

Digital leadership as the basis of modern business

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Abstract Nowadays, due to the widespread use of Information and Communication technologies (ICTs), digital leadership is becoming a new stage in the development of both regional and global economies. A wide development and introduction of the latest novel digital technologies have become an integral part of the business, which allows to open up many new opportunities and completely “non-standard”, at first glance, business ideas and projects.

Therefore, experts in digital leadership are becoming more and more in demand, able to stimulate the team for new experiments, improve business performance and be high-tech individuals.

This paper focuses on the issue of digital leadership in the world in general and in Russian Federation in particular. We analyse recent trends and development and make some predictions for the future.

1 Introduction

In the 21st century, the latest digital technologies have an impact on all business sectors, on all types of companies operating in these segments. However, development and influence often occur with such dynamics that some markets may not be able to keep up with the technological leap and instantly disappear (Bachilo 2018; or Teece 2019). This once again emphasizes the fact that the manager or owner may lose her or his business because of the uselessness or obsolescence of he or his ideas, and the company's employees might realize that their qualifications are hopelessly old (Zielińska 2016; Markova 2018). Careful attention to the Internet, large amounts of data, automation of production, optimization or reengineering of processes, and, as a rule, the replacement of human labour with robots and modern software, that represents the future, or the breakthrough that is necessary for modern business and education (Strielkowski 2017; Strielkowski 2018; Newbery et al. 2018). Most companies are on the verge of choosing whether to become strong and competitive or to cease to exist (see Lisin et al. 2014; Akhromeeva et al. 2017).

Digital leadership itself is now completely changing the stereotypes and approaches of customer-oriented business (attracting and retaining), the flow of business processes, the organizational structure of the company and management methods (Cohen and Schmidt 2013). It is necessary to understand what advantages business should have for the formation of digital leadership. The impact of digital technologies on business and its environment forms such competencies as:

- Forecasting skills and deep understanding of tomorrow's customer needs;
- In-depth analysis of your own business and its key indicators;
- Based on the analysis, the introduction of the latest digital technologies at all stages and all divisions of the company;

- Rapid response to the replacement of standard, traditional management procedures, to modern, more "saturated", adaptively changing situations;
- Application of Big Data in business, for its efficiency;
- The use of media and digital channels that facilitate flexible promotion and feedback from customers, as well as the creation of content for these channels.

Most of the formed competencies are difficult to reflect, as the modern world business independently develops digital strategies on their basis.

In-depth analysis shows that more than 80% of the world's major business players are forced to join the race for digital transformation of their own business and thus develop a new digital strategy. That is to try much faster than its competitors to study and implement new IT-technologies in business (Grabchak et al. 2018)

Today, in 2019, fortunately, the number of modern digital technologies used in modern business is versatile and extensive, it is a large amount of data, neural networks, gadgets and mobile applications, Internet of things, smart meters, and more (Rausser et al. 2018). Widespread and widespread consumption, in the next 1-3 years, will lead to the fact that major players, manufacturers of digital technologies will no longer cope with the requirements and this will affect medium and small businesses.

High demands in modern digital technologies and the formation of its own digital strategy, leads to a huge digital freedom of business and the desire to independently dispose of those volumes and personal data that are at the disposal of the company (Revenko and Revenko 2018). Analysis of modern trends occurring in some giant companies, "bare" weaknesses and clearly indicates the negative, negative processes that inhibit business. For example, in 2018, Apple, Alphabet, Microsoft, Amazon, and Facebook were the most valuable companies in the world. Thanks to their network products, these corporations have steadily expanded and occupied a dominant position in the markets. They had all the resources they needed to innovate and accelerate the adoption of digital products. However, the analysis of the Chinese economy showed that in 2019 the development of regional companies, software manufacturers are moving companies from the TOP 10, due to privacy and ease of use.

2 Digital leadership in the modern world

Based on the Mastercard report and the school of law and diplomacy. Fletcher at Tufts University ranked the countries with the strongest business in terms of digital leadership. This rating very well reflects the progress in the development of modern digital technologies in different countries, as well as the level of business integration on customer focus (Digital Planet 2017).

The analysis shows that Singapore, Great Britain, New Zealand, UAE, Estonia, Hong Kong, Japan and Israel have become the "digital elite": these countries are characterized by a high level and fast pace of digital business transformation. Thanks to this pace of innovation, these progressive markets are an example of successful technological progress and a benchmark for the future growth of established companies. The results of the study showed what indicators were used to evaluate each state focused on digital leadership. As a result, we describe the 4 main factors that determined the pace of business transformation, namely:

- Level of business infrastructure development;
- Business demand for modern digital technologies;
- The development of the institutional environment;
- Innovative business climate (investments in digital start-ups).

The researchers proposed a way to study and measure the level of digital leadership and the speed of business development in terms of studying and implementing digital technologies. Based on this, each state focused on digital leadership can study the practices of other countries that have achieved greater success in this direction.

One can see that Norway, Sweden, Switzerland, Denmark, Finland, Singapore, South Korea, Great Britain, Hong Kong, the United States are in the TOP 10 countries with the status of "digital leader", but the slowdown in the pace of innovative business development will not ensure their primacy in the future. The study and openness of business to innovation, as well as the desire of business to introduce modern digital technologies, will help States to create a huge reserve for the future.

As can be seen from Figure 1, according to the growth rate of modern digital technologies in business and digital leadership, the countries are divided into 4 groups (Figure 1):

- Leaders. Singapore, Great Britain, New Zealand, UAE, Estonia, Hong Kong, Japan and Israel show high rates of digital leadership, keep it and continue to lead in business transformation and adaptation to modern digital technologies.

- The slowing pace of growth. South Korea, Australia, as well as countries in Western Europe and Scandinavia showed steady growth in the analysis, but the pace of development of digital leadership and the introduction of digital technologies in business has significantly decreased. Without monitoring work in this direction and determining the dynamics of development, these countries risk falling back into the "basement" of digital technologies.
- Promising. These States are at the peak of digital leadership, despite the underdeveloped level of transformation. By demonstrating high rates, they demonstrate a strong investment climate. China, Kenya, Russia, India, Malaysia, Philippines, Indonesia, Brazil, Colombia, Chile, Mexico have the potential that can allow them to take leading positions.
- Problem. South Africa, Peru, Egypt, Greece, Pakistan countries with a low level of digital leadership, slow growth of both investment and innovation. This indicates serious challenges and challenges in business transformation and the movement towards digital leadership.

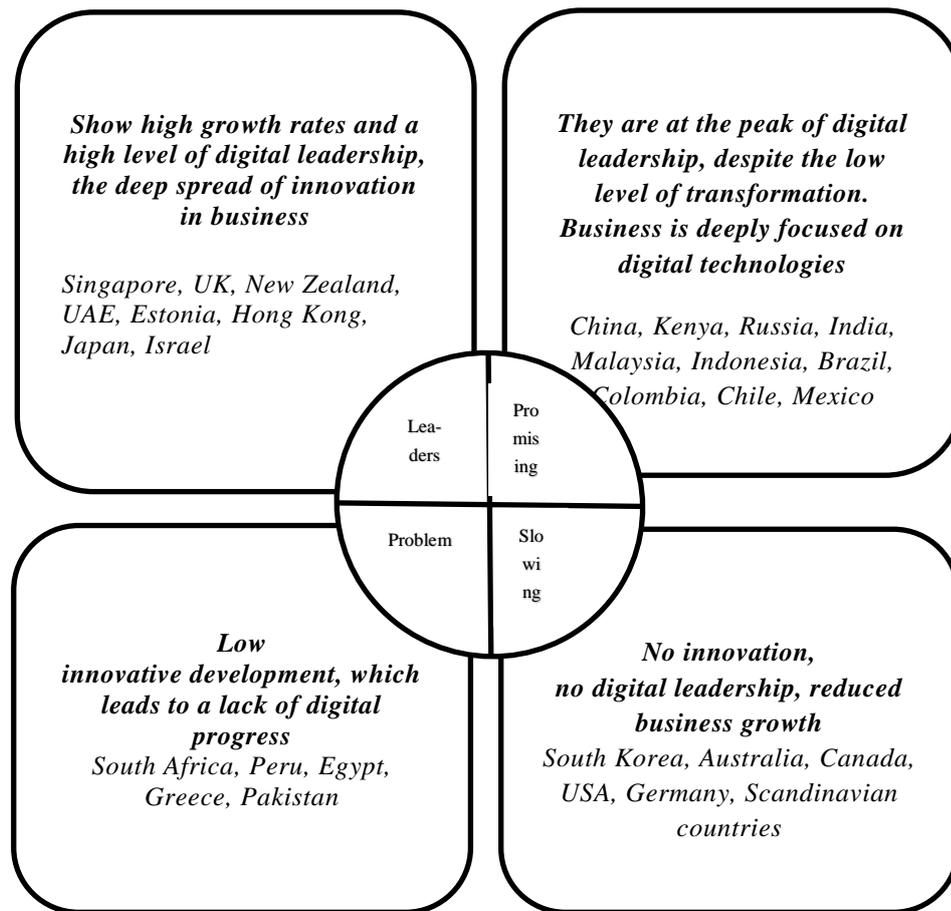


Fig.1. Groups of countries in the context of digital business leadership
 Source: Own results

A necessary factor of development is the level of trust, which is a key condition in the development of global digital leadership. This factor needs to be measured. In the report provided by the authors of the study of the school. Fletcher reflected the level of confidence in modern digital technology and the willingness of businesses to transform. More than 60 countries were analysed according to 4 criteria:

- perception and attitude to new technologies;
- consumer behaviour in a company undergoing transformation;
- innovative business climate;
- experience in the study and application of modern digital technologies.

On the basis of the distinction on the 4th criteria, several conclusions were made: First of all, it appears that in countries of Western and Northern Europe are leading in terms of digital leadership and the level of innovation in business. This is due to the high level of investment in business, in the study of modern digital technologies and

its transformation on the basis of these technologies, minimizing failures, due to the same modern technologies and the safety of using large amounts of data.

Second, in countries with a high level of digital leadership, business is more tolerant of technical failures. Business transformation is becoming a key condition for assessing trust in the digital environment and digital leadership. Business, together with the state, should act as a guarantor in the formation of digital leadership and customer confidence in it, by increasing the level of customer focus, ease of use of modern technologies in reverse interaction.

Some countries, such as India, China, and the U.S. struggling for global leadership are using public opinion and policy to influence the digital leadership of business, as well as its transformation to modern digital technologies. State participation is very important for business to perceive innovation, which will directly contribute to the development of digital leadership in all spheres and segments of the economy.

There are a number of factors (innovation and investment, as well as business confidence in modern information technologies) that contribute to digital leadership, which should be taken into account by developing countries and which should equally contribute to economic growth and digital leadership.

3 Digital leadership in Russia

In order to accelerate the pace of digital leadership development, developed countries need to close the gap in the perception of new digital technologies by applying international linkages and changing priorities in the level of confidence in these technologies.

In Russian Federation, such an analysis was conducted by the Centre for financial innovation and non-cash economy of the Moscow school of management SKOLKOVO. This study was conducted in all regions of the Russian Federation. The report reflects the index of perception of digitalization by business and the level of use of modern digital technologies in all spheres of activity, in order to strengthen digital leadership (Eferin et al. 2019). Figure 2 that follows, presents top 10 digital companies in Russian Federation by regions.

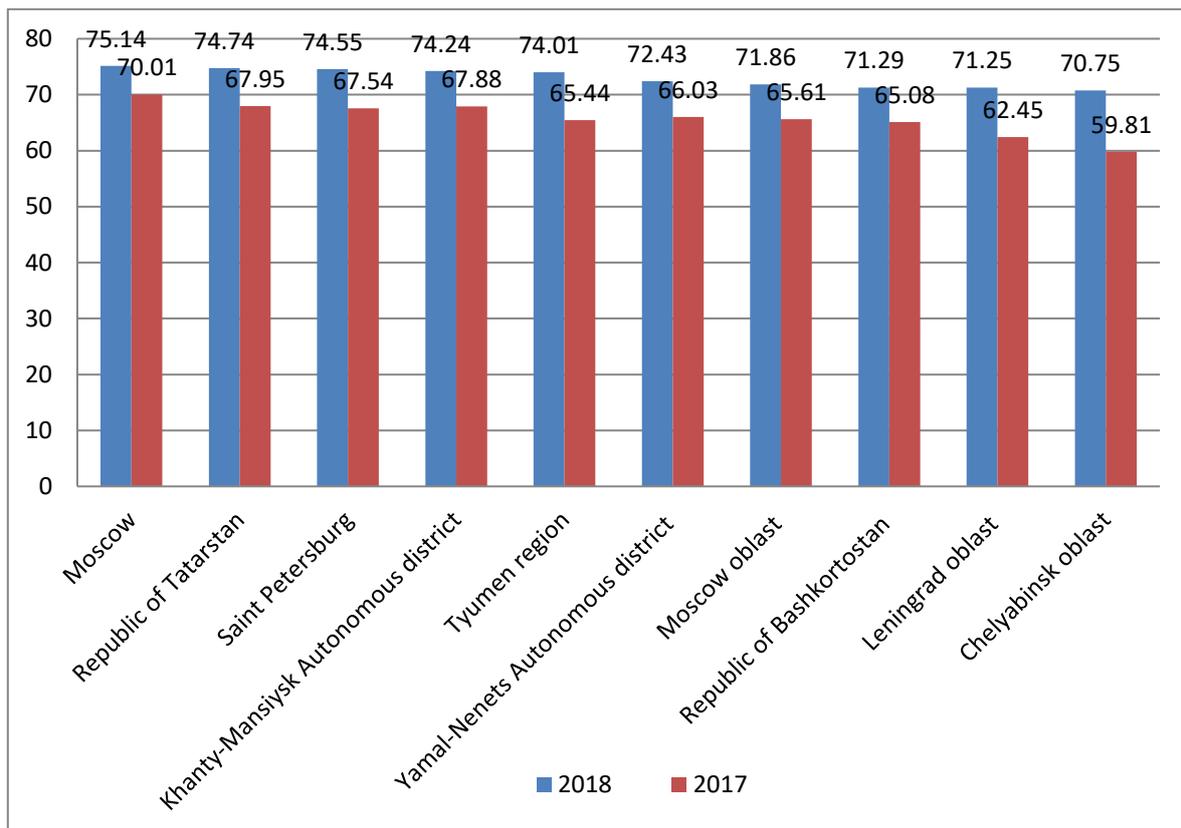


Fig.2. Top ten subjects of the Russian Federation with digital business leadership
 Source: Petrov et al. (2018)

Analysis of the study showed that compared to the previous year, the index of digital business leadership in Russia (regardless of the industry) in the range of 26.06 to 70.01, increased, and the regional interval between business participants focused on digital leadership narrowed from 37.2 to 75.14.

The TOP-10 ranking includes Moscow, the Republic of Tatarstan, St. Petersburg, Khanty-Mansiysk, Tu-MENA region, Yamal-Nenets Autonomous district, Moscow region, the Republic of Bashkortostan, Leningrad region, Chelyabinsk region (see Figure 2).

The leadership of Moscow and the Moscow region is characterized by the continuous development of the regional program "Innovative city" with the support of PJSC "Rostelecom" since 2012. Moscow business closely cooperates with the Federal centre, business representatives are included in the expert groups of ANO "Digital economy". A number of recommendations and directions proposed in the Federal program "Digital economy of Russia" are tightly used by business in practice.

The authors of the study developed a methodology that is based on quantitative indicators and expert evaluation (based on the analysis of metadata), reflect the dynamics of the subject of digital business leadership. The Republic of Dagestan, the Kostroma region, the Chechen Republic, the Chukchi Autonomous district, the Ryazan, Orel, Tver, and Bryansk regions, whose growth rates amounted to more than 60%, with an average growth rate of 26.4%, are highlighted.

The digital leadership index clearly reflects the presence and success of the activities associated with the use of modern digital technologies at the regional level. If the company has specific actions based on events related to the study and use of IT-technologies, business transformation and gives positive business effects, affects the good-a pleasant socio-economic climate in the company, they receive 100 points.

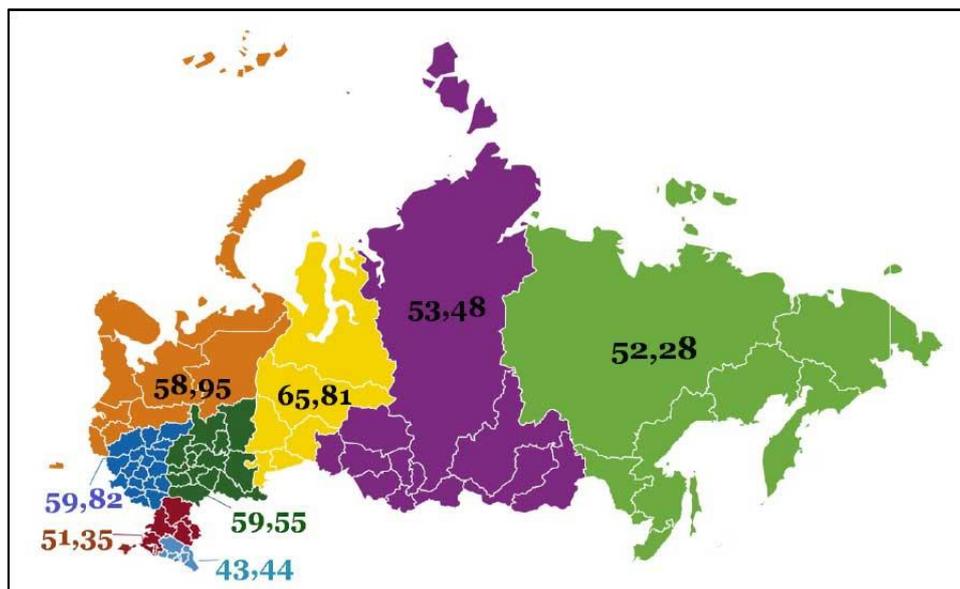


Fig.3. Index of "Digital Russia" in the context of the Federal districts in 2018
Source: PWC (2018)

The analysis of Federal districts of the Russian Federation shows the same results as at the level of subjects of the country. At the same time, at the district level, the events are more dynamic, and the index of digital leadership and the interval between business participants decreased to 3.4%. Here, it becomes apparent that the leader is the Ural Federal district (UFO). A number of companies included in the UFO, scored more than 70 points, which provides subjects a leading position in the overall ranking. Tyumen region - 74 points, Khanty-Mansiysk Autonomous Okrug - 74.4 points, Yamalo-Nenets Autonomous Okrug - 72.3 points. This is followed by the Central and Volga Federal districts (Figure 3).

Table 1. Dynamics of digital leadership in Russian districts

No.	Federal district	2018	2017	Change, in %
1	Ural district	65,81	57,17 (1)	15,11
2	Central district	59,82	50,05 (3)	19,52
3	Volga district	59,55	46,93 (4)	26,89
4	North-Western suburbs	58,95	50,9 (2)	15,82
5	Siberian district	53,48	41,91 (7)	27,61
6	far East district	52,28	44,2 (5)	18,28
7	Southern district	51,35	43,06 (6)	19,25
8	North-Caucasus Federal district	43,44	33,37 (8)	30,18

Source: PWC (2018)

Table 1 above shows the dynamics of districts: it becomes apparent that North-Caucasus district, Siberian district, as well as Volga region rank among the fastest-growing regions in the Russian Federation. This is in accord with previous findings.

4 Conclusions and implications

Thus, analysing the sources, we can conclude that the main factors influencing the unequal development of digitalization in business are:

- Lack of highly qualified personnel, and compliance with the additional budget for re-training and formation of competencies of a qualified specialist;
- Weak funding for digitalization. It is difficult for medium-and low-income enterprises to raise funds for the purchase of modern digital technologies, which affects the solution of current economic problems;
- Gradual formation of a new environment that has a positive impact on the creation and development of digital technologies.

Recently, it is clearly seen that the methods of business management are outdated, and the company's management does not meet the requirements of modern business realities with modern digital technologies. Organizations with a classical structure for the most part can no longer compete for bright and promising employees and customers. As noted earlier, they are replaced by companies with a strong structure, strong management and charisma. Classic workplaces are gradually replaced by virtual offices, cloud technologies are tightly replacing the places of computers and software. Only in decentralized structures with flexible teams (working remotely from different parts of the world), it becomes possible to manage changes, make decisions effectively, implement and promote innovations. Only trust and delegation of rights will help to reach sky-high heights to the company's management. In our opinion, the digital leader should have the following qualities:

- Vision. This is the main digital innovator who assesses the situation and makes appropriate adjustments;
- Curiosity. By questioning old management systems and dying business processes and constantly investigating the problem from a customer perspective, digital leaders magically "guess" their true needs and create innovative solutions for "pain points";
- Collaboration. Nowadays, digital collaboration is an integral part of the success of most departments in an organization, and a successful digital leader knows how to do it;
- Willingness to experiment. Deep analysis of its customers will make any experiment successful;
- Total "networking". A true leader of the 21st century understands the value of technology, business connections and skilfully builds networking networks. The digital leader spares no time to establish relationships, attract partners and gather information about those with whom he is going to do business;
- Super-analytic abilities. An effective leader "reads" between the lines of any analytical report, makes hypotheses and ideas.

Those companies that want to stay on the market and compete with stronger players need to transform in the near future. However, many questions remain as to what to expect from this transformation. Analysts identify a number of effects of business transformation, which consist of:

- Improving the competitiveness of goods and services offered or produced;
- Increase customer satisfaction;
- Quality training, professional growth and employee motivation;
- Minimize costs and update costs;
- Compliance of the company's culture with new challenges and realities.

Conducting an in-depth analysis of modern business, based on digital technology, we can conclude that the digital revolution has passed. Only not all companies have understood this and reacted in time, the level of social inequality will increase based on the difference in the competencies of people and companies. The businesses which, unfortunately, missed this leap, have only a low-paid sphere of service.

Self-development is the way to success. Modern means of communication and interaction of individuals replace the usual relationship. It is not enough to just be customer-centric, owing to layer-lived well-established competition. Competitors instantly react to the slowdown in your decision-making, and are ahead of your business, making joint "smart" decisions, a few steps forward. The thought that digital leadership is a strong leader is a vector of development of the upcoming changes. The dynamics of business change is unthinkable without involving all personnel in the processes of the company's transformation, division of labour which will help each

member of the society to be involved in new processes as much as possible and make a significant contribution to the digital future. We should not forget that digital leadership is first of all a completely different mentality, a different digital corporate culture of business and managers need to successfully master the digital transformation, so that employees want to share all the values and principles.

Overall, we might conclude by saying that digital leadership is not something that a leader has to complete tomorrow or in a week, it is an understanding of the very essence of digital leadership, that is, what works today and is sure to be the right decision tomorrow. This is very important when digital leaders cultivate a new culture with the involvement of all employees who make the best use of modern digital technologies for the benefit of business. Great digital leaders have a lot of knowledge about the new digital world, use modern technologies and constantly grow and demonstrate interpersonal skills.

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