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# \*FACTORS INFLUENCING COMPANIES' POSITIVE FINANCIAL PERFORMANCE IN DIGITAL AGE: A META-ANALYSIS

Ludmila Kasperovica <sup>1</sup>, Natalja Lace <sup>2</sup>

<sup>1,2</sup>Faculty of Engineering Economics and Management, Riga Technical University 6 Kalnciema Str., Riga, LV-1048, Latvia

E-mails: <sup>1</sup>ludmila.kasperovica@rtu.lv; <sup>2</sup>natalja.lace@rtu.lv

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**Abstract.** The article summarizes the factors that affect the company's positive financial results in the changing business environment in the digital age. Upon the qualitative and quantitative analysis of the literature, 33 dominant financial and nonfinancial factors were selected, which the authors emphasized as important for the development of a sustainable, profitable business. To assess the practical impact of the selected factors on the company's profit generation, the data were grouped and interpreted through the prism of the Universal Business Model (BM), applying it either to BM as a whole or to its dimensions - the value proposition dimension, the value creation dimension and the value capture dimension. At the end of the article, empirical examples were considered, specifically, the digital transformation of the business model of two companies under the influence of modern supporting drivers. Both examples indicate that a successful BM transformation can only be achieved by transforming all related components of the BM dimension into their interaction. By collecting and accumulating this information, a profit management model can be developed to support companies in a rapidly changing environment, especially in the small and medium business sector.

**Keywords:** business ecosystem; business model; digital platforms; digital transformation; disruptive innovation; pricing strategies; profitable business model; service-dominant logic; service platform.

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## 1. Introduction

In a dynamically changing business environment, it is becoming increasingly difficult to identify the factors that affect a company's positive financial performance and, consequently, sustainable development. In the current research, as a result of the analysis of literature sources, the dominant factors were revealed, which the authors emphasized as important in supporting a profitable business. The identified factors can be split into groups that affect the financial, nonfinancial, digital and nondigital spheres of activity. The set of discovered factors in the interaction create a condition for a positive business financial result.

Research is one of the key drivers of nonfinancial support. By conducting research, the company recognizes in a timely manner the innovations already discovered in its field of activity, as well as innovations that can come from a completely different unrelated field and operate on the existing business as a disruptive (revolutionary) innovation. Certain business ecosystems are dominant in nonfinancial digital factors. In turn, the exchange of services in the ecosystem is not effective without service platforms. Ecosystem actors form partnerships and alliances by synchronizing both self-created platforms and data from third - party platforms (Dehning, Richardson & Zmud, 2003; Ekundayo, 2019; Nosratabadi, Mosavi & Zavadskas 2019; Seelos & Mair, 2007) collecting and allocating resources in this way, as a result of their effective interaction, the partners increase sales (Dehning, Richardson & Zmud, 2003) as well as social, environmental, and economic benefits at the same time (Dehning, Richardson & Zmud, 2003).

The composition of financial factors suggests that revenue growth is a key factor in retaining profits (Dehning, Richardson & Zmud, 2003; Seelos & Mair, 2007). Increasing profits in practice are also often seen as cost savings and, above all, a reduction in fixed costs through digital adoption. In turn, the authors emphasize that maintaining a sustainable profitable business can only be achieved by combining the implementation of several strategies for making a profit. Profit maximization is the ability of a company to increase revenues through more efficient use of resources (Ekundayo, 2019).

In addition to the above, the research also looks at other driving factors that support the achievement of a positive financial result of the business.

The authors analyze the practical impact of selected factors on the company's profit generation by interpreting the selected factors through the universal Business Model (BM) prism, applying them to the BM dimensions - value proposition elements (products, sales channels, pricing policy and customer communication), value creation dimension or value capture dimension. As a result of the research, it was concluded that the creation of a viable and profitable BM in the digital age is possible only by the interaction of all BM elements, under the influence of several supporting driving factors. It is important to reveal the importance of each BM element in order to timely abandon old, no longer profitable value elements and to reduce the resources used as a result of the value chain, as well as to add new innovative BM elements.

In the concluding part of the article, the results of the study were illustrated with two comparative empirical examples: transformation of business models for companies operating in social entrepreneurship in the Latvian market, related successes, implementation shortcomings and recommendations for future development of companies.

## 2. Methodology

The qualitative and quantitative review of the scientific literature was performed to conceptually understand the factors that contribute to positive business results (profits) in the digital age.

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In the first step, a qualitative review of relevant independent scientific research was performed, with the aim to select possible factors relevant to the research topic. Using the Internet search queries and keywords "the profitable business model" 26 literature sources were selected; from these, the 12 most relevant sources were identified for the further in-depth study. In the course of the research, additional keywords were discovered: digital transformation, service platform, service-dominant logic, disruptive innovation, and pricing strategies. As a result of additional search queries, an additional 46 literature sources were selected. Of these, 18 sources were identified as the most relevant for further in-depth analysis. When selecting literature sources, a restrictive time criterion was set, starting from 1990 - the period of time related to the arrival of the Internet. In addition, in the mid-1990s, the first theories about the concept of the business model emerged. Only in the middle of the first decade of the 21st century, a significant number of publications on this subject appeared. In turn, the number of documents on digital transformation has been published later, their number starts to increase significantly only after 2014 (Reis, Amorim, Melao & Matos, 2018).

The authors performed an analysis of a total of 30 literature sources on which the research conclusions were made with the following outcomes: the number of articles that were published in 1990 was one (0.33%), in the period from 2000 to 2009 - were 7 (23%) and in the period 2010 - 2019 - were 22 articles (73%). The archives of online scientific publications (www.researchgate.net, www.academia.edu, www.ijsrp.org, and others) have been used to select articles to obtain reliable sources of peer-reviewed and academic research. Scientific articles were selected from the most published and cited authors. To determine the significance of the selected factors, in the context of the research topic, the selected factors were grouped into categories and using the statistical meta-analysis methods, the frequency and proportional weight of each category was determined in the context of the research question.

In the second step, to understand the practical impact mechanism of the selected categories on profit formation, they were grouped and considered through the prism of the BM. During the qualitative analysis of the selected literature, theoretical assumptions were made about how the selected factors could contribute to the positive financial result of the business.

In the third step, the theoretical assumptions were tested by analyzing the success and shortcomings of innovative activities implemented into the practice of the two companies.

## 3. Literature review

## 3.1. Factors influencing companies' positive financial performance

During the literature analysis, three categories were created, which reflect the modern factors, which the authors of the reviewed sources have emphasized as important in creating a sustainable, profitable business. Based on the qualitative and quantitative content analysis of the sources, the most common factors influencing the positive results of the business are summarized in Table 1. The table also notes how often these factors are mentioned in the sources studied. The selected factors are grouped into three categories. Factors influencing digital innovation are grouped together in the nonfinancial digital category, which includes the following groups (adopted from (Schallmo, Williams & Boardman, 2017). Digital Networking capabilities, Digital Development, Digital Data, and Automation. Other nonfinancial factors belonging to the "quality of business organization" and results from "disruptive innovations" are grouped into nonfinancial nondigital category. In turn, the financial category includes the factors through which profit strategies are implemented by improving the revenue / cost structure.

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**Table 1.** Summary of factors that influence a positive business outcome

Categories	Group	Factors	Times mentioned in sources
Nonfinancial digital (NF-D)	Digital networking capabilities	Partnership and alliances	13
		Ecosystem	8
		Digital networking	7
		Third-party digital platform	5
		Online sales channels	4
		Own services digital platform	4
	Digital development	Digital literacy of a company's employees	6
		BM digital transformation	6
		Digital maturity	4
	Digital data	Decision making through a data prism	7
	Automation	Automation	3
Nonfinancial digital factors - 11			67
Nonfinancial nondigital (NF-ND)	Quality of business organization	Research and development	9
		Dynamic Technological Progress	8
		Recognition of existing innovations (adopting solutions from other	7
		business models)  The time effect of innovation implementation	6
		Outsourcing	5
		Unique product	2
		Product quality	2
		Innovation at the multi-dimensional level	1
		Customer feedback	1
		Social impact	1
	Disruptive innovation	Service-dominant (SD) approach	9
		Lower-priced products for low-end market	3
		Competitive threats from outside industry boundaries	3
		Convergence of physical products and digitalization	2
		A more sustainable, innovative and expensive products	2
		New-market disruptive products	1
Nonfinancial nondigital factors - 16			62
Financial (F)	Revenue items	Payonna growth as a determining factor	
		Revenue growth as a determining factor	5
	Cost position	New pricing conceptions  Cost sovings through digitization	3
		Cost savings through digitization	5
	Financial result as a whole	Transformation of fixed costs into variable costs by digitization	4
		Reducing costs by increasing or maintaining revenue	10
Limited time to make a profit			3
Financial factors - 6			30
Grand total factors - 33			159

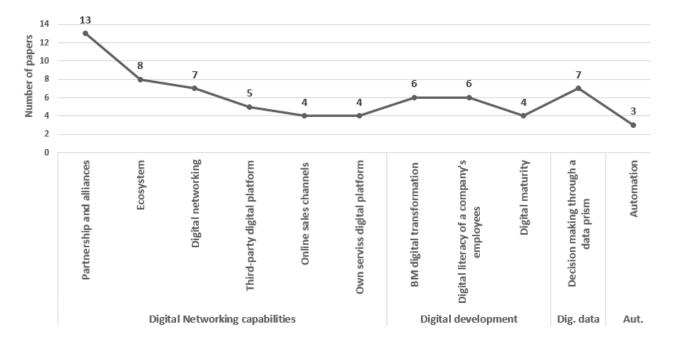
Source: Authors

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The set of factors combined in the nonfinancial digital category has been assigned the greatest importance in developing a profitable business in the digital age. The frequency share of nonfinancial digital category is 42% in the composition of the selected categories; the nonfinancial nondigital category, which combines other supporting factors, makes up 39%, while financial factors make up 19%.

## 3.1.1. The nonfinancial digital category.

Within the nonfinancial digital category, the most frequently mentioned group of factors was the Digital Networking capabilities. It was mentioned 41 times in the sources. The second most Frequently mentioned group was the group of Digital Development factors, which were mentioned 16 times in the sources. As for the group of Digital Data, factors were mentioned 7 times in the Sources and the final group of factors included in process automation were mentioned 3 times. Figure 1 shows the structure of the nonfinancial digital category.



**Figure 1.** Frequency of nonfinancial digital category factors appearing in the literature. *Source: Authors* 

The digital impact on the business environment has been around since the 1990ies of the 20th century. The development of IT technologies and the advent of the Internet offered people new opportunities that were difficult to recognize because traditional stereotypes were broken. The advent of the Internet has transformed human behavior and communication, moving several physical things to the virtual environment. The Internet and ubiquitous digitization are more than just another additional technology, they are qualitatively new, powerful means of communication. The Internet has both improved the speed of information collection and made a significant amount of information widely available (Lumpkin & Dess, 2004).

The following are the groups of key digital factors that affect the business environment, which were selected from the main sources:

Digital Networking: The Digital communication network creates new business communications both to customers, expanding the opportunities to present their products, as well as expanding and facilitating product

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ordering opportunities for both suppliers and other partners (Köhler, 2008; Mikusz, 2017; Raymond, Bergeron, Croteau, & St-Pierre, 2016) thus, creating a business ecosystem. The business ecosystem consists of individuals. organizations, and public authorities, as well as rules that ensure the company interacts with customers, competitors, media, and others (Lusch & Nambisan, 2015; Seelos & Mair, 2007). One company can be part of several ecosystems, whose members are also its partners, suppliers, and customers. However, the exchange of services in the ecosystem is not effective without a service platform that helps to collect and distribute resources as a result of their effective interaction (Lusch, & Nambisan, 2015). Platforms bring together several consumer groups and create value only on the basis of mutual interest of consumer groups. Using a two-side network effect, the value of a platform increases if the platform satisfies the demands of both parties, while the number of users in the network increases (Eisenmann, Parker, & Van Alstyne, 2006). Modern technologies (Cloud Computing, broadband, sensor technology) help companies to build both their own platforms and to use third-party platforms (Paulus-Rohmer, Schatton, & Bauernhansl, 2016). For instance, the Alibaba platform helps small and mediumsized businesses to adapt to the rapidly changing rules of the digital world (Li, Su, Zhang, & Mao, 2018) by allowing them to go beyond the local market and enter the international market. By synchronizing data from different platforms, the participants of the ecosystem form partnerships and alliances (Dehning, Richardson, & Zmud, 2003; Ekundayo, 2019; Nosratabadi, Mosavi & Zavadskas 2019; Seelos & Mair, 2007) increasing sales ( Dehning, Richardson, & Zmud, 2003) as well as acquiring social, environmental and economic benefits at the same time (Nosratabadi, Mosavi & Zavadskas 2019). For example, publishers use website traffic from other publishers to boost their popularity (Viljakainen, Toivonen, & Aikala, 2013). All value-added mobile or wired networks using high-speed broadband telecommunications enable the synchronization of supply chains, which reduces production time and innovation cycles (Schallmo, Williams & Boardman, 2017).

Digital development: Digitalization is a new source of business model innovation that contributes to greater corporate competitiveness and profit growth for individual companies (Dehning, Bruce, Vernon J. Richardson, 2003). The main goals of digital transformation (DT) are to obtain new data and use this data to restore old processes (Schallmo, Williams & Boardman, 2017). New tools and technologies are used in the business model DT. These tools require new staff knowledge in the data collection, processing, calculation, and evaluation process (Dehning, Bruce, Vernon J. Richardson, 2003; Remane, Hanelt, Nickerson, & Kolbe, 2017; Weill, Subramani, & Broadbent, 2002). The introduction of new technologies can fail if the company has not developed a proper business culture. The key question is whether the company recognizes that there is a dramatic difference between digital maturity and market development today (Kane, Palmer, Phillips & Kiron, 2016).

Digital data: The collection, processing, and analysis of digitized data facilitates and enhances management, forecasts, and decisions when developing a profitable business (Schallmo, Williams & Boardman, 2017). Digital transformation transforms a business organization from the process definition to the data flow management concept (Kane, Palmer, Phillips & Kiron, 2016; Schallmo, Williams & Boardman, 2017). New state-of-the-art analytics tools, which are integrated into a company's business model, offer extensive opportunities for data analysis (Köhler, 2008) by providing information about products, customers, and organizational units (Christensen & Raynor, 2003). For example, the analysis of the data in the pricing policy allows to establish a suitable markup, which significantly increases the profit with a small increase in prices of a significant volume of goods without losing the market size (Mazouni, 2013). The reports generated by the application of the data obtained from the third platform provide information on customer behavior and product demand (Li et al., 2018). All new data generates new knowledge and provides an opportunity not only to make the business more effective, but also to replace manpower resources with automation, thus significantly reducing costs (Dehning, Richardson, & Zmud, 2003; Schallmo, Williams & Boardman, 2017).

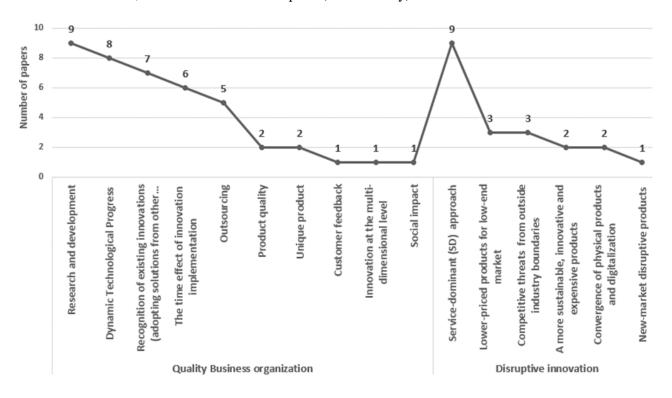
*Automation:* Automation represents a combination of classical artificial intelligence technologies, which enable to perform autonomous operations and create self-organizing systems. This reduces the number of errors, increases speed, and reduces operating costs (Schallmo, Williams & Boardman, 2017).

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## 3.1.2. Nonfinancial and nondigital categories

The goal of a business is to obtain a return on investors' capital investment in the short, medium, and long term by deploying resources efficiently. Managers also have the task of generating value from nonfinancial capital, which is employees, brands, natural resources (IIRC & KIRCHHOFF INVESTOR RESEARCH REPORT) as well as operational activities such as quality, meeting project deadlines, timely delivery (Fullerton & Wempe, 2009). The digital environment and the nonfinancial digital factors described above directly affect the quality of the business organization and management methods.

Within the nonfinancial and nondigital category, the selected factors were categorized in two groups – Quality of Business Organizations and Disruptive (revolutionary) Innovation. Figure 2 shows the structure of the nonfinancial nondigital category, in which the factors of business qualitative organization were mentioned 42 times in the sources, while the factors of disruptive (revolutionary) innovations were mentioned 20 times.



**Figure 2.** Frequency of nonfinancial nondigital category factors appearing in the literature. *Source: Authors* 

Quality of business organization: Research has been identified as one of the most crucial drivers of business development. Companies invest in research directly by creating knowledge and by adapting existing innovations to their industry (Cohen & Levinthal, 1990; Mikusz, 2017; Raymond, Bergeron, Croteau & St-Pierre, 2016). The impact of dynamic technological progress requires regular enhancement of the company's BM to sustain positive financial outcomes (Linder & Cantrell 2001). By modifying their BM, companies, adopt the BM solutions of other enterprises, combining them and introducing innovative changes at the level of various dimensions (Linder & Cantrell 2001; Remane, Hanelt, Nickerson, & Kolbe, 2017), thus, creating a unique product (Paulus-Rohmer, Schatton, & Bauernhansl, 2016). Thanks to digital platforms, the customers and partners of companies have the opportunity to establish mutual cooperation, which contributes to the creation of the uniqueness of products and boosts the quality of existing products (Linder & Cantrell 2001). The product uniqueness and quality are

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supported by customer feedback. The innovative development of BM must be conducted in conjunction with tasks and decision-making that are related in a logical way and in a specific time context. The key success factors that affect the viability of each implemented project are time, finances, and quality (Christensen & Raynor, 2003).

Disruptive innovations: Innovative development can work in two ways, for example, in pertinence to innovation in enterprise sustainable development by improving existing products that can be sold at higher prices and attracting more customers, or by disruptive innovation (Joseph, 2018). Disruptive innovation offers an alternative to existing products that are much cheaper and simpler to use, and partially or fully replace existing products. Disruptive innovations do not try to create better products; they introduce new products that are not currently available on the market (Christensen & Raynor, 2003; Linder & Cantrell 2001). At the same time, while for one business, it can be a disruptive innovation, for another one it can be productive as it can promote sustainable development (Joseph, 2018). Strategic changes in an industry today often come from a completely different industry and lead to a change in cooperation policy and competition rules. Digital technologies have had a significant impact on the economy, altering the way companies interact with each other, with customers and other partners. They have created not only an innovative environment in which companies operate at a higher level, such as faster, cheaper, smarter levels, but also, they have created many new business opportunities (Lumpkin & Dess, 2004).

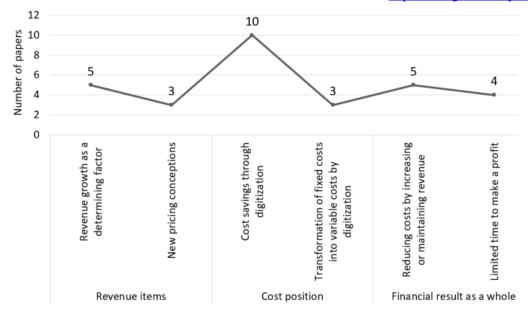
The innovative approach to market expansion no longer supports traditional market segmentation methods, the main attributes of which are the product and the customer, but focuses on the conditions in which customers are located rather than on the customers themselves (Hackos, 2003) and on the benefits as a final result (Hackos, 2003; Mikusz, 2017). This approach proposes the design of a new business model based on a service-dominated approach (Ekundayo, 2019; Fullerton & Wempe, 2009; Hackos, 2003; Kotarba, 2018; Linder & Cantrell 2001; Malmmose, Lueg, Khusainova, Iversen, & Panti, 2015; Mikusz, 2017; Viljakainen, Toivonen & Aikala, 2013).

The ability of an organization to transform the customer's anticipation in the data into the development of the product or service for which the customer will pay (Ekundayo, 2019; Viljakainen, Toivonen & Aikala, 2013), because his/her anticipation will be fulfilled and facilitated by the service dominant logic (S-D logic) (Mikusz, 2017) and product servicing. S-D logic refers to two distinct types of resources—operand and operant. Operand resources are usually tangible and static resources that require some action to make them valuable, e.g., a vehicle. Operant resources on the other hand, are usually intangible (Hackos, 2003) and dynamic resources that are capable of acting on operands and other operant resources, e.g., knowledge. According to S-D, logic, this value can result only from the application of operant resources that may be directly transmitted or through operand resources. This means that when physical goods are involved, they are understood as mechanisms for service provision (Mikusz, 2017). The impact of nonfinancial and nondigital factors on business organizations has a direct effect on the financial outcomes of a business.

## 3.1.3. Financial categories

Figure 3. shows the structure of the financial category and the authors assign the greatest importance to reducing costs through the introduction of digitization, where this factor is mentioned in 10 sources. "It is important to reduce costs to maintain or increase the turnover" - the factor is mentioned in 5 sources. "Revenue growth" is mentioned as a determining factor in 5 sources. It is also crucial to create an efficient cost structure and to use new approaches in pricing policies and the changing digital environment, given the limited profit margin.

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**Figure 3.** Frequency of financial category factors appearing in the literature *Source: Authors* 

Revenue items: In the financial and economic fields, there is a strong destructive trend in terms of revenue generation: using the service / product only when the customer needs it. BM, in which the share of income is generated from sources that have not been pertinent to their primary supply so far (Amit & Zott, 2012; Kotarba, 2018). BM's design is based on the service-dominant approach, in which customers are analyzed as co-creators of value rather than as sales targets (Fullerton & Wempe, 2009; Mikusz, 2017). Revenue growth continues to be emphasized as a key factor in sustaining profits (Dehning, Richardson, & Zmud, 2003; Seelos & Mair, 2007), which is why when planning business success strategies, the authors recommend the simultaneous development of multiple revenue sources targeted at both the affluent and the lowest consumer levels (Christensen & Raynor, 2003; Seelos & Mair, 2007). A common way to increase revenue is to generate revenue from the sale of large volumes of low-priced items (Viljakainen, Toivonen & Aikala, 2013). This technique is widely used in information product sales strategies. Additionally, the pricing policy of informative products envisages a wider price range: by adding a variable component to the fixed price component, which depends on the volume of use of the service, without limiting the usage time (subscription fee) or the creation of the dynamic pricing policy by adding additional value to the basic product (Kotarba, 2018; Viswanathan & Anandalingam, 2005). The above pricing policy is also applicable to the supply of various other products, such as tourism, insurance, and other sectors.

Cost items: The authors mention cost reduction as one of the fundamental directions of the contemporary approach and the reduction of fixed costs is seen primarily with the introduction of digitization (Dehning, Richardson, & Zmud, 2003). In turn, to achieve an efficient cost structure, it is necessary to work on the replacement of operational fixed costs with variable costs (Paulus-Rohmer, Schatton, & Bauernhansl, 2016; Schallmo, Williams & Boardman, 2017). Outsourcing, the use of virtual workers and robotic process are the method of adapting costs to changing workloads (Hackos, 2003; Köhler, 2008).

## Financial results as a whole.

Limited time to make a profit: Dynamic technological progress is forcing companies to innovate in BM through research. Introducing innovation allows for higher profits as long as it does not turn into regular practice

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(Dehning, Richardson, & Zmud, 2003). Under the influence of destructive innovations and as a result of the digital transformation of the business model, it must be taken into account that the profit-making mechanism also operated according to the new formula (Christensen & Raynor, 2003). As far as possible, strategies should be chosen that yield positive financial results quickly, but investments with long-term returns today mean the wrong strategy (Christensen & Raynor, 2003).

Reducing costs by increasing or maintaining revenue: Increasing profits in practice is often seen as reducing costs, but still maximizing profits is the ability of a company to maximize profits by increasing revenue through more efficient deployment of resources (Ekundayo, 2019). It is advisable to achieve the optimal cost / income ratio by assessing efficiency gains (achieving a better end result) rather than just looking for ways to reduce costs as such (Viljakainen, Toivonen & Aikala, 2013) (recommended the increasing of efficiency through effectiveness instead of making efficiency primary).

Under the influence of digital transformation, several factors are involved in the value creation: operational efficiency, cost reduction, competitive advantage, improved service delivery, enhancement of relationship with all stakeholders, co-creation of product value (Morakanyane, Grace, & O'Reilly, 2017), thanks to the digital platform and ecosystem opportunities, and a range of other factors that contribute to a positive business financial outcome.

# 3.2. Creation of meta-categories: grouping of selected factors and their interaction according to the structure of the universal business model

To assess the practical impact of the selected categories on the company's profit generation, the data were grouped and interpreted through the prism of the Universal Business Model.

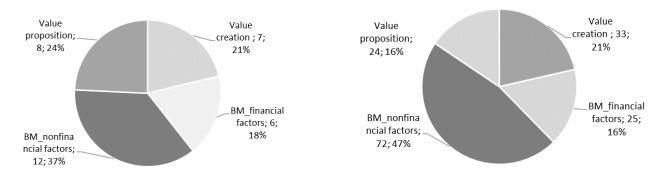
Researchers from different fields of research have recognized the potential of business models to promote the competitive advantage of companies (Clauss, 2017). Using the theoretical and universal structure of the business model description, it is easy to capture, understand, and share, observe over time, measure, and shape the business model (Osterwalder & Pigneur, 2002).

Currently, there is no generally accepted definition of the term "business model". Thomas Clauss (Clauss, 2017), summarizes definitions given by scholars, considers business models as templates of how companies run and develop their businesses at holistic and system levels. Many scholars consider that a business model integrates three main business dimensions – the value proposition, value creation, and value capture (Clauss, 2017). BM is a conceptual tool that incorporates a set of elements, their interactions and reflects the business logic of each specific company (Osterwalder & Pigneur, 2002). The value proposition dimension includes a set of solutions for a company's customers (Clauss, 2017) and determines who the company's customers are, what products they offer, who the main consumers of the product are, what pricing policies will be, product distribution channels, and marketing activities. The value creation domain defines how and by what means enterprises create value along the value chain (Clauss, 2017), using specific resources and competencies. Value capture includes financial (Clauss, 2017) and, from the authors' point of view, nonfinancial aspects. The financial aspect of the value capture dimension determines how the value proposition will be translated into revenue, what the cost structure, and profit generation mechanism will be, while the nonfinancial non-digital aspect offers a set of support drivers that contribute to a company's positive financial performance. Creating a viable and profitable BM in the digital age is plausible only through the interaction of all BM dimensions, combining and adapting different profit strategies (Köhler, 2008).

Determining the impact of the above 33 selected supporting factors (see Table 1) on the positive financial performance, the previous researches most often attribute to BM as a whole 5 financial and 12 nonfinancial nondigital factors, which together make up 53% of the total number of the mentioned factors. In pertinence to the value proposition, there apply 8 factors, 25%, whereas 7 factors, 22%, are attributed to the value creation (Figure

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4). In turn, the number of sources distributes the proportion differently and the share of factors attributable to BM as a whole is 63%, to the value proposition 16%, and to the value creation 21% (Figure 5).

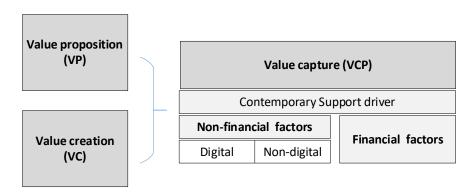


**Figure 4.** Proportion of factors attributable to business model dimensions

Source: Authors

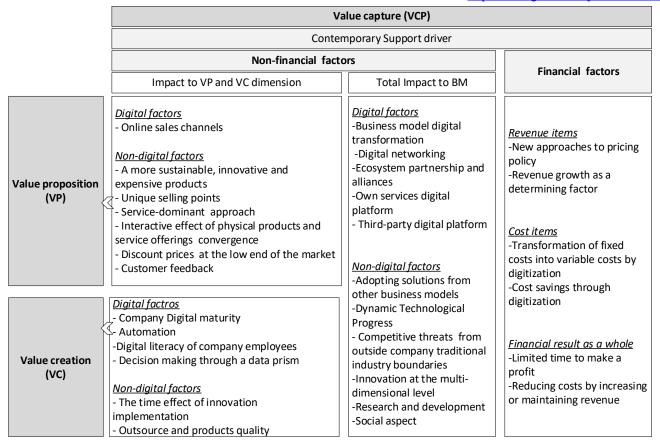
**Figure 5.** Proportion of sources attributable to business model dimensions *Source: Authors* 

According to the structure of the universal Business Model (BM), Figure 6, Figure 7 shows the support driver factors within the value capture dimension as well as the influence and interaction with the BM value proposition and value creation dimensions.



**Figure 6.** Structure of the universal Business Model. *Source: Authors* 

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**Figure 7.** Structure of the universal Business Model with value capture support driver factors *Source: Authors* 

Business model innovation is more than just product, service, or technology innovation. Innovation occurs when several dimensions of a business model are transformed to provide value in a different way (Gassmann, Frankenberger & Csik, 2014). Digitization is a new source of business model innovation; therefore, it contributes to boosting the greater competitiveness of the company. The term "transformation" is used to determine the degree of strategic change in business as a result of innovation (Goerzig & Bauernhansl, 2018). The concept of digital transformation has been discussed for many years, but the digital transformation of the business model is still under discussion. Current issues include how to digitally transform business models and what tools should be considered (Schallmo, Williams & Boardman, 2017).

During the transformation of business models, there is a choice of what to do with the old value proposition and how to be able to make a breakthrough in generating revenue from the new channels. There are two ways to balance this task:

- to find an own strong competitive advantage and develop its existing BM by improving it;
- to identify new customer needs in today's environment and create a start-up business that will become a source of future revenue by further integrating it into the core business structure (Gilbert, Eyring & Foster, 2012).

Organizational strategy is no longer limited to the company's internal views, but focuses on the business environment, the ecosystem (Lusch & Nambisan, 2015). Today, managers need to perceive themselves as part of an organism that operates in the business ecosystem. The ecosystem is not based on the main company; different companies can operate in the same ecosystem, adapting their different business models by developing the ecosystem (Zott & Amit, 2013). Digital deployment and service-dominant approach (SD logic) also include possible integration with partners (Schallmo, Williams & Boardman, 2017), common value creation, and resource

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integration. Value proposition is an intermediary in the continuous interaction between value creation and resource integration (Fullerton & Wempe, 2009).

The company's ability to recognize new external knowledge, acquire, transform, and use it for its commercial purpose is very important for BM's innovative transformation.

## 4. Business Model Transformation: Two Empirical Examples

The section discusses empirical examples of two BM transformations for companies operating in the social business environment in the Latvian market, related successes, implementation shortcomings, and recommendations for the future development of companies using modern support drivers.

The first phase looks at the company's BM before starting DT. The second phase will look at the transformation of BM design influenced by the combination of factors discussed in the previous sections in relation to the dimensions of the business model and their elements, as well as the impact of BM transformation on the company's financial performance. In the third phase, implementation shortcomings are addressed and recommendations for future development are provided. The considered phases of BM transformation are shown in Figure 8.



**Figure 8.** BM transformation phases of companies *Source: Authors* 

# 4.1. BM transformation of the company Ltd. "Home care"

Operating in the market since 2001, the company provides a wide range of social services, such as professional assistance to families in need of care for the elderly, sick or minors with special needs in their places of residence, thus making people's daily lives easier. Entrepreneurial social objective is to ensure a person's right to live as independently as possible in his or her usual family environment, to ensure that a person does not feel lonely or helpless. The company offers and provides its services mainly in the territory of Riga City Municipality, providing social care services to an average of 400 clients every month. Services are provided at the expense of the municipal budget. In total, the company employs more than a hundred qualified employees (carers, nurses, social rehabilitators, nursing assistants, and social workers).

In 2018-2019, as a result of the BM transformation, the care services business has been expanded and the existing services have been improved in two areas, specifically, the "Assistive Technology Center" has been established, and the virtual care services have been provided. The idea of setting up an assistive technology center is not new in the world, as this type of centers, which offer a variety of aid types, and the latest technologies to improve the quality of life and movement and adapt the environment for people with disabilities, have become very popular in the US, Canada, Scandinavian countries, etc.

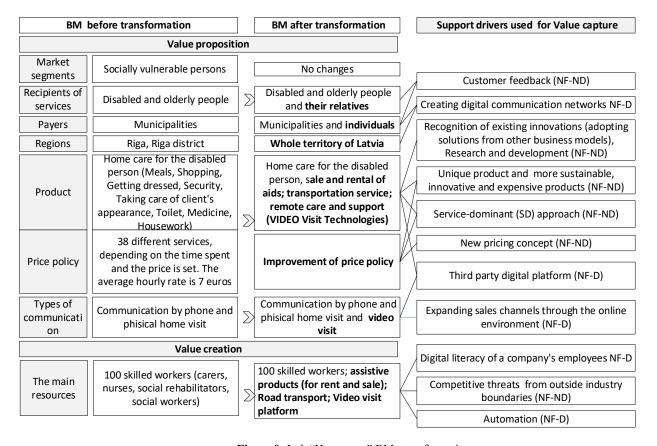
The term "assistive technology" (hereinafter referred to as AT) includes (1) assistive adaptation and rehabilitation devices for people with special needs. Modern assistive technologies promote greater independence by allowing people to perform tasks they have not been able to accomplish in the past. At present, people with special needs do not have access to this type of technology centers in Latvia, where information on the latest technologies and

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opportunities would be available and which would offer consultations of professional specialists on them, and would offer the opportunity to purchase or rent them.

The virtual care service is an innovative e-health solution and by expanding its operations, the company has invested in a virtual care cloud solution on the Finnish company VideoVisit platform (the virtual development business has been rapidly developing and the leaders on the market, such as the Finnish company "VideoVisit", website: www.videovisit.fi), the American company "Camanio Care" (website: www.camanio.com) regularly invest in research and development (R&D) and innovative solutions in cooperation with industry professionals, universities and partners from other countries. The solution is based on a digital service platform that covers the entire virtual healthcare chain, combining all necessary digital healthcare tools in one platform; it can be used by customers without prior technological experience. Clients receive a virtual consultation with a healthcare professional or doctor, receive reminders (for example, consume medicine, measure blood pressure, etc.), as well as tasks (for example, show examples of exercises, etc.). Customer feedback, which is collected on the company's own online website, helps the company to assess the virtual reality and regularly improve the content and quality of the service.

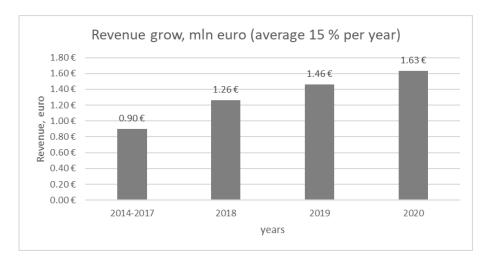
Figure 9 shows the company's BM before the transformation, driving nonfinancial factors supporting the BM transformation, which were summarized and described in the previous sections, and finally the BM that has already been improved after the transformation.



**Figure 9.** Ltd. "Home care" BM transformation *Source: Authors* 

The financial aspect of value capture, influenced by the BM transformation, is reflected in Figure 10. The company's turnover increases average by 15% every year, while profitability varies from 0% to 1%.

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**Figure 10.** Ltd. "Home care" Revenue grow *Source: Authors* 

As a result of the BM digital transformation, the range of service users has expanded, and in addition to local government funds, the financial resources of the private sector have also been attracted, the territory of service provision has expanded, and new cooperation partners at the international level have been found. In performing the BM transformation, the company successfully applied nonfinancial factors: product servicing, research and recognition of existing innovations, and product uniqueness on the existing market. Side industry practices have been adopted, expanding the range of services, offering more expensive and advanced and sustainable products, applying new pricing policies, combining several services into one offer. Regular subscription services have been introduced on the digital platform, which also includes the collection of customer feedback. Within the framework of nonfinancial digital factors, third-party digital platforms have been used, digital communication networks and digital sales channels have been created, and automation has been offered, providing modern equipped assistive aids. The revenue growth factor has been considered as the dominant financial factor.

The whole set of these measures ensured a regular increase in turnover, but did not ensure a stable positive financial result. To create a profitable sustainable BM, the second step, according to the authors, should include the creation of an efficient cost structure and reduction of costs with the introduction of digitization

# 4.2. Implementation of the BM transformation project in the company "Svaigi lv"

The company "Svaigi, SIA" was founded in 2015. "Svaigi.lv" provides a professional approach to the sale of products of Latvian small farm and home producers, offering an innovative sales tool - the e-commerce virtual platform "Svaigi.lv" with the aim to ensure that high quality food is available to customers via modern online shopping. Thus, small farms and home producers in Latvia have received the opportunity to sell their products regularly and independently. Small farms lack the professional knowledge and resources to create product packaging and labeling of high quality, arrange product supply logistics, as well as determine the needs of customers, and create their own marketing activities. Small farms in the region do not have access to outlets or have restrictive conditions for products; the cooperation agreements with supermarket chains have strict terms and conditions, and therefore, practically unfeasible, so the products of small farms cannot be found on supermarket shelves. Through the "Svaigi.lv" platform, business owners can offer a wide assortment of their products, and the products are available to customers to order 7 days a week.

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E-commerce is an area that is still being formed and developing in the world, and "Svaigi.lv" as one of the few food online stores in Latvia has to develop dynamically over time. This implies constantly questioning the chosen business model, whether it supports the maximum possible sales volume, and whether it is sustainable. Researching the examples of good practice in the development of e-commerce in the world, "Svaigi.lv" has concluded that in the dynamically changing digital business environment, where the product life cycle is rapidly decreasing, to maintain competitiveness potential, it is necessary to promptly identify, adapt and use innovative solutions for commercial purposes. The contemporary innovative e-commerce business models support the use of digital platforms, information, and communication technologies. The value of a platform increases if it ensures that the demands of all parties involved are met.

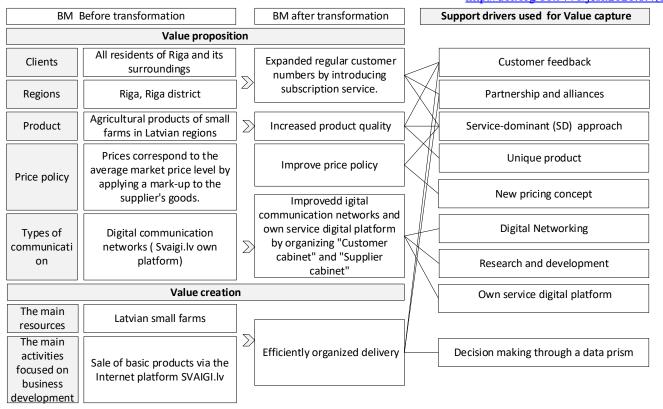
In 2018, a three-year project was launched, which envisages the enhancement of BM in accordance with the innovative trends of the dominant service concept, specifically, it envisages the usage of digital opportunities and world-proven e-commerce business models aimed at co-creating product value, service subscriptions, as well as developing new sales channels for corporate clients. Prior to the implementation of the project, the transaction ends with the delivery of the ordered product to the customer, while the commercial goal is to attract customers for long-term cooperation and promote repeated purchases in a convenient way for the customer. A modern concept that transforms Product Dominant Logic into Customer Thinking Oriented Logic (Service Dominant Logic) helps a company integrate additional service solutions into its BM.

Customer integration in long-term service relationships is based on value co-production. To continue contact with the customer after the delivery of goods, it is planned to create a "customer's cabinet" within the "Svaigi.lv" platform, which allows the customer to manage their orders, payment flow, as well as provide feedback on the quality of goods and services. In its turn, "Svaigi.lv" uses this opportunity to offer the customer service subscription cooperation model, which is more commercially advantageous compared to the existing cooperation model.

Based on the data obtained from business transactions, the customer's behavior, their needs, and satisfaction can be assessed. The evaluations of suppliers provided by buyers make it possible to predict which products the customers choose daily and to what extent these products will be needed in a certain period of time, thus, it allows to offer product subscriptions for a certain period. In addition, data analysis facilitates cooperation with business owners, allowing to forecast the required order volumes in advance, to assess the quality of the provided services and products. To ensure the exchange of information and resources in co-production, it is planned to create a "host cabinet" within the "Svaigi.lv" platform, which allows hosts to manage order flows and volume, billing statuses and forecasted product quantities, see reviews of their products, administer not only their product subscriptions, but also evaluate the service at every step.

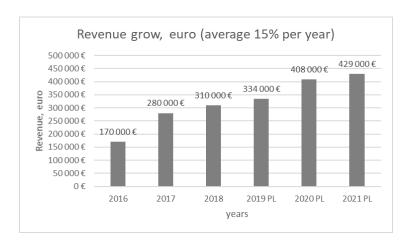
Digitalization opens up a wide range of opportunities for a company to standardize business processes, to make them as simple and efficient as possible, and to ensure that it maintains a competitive position by increasing profits. The project envisages the establishment of data exchange between the e-commerce platform and the financial system, which allows for saving costs on data processing and ensures high-quality coordination and control of the business. Figure 11 shows the company's BM before the transformation, driving nonfinancial factors supporting the BM transformation, which were summarized and described in the previous sections, and the improved BM after the transformation.

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**Figure 11.** Ltd. "Svaigi.lv" BM transformation *Source: Authors* 

The financial aspect of value capture under the influence of BM transformation is shown in Figure 12. The company's turnover increases every year, with a further planned annual growth of 15-20%. On the other hand, the company has not yet managed to achieve a positive financial outcome and is operating at a loss.



**Figure 12.** Ltd. "Svaigi.lv" Revenue grow *Source: Authors* 

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As a result of the project implementation, the service-oriented business model of the virtual market "Svaigi.lv" will be transformed. Product servicing will transform the content, structure and management of transactions, achieving the company's goal to offer a unique business model in Latvia, developing cooperation with customers from a one-time purchase to long-term mutually beneficial cooperation. It envisages that once a person makes a decision about the need for products in his/her daily life and enters the payment data, he/she is further relieved of constant decisions about making a purchase and making a payment.

In performing the BM transformation, the company has successfully applied nonfinancial factors: product servicing, research and recognition of existing innovations, product uniqueness on the existing market; introduced regular subscription services on the digital platform and uses customer feedback; within the framework of nonfinancial digital factors, the company has applied the improvement of the self-created digital platform, established a digital communication network, ensuring the formation of partnerships aimed at co-creation of product value, expanded digital sales channels; introduced decision making through a data prism. The increase in revenue is considered the dominant financial factor; during the project implementation it is planned to carry out cost reduction activities by introducing digitalisation.

It is planned that the implemented project will allow to ensure the sustainability of the business by promoting the annual growth of turnover, but the digital management of processes will ensure a positive financial result (profit). As a result of the project implementation, it is planned to increase the number of business owners using the platform by 20% annually and to ensure the increase in revenue by an average of 15% per year and to ensure a profitability of at least 10%.

## **Conclusions**

Within the framework of this paper, there have been identified the current profit-promoting factors in the changing business environment. The following groups of factors of the nonfinancial digital category are marked as dominant: "Digital data" (Digital data), "Automation", "Digital Communication Network" (networking) and "Digital Development". Several factors of "Business Quality Organization" are also addressed, and the factors of the "Impact of Destructive Innovations" is singled out, while "Financial Category" is taken to include factors through which profit strategies are implemented to enhance the revenue / cost structure.

The practical impact of the mentioned factors on the company's financial outcomes is possible to determine by interpreting them through the prism of BM and creating a conceptual tool that includes a set of elements of their interaction, which reflects the business logic of each particular company.

The study of two empirical examples showed that it was precisely these factors that supported the digital transformation of BM. Both examples also indicate that a successful BM transformation can only be accomplished by transforming all related elements of the BM dimension, such as the value proposition, value creation, and value capture via their interaction.

Profit maximization is the ability of a company to maximize profits by increasing revenues through more efficient use of resources. In turn, the financial results of both examples showed that companies initially supported only one dominant factor of profit maximization: revenue growth as a determining factor and achieve an increase in turnover. However, in the case of both examples, what was different was setting up cost-effective structures and reducing costs through the introduction of digitalisation, as the companies were still operating at very low profitability or at a loss.

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In the following work, the authors intend to study in more depth the impact of the nonfinancial factors of the BM value capture dimension on the positive financial outcome of a business and the integration of these factors into the chosen profit strategies. By collecting and accumulating this information, a profit management model can be developed to support companies in a rapidly changing environment, especially in the small and medium business sector.

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Ludmila KASPEROVICA

ORCID ID: 0000-0002-5245-1423

Natalja LACE

ORCID ID: 0000-0003-1154-839X

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