

**Review Article**

UDC 004.738.5:330]:005.21

DOI 10.5937/skolbiz2-33762

## **THE IMPACT OF DIGITAL TRANSFORMATION ON THE FORMULATION OF NEW CORPORATE STRATEGIC DIRECTIONS**

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**Abstract:** *The digital economy, as an economy primarily functioning via digital technologies, has made its impact on the development of the digital transformation concept. Such a form of business transformation requires the integration of digital technologies in all industries. The paper underlines the importance of the essential elements of transformation, regarding customer experience, operational processes, business models, employee experience and digital platform, along with the key business spheres relating to competition, innovation and value, which digitalization changes on the way. The main goal of the paper, therefore, is to point to the impact of digital transformation on the process of formulating new corporate strategic directions. With this in mind, the paper's main aim is to stress prospective corporate strategic directions of digital transformation under conditions of deep digital penetration. The paper is based on the working hypothesis that despite the fact that existing businesses most commonly start with market penetration, through developing a digital technology strategy, as well as a digital market expansion strategy, further development of digital transformation leads to the creation of digital platforms that are built by a mutual collaboration of numerous stakeholders connected through joint value creation and its delivery.*

**Keywords:** *business management, business transformation, corporate strategies, ICT, digital business, digital economy, digital technologies.*

**JEL classification:** *M21, M15*

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# UTICAJ DIGITALNE TRANSFORMACIJE POSLOVANJA NA FORMULISANJE NOVIH KORPORATIVNIH STRATEGIJSKIH PRAVACA

**Sažetak:** *Digitalna ekonomija, kao ekonomija koja funkcioniše prvenstveno putem digitalne tehnologije, uticala je na stvaranje koncepta digitalne transformacije poslovanja. Ovakav oblik poslovne transformacije zahteva integraciju digitalnih tehnologija u svim oblastima poslovanja. U radu je istaknut značaj bitnih elemenata transformacije koji se odnose na korisničko iskustvo, operativne procese, poslovne modele, iskustvo zaposlenih i digitalne platforme, kao i ključnih domena poslovanja koje digitalizacija menja, a odnose se na konkurenciju, inovacije i vrednosti. Osnovna svrha rada jeste da ukaže na uticaj koji digitalna transformacija poslovanja ima na proces formulisanja novih korporativnih strategijskih pravaca. Imajući ovo u vidu, cilj rada jeste da se istaknu potencijalni korporativni strategijski pravci digitalne transformacije poslovanja u uslovima snažnog prodora digitalnih tehnologija. Polazna pretpostavka rada je da, iako postojeća preduzeća u digitalnoj transformaciji najčešće kreću od prodora na tržište, preko strategije razvoja digitalnih proizvoda i strategije razvoja digitalnih tržišta, dalji put digitalne transformacije vodi ka izgradnji digitalnih platformi koje nastaju međusobnom kolaboracijom brojnih umreženih stejkholdera na zajedničkom kreiranju i isporučivanju vrednosti.*

**Ključne reči:** *poslovni menadžment, poslovna transformacija, korporativne strategije, IKT, digitalno poslovanje, digitalna ekonomija, digitalne tehnologije.*

## 1. INTRODUCTION

Human civilisation has stepped into a fairly new revolution, in which the digital, innovative and imaginary have become the engine of the entire human development (Lazović & Đuričković, 2018). It is the question of Industry 4.0 or the Fourth Industrial Revolution, which is built on the contributions of the previous three revolutions. Namely, the First Industrial Revolution is associated with the second half of the 18th and the first half of the 19th century, when manual production was replaced with steam power, thereby initiating development that had changed the previous political, economic and social systems in the most parts of the world. The period between the second half of the 19th century and the beginning of the 20th century was marked by the Second Industrial Revolution, with the introduction of alternating current and mass production of consumer goods. The Third Industrial Revolution took place between 1960 and 1995, with automated manufacturing and electronics and information technology benefits.

The advent of Industry 4.0, which is frequently used interchangeably with the terms the Fourth Industrial Revolution, Digital Revolution, Smart Revolution, digital economy, new or Internet economy, relates to the knowledge economy, innovation economy, information economy, in which not only human hands but also the human brain, in addition, are becoming the central element of a company's growth and development (Krstić & Kahrović, 2020). More specifically, skilled employees who develop new technological ideas and innovative business practices have become a key asset in a knowledge-based economy. Don Tapscott, one of the leading world's authorities on the impact of technology on business and society, arrived at the same conclusion in his book *The Digital Economy: Promise and Peril in the Age of Networked Intelligence* (1994), in which he underscores that the digital economy is an economy based on intellectual property and knowledge workers. The author expounds on how companies can only maintain their competitive advantage in the new economy provided that their employees are constantly learning and acquiring useful knowledge faster than their competition. Useful knowledge, which should serve the function of a knowledge-based economy, relates, among other things, to intensive use of digital technologies, i.e. information and communication technology in business, thereby causing radical changes to the mere notion of business resources – from physical, tangible to digital, electronic, or put differently, intangible. The intensive use of digital business does not only relate to technologies but also to economic activities, processes, structures, and models. The way businesses create economic value changes as well (Tapscott, 1994). Tapscott had the second edition of his book published on the twentieth anniversary of the first edition (2014), therein analysing what he was right about and what can be concluded about the digital economy nowadays. It is interesting that he was able to anticipate the developmental trends of the digital economy quite precisely, and he also confirmed some of the negative aspects, such as its influence on the labour market, privacy, social inequality, family connections, the government, democracy and education (Tapscott, 2014). Two years after, Klaus Schwab, the founder of the World Economic Forum, also pointed to similar hazards in his book "The Fourth Industrial Revolution" (2016). As he put it, "the changes are so profound that, from the perspective of human history, there has never been a time of greater promise or potential peril" (Schwab, 2016). The first three industrial revolutions changed the way people work to a great extent, whereas the Fourth Industrial Revolution, in addition, influences the way humans think and reduces, if not completely eliminates, the gap between people and technology. Groundbreaking changes have made a difference in how the management, organisation and strategies are perceived, since there are new forms of production, communications, transport, delivery, cooperation, thereby establishing a new market system with completely altered

standards and rules of the game, which may improve the quality of life of people from all round the world.

## **2. DIGITAL TECHNOLOGIES AS DRIVERS OF THE DIGITAL ECONOMY**

What is required for the digital economy to develop is an appropriate infrastructure, including the following elements: physical and technological infrastructure, institutionally normative infrastructure, educational infrastructure, infrastructure security, business and entrepreneurial infrastructure (Lazović & Đuričković, 2018). The physical and technological infrastructure group subsumes all the components that contribute to the proper functioning of the digital economy in a well-developed Internet environment in the physical sense. Generally speaking, they can be divided into two subgroups:

- The first includes cable networks that can be further divided into: telephone networks (xDSL – Digital Subscriber Line), i.e. copper-based telephone wiring, and new-generation networks (FTTx), i.e. fibre optic networks, cable networks (coaxial cables), hybrid fibre-coaxial networks (HFC).
- The second group includes wireless networks within which various types coexist in parallel, such as: GSM/GPRS/EDGE (second-generation mobile networks), UMTS/HSDPA/HSPA (third-generation mobile networks), Wi-Fi (Wireless Local Area Network), WIMAX (Broadband Wireless Access), LTE (fourth- and fifth-generation mobile networks, i.e. 4G and 5G).

The institutionally normative developmental infrastructure represents the normative basis of the digital economy, such as institutional mechanisms and legislation that pertain to defining the development policy of digital society. The educational infrastructure of the digital economy entails a high level of computer literacy of the general population, as well as a critical mass of specialised IT staff trained at specific study programmes (new technologies, open-source, databases and data mining, software engineering, web programming and web design, digital marketing etc). Digital education is a continuous process by nature, i.e. it relies on the lifelong learning concept. People, their knowledge, skills, and creativity are the main drives for developing information society. Infrastructure security relates to the security of Internet transactions (ordering, paying for goods and services, paying the bills, money transfers). The question that has become crucially important in the digital economy is the question of online security, data protection, privacy and

intellectual property (Pitić, Savić, & Verbić, 2018). Finally, the business and entrepreneurial infrastructure of the digital economy pertains to understanding and promoting the self-employed technological culture, or in other words, the concept of technological entrepreneurship.

The most relevant infrastructural factors of the digital economy are digital technologies relating to the use of digital resources (technologies, tools, apps and algorithms), by means of which digital goods in a computing environment are found, analysed, created, shared and used efficiently. Digital technologies may be classified under four categories that are not mutually exclusive (Lanzolla, et al, 2018). The first category includes digital technologies that contribute to efficiency improvement (e.g. cloud computing); the second, technologies that serve the purpose of greater connectivity of objects and people (e.g. the Internet of Things); the third, technologies that have the function of enhancing trust in mediating and/or in transactions (e.g. blockchain technology); and finally, technologies that facilitate increased automation in processes and decision-making (e.g. Artificial Intelligence).

The impact of information and communication technology (ICT), similarly to digital technologies, like mobile technologies, social networks, cloud computing, the Internet of Things (IoT), Big Data Analytics, has been examined in many studies. The business value of ICT and digital technologies (BVIT) is valuable from a management perspective and generally included to foresee the IT performance impact, together with productivity enhancement, profitability improvement, then cost reduction, competitive advantage, and finally, inventory reduction (Tang, Huang, & Wang, 2018; Devaraj & Kohli, 2003; Hitt & Brynjolfsson, 1996). Kohli and Grover (2008, p.26) have emphasised IT value to be shown in a lot of ways, where several aspects are also within it, such as emphasising productivity gains, process improvements, profitability enhancement, increased consumer surplus, and improvements in supply chains or innovation at the inter-organizational level. Sabherwal and Jeyaraj (2015, p.810) have examined the empirical BVIT, where the focus has been on "studies at the organizational level related to IT-related independent variables, and the same stands for dependent variables related to IT's organizational impact". Melville, Kraemer and Gurbaxani (2004, p.287) have emphasized BVIT as "the organizational performance impacts of IT at both levels, comprise efficiency impacts and competitive impacts".

### **3. THE DETERMINANTS OF THE DIGITAL TRANSFORMATION**

The challenge of responding to the previously imposed technological trends and remaining competitive under the conditions of the increased penetration of digital technologies necessitates digital business transformation. The digital transformation relates to the process which begins at the moment when a business starts considering the idea of integrating digital technologies into all areas of business and lasts until the company's complete integration. According to the definition of the Global Centre for Digital Business Transformation, digital business transformation is "organizational change through the use of digital technologies and business models to improve performance" (Wade, 2015). It is a continuous process that is not always straightforward, but without which doing business in today's world is steadily becoming impossible. Popović-Pantić, Semečenko and Vasilić (2019) define the digital transformation as a complex, dynamic, continuous and in the digital era indispensable transformational process of all business aspects, supported by a strategically devised integral application of modern digital technologies, which should result in creating a new business model and positioning the buyer at the centre of all business activities and decisions made by the company, with a view to creating improved conditions for innovation, better market positioning, and thus improving overall business performance.

In a similar vein, Ismail, Khater and Zaki (2017) in their definition of the digital transformation characterise it as a process through which companies converge a growing number of digital technologies to achieve superior performance and sustainable competitive advantages by means of transforming different business dimensions, including a business model, customer experience and business operations. There are numerous examples of companies using digital technologies intensively to create new consumer values, such as General Electrica, Nike+, Netflix, Uber, Airbnb, Booking, PayPal, and others. This has enabled disruptive changes in many business sectors, from agriculture and industry, as well as trade, tourism, catering, banking and financial services, to education, science, culture, public communications and the health sector.

By underlining the importance of the digital transformation, many authors emphasise the fact that digital technologies, such as mobile phones, social networks, cloud computing, the Internet of Things and Big Data Analytics, are used to improve customer experience, operational processes and business models (Fitzgerald, Kruschwitz, Bonnet, & Welch, 2013; Rogers, 2016). Bonnet and Westerman (2021) complement this taxonomy with employee

experience and business model transformation. Customer-experience transformation regarding products and services points to the fact that digital technologies are changing the way in which companies create value for their buyers. In the digital age, buyers are networked and influence one another in a way that they change their attitudes to certain businesses as well as to each other. In present times, buyers are constantly connecting with and impacting upon one another, thus shaping the reputation of different businesses and brands. Their use of digital tools changes not only the way they discover, evaluate, buy and use certain products but also how they share and stay connected with specific brands.

Taking into account a growing number of the ways of accessing information, along with numerous choices and channels at their disposal, buyers have gradually become more powerful and their expectations growingly higher. As a result, buyers have become the primary force driving the digital transformation of all industries (Berman & Bell, 2011). Bonnet and Westerman (2021) expound on experience design, customer intelligence and emotional engagement as the dominant elements of a customer experience transformation. The transformation of operational processes subsumes manufacturing automation, research and development, as well as distribution. Digital technologies, such as cloud computing, the Internet of Things, Big Data Analytics, are increasing employees' capacity in different functional areas.

Decision-making based on the data relating to the real-time customer relations and other implications of the implementation of digital technologies, with remote work being on the increase, enables quicker decision-making on production potentiality to respond to customer demands. Business model transformation occurs through a digital change of a business (via transforming physical products into digital by means of adding digital content to the existing products and services), the creation of new digital businesses (new businesses based on the development of digital products and the introduction of new digital solutions, and consequently, redefining the organisational boundaries), and digital globalisation (global digital integration of a business). The transformation of employee experience occurs through accepting the changes and acquiring knowledge, innovative behaviours and employees' ability to work with digital technologies that future companies will use as a means of achieving sustainable competitive advantages. Companies are also considering using robotics and other digital technologies to increase employee productivity, improve performance, and enable people to work faster, smarter and safer (Bonnet & Westerman, 2021). Digital transformation platforms, as digital business model forms, are closely connected with the development of digital ecosystems (de Reuver, Sorensen, & Basole, 2018). In other words, it

constitutes the key element around which successful digital ecosystems are built (Valdez-De-Leon, 2019). An ecosystem may be regarded as a developed value network in which the roles of the agents are closely intertwined and the stakeholders work towards the joint development. The modern, competitive market game is no longer present only among several different companies but rather among different networks of companies. Many of these company networks closely revolve around digital platforms, which facilitate the development of so-called digital ecosystems by connecting numerous, keen stakeholders.

#### **4. DIGITAL TRANSFORMATION STRATEGIES**

Being confronted with manifold challenges of the digital transformation, companies have recognised the need to manage a complex enterprise of formulating and implementing digital transformation strategies that will go hand in hand with a new digital reality (Ismail, Khater, & Zaki, 2017, p. 13). A properly formulated digital transformation strategy is the driving force of the management and a critical success factor in the digital transformation process. From the business perspective, a digital transformation strategy aims at the transformation of a product, the market, business processes and the organisational aspects of digital technology use. In this regard, it is essential to emphasise that this strategy is cross-functional because it affects all their company's activities and operations. This requires the conception of a new strategy, called the digital business strategy, which would exert an effect on business and functional strategies via a corporate strategy, frequently referred to as general strategy (Popović-Pantić, Semenčenko, & Vasilić, 2019). In a word, it is common knowledge that a corporate strategy strives to answer the question regarding the type of business that the company does, whereas a business strategy tends to respond to the question concerning the ways the company should compete in an industry, a business area or economic branch. A functional strategy relates to the ways how to gain a competitive advantage through concrete operative, or in other words, business functions. Therefore, a digital transformation strategy should address the question of what digital products the company offers and what digital markets the company serves. The digital transformation process, viewed from the perspective of strategic implications, entails the formulation of corporate strategic directions, i.e. the ways in which companies get digitally transformed. It must be a full-scale process, which brings about a change not only to the company's deals and offers, i.e. their products and services, but also embraces business processes, organisational changes and cultural adaptability, along with the changes pertaining to digital marketing positioning.



With regard to the breadth and depth of changes, certain authors (Stefanović & Simić, 2020) rightfully point to the fact that a strategic approach to the digital transformation process is not only desirable but also necessary, whereby a company adopts a strategy-driven approach and not technology-driven approach to the digital transformation. Digital business transformation implies companies that can change their growth strategies and create entirely new business models very quickly, offering products and/or services that have not been offered on the market yet (Spremić, 2020). To put it differently, it is well-known in strategic management that companies decide on one of the following business dimensions via their corporate strategy: businesses within which the company operates (the structured portfolio); the breadth of product range according to business types (the business portfolio); value chains in which competencies will be developed and used; the relations between the activities and resources demanding a focus strategy in order to achieve synergy; a geographical location, in the sense of buyer's and seller's markets (Đuričin, Kaličanin, Lončar, & Vuksanović Herceg, 2018, p.519).

As Đuričin, Kaličanin, Lončar and Vuksanović Herceg (2018) underline, the attitude to the growth of a business is determined via a corporate-level strategy, i.e. whether the company will tread the path of rapid, slow or negative growth. According to the growth potential criterion, corporate strategies can be divided into growth strategies, stability strategies and retrenchment strategies. Growth strategies (expansion strategies) can be distinguished from one another according to whether a company identifies sources of business growth in the existing structured portfolio or beyond it. If it finds sources of growth within the inner boundaries of the existing structured portfolio, the company formulates and implements some of the intensification strategies (market penetration, market expansion and product development). Conversely, the company selects some of the diversification strategies (related and/or unrelated).

Igor Ansoff provided this typology in the 1980s (Ansoff, 1987), and since then it has remained relevant in the business economics literature until the present day. The classification serves as a starting point for classifying digital corporate strategic directions. Namely, strategic digitisation drivers of transition are two-dimensional, as is the case with Ansoff's taxonomy. On the one hand, there are drivers pertaining to the product, which can be either existing (undigitised) and digitised, or in other words, digitally enhanced products and services. On the other hand, in terms of the market dimension, two types of drivers can also be distinguished, i.e. those directed at the physical (existing) or digital (new) market. By combining these two dimensions on the digital transformation continuum, and dividing them into the mentioned dichotomous categories, what we get is the matrix given in Figure 1, which represents a conceptual framework

of corporate strategic directions directed towards digital business transformation.

Figure 1

*Digital corporate strategic directions*

	<b>Existing products</b>	<b>Digitised products</b>
<b>Existing market</b>	Market penetration	Digital product strategy
<b>Digital market</b>	Digital market expansion strategy	Digital platform development

*Note.* Prepared by the authors.

Strategic pathways towards digital transformation most frequently lead from a digital product development strategy and digital market expansion strategy to a digital platform development strategy, as the final strategic growth outcome. As is the case with Ansoff, market penetration or market intensification is to do with conquering the current market with the existing product (product range) to the full extent, or else to seize the opportunities that already exist on the serviceable available market. Penetration assumes a business growth in a way that the business will expand the production and sales of the existing products on the existing market, i.e. achieve an increase in market share. Businesses that are positioned in the upper left quadrant employ digital technologies only to improve, modernise and optimise their current value creation processes, without digitally changing their offer (products and services), or the market, which is the reason why that quadrant is marked as market penetration or, according to Planing and Pfoertsch (2016), legacy business optimization.

Alternative strategic directions include the development of new digitised products, together with new digital markets. Digital product strategy assumes a business option whose aim is to increase a company's total sales with the modification of the existing products or introduction of digital products to the existing markets. According to Savić, Lazarević, Kukić and Marinković (2019), new digitised products differ from traditional physical products in that their production is much faster and cheaper. Digital products are bit- not atom-based, which makes it possible to create perfect copies of digital products completely

identical to the original, which was not the case with physical products. Such copies are practically identical to the original, they can be made without any expenses (or else at minimum expenses), and can be almost momentarily transferred from any place in the world to another (Savić, Lazarević, Kukić, & Marinković, 2019). When discussing the possibilities of using digital technologies in the development of new and modification of the existing products, authors frequently apply the term "smart, connected products" (Porter & Heppelmann, 2014). According to these authors, these products do not only have physical components, including mechanical and electronic parts, but they also have so-called "smart" components (sensors, microprocessors, software, operating system, user interface) and "connectivity" components (ports, antennas, protocols). Due to these devices, networking, and generating an enormous amount of data, these products may provide monitoring, control, optimisation, and autonomous functioning (Stefanović & Simić, 2020). More specifically, monitoring (of the state of affairs, functioning, use, and also the surroundings) and control (ensuring the functioning of a product and personalisation of user experience) enable optimised functions and use of the product so as to increase the product performance and maximise business diagnostics, service and repairs. All the three elements allow for autonomous operations and internal coordination with other products and systems. However, the major contribution of Porter and Heppelmann lies in the fact that they suggest that these products give companies a "set" of new strategic choices, namely: how to create and capture values, how to cooperate with traditional partners, and how to gain their competitive advantage (Stefanović, 2019).

#### **4.1. DIGITAL DEVELOPMENT STRATEGIES IN PRACTICE**

Companies are motivated to take this developmental direction to satisfy the needs and demands of networked buyers and respond accordingly to competitive actions, thereby adjusting their offer to the offer of their competitors. Companies following this direction realise their innovative and digital potentials. Two successful examples of well-known companies that have implemented a digital development strategy are General Electric and Netflix. On the one hand, General Electric, one of the leading companies in the world, employing around 200.000 people, does not provide a critical infrastructure only (such as oil and gas pipelines, turbines, aircraft engines and the like), but also a wide spectrum of services relating to their use. General Electric started their digital transformation in 2012 under the slogan Digital company – industrial company. The foundation stone of business digitalisation is any investment over a billion US dollars for installing sensors (Internet of Things) in manufacturing companies, infrastructure, turbines, aircraft engines, and other equipment manufactured and sold all round the world, by means of using cloud

computing feeds on all those pieces of equipment and big data analysis via advanced Big Data Analytics.

On the other hand, Netflix is an example of a successful digital product/service strategy implementation. In around ten years, Netflix has transformed its growth strategy from a company selling and renting DVDs online to the largest online streaming service, leaving Blockbuster (the originator of the idea), cable networks and television behind. By listening to their users and analysing their needs, Netflix created on-demand services consisting of personalised offers that every user wants to watch on all available devices at a reasonable price. Based on the obtained data of their users, Netflix is acquainted with what their users watch, on what device, how often, when they pause the content, when they stop watching it, what they search, and accordingly they create partnership strategies as well as a personalised strategy for each one of its users.

Digital market expansion strategy puts at the forefront the idea that the existing product (product range) should enter digital markets. Digital markets, being supported by a digital infrastructure, allow for an exchange of goods and services in an online environment. Digital markets maintain some of the traditional markets functions: identifying business partners, searching products, negotiating prices, terms and conditions, as well as carrying out commercial transactions, making payments, delivering products and assisting buyers with product maintenance and solving product-related problems. It is a low-risk direction because it involves putting the existing digital products on networked markets. Market development assumes the expansion of digital markets since a business has access to human and other intellectual resources for the strategy implementation. The main weapon of a business with such a strategic direction should be a consistent investment into digital marketing (Rogers, 2016, p.65).

#### **4.2. PLATFORMS AS STRATEGIC PLANNING OUTCOMES**

The idea of platforms as corporate strategies originates from the economic theory of two-sided markets, developed by Jean Tirole, a professor of economics at Toulouse School of Economics, who was awarded the 2014 Nobel Prize for Economics, and Jean-Charles Rochet, a professor of banking, finance and insurance at the Department of Banking and Finance, University of Zurich. They analysed pricing policy and market competition where a business services two different interdependent types of end-users (Rochet & Tirole, 2006). They discovered that both sides are often price-sensitive and that on more successful markets one group frequently subsidises the other (for example, an advertiser covers the cost of the media's purchase price, and traders cover credit card transaction fees of end-users).

On the other hand, the theory of two-sided markets has raised general awareness of the fact that the same effects may be observed on markets with more than two end-users (for instance, Visa and Mastercard connect not only credit card users with traders accepting credit cards, but also with banks that grant loans to clients). This has led to one more general concept of multi-sided markets. At the same time, the theory has now changed the focus from market dynamics (e.g. who is paying what in order to keep the balance with the others) and started observing businesses enabling such dynamics, that is to say, what distinguishes the business model of Visa or MasterCard and what their success factors are. In business economics, the term used for this strategy is multi-sided platform or platform (Rogers, 2016, p.67). Verhoef and associates, drawing on Ansoff's diversification strategy, defines this strategy as platform diversification, employed by successful platforms aspiring to enter new digital markets with new digital products (Verhoef, et al., 2021). Platform diversification means a corporate strategic direction in which the management constructs an ecosystem where end-users interact with one another, instead of building business elements independently and trying to win clients over and get them to use their products. In lieu of paying for a service, end-users produce and get the value, the result of which is a platform growth due to the growing number of end-users. In a similar vein, this strategy entails that the management sees business growth resources in a heterogeneous (diversified) digital products, or else digital services programme that will be launched on the existing, but more importantly, on new digital markets, within its current core business but also outside it. Therefore, we may potentially talk about possibilities of related and unrelated platforms, by analogy with Ansoff's related and unrelated diversification strategies, where the related diversification implies that a business expands its digital product range with products that are somehow related to the existing products, while unrelated means a business entering an entirely new digital business area.

The most accurate account of what comprises a platform was given by Andrei Hagiu and Julian Wright, who defined it as a business that creates value by facilitating a direct interaction between two or more different clients (Hagiu & Wright, 2015). Their definition points to a few key characteristics of platforms. Firstly, a platform needs to service two or more different sides or types of end-users (for example, buyers and sellers; programmers and consultants; traders and card holders/banks and the like). Secondly, platforms need to enable interaction between these two (or more) sides with a certain degree of independence. Thirdly, despite the fact that a platform does not dictate the types of interaction, it makes them happen and facilitates them. The examples illustrating that a certain number of various platforms connect different types of clients and create value, by facilitating their interaction, may be: Airbnb (hosts and accommodation providers), Uber (freelance drivers and passengers), PayPal

(bank account holders and banks), YouTube (viewers and creators and advertisers), Google search (search engine users, website creators and advertisers utilising search advertising). A company such as Uber provides taxi services, not by buying vehicles and hiring taxi drivers, but by providing a platform that will connect drivers who are already in possession of their own vehicle with people nearby who are in need of a ride. Popular platforms may be frequently described as evidence of the "rental economy" (renting property via Airbnb) and the "resale industry" (selling used goods via eBay) or perhaps the "sharing economy" (selling logistics, for instance transportation services via Uber). Business platforms are omnipresent, present in a broad spectrum of business activities: the retail business, the media, advertising, finance, the video game industry, mobile programming, business management software, home appliances, the catering industry, transport, education, employment, job search etc.

David S. Evans and Richard Schmalensee distinguish between four types of platforms: exchanges, transaction devices, advertiser-supported media, and hardware/software platforms (Evans & Schmalensee, 2008). Exchanges connect two different types of customers for the purposes of a direct exchange of value, whereby each group is attracted by numerosity and quality of the other side. A well-known example of a digital exchange that can connect buyers with sellers is eBay, and with services, Booking.com. Transaction devices act as intermediaries between different sides and facilitate payments and financial transactions. Credit/debit cards issuers also provide such a service, connecting cardholders with traders and banks. A new digital payment system, Apple Pay, is based on this model (Rogers, 2016, p.71). Regarding advertiser-supported media, a platform mainly plays an additional role in creating media content that will appeal to customers. When the content value attracts the audience, the platform charges the advertisers sending their message to that very audience. Hardware/software platforms provide a uniform standard of product design, which will enter the market to enable their interoperability and respond to the customers' needs. The global smartphone market is somewhat divided between Apple's operating system iOS and Google's Android operating system. Both of these operating systems are competing software platforms, trying to attract as many software programmers as possible to build apps. Besides, Android serves as a hardware platform for mobile phone manufacturers, such as Samsung, whose aim is to compete against Apple's iPhone. At this point, we underline that this list is by no means exhaustive, in the sense that a new business, not matching any of these four platform types, may easily emerge. Nonetheless, these categories offer a useful way of understanding the differences between the current business platforms.

## 5. CONCLUSION

Digital business transformation has become *conditio sine qua non* of modern businesses. However, the problem of digital transformation became the subject matter of management theorists and practitioners only a few years ago, thus there are not many theoretical contributions in this area of study. The ultimate goal of digital business transformation is to create business value. Nevertheless, the mere fact of integrating a large number of digital technologies into a business does not necessarily guarantee expected benefits. Companies may make this goal feasible by defining a clear, comprehensive digital transformation strategy, which needs to underscore the key advantages of digital technologies. Research into the digital transformation from a strategic angle, or considering essential elements in formulating and implementing strategic directions of the digital transformation is quite scarce. The current paper emphasises that potential corporate strategic directions of digital business transformation go from market penetration to digital product and market expansion strategies. Further development of the digital transformation leads to the construction of digital platforms that are built in a mutual collaboration of numerous, networked stakeholders aspiring to create and deliver common value. Further research will consist of new approaches to recognizing technological innovations as a significant factor in improving business results, discovering latent connections of importance, as well as forming new optimal models for the application of these innovations with its effectiveness examination and elaboration.

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*Delivered:* 01.09.2021.

*Accepted:* 25.11.2021.