuals that are related to business. Businesses that fail to make innovations now will endure a competitive disadvantage eventually—progress in technology means progress in commerce (White, 2019, p. 19).

According to deep interviews that have done with 30 top leaders by Drucker School of Management, in large corporations such as Siemens, Lufthansa Group, Fiat-Chrysler, Bertelsmann, Daimler Group, Otto Group between 2017 and 2018; interviewees addressed questions about their perspectives, experiences, strategic approaches, and challenges that they are dealing related to the digital transformation processes. Nine common challenging factors identified, which could generalize for any organizations within these scopes. These challenges, the legacy refers to the far-flung efforts for the integration of new technologies to former infrastructures. Another challenge is resource allocation. Agility—finding agile mindsets, creating an agile team, and finally, reaching an organizational agile structure. Ambidexterity challenge is bringing a balance among the legacy infrastructure, legacy business (from past to now existing systems and existing way of doing business), and innovation. Using start-up companies as a means for creating new ideas, cooperating with them—creating partnerships. The challenge of connectivity is crossing the business's borders for creating a learning environment. Another one that has been founded is governance. On the other hand, the functional identity is a challenge that requires reconfiguring the collaborative interactions of traditional corporate functions. People are identified as the last challenge, and it refers to creating surroundings for people so that they can build digital skills (Deiser, 2019, pp. 43-56).

⁸ University of Virginia & Boston Consulting Group, (2018a). Module 1: How technology changes business. In *Digital Transformation*. Retrieved April 17, 2020, from <https://www.coursera.org/learn/bcg-uva-darden-digital-transformation>

4.7 GRASPING TRENDING CONCEPTS of the DIGITAL ERA

The digital transformation brought and keep bringing new concepts to people's lives, which are requiring adaptation skills. Leaders, as the important parts and the driving force of the societies that they belong, are being the primary personages that need to adopt the processes and adapt to the behavioral dimensions of these phenomena, even in the earlier stages of the trends. As usual, leaders play a role, particularly, a role in the propagation process of these thoughts, technologies, and transformation. The technologies can sometimes be easy to comprehend and employ, however, they can be more complex and require to exert more effort in other cases. Some of these spearhead technologies that might bring difficulties in grasping them or complexities in the application. These can list as systems that include cyber-physical elements, the phases that big data pass, creating human-like intelligence, manufacturing techniques that used for advanced, creative, and complex products—additive manufacturing, three-dimensional printing.

Cyber-physical systems (CPSs) energized by the rise of technical systems in which interplay between computing systems and the outside materialistic world were the central points; it adds new capabilities to the physical systems by the use of computation and communication. This term introduced in the United States of America, in the early 21st century. CPS can have a minuscule or massive scale, it ranges differently, and it is crecscively being difficult to pinpoint systems that are not cyber-physical since the digitalization is aggrandizing in people's lives with penetration of electronics and software. By its nature, the term is multidisciplinary, and CPS has multiple socio-technical implications. As per the primary importance, these systems can have four characteristics. CPS depicts the integration of objects and embedded systems with information technology and communication—it stated as the technical emphasis. Cyber-physical system aspects defined as properties of systems, governance, and having applicable standards. The creation of such a design requires a careful study to ascertain a favorable level of automation. The life cycle of the system refers to the phases from the beginning of design that has no integration in the management of product or service until the complete integration including collecting data back from a system (Törngren et al., 2016, pp. 4-5).

Humans are leaving physical and digital footprints in everything they do and experience. These digital and physical footprints are making humans' behaviors more predictable for future references. But eventually, big data is not only about humans, despite people are making an important part of it. These footprints can be related to systems, objects, and other living creatures. In addition to this, data, as a very important factor of digital transformation, is passing various phases. Along with systems and machines, these phases become criteria in understanding the dimension and scale of digitization: the exponential growth of data processing, data communication, and data storage. Another debate has risen and is increasing its influence, which is data security.

The big data's attributions are that they have a large quantity (volume), their communication speed is high (velocity), they have many forms (variety). And the term data may have two following meanings. Obtaining information by experiment for solving problems and making decisions or what stored in computers (Kinoshita & Mizuno, 2017, pp. 91-92).

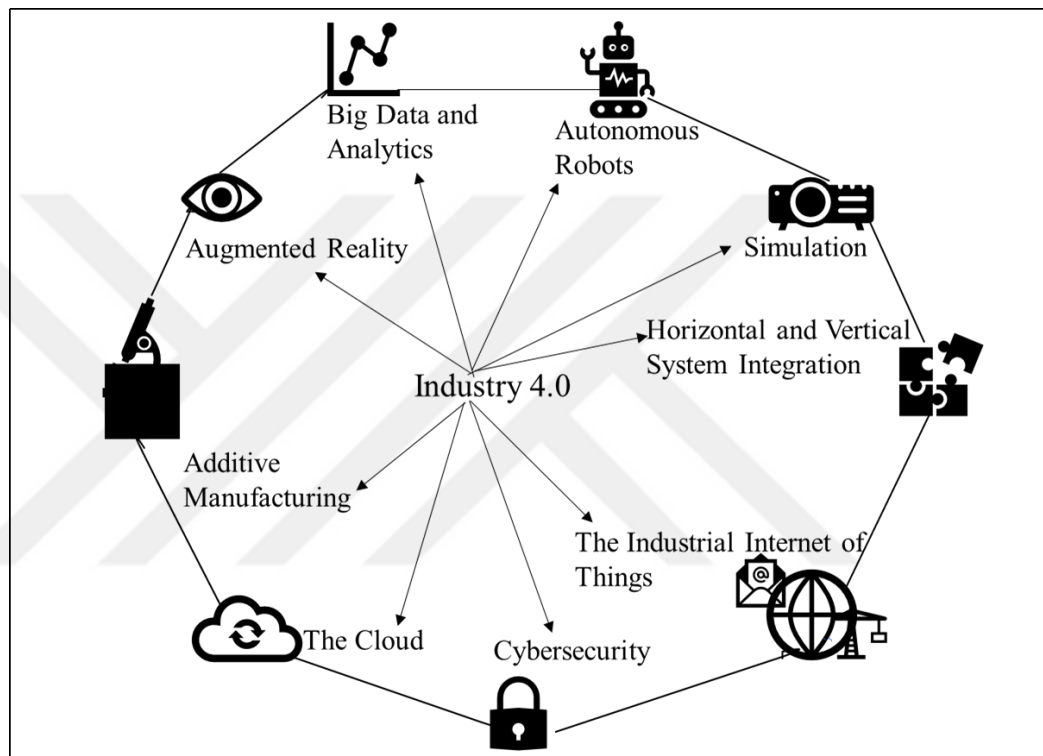
The ability of a system correctly to construe data from the outside world, learn from them, and using these learnings to accomplish specific tasks via flexible adaption. Artificial intelligence (AI) instituted as a discipline in the 1950s in the academe. Half a century, it remained without enough practical interest. However, it has become a part of business life and public conversation owing to the rise of big data and computing power, as of today. AI classified into types: It can be human-inspired or humanized AI, it can simply demonstrate analytical skills, all depend on the types of intelligence exhibited (the intelligence can be cognitive, social, or emotional). Classification can also depend on its evolutionary phases (superintelligence, general intelligence, or artificial narrow). What is common in all of these types: Once AI becomes the mainstream, it stops being considered as intelligent, which called the AI effect (Haenlein & Kaplan, 2019, pp. 5-6).

According to Micheal Omotayo Alabi, the process that operates layers upon layers for designing and creating a product by following a three-dimensional model, on a digital device, called additive manufacturing (AM), which also referred to as three-dimensional printing—3D printing (Information Resources Management Association, 2020, p. 503).

According to Boston Consulting Group, manufacturing companies are currently using advanced digital technology, however, industry 4.0 will radically transform the

production processes. Industry 4.0 will generate higher-level efficiency, and it will change the ordinary manufacturing relationships among parties (customers, producers, suppliers, distributors, over and above human and machine). In figure 4.4, the image illustrates the building blocks that are shaping industry 4.0, which are especially keeping the agenda of leaders busy.

Figure 4.4: Current trending technologies which constitute primary components of industry 4.0



Source: Adapted from “Embracing Industry 4.0 and Rediscovering Growth,” “Nine Technologies Are Transforming Industrial Production,” by Boston Consulting Group, n.d.⁹

⁹ Embracing industry 4.0 and rediscovering growth, (n.d.). Retrieved May 09, 2020, from <https://www.bcg.com/capabilities/operations/embracing-industry-4.0-rediscovering-growth.aspx>

4.8 TECHNOVERSAL LEADER

Is a leader who uses technology effectively. This leader is an inclusive, universal leader who sensitively embraces people and nature, and possesses a set of distinguishing skills and behaviors.

While deriving the name, two words have been inspiring: *technology and universal*.

Depending on the above definition, primarily, three constituents can be detailed further.

Using technology effectively and being an inclusive, universal leader can be interlinked. Thus, not the leaders who are vulnerable to become enslaved by technological disruption, but the leaders who exploit technology by considering factors such as plants, animals, and humans can serve the purpose of creating a better world. Because while industrialization and the impacts of new world order on nature and living creatures considered, it becomes clear that the world needs business leaders who have consciousness and sensitivity for other living creatures and nature along with humans. Coming to the skill set and behaviors, they narrowed down enough to be achieved by an individual who aims to excel in leadership. And they have assigned as a result of this research. Analyzing these behaviors with some challenges will reveal their significance better. In table 4.3, it emphasizes the key behaviors and skills that can be adopted by individuals, who aim to excel in today's and future's leadership and just a part of challenges that these behaviors can respond to and overcome.

Table 4.3: Technoversal Leader overcoming challenges by employing key behaviors

Challenge of Digitilized World	Leader's Responsive Key Behavior	Outcome
Volatility, haste, dynamism	Agility	Behavior allows the leader to act quickly.
Complexity, variety of factors	Problem-solving-efficiency	Skill guides the leader in setting an algorithm for solving complexity.
Uncertainty, an environment difficult to predict	Adaptation	Behavior prepares the leader to become mentally ready for a new and uncertain environment.
Ethical concerns of digital transformation, collective leadership, leading a more expert employee, sensitivity to nature	Respect	By respecting employees, the leader gains their respect and manage expert employees. Behavior adapts leader to a collective leadership rather than a hierarchy. And finally, it helps leaders to have the sensitivity to nature and environmental sustainability.
Data-driven mindset, technical knowledge	Technology	Skill allows leaders to have a more data-driven mindset.
Ambiguity, absence of clarity	Seeking different perspectives	Skill allows the leader to use the power of different minds, teamwork and having a broader and stronger view against ambiguity.

Source: Table 4.3 produced and prepared by Kapucu, H., 2020.

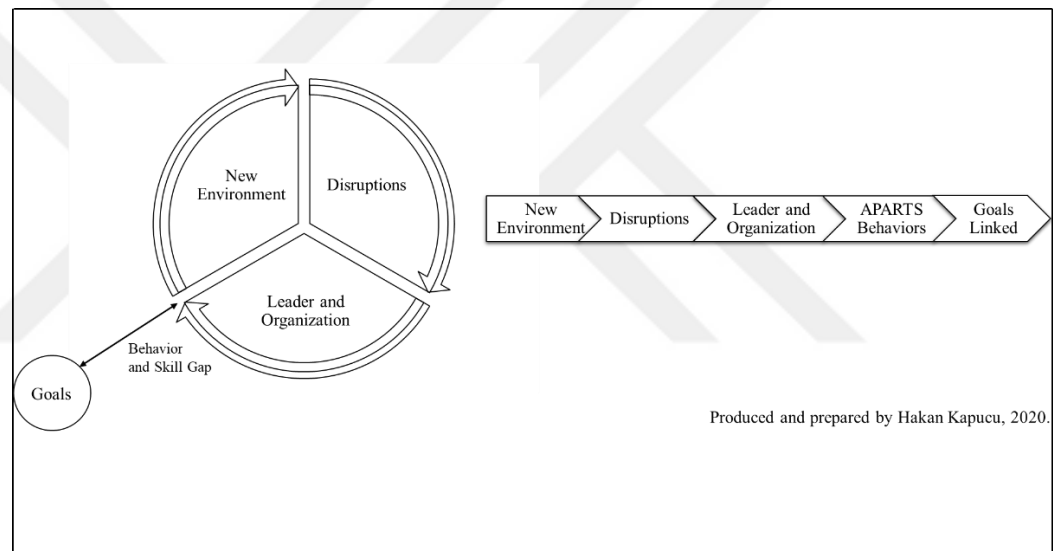
In figure 4.5, the chart illustrates the new environment that involves digital transformation. This new environment creates vicious cycles caused by various disruptions, which may generate low outcomes because behavior and skill gaps can cause externalized organizational goals, which makes the goals unreachable. In figure 4.6, the diagram illustrates filling this gap by APARTS behaviors and linking leader and organization to the goals by breaking this unproductive cycle. APARTS stands for agility, problem-solving efficiency, adaptation, respect, technology, and seeking different perspectives of Technoversal Leader.

Figure 4.5:

Vicious cycle of a disruptive environment

Figure 4.6:

Technoversal Leader breaking the vicious cycle



Source: Figures 4.5 and 4.6 produced and prepared by H. Kapucu, 2020.

5. FINDINGS

For people, the changes that are surprising at the beginning become ordinary within time. The expectations relevant to technology are so increased that the generations born in the 21st century are not easily surprised. Interestingly, the disruption whose dimensions are not easy to perceive became part of daily life. Phenomena and technological advancement conceptually become ordinary. Along with time passes, leaders get to deal with people who have such a mindset, with high expectations. In their study, Mihai and Cretu detail the question, the new generation who grew up with intensive use of information technology are changing the corporate culture and leadership models, who are at the center of value creation. And they ask, how a leader can handle these changes and utilizes the potential of this new generation (2019, p. 65). Leadership demands different masterfulness and high leverage to lead effectively in the digital era. And, these expectations are increasing the key characteristics that defined in literature and business environments.

A recent study that reviewed literature has found 23 characteristics for digital leadership, as a result of calculation by the rate of mention. The difference between the ratios of each characteristic mentioned is either close or equal to one another, except innovative visionary and networking intelligence (Klein, 2020, pp. 894-895). Considering the increasing number of leadership styles and the abundance of skills and behaviors that assigned to each style as necessary to adopt, resulting in an excessive amount of data which makes it hard to choose the key behaviors that should be adopted by leaders; for a leader, in earlier phases of its career, which may be confusing. And, this may be a reason for that a sufficient number of leaders cannot raise. And as reported by Korn Ferry, the number of leaders who possess the necessary skill sets and behaviors is not enough (2019), thus, the majority of leaders think that their organizations need new leaders to be competitive in the digital era, according to Korn Ferry (2019) and Kane (2018). And yet, research with a strong focus on employees' and leaders' thoughts, which observes a large population and finds common key behaviors *in different pieces of research*; the research, then, can reduce the number of key behaviors to a reasonable point so that they become adoptable and achievable by leaders. And finally, research can show a clear path to potential leaders related to the adoption and choice of these key behaviors and

characteristics. This research has a goal to show a clear path depending on an *objective perspective*.

The leader of today and the future is the one who passes beyond traditional and contemporary definitions. This new era leader is the one who brings together former and current qualities of leaders. As a business leader, she or he should give special consideration not only to business but also to all living creatures, considering the dimensions of sustainability: economic, social, and *environmental*. The new era leader must use technology as a means of serving others and being successful, and she or he must not become vulnerable to become enslaved by technological disruption. Few styles may show a deep sensitivity to concern with all living creatures and the environment. For example, a servant leader (Gandolfi et al., 2017, pp. 351-356), a transpersonal leader (Grant, 2020, pp. 43-44), or an altrocentric leader (Jakubik & Berazhny, 2017, pp. 471-483). Despite the importance of this quality, it must be added that they may be missing other necessary qualities. Many qualities and behavioral patterns, on the other hand, morph into new forms along with exponentially-growing digital disruptions. Leaders' undertakings continually alter, and it results in an observable change in the leadership continuum.

Some challenges to overcome digital disruption overlap with the skills and behaviors that the leaders of the digital era should possess. I.e., leader's relevant ability or behavior becomes responsive in creating solutions to the problems. Creating an agile team and reaching an organizational agile structure, agility is a challenge for digital transformation (Deiser, 2019, pp. 43-56) and a must-have behavior for leaders' success (de Smet et al., 2019, pp. 28-34).

Volatility, uncertainty, complexity, and ambiguity (VUCA) define the environmental conditions of recent years (Kraaijenbrink, 2018).

VUCA factor is just one of the symbols referring to the current challenges, and each of which can be related to confrontations in becoming a leader in the digital era. And many business leaders have to be prepared against them. So, a leader who possesses the *agility* behavior can respond to the haste and dynamism, which would let the leader take necessary actions in the volatility. Uncertainty denoting an environment that is difficult to predict and to project can be solved by *adaptation*, which can make a leader ready to

many conflicts that may arise. *Seeking different perspectives* and *problem-solving efficiency* can answer the complexity referring to an ample quantity of factors to be taken into consideration and the ambiguity meaning the absence of clarity. These four key qualities may well solve more problems and overcome the challenges of today and the future, like VUCA or different than them.

Gamification may be a good tool for raising leaders, yet the fast-paced environment obliges leaders to adapt to new behaviors. Thus, the games require up-to-date content and design that match the needs of today's leadership. As a long-term strategy, these factors can be keys for companies that are investing in gamification and for leaders' successes who become part of these programs.

With digital transformation notably, the expectations from leaders highly increased. For the sake of creating effective and efficient leaders, and not losing time while creating new era leaders, the behaviors to focus and to improve must be well-defined. One of these skills is technology since this era also requires leaders who understand it. Even though technology knowledge alone does not appear to be enough for leaders to control, leaders still need to adopt and advance it. Because leaders will have to deal with data-driven decision making, which is a challenge for leaders (Hesse, 2018); thus, the new role of a leader imagined as a data and information mentor (Jakubik & Berazhny, 2017, pp. 471-483).

The last two decades and even earlier, when the question addressed: Which leader or style is effective, the probable answers would be the leaders with vision or charisma or transformational, transactional, or authentic leadership styles could be probable answers. They may also matter today. But at the current position of leadership continuum, it is obvious that *agility* (de Smet et al., 2019, pp. 28-34; Korn Ferry, 2019; Neubauer et al., 2017), *adaptation* (Deegan et al., 2020; Korn Ferry, 2019; Neubauer et al., 2017), *seeking different perspectives* (Kane, 2018; Feser et al., 2015), *problem-solving efficiency* (Feser et al., 2015; Clarke, 2013, pp. 26-33), and respect (Smith, 2019, pp. 55-58; Porath, 2015) carry vital and primary significance in leadership. They are dominant, and they appear to the same for a long time in the future.

The Management and Leadership Summit has mediated to find common behaviors of successful leaders, which has explained before (chapter 4.2.1). And, it has brought out certain implications about leaders' views for digital transformation.

A Chief Information Officer pointed out the relation between digitalization and the human factor. "Digitalization is not only to exploit technology but also it is change management of human factor." And "The human mind is resistant to exponential change, and it is open to linear change. Corporations are trying to get used to digital [exponential] change." (Leader GE).

A sourcing director has emphasized the importance of this change and digital transformation. "Corporations that cannot keep pace with technology and digitalization will disappear between three to five years." (Leader SK).

A CEO, on the other hand, thinks that investment in technology would return. And he lays stress on that, "If leader invests in technology, economy pays back." (Leader CD).

Another CEO answered in return of my question: When you look from the exponentially growing technology framework, what are the primary characteristics that today's and tomorrow's leaders should possess?

Leader who values human, who is more humane, and who has a vision. The human becomes more valuable as technology advances. There is a generation that does not agree. Finally, what makes a difference is human rather than technology, yet leaders should follow technology. (Leader CA).

And the findings from the interviews, the last stage, interviewing leaders has led to some specific details, and each question has also given a general understanding. Overall results and details of the answers respectively listed below (from the first question to the last one).

The interviewees' thoughts regarding the *key behaviors that a leader should possess* shows similarities with the other stages of the research. They think that the leader in the digital era and the future should possess agility, problem-solving efficiency, and technology skills. Additionally, being innovative has been another point indicated by leaders. A CEO says:

After the 2000s, especially in the last decade, digitalization was very rapid. Regarding the employee competencies, along with university education and language, social media use is very effective. New age leaders will be the ones who understand and exploit digital transformation. (Leader GA).

Against the question about *difficulties handling in new technologies*, their common problem interestingly shows up not as the technology itself but organizational culture, the cultural resistance that individuals demonstrate. Adaptation is another problem to point. A company owner provides a different point of view than other leaders for this question:

Productivity increased with industry 4.0 and the necessity for labor decreased. Thus, places like Europe that have high labor costs are becoming competitive owing to industry 4.0. For some products, the price difference is decreasing. The companies which do not invest in technology cannot easily sustain. (Leader EA).

About *the leadership style best fits in today's rapidly-changing environment*, except for a few leaders, no leader gave leadership styles defined in the literature. They majorly provided behaviors and skills instead. Few still think autocratic leadership can be valid. Yet, the majority think leaders must be adaptive, democratic, transformational, and a leader who looks for different opinions. A company owner says, “Our friends’ [employees] educational backgrounds and behavioral patterns advanced much, so we need to be sharing. We must *respect* people’s decisions, and we must value their perspectives. The new generation has very good decision-making skills.” (Leader OCC).

Leaders’ thoughts *about digitalization and digital transformation* are interesting because they have recognized that digital transformation is inevitable, yet almost half of leaders have negative thoughts about it. This is because of limited knowledge and limited use of advanced products of digital transformation by many leaders, or social media is what is the dominant factor in these leaders’ minds when digital transformation mentioned. A sales manager worries, “Maybe, in the next five years, the growth of digitalization will be faster, this situation scares me sometimes.” (Leader MG).

A key question in understanding digital transformation and leader interaction, *if digital transformation affects the leader behaviors*. Leaders have given a direct answer to this question. Over 92 percent of leaders think that digital transformation has effects on leader behaviors. A company owner explains this interaction:

Absolutely, it has effects. Owing to digital transformation, distance education and remote management concepts have become part of our life. Leading remotely is part of our lives. There will be differences between online and face to face leadership. The new generation will be more successful in leading people remotely, and this is not something that the old generation can handle. (Leader OCÇ).

Basing on their company and industry, a group of interviewees thinks that digitalization makes their business practical and productive. So they intend to effort to become digital. But, there is also another group that has limited use, that is new to it, or that even thinks digital transformation is not necessary. A CEO says, “Digitalization is very new in our country. Companies have problems regarding the integration of digital transformation. Understanding digital transformation, reaching specific technologies, and interiorizing it, will take at least 10 years from us.” (Leader GA).

Another key question in understanding digital transformation, leader, and follower interaction, *if digitalization brought changes in follower expectations*. Over 92 percent of leaders think that follower expectations changed with digital transformation. An Engineering Department Manager observed:

Along with digitalization, the productivity of the operators in control of machines especially, who works as per targets, can easily be measured, and a fair wages policy can execute. Leader’s followers expect the leader to use the digitals that used for measuring the performance. (Leader SY).

While leaders consider *their role*, digitalization means productivity for them, yet a few leaders see digitalization as a means to track employees or as workload. A Mechanical Engineer and IT Responsible explains, “Digitalization means the increase of my workload, everything asked to me, and I am to behold responsible for all the solutions.” (Leader HE).

When they have told their feelings *about the digitalization’s meaning for communications in private life and job*, the majority of interviewees either have complained about digitalization or they have indicated that there is not a private life and job distinction, a Research and Development Manager divides the answer of this question into private life and job effects, “Private life, the rapid advancement of social media and digital channels cause violation of private life and customs and traditions to suffer. These are very important, must be controlled. Business life, it means to speed, effectiveness, and rapid access to data.” (Leader SA).

Leaders, in their companies generally, either *recognize further digitalization* that is not broad in scope. Or they do not recognize any further digitalization at all. A Sales Director says, “I do not have any ideas to do any applications. We neither have an application nor a software.” (Leader ŞG).

A significant question for understanding how leadership has changed, and *how digitalization will influence it*, has been another point that has given similar results to the earlier stages of this research. *Leaders believe that the digital era requires new types of leadership*. And these new-era leaders must understand technology. CEO of a company between 200 and 249 employees, who has 40 years of work experience enlightens this radical change and tells why the old-fashion leadership will be replaced:

Leadership formations will change. Instead of being charismatic or having a vision, there will be leaders who advance the skillsets and knowledge by exploiting digital channels. Yet, I believe the leaders of the future will not only depend on digital transformation for leading but also face to face communications will matter. Human is a social and psychological being. Leaders of the future must understand digital transformation and adapt it. If I raise a new leader, I prefer to raise a leader who perceives digitalization. (Leader GA).

After extracting and analyzing the text and placing it above, there are interesting findings and quotes from interviews, but some notes would be useful for having a better understanding. Leaders have rarely mentioned the advanced and trending elements (products) of industry 4.0 and digital transformation. In light of this, it would be fair to inform there is a general lack of knowledge, and there has been a narrow perspective regarding the digitalization and technology in this industry. Yet, this must be noted that all interviewees have perceived the change that technology causes. Many trending concepts of digital transformation mentioned in earlier stages of this research, and there are also other concepts. But, particularly in this industry, digital transformation has been identified with social media only and a couple of relatively-easy technologies. It is also interesting even though leaders look from a narrow framework (*even a couple of relatively-easy technologies and social media scope*), *they have noticed well that digital transformation has a deep effect on them*. Despite their framework, interviewees have also understood that leaders who do not accept technology will fail to succeed. It will also be useful to understand the intermediate goods industry is very strong in Turkey, yet it is still too early to mention digital consciousness in this industry.

6. DISCUSSIONS AND CONCLUSIONS

6.1 DISCUSSIONS

The misuse of technology, even a temporary loss of control over it, may cause dire consequences. If the purpose of artificial intelligence is replicating human emotions and behaviors, which behaviors it will copy, who the ideal human is, and will the algorithms solve frailties of human nature?

Not the one who is vulnerable to become enslaved by technological disruption, but the one who exploits technology by considering factors such as plants, animals, and humans will be more successful. A better world is possible with better leaders.

Considering technology, industrialization, and the impacts of new world order on nature and living creatures, the world needs business leaders who have consciousness and sensitivity for other living creatures and nature. Same as the skillset listed in this research has primary importance for raising effective leaders, the sensitivity of having concern for nature and living creatures that share the same habitat with people must also be considered by business leaders. Executives increasingly concern with environmental issues, basing on a survey conducted among 2,000 global managers, reported by Deloitte. Six out of 10 leaders either have focused or have programs to address resource scarcity, and 54 percent of these leaders see environmental issues (climate change and environmental sustainability) as a threat to their business operations (Schneeweiss, 2020). Yet, it is interesting that leadership studies majorly tend to focus on the leader who can excel in organizational management and the possible challenges this leader will face, and the leader's effect on the success of the economic sustainability of an organization. Studies do not adequately emphasize the leader's being immersive regarding other creatures and nature, while humanity is on the brink of such a breaking point. The business leaders' responsibilities to nature should be studied more with environmental sustainability.

On the other hand, technology ignites challenges, and then technology responds to this challenge that is created by itself, and then it creates another new challenge. In some cases, *it turns into a self-created-problem-solution cycle.*

Although their names are a direct link to digitalization, industry 4.0 leadership or digital leadership should not only limit and conceptualize to a digital environment. I.e., digital leadership should refer to a skill that needed to be adopted by different leadership styles that want to sustain in the digital era—technology and human integration skill that enables adapting to digital challenges.

When the critical points determined in the light of an objective and careful research, interestingly, the key characteristics that distinguish a good leader can be narrowed down to a quite distinct set while the number of leadership styles remains vast. The eagerness of researching to find the ideal leader can be observed from this plentiful number of leadership styles. Yet, there is still ambiguity!

For the sake of showing a clear path to potential leaders and raising new era leaders, institutions and researchers can collaborate more.

A new type of leadership is worth discussing and detailing further. In this context, I would like to offer for discussion the *Technoversal Leader*. While deciding the name Technoversal, two words have been inspiring: *technology and universal*. In the sense of being immersive, the word universal that covers having the sensitivity for all creatures and the environment and stands for focusing and adapting the key behaviors found in this research.

Technoversal leader possesses the behaviors and skills: agility, problem-solving efficiency, adaptation, respect, technology, seeking different perspectives.

6.2 CONCLUSIONS

Modern leadership theories study the recent times of the leadership. However, along with other key factors of digital transformation, the exponentially-growing processing power, communication speed, and storage capacity of data have changed the expectations from them. This revolution resulted in different skills and characteristics to come fore for leaders, which cannot easily link the above-mentioned theories since this era opens a new distinctive period of leadership and creates its leaders. These leaders have new designations, behaviors, and skills.

The nature of this new environment causes next-generation leaders to come under the influence of new leadership models, such as virtual, digital, or disruptive leadership. Or the one goes beyond traditional and solely-digital-related characteristics. This new era leader will be the one, who chains conventions to the digital era, does not become a thrall to technology but uses it as a means of serving all dimensions. Well-chosen and established characteristics equipped with knowledge and technical skills.

In terms of the environment that it creates, digital transformation is a factor that impacts leader behavior. In the last two decades, when the question addressed: What are key behaviors for leaders, or which style is effective. The probable answers could be the leaders with vision or charisma. Or transformational, transactional, or authentic leadership styles. They may also matter today. They might still be the first things that come to mind as an answer. Yet, with the radical change that the data have passed, the digital transformation has been busy with breaking this routine, especially in the last two decades. Soon, there will generally be an observable change related to the answer to effective leader behaviors and leadership styles.

Change of mindset, design of the business architecture, and communicating effectively with all stakeholders. Cultural change is one of the primary issues for leaders to handle not only in the digitalization of business but also as a more general challenge that leaders need to be prepared against and adopted in the digital era.

A primary challenge in organizations is culture and skills. The perspective and attitudes of an entire organization signify more than IT infrastructure (Oberer & Erkollar, 2018; Rogers, 2016)

There are many different opinions related to ideal leadership. Yet, agility, problem-solving efficiency, adaptation, respect, technology, and seeking different perspectives are key skills and behaviors for controlling businesses and overcoming challenges in the digital era. Because the digital era procreates difficulties such as change of mindset and culture, which urges leaders to change their behavior to become more adaptive. One of the other challenges digital era causes, which is the exponential growth of data processing, communication, and storage. This is one of the reasons why leaders need to have a data-driven mindset and adaptation to technology. On the other hand, this acceleration requires leaders to be more agile to keep up with the digital era and align their behavior to agility to become effective and efficient today and in the future.

Respectively, the terms dexterity and malleability can be related to agility and adaptation. Dexterity is readiness for physical activity and mental skill, quickness, and being malleable is having a capacity for adaptive change.

Finding talented people and increasing their skills for being a leader is certainly difficult in these times. Because leaders not only need to adapt their style and organization to the surroundings but also obtain these capabilities that they have not needed before (Kane, 2018).

For applying these key behaviors to leadership, some methods may act as catalysts. “Behavioral protocol,” (Grigsby, 2015, pp. 125-128) or gamification (Avolio et al., 2014, pp. 105-126).

The objective of this research is not to create a concept of one-size-fits-all. It aims to articulate an unprecedented example.

Along with the employment of more experts at businesses that digitally transform not to fall behind other businesses, these professionals might have more knowledge and expertise than the people who lead them. Under these circumstances, traditional hierarchical styles will need to adapt their unilateral behaviors into more participative and positive behaviors. Digital transformation may challenge and affect such characteristics of managers who are used to steer in such a hierarchical structure, yet they will have to seek different perspectives to survive.

A characteristic for leaders and organizations to adopt in the market economy is to learn. And learning agility as a key behavior to catch up with this intensive environment, in a creative economy where added value depends on learning and innovation.

The number of effective leaders is not enough, so businesses need to develop leaders. One of the reasons for not having a sufficient number of leaders can be lacking the determination of the key behaviors, thus, not focusing on skills that are primary concerns of this era, and as a cause-effect failing to develop the ideal leaders.

At various dimensions of this significant subject, gaps exist (Bolden & O'Regan, 2016, pp. 438-439; Khan, 2016; Avolio et al., 2014, pp. 105-126). In the light of *The Effect of Digital Transformation on the Leader Behaviors*, these last few years have not significantly changed the research progress at this particular subject. This represents an opportunity for researchers to take such types of research further.

The leadership conundrum requires to employ state-of-the-art methods. Digital assets can allow leaders to use the latest concepts or techniques in having propinquity. The businesses have heterogeneity, which may be another value for leaders.

Not hierarchical but collective leadership is more convenient today. Being an omnipotent ruler is no longer useful and trying to be an omniscient leader is also obsolete. Leaders must be ready to collaborate with others who are better than them. And performance is an outcome of behavior (Rodríguez et al., 2019, pp. 22-24).

Ubiquity and remotely leading people matter in the global environment.

The communications remotely take place via various means of technology in the virtual environment. Traditional communications that are occurring in the physical world are becoming less routine and less effective in the globalizing world (McCann & Kohntopp, 2019, pp. 26-29).

Digital transformation brings on serious challenges for business leaders. Leaders have to deal with data-driven decision making, disruptive changes on landscape of commercial activities, work organized via digital services, manpower with ubiquitous access to information, and this power adding new methods of communication (Hesse, 2018).

Technology as a solution mechanism to many problems may trigger simultaneous informational and environmental matters because of human errors and feelings are coming into play as a variable.

Ethical issues may arise for leaders because of digital transformation.

Information overload on employees may make the lines indistinct that separate personal and work life. On the other side, digitalization offers new possibilities like virtual teams, introduces new means of communication, increases speed and access to information, impacts power structures, thus, causes efficiency, standardization, and smart working (Cortellazzo et al., 2019, pp. 1-13).

Creating skilled and engaged teams appears as a requirement for leaders in the digital age (Bawany, 2019, p. 28; della Corte et al., 2019), and the organizations and leaders must realize that the most important challenge of digital transformation comes from necessary *talent absence* (Sainger, 2018, pp. 2-5).

Evidently, along with opportunities, digital transformation brings issues and challenges. Technology and digital transformation will continue to represent a large field in economics, it will progress by bringing many novelties along with challenges. And it will increasingly keep leaders' agenda busy for a very long time, and maybe irrevocably. So, businesses and leaders should become immune to digital transformation.

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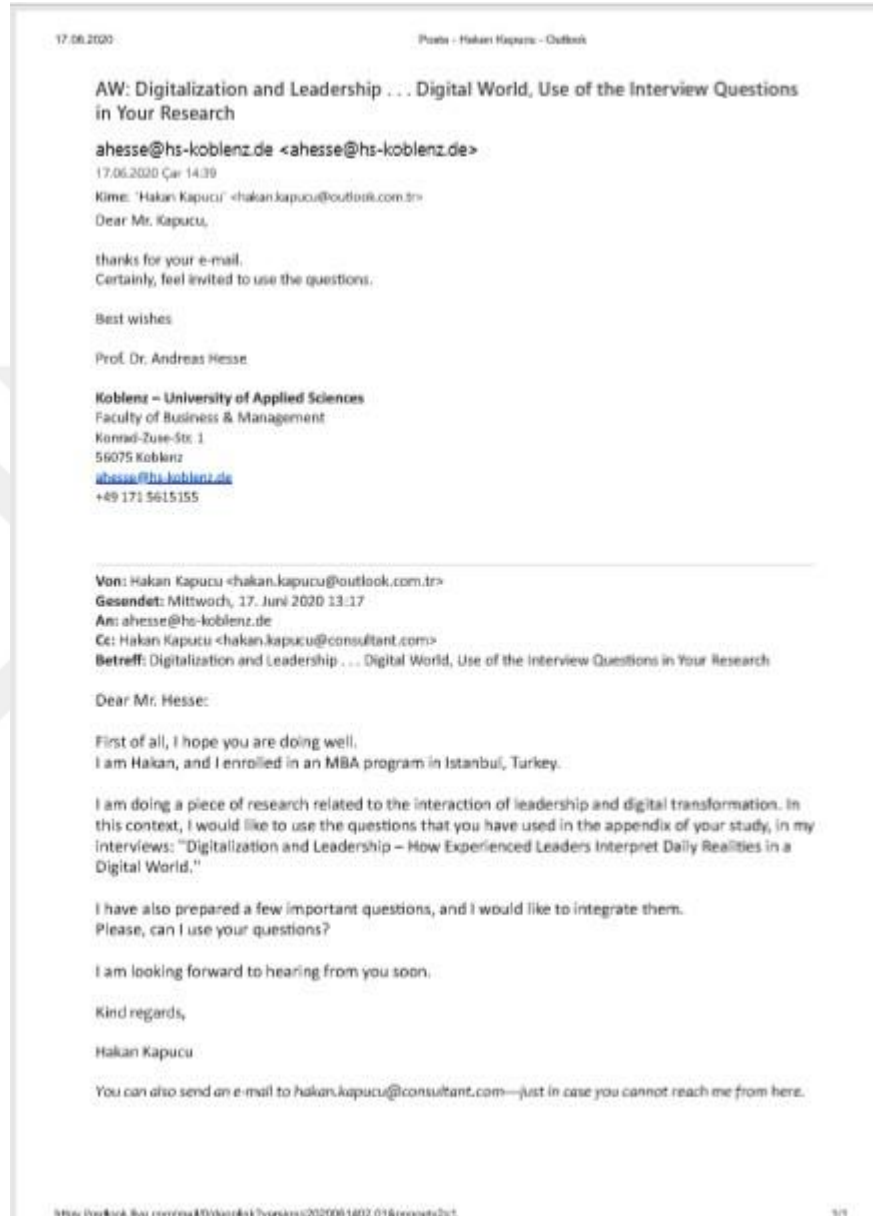
APPENDICES



APPENDIX-1, An Analysis of Leaders for Finding Their Common Behaviors

An Analysis of Leaders for Finding Their Common Behaviors															
According to the Leaders, the Set of Behaviors and Qualities That Any Leader Should Have															
		Set of Behaviors and Qualities	Being Altruist	Being Amenable	Resilience	Learning Agility	Adapt to Digital Era	Being Visionary	Teamwork	Adaptation	Being Distinctive as a Person	Agility	Being Innovative	Creativity	Emotional Intelligence
Company	Title	Name Surname													
Vodafone Turkey	CEO	CD		1			1			1					
Nestle Turkey	Business Executive Officer	SS		1					1	1					
GlaxoSmithKline Turkey	CEO	ÖK			1						1				
Pfizer Turkey	CEO	CA	1					1							
British American Tobacco	CEO	GB		1							1				
Unilever Turkey	Sourcing Unit Director	SK				1	1					1	1	1	1
Korn Ferry Turkey	Honorary Chairman	ŞK	1	1	1	1									
Phillip Morris International	Group Manager	DK			1						1				
Yapı Kredi Turkey	Vice General Director	HA					1	1							
Beşiktaş JK	President	ANÇ		1	1				1	1					
Yıldız Holding Turkey	CIO	GE				1	1								
Hayat Emeklilik and Bank	CEO	TT				1					1				
Anadolu Grubu Turkey.	Talent Management Execu	AO			1	1				1					
		Aggregate	2	5	5	5	4	2	2	4	4	1	1	1	1

APPENDIX-2, Correspondence Related to the Use and Integration of Interview Questions



APPENDIX-3, Interview Questions in Turkish and English Languages

Pozisyon: Position:	Yaş: Age: Cinsiyet: Gender:	Eğitim Seviyesi: Education Level:	İş Tecrübesi- Yıl: Experience- Year:	Ara Mal Sektoründe mi Faaliyet Gösteriyorsunuz? Evet veya Hayır: Does Your Company Operate in Intermediate Goods Industry? Yes or No:
Kısaca, Şirket İçinde Sosyal Medya ve Sosyal Yazılım Kullanım ve Tecrübeniz? Shortly, Can You Describe Your Social Media and Social Software Use and Experience in the Company?				

1 Dijital çağın ve geleceğin liderinin sahip olması gereken kilit davranışlar nelerdir?

1 What are the key behaviors that a leader should possess in the digital era and the future?

2 Yeni teknolojilere adapte olmakta ve kontrol etmekte zorluklar yaşadınız mı?
Bilhassa iş yapma biçiminize etki eden kritik örnekler verebilir misiniz?

2 Do you have any experience that you had difficulty handling in new technologies?
Can you give an example, something critical that affected your way of doing business?

3 Bugünün hızlı değişen işletme ve çevre şartlarını düşündüğünüzde, sizce hangi liderlik stili bu şartlar için en uygundur?

3 While you consider the conditions that rapidly change in businesses and the environment, which leadership style would best fit in today's rapidly-changing environment?

4 Dijitalleşme ve dijital dönüşüm ile ilgili düşünceleriniz nelerdir?

4 What do you think about digitalization and digital transformation?

5 Sizce dijital dönüşümün lider davranışlarına etkisi var mıdır? Etkisi olduğunu düşünüyorsanız bu etkileri örnek vererek anlatabilir misiniz?

5 Do you think that digital transformation has effects on leader behaviors? If you think that it has, could you tell these effects by giving examples?

6 Dijitalleşme sizin endüstriniz ve şirketiniz için ne ifade etmektedir?

6 What does digitalization mean for your industry and company?

7 Dijitalleşme işletme çalışanlarının, liderin takipçilerinin beklentilerinde değişikliklere sebep olmuş mudur?

7 Has digitalization brought about changes in follower expectations?

8 Rolünüzü göz önünde bulundurduğunuzda dijitalleşme sizin için ne ifade etmektedir?

8 What does digitalization mean for you in your role as a leader?

9 Kişisel etkileşiminizi göz önünde bulundurduğunuzda dijitalleşme iş ve özel hayat iletişimlerin için ne ifade etmektedir?

9 What does digitalization mean for your communication behavior in private life and your job?

10 Dijitalleşme konusunda şirketinizde daha ileri değişiklikler öngörüyor musunuz?

10 Do you recognize any further changes in further areas concerning digitalization in your business?

11 Dijitalleşmenin liderliğin geleceğini nasıl etkileyeceğini düşünüyorsunuz?

11 How do you think digitalization will influence leadership in the future?

APPENDIX-4, Basic Statistics of Interviews

Number of Companies	Name of Company	Title	Name and Surname	Age	Education	Experience in Years	Phone	Email	Duration in Minutes	Number of Interviewees
1		CEO		62	Undergraduate	40			52	1
		Engineering Department Manager		38	Undergraduate	13			60	2
		Purchasing Manager		35	Undergraduate	7			60	3
		Regional Responsible		40	Undergraduate	15			30	4
2		Owner		47	Undergraduate	27			32	5
3		Sales & Marketing Coordinator		38	Undergraduate	12			30	6
		R & D Manager		40	Graduate	10			30	7
4		Sales Manager		42	Undergraduate	19			30	8
5		Sales Director		46	High School	16			31	9
6		Owner		32	Graduate	10			30	10
7		Store Manager		46	2 Years University	26			30	11
8		Mechanical Engineer & IT Responsible		41	Undergraduate	16			45	12
9		Marketing Manager		31	Undergraduate	11			45	13
Total Companies				Avarage Age Years		Avarage Experience Years			Avarage Minutes	Total Interviewees
9				41,4		17			39	13