Ministry of Education and Science of Ukraine
Ukrainian-American Concordia University
Department of International Economic Relations, Business & Management

Bachelor's Qualification Work

Digitalization – opportunities and threats for the international business development

(on the basis of internship in the «V-Jet Group»)

Bachelor's student of
Field of Study 07 – Management and Administration
Specialty 073 – Management
Educ. program – Management

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Kyiv – 2022

Abstract:

In the modern world, the importance of the concept of digitalization is rapidly growing and is being considered as a solution for business and institutions innovation. Today, the definitions of «digitalization» and «opportunities» often go along with each other. Digitalization has a massive impact on all spheres of our life and keeps changing and enhancing the business enterprises and institutions. The trend of digitalization forces the society to develop and implement new ways of business development to remain competitive and be able to operate during the periods of crises. This work deeply analyzes digitalization and digital transformation from a theoretical perspective, shows the ways digitalization and digital transformation influence business development, studies company competitiveness and suggests ways of business improvements in the framework of digitalization.

Keywords: digitalization, digital transformation, innovation, business development, business improvement.

У сучасному світі значення концепції цифровізації стрімко зростає і розглядається як рішення для інновацій бізнесу та інституцій. Сьогодні поняття «цифровізація» та «можливості» часто поєднуються одне з одним. Цифровізація має величезний вплив на всі сфери нашого життя, постійно змінює та вдосконалює бізнес-підприємства та установи. Тенденція цифровізації змушує суспільство розробляти та впроваджувати нові шляхи розвитку бізнесу, щоб залишатися конкурентоспроможним і мати можливість продовжувати свою дільність в періоди криз. Ця робота глибоко аналізує цифровізацію та цифрову трансформацію з теоретичної точки зору, показує, як цифровізація та цифрова трансформація впливають на розвиток бізнесу, вивчається конкурентоспроможність компанії та пропонується шляхи покращення бізнесу в рамках цифровізації.

Ключові слова: цифровізація, цифрова трансформація, інновації, розвиток бізнесу, вдосконалення бізнесу.

PHEE-institute «Ukrainian-American Concordia University»

Faculty of management and business
Department of international economic relations, business and management

Educational level: **bachelor degree**
Specialty: 073 "Management"
Educational Program "Management"

APPROVED
Head of Department _____

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TASK
FOR BACHELOR'S QUALIFICATION WORK

_____***Iryna Babiuk***_____
(Name, Surname)

1. Topic of the work ***"Digitalization – opportunities and threats for the international business development (on the basis of internship in the «V-Jet Group»)***

Supervisor of the work_***N. Chaplynska, Ph.D. in Economics, Associate Professor***,

Which approved by Order of University from ***"22" December 2022 №22-12/2022- 3c***
2. Deadline for bachelor's qualification work submission "***16" May 2022***
3. Data-out to the bachelor's qualification work *materials received during the internship and consultations with the representatives of "V-Jet Group"*

4. Contents of the explanatory note (list of issues to be developed) *There are 6 main tasks which should be covered at the work. They should include describing digitalization and digital transformation; covering how digitalization and digital transformation influence international business development. Also student should study the influence of digitalization on the various businesses and institutions. From the practical tasks student should mention what is the main goal, activity of LLC "V-Jet Group" and analyze its strategies and competitiveness; also conduct analysis to understand how digitalization and digital transformation can help to further improve this company and finally to develop the ideas how to improve the business from tech, and human resource perspectives.*

5. List of graphic material (with exact indication of any mandatory drawings)
Digital transformation pyramid, to provide comparison analysis for definitions of digitalization/ digital transformation (better as a table), Factors of successful digital

transformation, the organizational structure of the company, and comparison of its balance sheet.

6. Consultants for parts of the work

Part of the project	Surname, name, position	Signature, date	
		Given	Accepted
1	N.Chaplynska	+	+
2	N.Chaplynska	+	+
3	N.Chaplynska	+	+

7. Date of issue of the assignment

Time Schedule

№	The title of the parts of the bachelor's qualification work	Deadlines	Notes
1.	I chapter	*14.02-13.03.2022*	*in time*
2.	II chapter	*14.03-10.04.2022*	*in time*
3.	III chapter	*11.04-24.04.2022*	*in time*
4.	Introduction, conclusions, summary	*25.04 – 01.05.2022*	*in time*
5.	Pre-defense	*06.06.2022*	*in time*

Student _____
(signature)

Supervisor 

Conclusions: *The bachelor's qualification work is designed according to the requirement of guidelines, commission, and high school for such type of scientific papers. It contains all necessary chapters and subchapters, describes information in detail on the theoretical and practical side, and gives concrete recommendations for the development of digitalization in the company. The theoretical part includes a deep analysis of scientific research and has a lot of figures and tables with explanations. Conclusion and proposals formulated correctly, described all tasks. In total, the work can be recommended to the viva with the grade "Excellent".*

Supervisor  NATALIA Chaplynska

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INTRODUCTION

This paper is dedicated to the topic of digitalization. It describes the theoretical material explaining the essence of its meaning and shows practical examples how digitalization has been evolving globally and applied to the work of the enterprises and institutions. In order to explain the relevance of the topic, it is importance to clarify the definitions of such terms like «digitalization» and «digital age».

The digital or information age started in the 60s penetrating business with the first computers and other information technologies. The beginning of digital era called «pre-digital», where provision of goods and services were a top priority. At the same time products start being transformed into more digital shape, and still, it is very simple in comparison with 2022.

Simultaneously, the word «digitalization» means the inception of information technologies in the various areas of our life for its quality and economic development. It is definitely can be considered as strong reasoning why the «pre-digital» phase of digital era does a gradual progress into the «mid-digital» phase, the phase we are all living in.

There was a brief explanation of the key terms that shape the relevance and importance of the topic «Digitalization – opportunities and threats for the international business development».

Previously, this topic has been researched by various scientists K. Schwab, D. Schallmo, R. Rachinger, R. Huckstep, and S. Kraus as well as many others, since the subject of digitalization is so extensive. It has been defined that digitalization is an important area of research when it comes to business development and influences it in many ways. This scientific work aims to add to the discussion by offering ways of business development and improvement based of the digitalization framework.

This written work will look into options of business development and improvement in the framework of digitalization through doing theoretical research into digitalization, digital transformation and business development within digitalization and digital transformation. The theoretical and analyzed knowledge is then applied to a specific subject of study to

understand how digitalization can influence the various business and institutions. In addition, this work will study a company “V-Jet Group” through completing an internship and analyzing its environment, financial and economic factors, international management capabilities and seeing through the competitiveness of the company by Ukrainian and international standards.

In total, the following work will discuss digitalization and digital transformation, its advantages and disadvantages, opportunities and threats, its influence on international business development and address the issue of how impacts various businesses and institutions, analyze company competitiveness and suggest options of improving business development in the framework of digitalization and digital transformation.

The master thesis consists of an introduction, three chapters, conclusion and proposals part, list of references. The thesis has been outlined in the chapters in the following order: outline of the concept of digitalization as a framework for business development, the study of “V- Jet Group” and its competitiveness on the market, and consideration of ways of business development and enhancement in the framework of digitalization. The first section provides the necessary theoretical framework for understanding digitalization and analyzes businesses and institutions within its scope, looks into how digitalization trends have influenced them. The second section provides a recollection of the internship experience at “V- Jet Group” and offers a detailed analysis of the company’s economic state and competitiveness on the market. The third section gathers all the previous data and analysis in order to establish ways of business development and enhancement in the framework of digitalization.

The **relevance** of this work is defined by the rapid growth of importance of digitalization in the world, and its influence on the different spheres of our life that has a strong relation with a business development.

The aim of bachelor thesis is to study and analyze how the digitalization and digital transformation processes have become a framework for international business development and its influence on it; develop the options for the business development and improvement in the framework of digitalization.

In order to achieve this aim, the following **tasks** were set:

- develop an understanding of digitalization and digital transformation;
- study how digitalization and digital transformation influence international business development, and the world in general;
- study the influence of digitalization on the various businesses and institutions;
- determine the components of digital transformation, and to explain what elements within the organization has to be transformed to ensure the successful process of digital transformation;
- provide understanding of modern business development by completing an internship at the company (LLC "V-Jet Group") and analyzing its strategies and competitiveness;
- conduct analysis to understand how digitalization and digital transformation can help to further improve business development;
- develop the options of business development and improvement from the business, tech, and human resource perspectives.

For the **research methods** of analyzing a data the quantitative, and qualitative method are being used, including thematic analysis, content analysis, SWOT analysis, PEST analysis, Porter's Five Forces analysis, analysis of financial statements and its figures. Both primary and secondary types of data are being used for the research.

The **research objects** are digitalization, digital transformation, and business development within its context.

The **research subject** is a set of theoretical, methodological and practical approaches to develop the ways of business development and improvement, define company competitiveness for LLC "V-Jet Group".

Bachelor thesis consists of an introduction, 3 chapters, conclusion and proposals part, list of references. Work is carried out on 98 sheets, containing 5 tables, 6 formulas, and 42 figures. References include 81 literature sources.

CHAPTER I. OUTLINE OF THE CONCEPT OF DIGITALIZATION AS A FRAMEWORK FOR BUSINESS DEVELOPMENT

1.1. Business enterprises and institutions go digital

In modern market conditions, the digitalization and digital transformation processes can be determined as one of the main factors of economic growth of business enterprises, institutions and society as a whole. At the same time, the growth of digitalization indicators in the world is caused by the changes in the external environment, including technological transformations, the strengthening of information processes, the formation of new demand for consumption.

The digitalization process is defined by transformation, establishment of digital technologies to optimize and automate business processes, improve communication with consumers and increase the efficiency of economic activity. In addition, the term digital transformation can be explained as the change process in the society and technology that involve the penetration of technology into all aspects of human interaction. The essence of these transformations is to find new approaches and management concepts to solve typical business cases.

The current research paper contains such definitions as “digitalization”, “digitization”, “digital transformation”. The deference between the definitions is clearly described by Mark Sen Gupta [32]:

- Digitazation n is about converting something non-digital into a digital representation or artifact (paper document is converted into PDF through scanning);
- Digitalization refers to enabling or improving processes by leveraging digital technologies and digitized data. Digitalization improves an existing business process or processes but doesn’t change or transform them;
- Digital Transformation is really business transformation enabled by digitalization.

All three definitions are used to identify the process of technological improvement on the different levels (Figure 1.1.). Considering the fact, we are discussing the technological improvement for organizations on the local and global levels, all three definitions are taken

into account. The definition applied to a specific case or example identifies the level of technological improvement the organization pursuits.

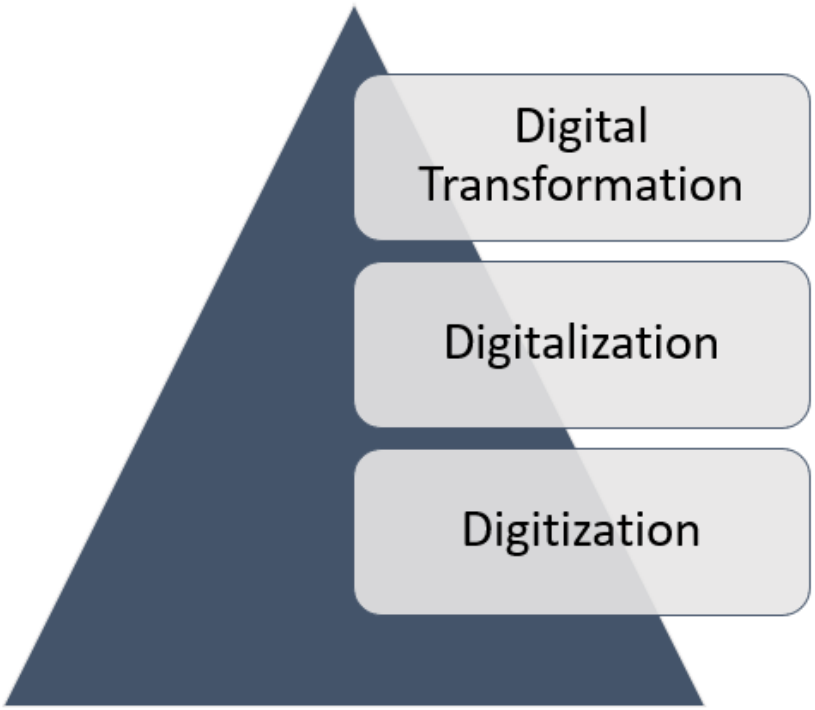

Fig. 1.1. Digital Transformation Pyramid

Source:https://www.arcweb.com/blog/what-digitization-digitalization-digital-transformation

According to Schallmo, there is currently no commonly accepted definition of "digitalization" [58]. Moreover, the terms digitalization and digital transformation often used interchangeably. Selected definitions in the context of digitalization and digital transformation are shown in the Table 1.1.

Table 1.1

Definitions of digitalization/ digital transformation.

Author	Definition
Gartner Glossary, 2018	Digitalization is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business.
Kalina, 2021	A transformation (including improvement and possibly optimization) of business activities by means of digital and information technologies.
Schallmo, 2018	The digital transformation framework includes the networking of actors, such as businesses and customers, across all value-added chain segments, and the application of new technologies. As such, Digital Transformation requires skills that involve the extraction and exchange of data as well as analysis and conversion into actionable information. This information should be used to calculate and evaluate options, in order to enable decisions and/or initiate activities. In order to increase the performance and reach of a company, Digital Transformation involves companies, business models, processes, relationships, products, etc.
I-scoop.eu, 2018	Digitalization means turning interactions, communications, business functions and business models into (more) digital ones which often boils down to a mix of digital and physical as in omnichannel customer service, integrated marketing or smart manufacturing with a mix of autonomous, semi-autonomous, and manual operations.
Serinikli, 2021	Digitalization is the execution of business processes on digital platforms.
Rachinger, 2018	Digitization (i.e., the process of converting analogue data into digital data sets) is the framework for digitalization, which is defined as the exploitation of digital opportunities. Digitalization by means of combining different technologies (e.g., cloud technologies, sensors, big data, 3D printing) opens unforeseen possibilities and offers the potential to create radically new products, services and BM.
Gobble, 2018	Digitization is the straightforward process of converting analog information to digital. Digitalization refers to the use of digital technology, and probably digitized information, to create and harvest value in new ways.
Gong & Ribiere, 2021	A fundamental change process, enabled by the innovative use of

	digital technologies accompanied by the strategic leverage of key resources and capabilities, aiming to radically improve an entity and redefine its value proposition for its stakeholders.

Source: compiled by the author.

Taking into account the definitions described in the table above, I have built my own: "Digitalization - the adoption of digital technologies in the organization processes, functions, business model, digital platform to create new value producing opportunities, and develop revenue streams".

Furthermore, the scientists use different approaches toward the processes of digitalization and digital transformation. The current research paper includes the variety of opinions and different views on this matter that are described further in this chapter. Brief summarization of the scientists and its perspectives is introduced in the Table 1.2.

Table 1.2

Scientific approaches on digitalization and digital transformation.

Author	**Perspective**	**Scientific approach**
Schwab, 2016	Economic	Based on the laws of economics and cause-and-effect principal. Digitalization creates many opportunities and improves processes from the perspectives of business, governments, people, and shaping the future in general.
Kraus, 2021	Economic	Digitalization helps businesses to sustain globally using technologies.
Huckstep, 2021	Economic	Digitalization creates "digital disruption" that impact business, economy, society
Schallmo, 2018	Business	Focuses on the study on the digital transformation of the business model, as a process that pulls the change in companies, actors, processes, and products.
Rachinger, 2018	Business	Focuses on study on the business model transformation using resource-based view: identifies digitalization activities in the dynamic-capability phases of 'sensing', 'seizing', and

		'reconfiguring' that relate to the business model elements of value proposition, value delivery, and value capture.
Gorissen, 2018	Business	Focuses on study on the business model transformation using radical innovation and structural change in the organization.
Sestino, 2021	Business	Business strategy should be taken into account when companies seeking to digitalize their business.
Tabrizi, Lam, Girard, Vernon & Irvin, 2019	Business	Focus on the quantifiable management approach where the success of digital transformation is not identified by the technology, but the right strategy, and other factors as quality insider information, customer experience, quality communication with employees, flexible organizational culture.
Solis, 2019	Business	Focuses on the quantifiable management approach where the digital transformation of the organization is identified by 8 factors such as orientation, processes, objectives, structure, insights, technology, execution, people.
Bonnet & Westerman, 2020	Business	Organization can be partially or fully transformed considering the elements of digital transformation available in every organization.
Zavery, 2021	Business	In terms of digital transformation, focuses on the opportunities created by technologies, and resources that redefines its value for stakeholders.
Chamorro-Premuzic, 2021	Business	Organization has to focus on the data-driven approach in order to become digitally transform.

Source: compiled by the author.

It is important to admit that digital technologies create a number of competitive advantages of the business enterprise:

- High level of competitiveness;
- Saving of financial and natural resources;
- Optimization of work with the data set;
- Customer loyalty;

– Formation of the image of the enterprise.

According to Klaus Schwab [59], Founder and Executive Chairman, World Economic Forum, we live in the period of Fourth Industrial Revolution which is based on the Third Industrial Revolution, and took its start in the middle of the last century. Klaus Shwab defines as Fourth Industrial Revolution as such where the combination of technologies removes the borders between such spheres as physical, digital, biological spheres.

The Fourth Industrial Revolution has one of the major influences on the business enterprises. This influence, of course, goes along with continuous speedy disruption in innovations among all industries, which results in transformation of businesses.

Typical supply chains used by the large number of enterprises are being outdated, since many industries are changing their view on the process of products and services introduction to the market.

Innovative, agile, flexible companies are also considered as a threat to the big players on the market. Thanks to the global access to the innovative tools, these flexible companies can significantly improve their business effectiveness in sales, marketing, finance, logistics etc. in a short period of time.

Another popular trend is an appearance of the marketplaces that act as an intermediary between the seller and the buyer. The marketplace combines both processes- supply and demand, and it is fully disrupting the existing industry structure usually called as «on demand». These systems can be easy used through the web-site, or a smartphone. It created absolutely new ways of consuming goods and services and improved the customer experience at the same time. Finally, it drives many businesses being started and being grow; it helps to increase the wealth of the business and the personal wealth of the individuals.

According to analysis of the World Economic Forum [79] the quantitative benefit from the digital transformation could achieve $100 trillion during the next decade. Primarily, the analysts from the World Economic Forum defined the four areas where the potential value generated by digital transformation is able to make a contribution for society and industry reaching $20 trillion to 2025. The four areas are automotive, consumer industries, electricity, logistics, that cumulatively can reach the value of $20 trillion. Also, the analysis

shows that every industry has a different level of impact from the perspectives of society and industry (Figure 1.2.).

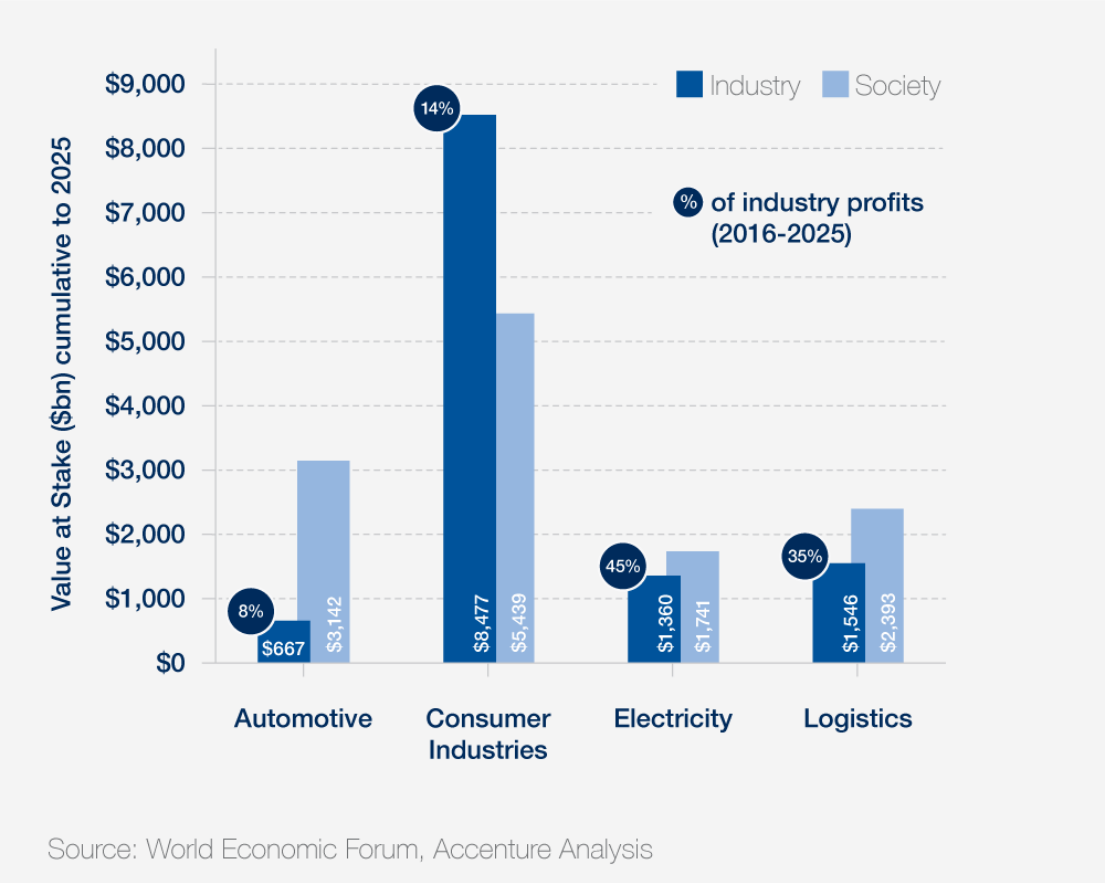

Fig.1.2. Potential value is being created by the factor of digital transformation for society and industry.

Source: http://reports.weforum.org/digital-transformation/wp-content/blogs.dir/94/mp/files/pages/files/wef-digital-transformation-2016-exec-summary.pdf

As it shown on the Figure 1.2. the impact on the automotive industry may equal around 8%, the impact on the consumer industry may reach 14%, while at the same time the logistics and electricity are the industries with the highest prizes, 35% and 45% of industry profits respectively.

The differences in quantitative prizes between industries can be explained by the factors of the maturity of digital disruption and time needed the initiatives start making an impact on the industry. For example, electricity can be considered as an important consumer

product where any digital transformations to diversify the process of electricity production will immediately reflect both the industry and society in a positive way. However, the same reflection cannot be received if we talk about the automotive industry, since this area is a quite mature in terms of innovations and digital transformations.

Overall, Klaus Schwab clearly defines both the benefits and drawbacks the society and industries may gain form the digitalization and digital transformation processes. Schwab points out the benefit of rapid growth of innovation, which leads to the optimization costs and improvements in productivity. At the same time, the economist avers that automatization and robotization will influence the society, first of all, middle business class. Low-skilled employees will stay on the same financial level, without preconditions for salaries increase, while the income of high-skilled employees will be increasing exponentially. Additionally, the scientist points out that digitalization will have a positive effect on the governments, and potentially creates more opportunities for modern conflicts escalation.

Talking about the governments, digitalization will create a new reality, where the governmental institutions will transform from vertical hierarchy to the horizontal. The governments must apply more flexible type of management that can be compared to the Agile methodology used by businesses specialized in software development. The situation can be seen from the other side as well. The same way the customers are important for the business enterprises, the public engagement and the opinion of electors are important to governments. Hence, these indicators would be auxiliary drivers for the governments to continuously adapt to changes and cooperate with business and society.

The development of technologies, undoubtedly, influences the way modern conflicts are handled. Thus, the society experiences massive hybrid wars which blur the unambiguous concepts and give them double meaning. On the other hand, the phenomenon of digitalization will lead the industries to the creation of new technologies aimed at preventing any harmful actions.

According to Kraus [44], the globalization has placed increasing pressure on businesses to change and this cause the increase of importance of digital transformation. The emergence

of such businesses as Airbnb, Uber, Glovo supports the statement that the technology sustains the globalization of businesses and create new innovative business models using tech approach.

Again, from the economic perspective, the term "digital disruption" should be taken into account. The term is used to describe the impact of digitalization on how the business, economy, society operate [33].

According to Sestino [61], digitalization blurs the lines between technology and management (transformation of business models, and integrations of digital innovations into business to digitally transform organization). Following this idea, I would like to refer to Daniel Schallmo, economist, consultant, lecturer of University of Applied Sciences Ulm, and author of the research paper «Digital Transformation of Business Models - Best Practices, Enablers and Roadmap», presented at the XXVIII ISPIM Innovation Conference. Schallmo [58] focuses on the study on the digital transformation of the business model, as a process that pulls the change in companies, actors, processes, and products.

The main component of any business or commercial project is the business model. The process of digitalization of an enterprise involves not only the transformation of individual tools, but also processes. One of these processes is predetermined by the business model, through which the business receives money in return for the sale of products, services, ideas. Accordingly, the business model falls under digital transformation as well. Schallmo offers his own definition: «The digital transformation of business models relates to individual business model elements, the entire business model, value-added chains, as well as the networking of different actors in a value-added network. The degree of the digital transformation concerns the incremental (marginal) as well as the radical (fundamental) change of a business model. The reference unit with regard to the level of novelty is primarily to the customer, but it can also affect its own business, partners, industry, and competitors. Within digital transformation of business models, enabler(s) or rather technologies (e.g., big data) are used to generate new applications or services (e.g., on-demand predictions). These enablers require skills that enable data collection and exchange as well as analysis and use to calculate and evaluate options. The evaluated options are used

to initiate new processes within the business model. Digital transformation of business models is based on an approach with a sequence of tasks and decisions that are related to one another in a logical and temporal context. It affects four target dimensions: time, finance, space and quality» [58].

The definition of Schallmo gives involving description of all components of the business model functioning process. The author emphasizes the importance of each component of this process. Simultaneously, we understand that each component should be taken into account in the process of digital transformation of the business model. Otherwise, business investments in digitalization may turn out to be inefficient and a waste of resources.

The research of the literature on the subject of digital transformation of business model shows the different theoretical perspectives describing the ways how digitalization should be performed and how components of business model should be influenced by technological improvement. Parida, Sjödin and Reim [52] highlight five theoretical perspectives: resource-based view (RBV) and dynamic capabilities, transition theory, entrepreneurship, transaction cost theory, platform theory. Among the theoretical perspectives, RBV takes the dominant view emphasizing on the role of company competitive advantage generated by the company resources and capabilities. For example, Rachinger [54] divides digitalization activities into dynamic-capability phases, such as “sensing”, “seizing”, “reconfiguring”. These dynamic-capability phases relate to the elements of business models: value creation, value delivery, value capture. Some of the theories represents low level of maturity. For example, Gorissen’s [31] transaction theory focuses on radical innovation and deep structural changes in the business model, rather than gradual technological adoption and adaptation of optimal solutions.

Following the transition to the analysis of digitalization from the business perspective, I would like to refer, again, to Sestino [61], emphasizing that the business strategy should be taken into account when companies seeking to digitalize their business.

In 2016, McKinsey published a research showing that 70% of the projects focused on digital transformation of the business fail: «Common pitfalls include a lack of employee engagement, inadequate management support, poor or nonexistent cross-functional

collaboration, and a lack of accountability. Furthermore, sustaining a transformation's impact typically requires a major reset in mind-sets and behaviors—something that few leaders know how to achieve» [10]. And, in 2019 Wall Street Journal published data from a survey by consulting firm Protivity, according to which: «Businesses predict digital transformation to be biggest risk factor in 2019» [66].

Taking into account previous research and statistics, in 2019 the web source Harvard Business Review has published an article «Digital Transformation Is Not About Technology» by Behnam Tabrizi, Ed Lam, Kirk Girard, Vernon Irvin [67]. The article gives a different look at what digital transformation really is and suggests a list of business lessons for its successful implementation. Important points highlighted by the authors include:

– Before spending money on investments in digitalization, define your business strategy. It is important to first determine «what» you want to improve, and then answer the question «how» or «with use of which tools» you want to achieve the desired result.

– Leverage of information from the internal sources is a good solution for the business to learn its weaknesses. Hire of outside consultants may be inefficient solution, while the employees' knowledge of processes' and system's issues may play a key role identification of tools used for digital transformation.

– Questioning the customers about their experience is a right step to sales increase. Companies compete with each other to increase customer satisfaction rates. Thus, it is logical that the most valuable feedback is customer feedback.

– It is important to flow the communication to employees about the positive effects of digital transformation before employees feel threatened by being downsized. In the case of the latter, company employees can provide incorrect information, which subsequently affects the building of an incorrect business strategy and the possible failure of the digital transformation process.

– It is important to follow an agile organizational culture. By setting up processes according to agile methodologies, the company is able to respond to changes and make decisions more quickly and efficiently than in a hierarchical organizational structure.

In my opinion, for a successful outcome, it is important to take into account all the

lessons of business. These lessons can be considered as the working parts of one mechanism. If at least one part breaks the whole mechanism stops working. And in our case the broken part creates the risk of failure of the entire digital transformation process. For example, qualitative identification of the business strategy is not possible without reasonable customer feedback. The company will not receive reliable insider information unless the CEOs, and senior executives of the company convince employees of receiving personal benefits from successfully achieving the business goals of the strategy. Finally, the entire transformation process can fail if the business enterprise coordinates decisions according to a hierarchical organizational structure.

To support the idea described above, I would like to refer to Zavery [81], who states that business must start with and focus on the opportunities (created by technologies), and resources that redefines its value for stakeholders.

To sum up, as in many world processes, people are the most important part of the chain of the digital transformation process. The task of the leader is to prepare the organizational culture for change, which greatly expands the company's ability to grow faster and accelerate the implementation of innovation in the company.

In support of the opinion about the importance of the organizational culture factor in the framework of digital transformation, a well-known futurist and chief analyst at Altimeter, Brian Solis speaks out. In his summarizing report «The 2018-2019 State of Digital Transformation» [63], the author called digital transformation as an Enterprise-Wide Movement. According to the analysis, Solis highlights the main conclusions on the state of digital transformation in 2018-2019:

- The author equates the success of digital transformation with the enterprise-wide effort. According to statistics, CIOs are increasingly being the initiators of digital transformation. This percentage has increased for the second year in a row and now reaches 28%. At the same time, the percentage of directors who play a leadership role is also growing and reached 23% in 2019.
- The main factor influencing the digitalization drive is the market, as 51% of business enterprises see digitalization as an opportunity for growth, and 41% see this process

as a way to increase pressure on competitors.

- The main and most important focus of investment in the framework of digitalization is the channels of interaction with customers - 54%. Nevertheless, a large number of enterprises fail the task of collecting feedback and qualitative analysis of their customers. Consequently, for 41% of companies, investments in digital transformation are not effective.
- For 28% of companies, digital transformation is still perceived as a cost center, and it is difficult to calculate the percentage of conversions or return on investment. Also, in 26% of cases, those responsible for the digitalization process face resistance to change, as well as problems caused by regulatory compliance.
- And the last important point that determines the progress towards changing the organizational culture: «Innovation is staking its claim within the organization. Nearly half of respondents report that they are building a culture of innovation, with in-house innovation teams becoming the norm» [63].

Figure 1.3. shows the eight factors of successful digital transformation highlighted by Solis [63].

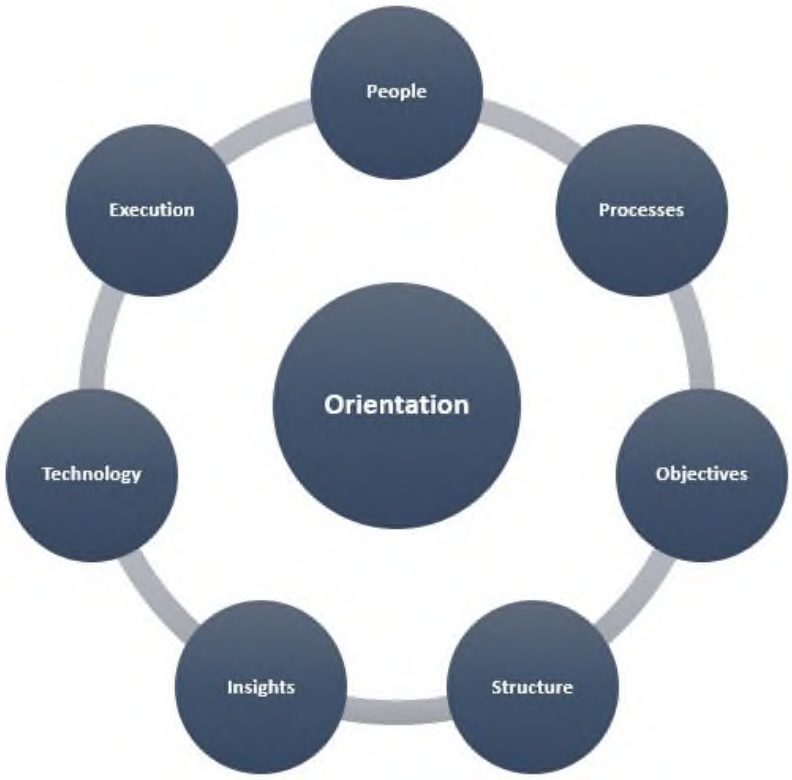

Fig. 1.3. Factors of successful digital transformation.

Source: compiled by the author

The figure above shows the eight factors of successful digital transformation pointing out the orientation factor in the center. I placed orientation factor in the center, since it can be indicating as initial point.

- Identifying the orientation means identifying the pathway and strategy of the organization;
- In order to transform the processes, business functions, and business model all the employees and leadership team has to be aligned with its goals and objectives, thus, people is another factor included into figure;
- Processes has to be checked and assessed on the operational level – the required technological update has to be identified;
- The organization has to be clear about the objectives and align them with stakeholders; the objectives have to be quantifiable as well;
- Such factor as “structure” ensures the team members aware of their responsibilities; the flexible approach assumes the horizontal organizational structure;
- Before making any decision and taking any actions, the required data should be collected and analyzed;
- Technology check is required for analysis and identification of possible improvement, update, and solutions to apply;
- Execution means the technology should be implemented, adopted, and learned repeating the cycle and providing the continuous process of digital transformation.

As research shows some authors agree that digital transformation is not primarily about technology, but rather is a process that requires the transformation of various parts of the business mechanism. Schallmo focuses on the definition of «digital transformation of the business model», where all actors, processes, elements are introduced in the commercial process.

The authors of «Digital Transformation Is Not About Technology» paid attention to the factors that, in their opinion, play a key role in the process of digitalization. In addition, it is important to note that for almost all authors, the possibility and ability of organizational culture to change is determined by an important condition for the successful digital transformation of an enterprise. Based on the analysis, in many respects this condition can be called a preceding condition of all other factors in the digitalization process. This is perhaps the important point that makes Schwab's conclusions distinctive. Schwab's opinion is formulated from the standpoint of the laws of economics, the impact of digitalization on industries and society as a whole. Schwab evaluates opportunities and risks for business, governments, people, and for shaping the future as a whole. Schwab is also concerned about the possible total robotization of humanity.

After a detailed study and assessment of the opinions of various experts on digitalization, I would like to support the statement by presenting the data from the web-source Statista published by Justina Alexandra Sava.

Sava indicates the continuous growth of investments in digitalization started in 2017. The projections of such investments for the period of 2022-2024 shows positive trend as well. Among the factors that influence the increase in spending for digital transformation technologies are the customer demand, and the need of competitive rivalry. COVID-19 pandemic became the biggest contributing factor for the increase of investments in digitalization. «In 2022, spending on digital transformation (DX) is projected to reach 1.8 trillion U.S. dollars. By 2025, global digital transformation spending is forecast to reach 2.8 trillion U.S. dollars» [57]. The chart below shows the amount of spending being employed for digital transformation technologies and services worldwide over the period from 2017 to 2025 (Figure 1.4.).

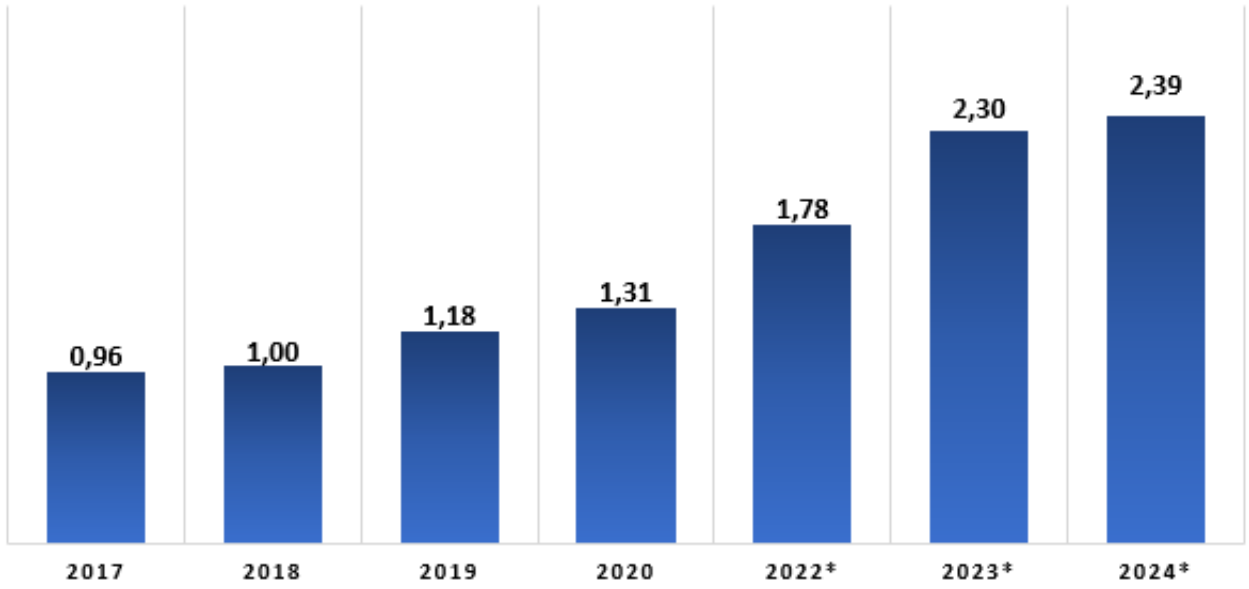

Fig. 1.4. Spending on digital transformation technologies and services from 2017 to 2025 (tln, USD).

Source: https://www.statista.com/statistics/870924/worldwide-digital-transformation-market-size/

To conclude, as significant number of researches show, digitalization has both positive and negative sides. The negative aspects, in particular, are possible due to the initially incorrect approach to the digital transformation process. The opinions of the authors mentioned in this subsection largely overlap and complement each other. For example, according to the report of WEF 2016 headed by Klaus Schwab, the organization predicted the consumer industries as the most invested in digital transformation. In its turn, Brian Solis points out that the largest focus of investments in digitalization are channels for interacting with customers.

Additionally, company McKinsey in its research indicated that about 70% of companies fail the digital transformation process, and therefore do not spend resources efficiently. At the same time, Solis continues this idea by pointing out that 41% of failed digital transformation projects are the lack of or poor-quality due diligence of the customers. Furthermore, Tabrizi, Lam, Girard, Irvin in their publication on the Harvard Business

Review address this problem as an important task to be completed for achieving success in the process of digital transformation.

In my opinion, in order to achieve a good result, the organization needs to start with fundamentals. Among all of the factors mentioned by Solis, “people” factor remains the most important one. Indeed, people set the company’s orientation, shape the processes and objectives, analyze and interpret the insights, develop and integrate the technological set, and implement all the transformations to make them work and create a value. It is human capital that has been and remains the most important engine of the economy, and not vice versa. Simultaneously, culture in an organization or in society creates a certain framework and, rules, determines the priorities, and values of people. These priorities and values determine the direction and drive the organization, while the framework and rules create the limits to progress. At the same time, digital transformation is also not an original process, but rather the result of transformations of individual business processes and tools in the company. Given all of the above, I believe that changing the mindset and organizational culture are key changes for the success of any transformation. This entails the successful definition of a business strategy and, as a result, the achievement of goals in the framework of digital transformation.

1.2. Digitalization as one of the main conditions for market development

In the previous sub-chapter, I mentioned that now we live in the period of the Fourth Industrial Revolution (Industry 4.0), that has its start in the middle of last century. Industry 4.0 is defined by such digital trends like automation and cyber-physical systems [40]. More examples of Industry 4.0 include The Internet of Things (IoT), The Industrial Internet of Things (IIoT), smart manufacture, smart factories cloud computing, artificial intelligence

[70]. The timeline of four industrial revolutions and technological concepts are presented in the Figure1.5.

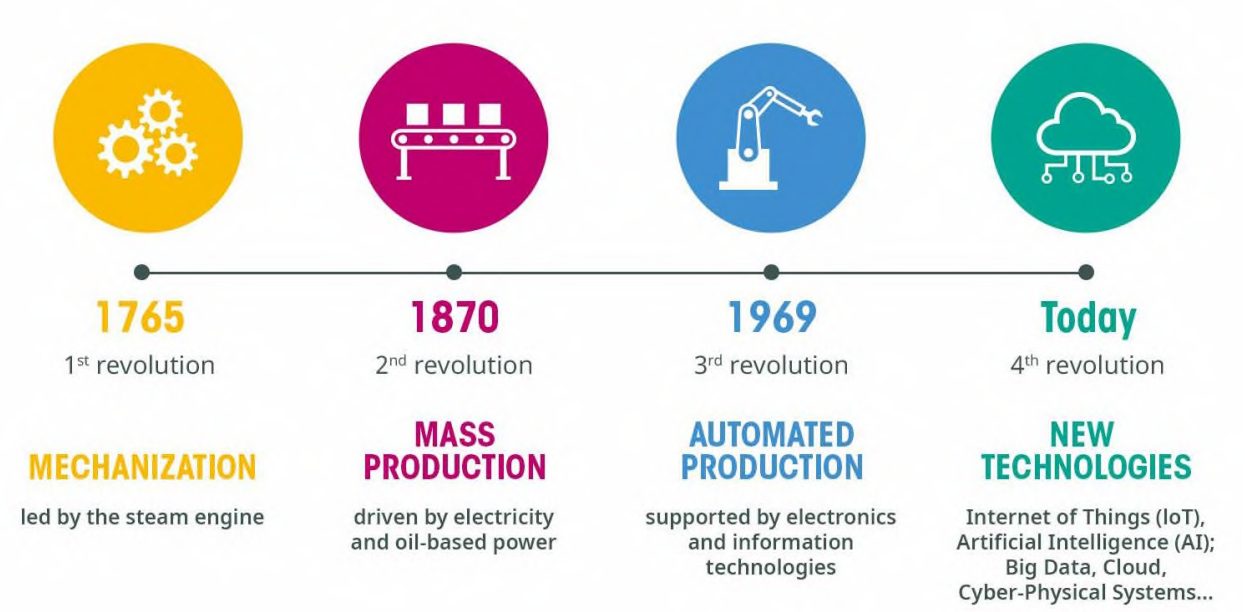

Figure 1.5. Four industrial revolutions.

Source: https://www.visiativ-solutions.fr/industrie-4-0/

From the scientific perspective, the timeline of revolutions can be identified as cycles (waves) and explained by the Kondratiev theory. The main causes of the waves Kondratiev believed innovations, wars and revolutions, the opening of new markets, increase in gold reserves, etc. He also pointed out the connection of long waves with scientific and technical discoveries, inventions and their implementation. The scientist emphasized internal nature of long-term fluctuations and the causes technological changes related to the demands of production and the creation of such conditions under which introduction of new technology, use of inventions becomes possible [46]. The scientist stated that there are three types of waves -3, 15, and 60 years, and all of them cause the impact on economy. The longest cycle, which is 40-60 years include the change in industries, manufacturing infrastructure, and human resource that serves the technical method of production. The timeline of cycles and its innovations can be found in the Figure 1.6.

Figure 1.6. Innovation cycles.

Source: https://www.visualcapitalist.com/the-history-of-innovation-cycles/

More often organizations began to use the term digitalization in the late 90s, and already in the 2010s, large companies began to offer their own definition of the term «digitalization». During this period, digital transformation can be called a fashionable trend for large companies.

The cost of digital transformation has often been dismissed as an additional cost to the marketing budget. The technological factor was also important at that time: it is contributed to the introduction and use of digital solutions more widely in the market. For technological progress, the economic factor also plays an important role. The mature economies of Western countries have allowed companies to make a smooth transition to digital channels and achieve their digital transformation goals.

Initially, the digital transformation trend in most cases focused on improving customer experience, creating new (digital) distribution channels, and defeating a competitor. Definitely, organizations see investments in digitalization as an increase in opportunities, such sales increase or market share increase. Also, in the case of a successful digitalization process, the organization thus accelerates the penetration of new technologies into the consumer market. As a result, such processes drive the market and are the reason for its development.

To support previously mentioned ideas, few examples of how investments in digitalization have become profitable inputs for companies can be reviewed.

- Target is a large retail company in USA. In 2006 Target launched online ordering, modernized the stores for better customer experience for both offline and online shopping. These improvements resulted in stock price increase by 66%, and revenue growth by $6 billion [34] (Digital Transformation for Business, n.d.).
- Microsoft is a large software company. Microsoft launched a new digital strategy focused on cloud solutions for business. As the result, Microsoft introduced MS Azure, application that provide easier access to the MS Office solutions for all types of organizations. This innovation made Microsoft second largest cloud provider. In 2014 share price of Microsoft increased by 358%, and its market capitalization reached over $1 trillion [34] (Digital Transformation for Business, n.d.).
- Honeywell is a U.S. corporation, a manufacturer of electronical systems and systems of automatization. The company launched the digital transformation group to introduce such innovative solutions like IoT-connected devices, data-driven product offerings, and advanced industrial process control. Afterwards, company analyzed customer data and improved the weak points accordingly. In 2018 Honeywell increased its revenue by 8% and share price by 83% [34] (Digital Transformation for Business, n.d.).

In addition, as it has been mentioned in the previous sub-chapter, governmental institutions are investing into digital transformation as well. This kind of investments hard

to be evaluated in terms of return on investment (ROI). However, the first very reason for such projects in the governmental institutions is to improve customer experience, increase customer satisfaction rate, and overall make the processes within the government responsibility are more simple, fast, and transparent. Few examples can be reviewed.

Santa Clara County's Department of Planning launched the campaign for institution processes modernization. According to Kirk Girard, the staff of planning department previously conducted nineteen individual interviews with the customers to identify the strengths and weaknesses of the of the internal processes. In addition, the staff organized the focus groups with the different stakeholders like agents, builders, developers, local institutions to identify the needs, requirements, priorities and provide an assessment of Santa Clara County performance. To respond to customer requests for greater transparency about the permit approval process, the department broke down the process into phases and altered the customer portal; customers can now track the progress of their applications as they move from one phase to the next [67]. «To shorten processing time, the department configured staff software so that it would automatically identify stalled applications. To enable personalized help, the department gave Permit Center staff dashboard control of the permit workflow» [67].

In 2019, the Ministry of Digital Transformation of Ukraine launched the application called «Diia» [68]. This application allows you to save all documents in one application on the cell phone. Initially, the application allowed the citizen of Ukraine to register in the application by synchronizing data through a banking application of the individual. In this way, such documents as Ukrainian passport, foreign passport, identification code, student card, driver's license were automatically added. As of February 6, 2020, 310 031 users have already registered in the «Diia» application [21]. Now «Diia» is used as the main application that allows citizens to receive and store all their documents. In addition, in order for Ukrainians to be able to easily download various documents from various official databases, «Diia» application has launched a digital signature function for cybersecurity. Currently, the most popular services of the application among users are: obtaining a certificate code, automatic registration of a private individual, declaring the child's place of residence,

applying for a housing loan for IDPs, obtaining a certificate of income, receiving financial assistance on the card «EPidtrymka» [68].

At the end of 2019, an epidemic of a new virus for medicine began in China. And in March 2020, the entire civilized world officially recognized this epidemic as a pandemic, which concerns all countries worldwide. In this regard, people were limited in their movement and contacts with others. As a result, this started to cause financial problems for many industries and businesses, and became a real push for accelerating digital transformation processes.

From a business point of view, access to customers during the lockdown was possible only online, respectively, companies started digitizing sales and distribution channels. Also, in terms of the operation of enterprises, companies have been forced to switch to remote work (where possible), consequently, provide employees with the appropriate equipment for comfortable work from home, and new tools ensuring secure work out of local network environment. The chart below shows the factors being impacting the organizations due to COVID-19 pandemic crisis according to opinion of respondents (Figure 1.7.).

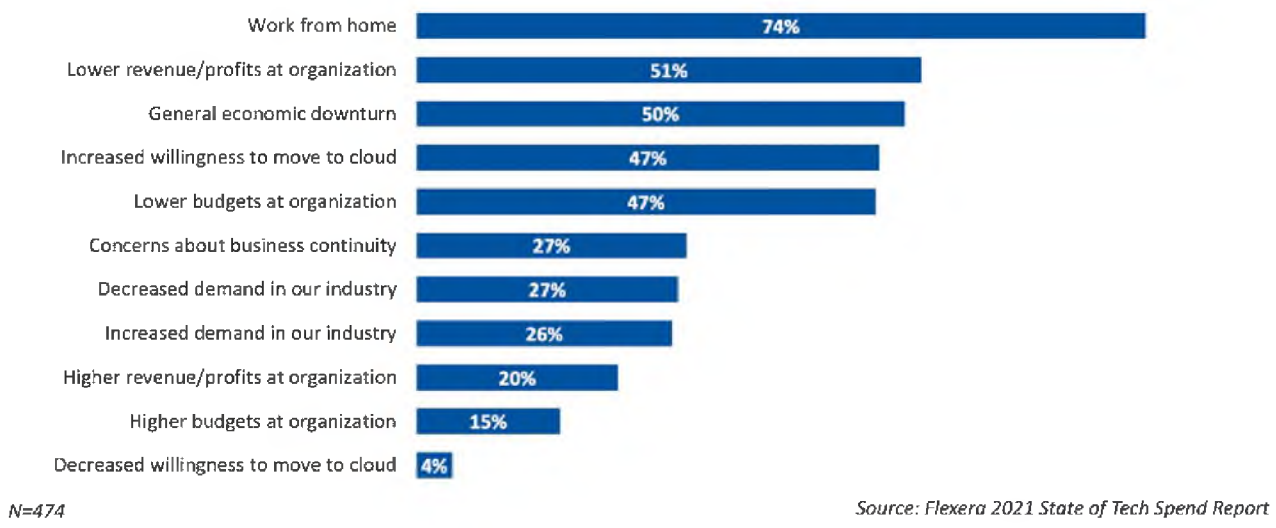

Fig.1.7. Factors impacting organizations due to pandemic (% of respondents).
Source:https://info.flexera.com/FLX1-REPORT-State-of-TechSpend?id=ELQ-Redirect

As it is shown on the chart the remote work is considered as a primary factor that impact the organization according to the opinion of 74% respondents. Interesting fact that only 47%

of respondents indicated the factor «increased willingness to move to cloud», which can be explained by assumption that some organizations do not plan to stick to the remote work after the virus is finally defeated, or do not care about securitization of information in the company. Of course, the big percentage of respondents notice that organization experiences lower revenues and general economic downturn, 51% and 50%, respectively.

According to Mackinsey [45] COVID-19 pandemic crisis accelerated digital adoption at both industrial and organizational levels. The chart below shows the percentage of customer interactions being digitized in different regions over the period from June 2017 to July 2020 (Figure 1.8.).

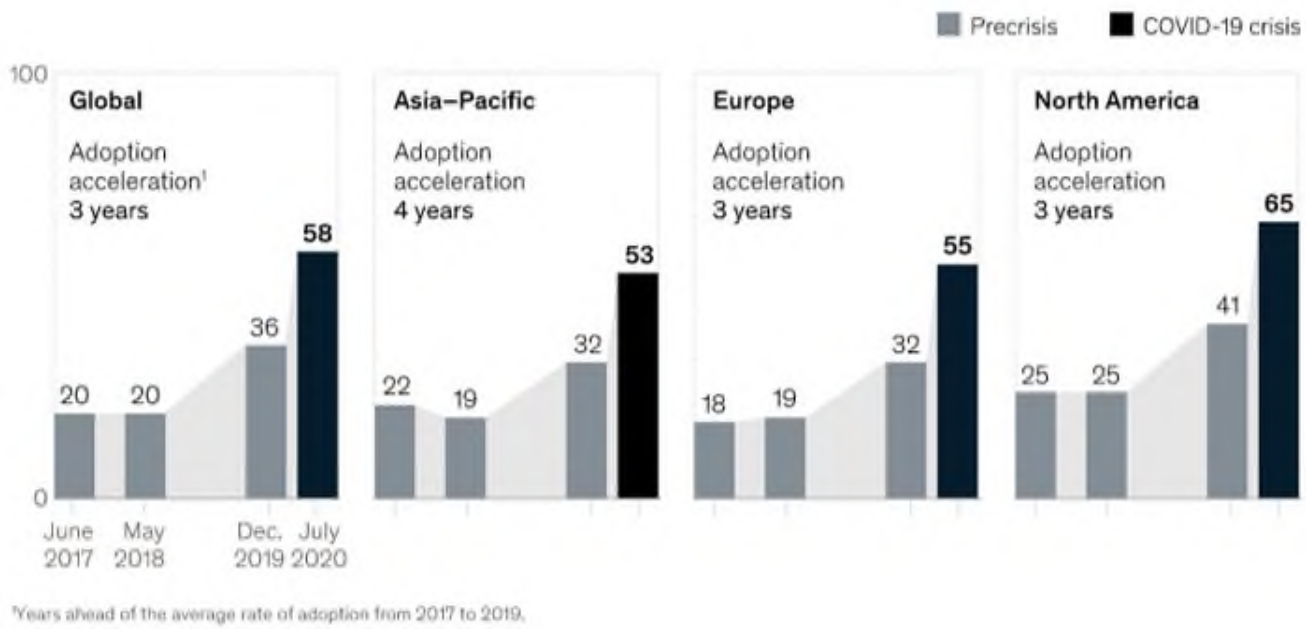

Fig. 1.8. The digitalization of customer interactions is being accelerated by COVID-19 crisis for several years (average share of customer interactions that are digital, %).

Source: https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-covid-19-has-pushed-companies-over-the-technology-tipping-point-and-transformed-business-forever

«The survey results confirm the rapid shift toward interacting with customers through digital channels. They also show that rates of adoption are years ahead of where they were

when previous surveys were conducted—and even more in developed Asia than in other regions» [45].

According to the results of survey [45] mainly the portfolio of digital products of the organizations remained the same as before and during the pandemic. Thus, Mckinsey researchers assume most likely enterprises transformed their business models accordingly, or refocused the product and services offerings [45]. Below the chart showing the percentage of products and/or services being partially or fully digitized in different regions over the period from June 2017 to July 2020 (Figure 1.9.).

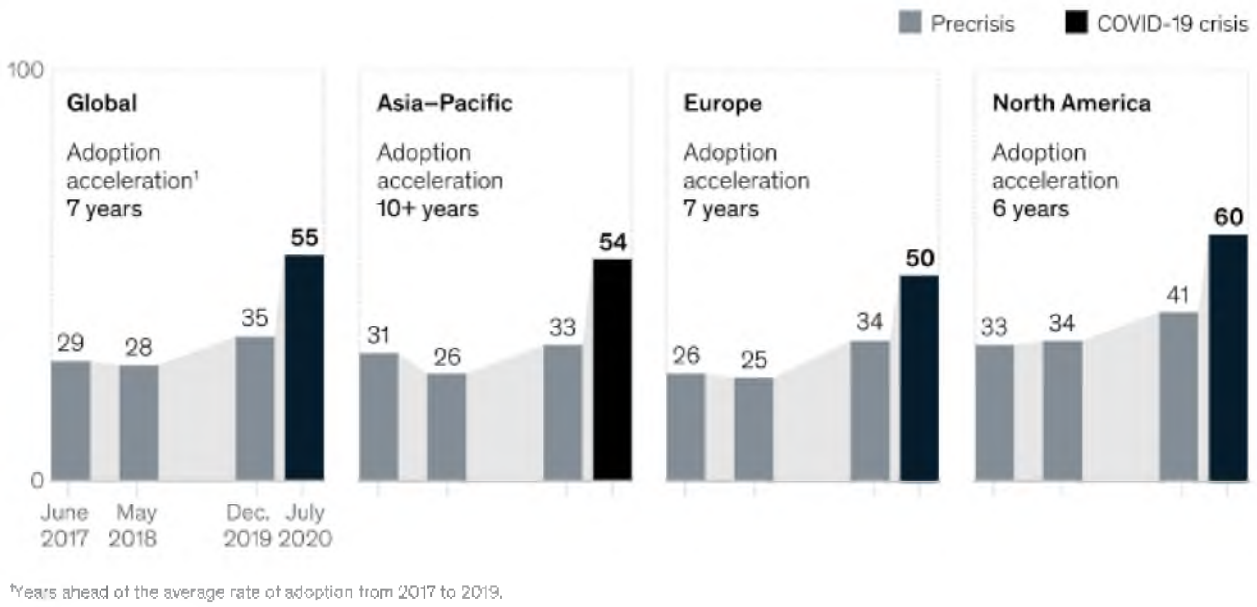

Fig. 1.9. Across business areas, the largest leap in digitalization is the share of offerings that are digital in nature (average share of products and/or services that are partially or fully digitized, %)

Source:https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-covid-19-has-pushed-companies-over-the-technology-tipping-point-and-transformed-business-forever

«Across regions, the results suggest a seven-year increase, on average, in the rate at which companies are developing these products and services. Once again, the leap is even greater—ten years—in developed Asia» [45].

Following the survey, McKinsey [45] states that in order to adapt the business to new realities, manufacturers of tangible products take longer than manufacturers of intangible products. According to the analysis, such industries as healthcare and financial services experienced a large increase in the adoption of digital technologies. At the same time the automotive and consumer products industries have not updated their digital products much due to the pandemic. It is also important to pay attention to how much the pandemic factor has accelerated the digitalization process for various goals and objectives of organizations in comparison with the previously planned implementation period [45]. Below the chart showing the difference between expected and actual time being spent for the implementation of changes due to COVID-19 pandemic factor (Figure 1.10.).

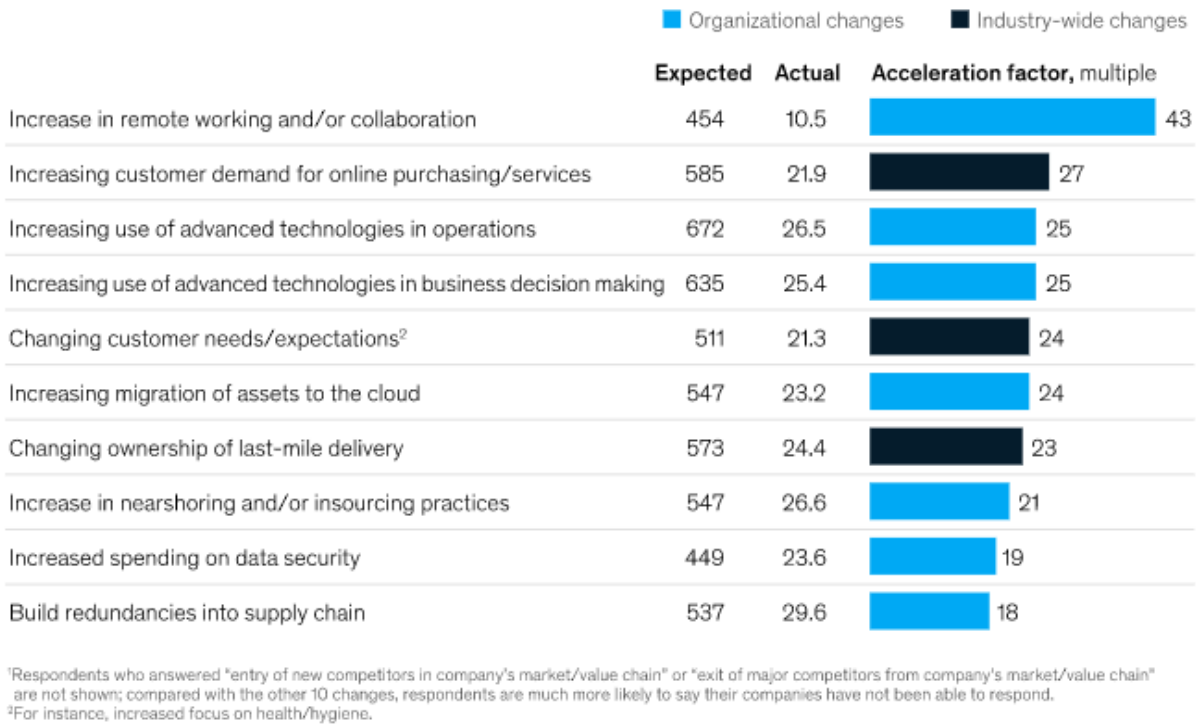

Fig. 1.10. Executives say their companies responded to a range of COVID-19-related changes much more quickly than they thought possible before the crisis (time required to respond to or implement changes, expected vs actual, number of days).

Source: https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-covid-19-has-pushed-companies-over-the-technology-tipping-point-and-transformed-business-forever

«For many of these changes, respondents say, their companies acted 20 to 25 times faster than expected. In the case of remote working, respondents actually say their companies moved 40 times more quickly than they thought possible before the pandemic. Before then, respondents say it would have taken more than a year to implement the level of remote working that took place during the crisis. In actuality, it took an average of 11 days to implement a workable solution, and nearly all of the companies have stood up workable solutions within a few months» [45].

Undoubtedly, an important consequence of the pandemic factor was the change in the thinking of CEOs on the issue of digital transformation. Mackinsey cites his 2017 survey where 48% of CEOs identify cost savings as a top priority for digital transformation strategies. According to this survey, only 10% of respondents remained of the same opinion on this issue. On the other hand, 38% state they are investing more in technology to make it a competitive advantage [45] (Figure 1.11.).

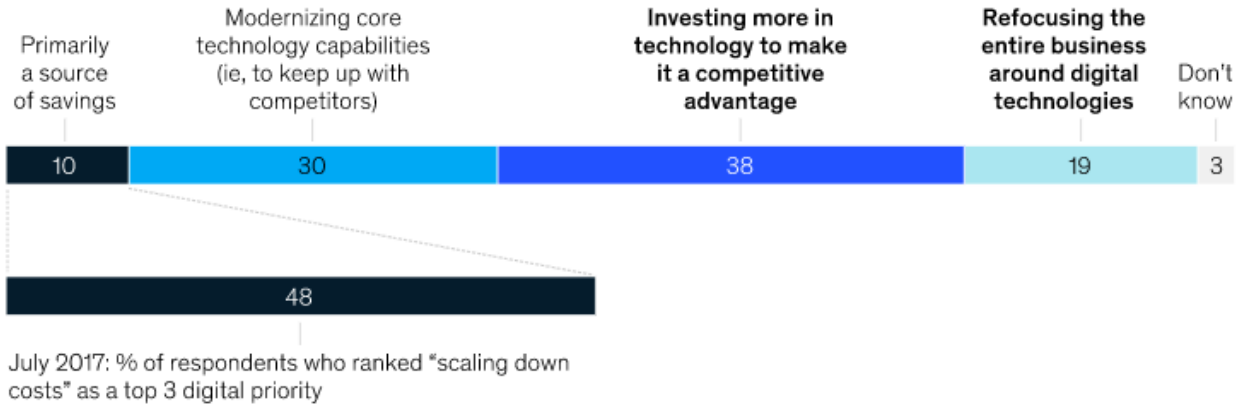

Fig. 1.11. Executive mindsets on technology's strategic importance have changed radically during the crisis (organization's current strategic posture toward technology, % of respondents).

Source: https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-covid-19-has-pushed-companies-over-the-technology-tipping-point-and-transformed-business-forever

In addition, there should be considered the market conditions may influence different industries and companies in the different way. Those businesses which increased their revenues during COVID-19 crisis did not change their strategies. At the same time, the businesses that being lost their revenues are increasing their focus on digital. The chart below shows how the opinion of companies about digital being changed sue to COVID-19 pandemic (Figure 1.12.).

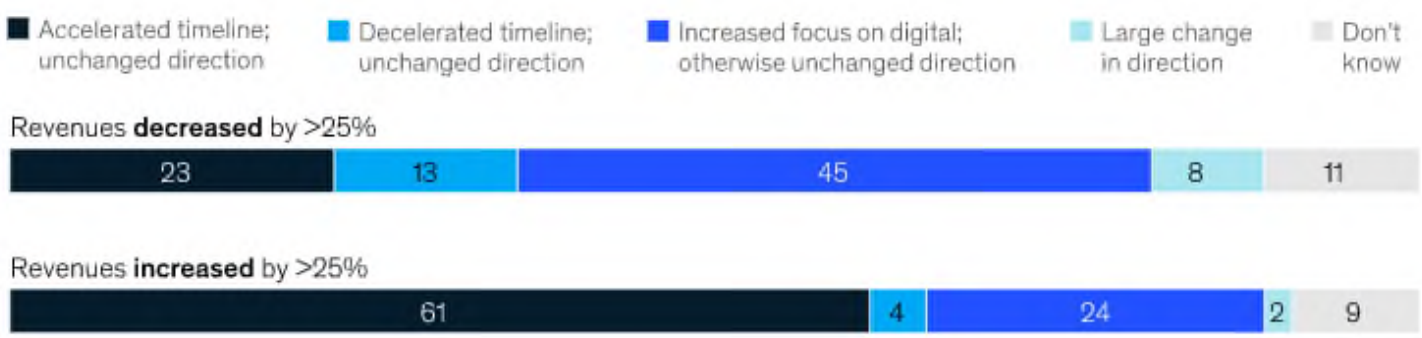

Fig. 1.12. The mindset shifts on digital are even more apparent at companies with declining revenues (how organization's overall strategy changed in response to COVID-19, by rate of organic revenue growth over the past 3 years, %).
Source:https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-covid-19-has-pushed-companies-over-the-technology-tipping-point-and-transformed-business-forever

In 2020, before the global impact of the pandemic on the economy, the company IDG Communications [37] published an overview of market trends in the use of cloud solutions in organizations. The IDG Communications company published that 81% of organizations are already using partially cloud solutions to work in 2018, and 13% of organizations have fully migrated their IT environment to the cloud [37]. The chart below shows the applications and services being migrated to the cloud or being planned for migration to the cloud (Figure 1.13.).

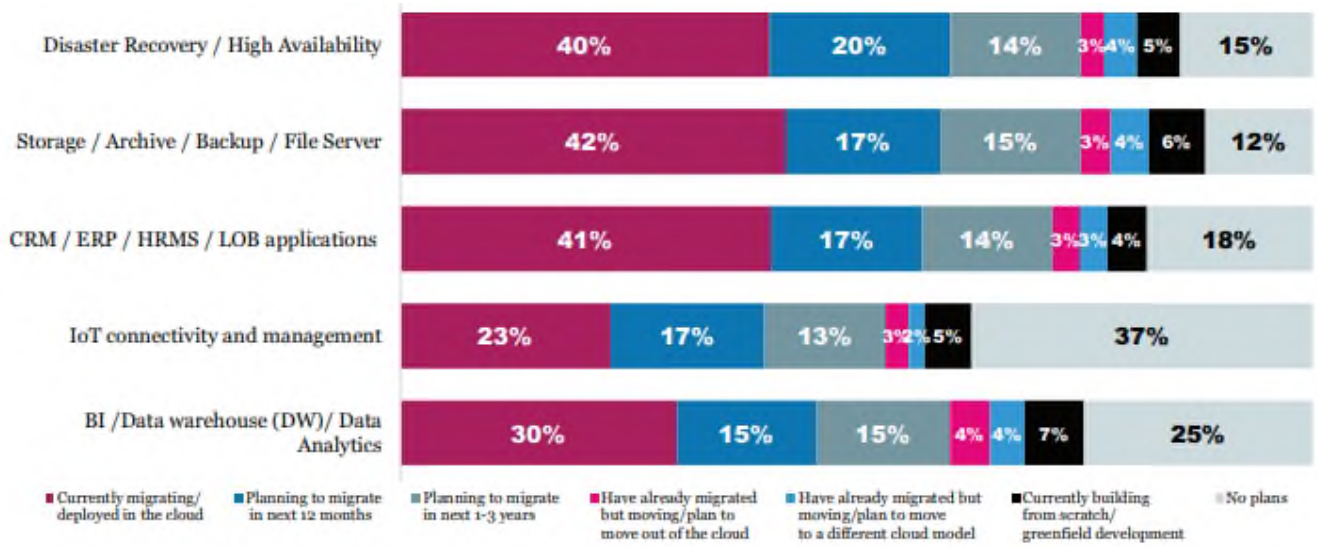

Fig. 1.13. Applications & services being migrated to the cloud

Source: https://resources.idg.com/download/2020-cloud-computing-executive-summary-rl

«More than half of respondents are currently migrating or have already deployed websites/web apps (53%) and collaboration and communication solutions (52%) in the cloud. In the next three years, respondents plan to migrate disaster recovery/high availability, storage/archive/backup/file server workloads, CRM applications, identity and access management, and content delivery/media processing. SMBs are less likely than enterprises to have plans to migrate emerging technologies like IoT and AI to the cloud, but it's unclear whether SMBs are less likely to be using them or have been using them in the cloud from the start» [37].

Nevertheless, despite the massive transition of organizations to cloud solutions, organizations still face some difficulties. These challenges include controlling cloud costs, data privacy, securing cloud resources, governance and compliance, lack of cloud security expertise. The chart below shows the top 5 challenges for organizations being used public cloud (Figure 1.14.)

Fig. 1.14. Top 5 challenges to public cloud.

Source: https://resources.idg.com/download/2020-cloud-computing-executive-summary-rl

As it can be seen on the graph, there is no pronounce challenge among the list. 40% of the respondents are concerned about the controlling cloud costs. There is a big chance that these spending determined as an additional weight on the cost center. Considering that number of resources increase are hard to predict, the cloud costs increase accordingly and cannot be anticipated as well, which is causes on the level of budget coordination.

Notably, despite the current popularity in the use of cloud technologies, 79% of respondents believe that multi-cloud technologies have significant drawbacks. Such disadvantages are the complexity of use, the cost of finding and hiring experts, as well as the increase in costs related to software management and securitization [37].

However, the factor pf COVID-19 crisis has changed the situation significantly. As it was mentioned in the survey of Mckinsey, the pandemic accelerated digitization across business areas for 7, and even 10 times in the different regions. Cloud technology can be considered as one of prioritized solutions for business during the lockdown caused by pandemic. Moreover, previously analyzed Flexera data indicates the increasing willingness of respondents to move to cloud as the factor #4 impacting on the organizations due to

pandemic. The chart below shows the number of financial resources being spent by enterprises on cloud and data centers by segment from 2009 to 2021 (Figure 1.15.).

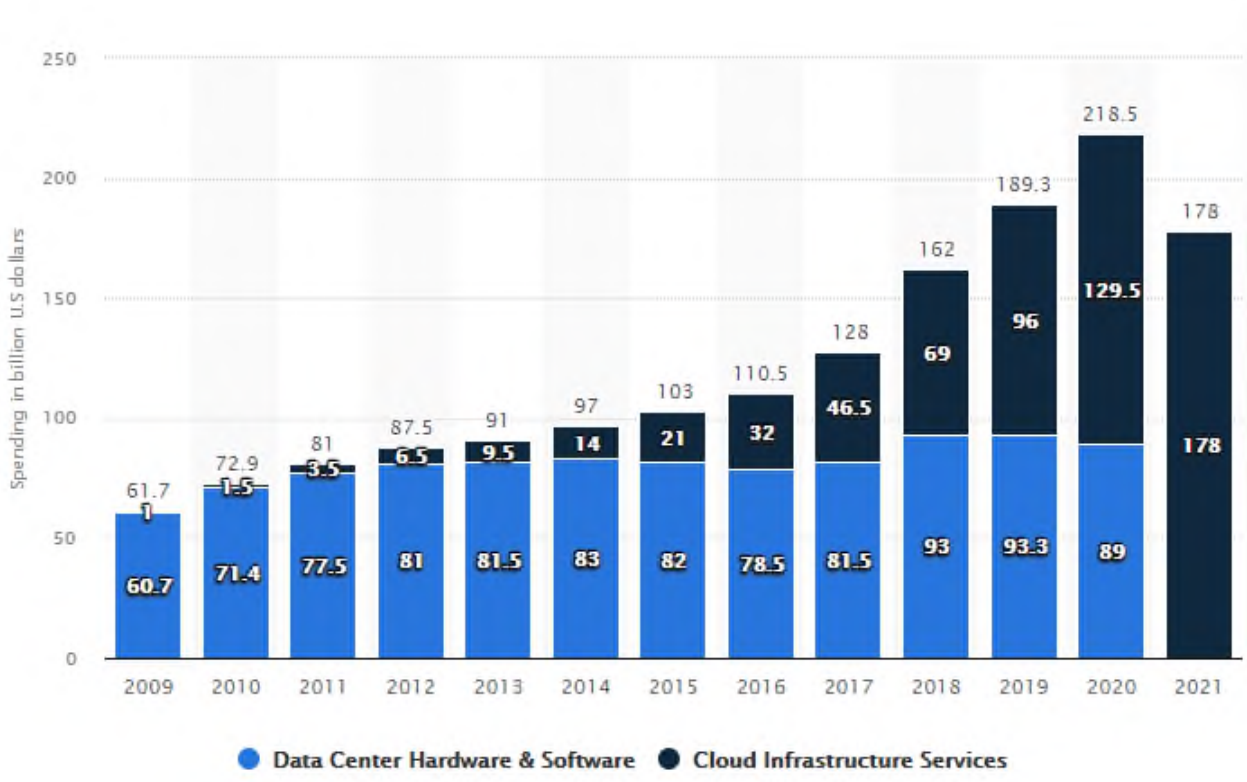

Fig. 1.15. Enterprise spending on cloud and data centers by segment 2009-2021 (tln, USD).

Source: https://www.statista.com/statistics/1114926/enterprise-spending-cloud-and-data-centers/

Cloud technologies are not completely unexpected or new to the market. The previous chart clearly shows that the growth in cloud spending started back in 2009 and has been consistent. If it takes root in the realities of economic and social factors, we can identify several reasons why the cloud as a technology has become even more in demand:

– Due to lockdown, technical specialists did not have access to the companies' local servers, which created a threat of hacking and information leakage. The transition to the cloud partially secured organizations from possible fraudsters.

- Moving to the cloud is considered one of the options for reducing costs, since data centers and hardware require permanent service. It is important to note that technical services during the pandemic became considerably higher.
- Considering how life has moved online, the number of organizations with the need to store data online has increased as well. This has also led to an accelerated transition to the cloud.
- The lockdown forced people to work remotely. Cloud computing made it possible to maintain the same productivity of employees.

Nevertheless, there are still factors that partially block the progress of the transition to the cloud, these factors were also mentioned earlier: distrust in relation of data security, increasing costs for cloud services, inconsistency with compliance rules for data storage in the cloud, difficulty in finding experts in this field.

In addition, it is necessary to highlight that the trend of transition of organizations to the cloud is long-term. According to Bhardwaj, 15% of the enterprise workload is in the cloud, which means that 85% is not [4] (Figure 1.16.).

Fig. 1.16. Potential for innovation.

Source: https://www.qed42.com/insights/perspectives/biztech/how-covid-19-pandemic-accelerated-cloud-adoption

Returning to the topic, I want to support the main idea of how digitalization drives the market. Considering a fact many companies are being perceived digital transformation a meaningful pursuit of increasing their sales and market shares, the chart below once again confirms that growth towards global digitalization is inevitable (Figure 1.17.).

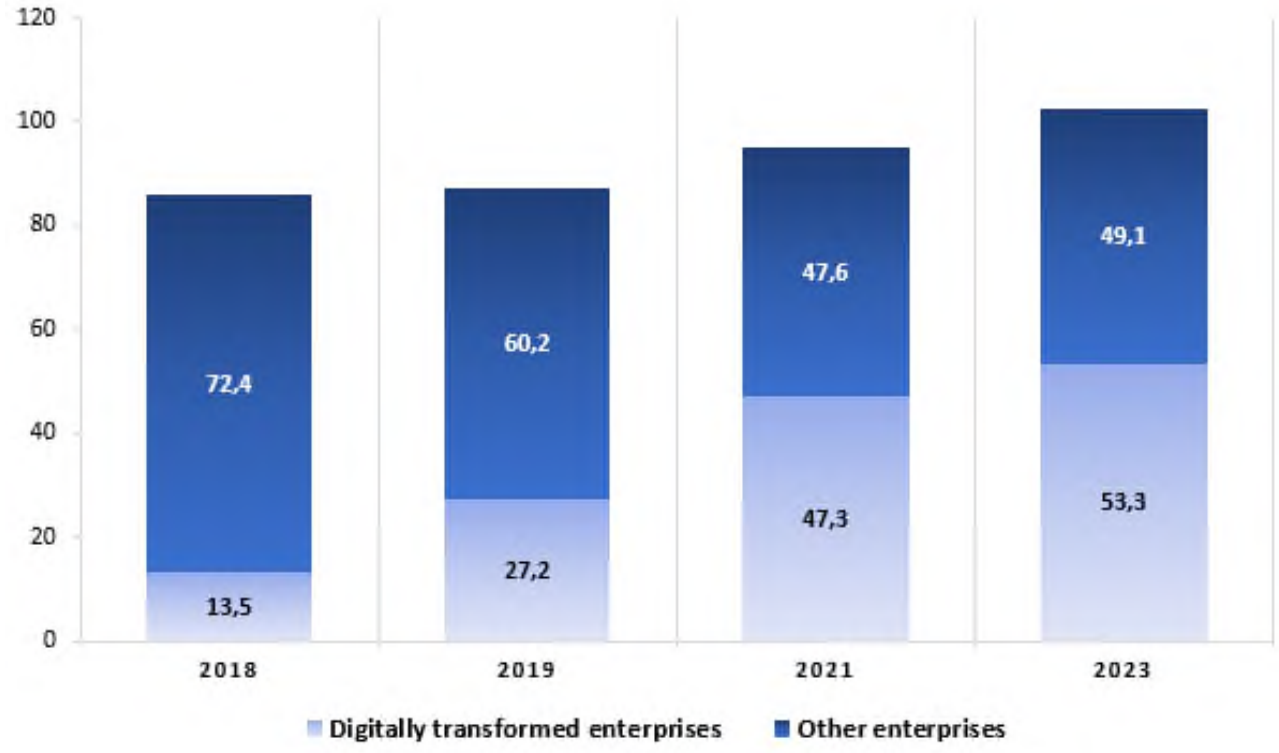

Fig. 1.17 Nominal GDP driven by digitally transformed and other enterprises worldwide from 2018 to 2023 (tln, USD).

Source: https://www.statista.com/statistics/1134766/nominal-gdp-driven-by-digitally-transformed-enterprises/#statisticContainer

The figure above shows the amount of nominal GDP in trillion of USD being driven by digitally transformed and other enterprises in 2018, 2019, 2021, 2023 (Figure 1.17). «While in 2018, digitally transformed enterprises accounted for 13.5 trillion U.S. dollars of the global nominal GDP, in 2023 they are forecast to account for 53.3 trillion U.S. dollars, more than half of the overall nominal GDP. This signals that digital supremacy in the global economy is near» [65].

Back to fundamentals, market trends are determined by factors. Such factors can be both constructive and destructive. The pandemic factor has worked as a booster for digital

transformation and has become a tool that has saved many organizations from crushing losses. Earlier, I mentioned an important initial stage of any transformation is a change of mindset. Thanks to the COVID-19 crisis, digital transformation has increasingly come to be seen as an investment «to make it a competitive advantage» (38%) rather than being «a source of savings» (10%) [45]. As we can see, the majority of the company has determined the development vector for itself by continuing to invest in digitalization and expect a return on investment. In fact, for 26% of organizations, digitalization is a market demand, for 25% it is competition offering a digital experience, and for 19% it is an improvement in earnings [74]. However, we should keep in mind like any other business decisions digital transformation require qualitative due diligence to make it right and benefit in the end.

While being cautiously optimistic about digital transformation, I still wanted to mention some risks, primarily economic ones. In fact, digitalization creates a global imbalance where large resource companies, with the possibility of large investments and business digitalization, receive the lion's share of income, while the income growth of other companies slows down or stops [55]. Moreover, the phenomena of digital transformation potentially create uneven distribution of income among employees, where the income of highly qualified employees grows exponentially, while low-skilled employees remain at the same level [59].

In addition, in the context of globalization, digitalization poses a huge risk for many countries in the event of a halt in the supply of technologies and spare parts. For example, after the imposition of Western economic sanctions, Russia was faced with the inability to produce most of the technology on its own, just like returning to the obsolete technologies of the USSR. Since the country has built its economy in the realities of worldwide globalization, such a country remains very dependent on imports.

To conclude, besides the convenience, mobility, and flexibility that digital transformation creates for us, it is important not only to perceive it as a wealth, but to self-transform at the level of the state, organization, and person. This is the way how to keep up with the times, deal with threats, and do not lose the opportunities.

1.3. Components and elements of digital transformation

Thinking about the relevance of the issue of digital transformation and digitalization, identifying the positive and negative sides, analyzing the numbers, most often we see this process from the point of view of the high-level model. Partially this research paper has been raising the question of important parts of the mechanism of the digital transformation process. However, as previously mentioned, 70% of organizations fail their digital transformation projects [10]. Therefore, this subsection will provide information on the components and elements that need to be considered when laying the change process.

The main problem of any organization is the lack of understanding what problem digital transformation solves for this organization. As Tabrizi, Lam, Girard, and Irvin say, digital transformation is not about technology. Digital transformation is not considered replacing old technologies with new ones or copying Google and Amazon technologies and applying them to your business. In particular, in order to digitally transform, an organization must become a data-driven organization [12]. A process-chart below shows what stages the organization must go through to execute a digital transformation within organization (Figure 1.18.).

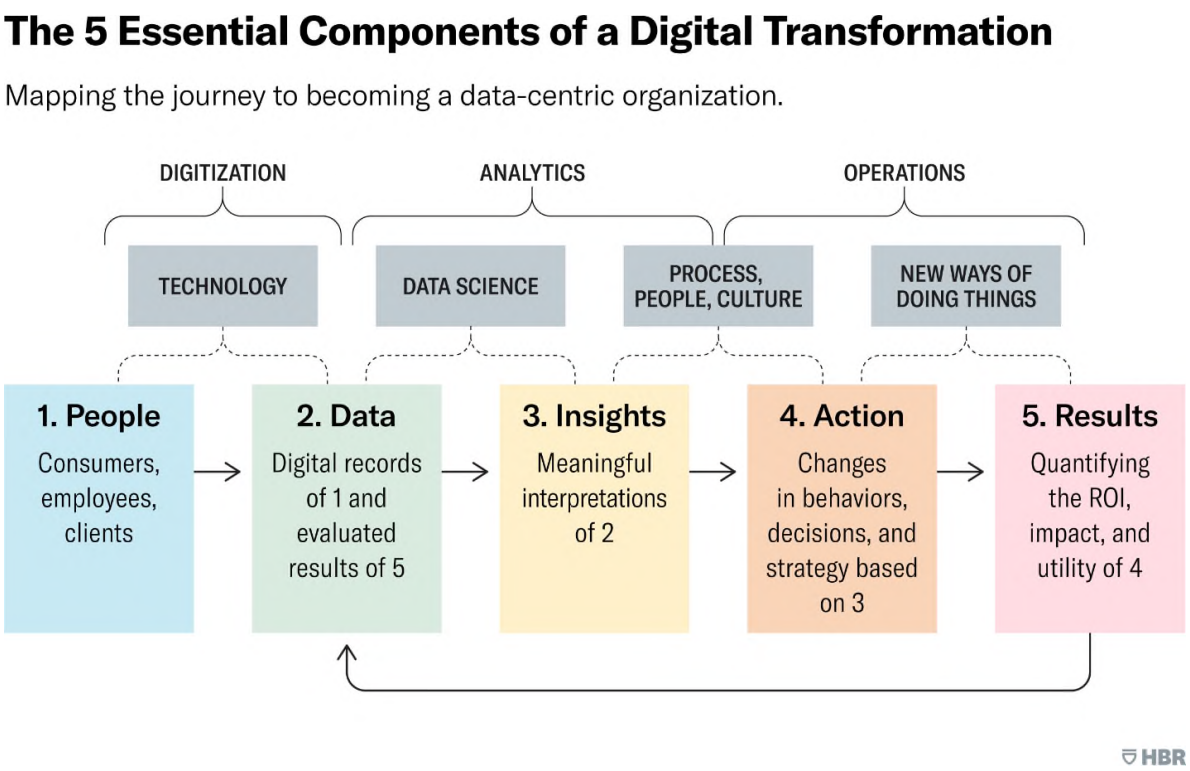

Fig. 1.18. The 5 essential components of a digital transformation.

Source: https://hbr.org/2021/11/the-essential-components-of-digital-transformation

As the figure above shows, the process of becoming data-centric organization involves five components.

The first component is people. In this case, this term covers both consumers, customers, and employees of the organization. In order to turn into data -driven organization the data should be collected and analyzed. First of all, people are the source of data needed to move to the next stage of the process and to the next component.

The second component is data. Data helps scale knowledge about customers and employees. It is at this stage that the digitization of data or human datafication may play a significant role [12].

The next component is insights. This stage entirely depends on the qualitative analysis and interpretation of data, reasonable estimates and forecasts. This step implies a specific suggestions and solutions to identify weaknesses in organization according to the analyzed data and their interpretation. Mostly, the interpretation of data and suggested solutions in any way practically cannot be contributed by technology. This phase of the process is

completely influenced by human ability to analyze and human creative approach, which artificial intelligence does not possess.

Action is the next component and stage in the process of execution of digital transformation. Data interpretation and solutions suggestion – are not enough for delivering a result. Action is a stage used for changing or updating of business strategies, business models, changing of organizational cultures that has been mentioned earlier in this research paper.

The last, but not the least component is a result. After passing through the previous four steps, the organization is able to calculate its ROI. By analyzing the data, the enterprise moves forward reaching again the step called «data». The enterprise updates the existing records with new information, which makes the data more valuable and meaningful. Then, the organization is moving by the cycle passing through the steps three, four, and five anew, to make new conclusions and improve the previous solutions [12].

We considered the transformation pace of organization into data-driven type, by the way of continuous improvement. In 2020 Didie Bonnet and George Westerman published a new framework called «The New Elements of Digital Capability» [7]. The framework is divided by functional categories with the elements considered for digital adoption.

Earlier, there was mentioned many times that, primarily, the businesses adopt technology because of customer demand, and technology improves customer experience. In the framework of Bonnet and Westerman, this category includes three elements such as experience design, customer intelligence, and emotional engagement. Experience design helps to identify the client portrait, tell the client's story, identify the lifestyle. Also, the design thinking approach allows to come up with functional innovative solutions covering the needs of your client.

Customer intelligence is based on the data collection and analysis. Thanks to the technical progress the customer behavior tracking has become a reality now. This technology allows businesses entirely personalize its offerings upon every customer.

Emotional engagement assumes that company is enable customer participation across their value chains: in R&D and product development, content creation, logistics, and

services (Bonnet & Westerman, 2020).

Advances in technology have taken the transformation of operations to a new level. Operations conversion is now available and appeared in the three elements of digital capabilities: core process automation, connected and dynamic operations, and data-driven decision making [7] (Figure 1.19.).

The updated framework places more emphasis on employee experience and business model innovation, as well as on the digital platform, which powers the others elements and, when structured and managed well, enables further innovation.		
BUSINESS MODEL		
Digital enhancements		
Information-based service extensions		
Multisided platform businesses		
CUSTOMER EXPERIENCE	**OPERATIONS**	**EMPLOYEE EXPERIENCE**
Experience design	Core process automation	Augmentation
Customer intelligence	Connected and dynamic operations	Future-readying
Emotional engagement	Data-driven decision-making	Flexforcing
DIGITAL PLATFORM		
Core		
Externally facing		
Data		

Fig. 1.19. The elements of digital capability.

Source: https://sloanreview.mit.edu/article/the-new-elements-of-digital-transformation/

Talking about core process automation, some companies still have a traditional approach to automation, such as automating systems for planning, purchasing, distribution, etc. At the same time, a newer approach involves the invention of operations immediately in digital form: «Rio Tinto, an Australian mining company, uses autonomous trucks, trains, and drilling machinery so that it can shift workers to less dangerous tasks, leading to higher productivity and better safety» [7].

When transforming processes, technologies work as a tool. And the tool does not set the direction for the transformation of operations. A company can produce kitchen furniture, but with the introduction of digital solutions and the creation of a single digital process, the company is able to develop the number of areas for the production of furniture, and even go beyond this. The concept of digital threads, which is now available, make companies

capable of implementing the element of digital capability such as «connected and dynamic operations». The companies use machine learning, cloud technology, and sensors for realization of digital approach to operational excellence. «Engineers at Raytheon Technologies, for example, model machine tools at the cutting face — enabling them to design components right the first time, with desired tolerances, surface features, and defect rates. Construction companies link drone-based observations to blueprints to identify and correct problems before they require expensive rework» [7].

The next element of operations transformation is data-driven decision making. This approach is similar to the ideas of process chart of «journey to becoming a data-centric organization». Talking about the components of digital transformation, we reasoned within the framework of determining the right digital transformation strategy. But as Bonnet and Westerman say, the same approach can be used to transform business operations, where real-time data tracking allows quick decisions and decisions to adapt or globally change the process of operations at the organization level.

In this research paper, the importance of people and their role in any transformational processes was mentioned more than once. The framework of Bonnet and Westerman distinguishes employees as a separate functional category including three elements of digital capabilities: augmentation, future-readying, flexforcing [7].

The companies gradually began to move from the idea of replacing people with technology to the idea of «technology augments the capabilities of employees and make their work faster, safer, and smarter».

Future-redying assumes the transformation of such HRM area as training and development. The position of Chief Learning Officer (CLO) is increasingly appearing in organizations. CLOs' work is focused on the change of organization culture through the way of learning experience, and to ensure the employees are ready for enterprise technology approach and are ready to drive the digital transformation in the organization.

Flexforcing element means that the organizations need to use agile approach toward their human resources systems. One of the solutions within the framework of digital transformation is to teach and train employees to make them multitasking.

As we said earlier, in order to digitally transform a business, it is not necessary to transform the business model. But with the growth of digital opportunities, organizations have more options to transform their business model into a more innovative one. Framework Bonnet and Westerman shows business model as a distinct category which include three elements of digital capabilities: digital enhancements, information-based service extensions, and multisided platforms.

One of the ways to transform the business model is to digitally enhance it. This process allows to keep the existing business model and build-up the digital solutions or processes that significantly improve the business model of the enterprise.

The information -based service extensions enable enterprises to extend its business models with the use of extra services, which creates for the organization the additional revenue channels. In order to release the idea of information-based service extensions, the organization may require advanced analytic capabilities, integration with customer devices, and business processes.

Multi-sides platforms or so-called marketplaces are already popular solutions. The popular examples among business are OLX, Airbnb, AliExpress. The company may create its own multi-side platform and invite competitors to join. It may increase the customer awareness, increase product or service penetration as well. Furthermore, multi-side platform for the company may be considered as an extra revenue channel, if the competitors or partners ecosystem are obliged to pay a monthly fee for posting its products and services on the platform.

However, marketplaces require a lot of investments from both perspectives, technological, and marketing. In case the company would like to mitigate the risk of unreturned investments, it is better to become a participant of similar already existing platform. In this way, the company gets the chance to take part in so important processes for business like building of brand awareness, and product or service penetration into market.

All the functions with its elements can be considered as more busines oriented areas that involve the elements giving the space for digital creativity and implication of innovative approach. The framework of Bonnet and Westerman includes the digital platform as a

distinct function. We can draw an analogy with IT department in the any organization. The IT department supplies employees with computer equipment and other office technology, manages the employees accesses to different levels of information or different servers; IT department is responsible for cybersecurity within organization in terms of technical support. Digital platform is highlighted as a separate function, because it has the role alike the IT department within the organization. Three elements of digital capability within digital platform were identified: core platform, externally facing platform, data platform.

Core platform ensures an uninterrupted work of operational and transactional systems.

Externally facing platform ensures the work of the websites and applications that connect company, customers, and sometimes, partners ecosystem.

The last element of digital platform is data platform. It powers intense analytics without collapsing performance of other operations. Organizations are likely to use the unstructured data like images, text, voice and video messages. These functions are focused on the improvement of customer experience, or company operations.

In conclusion, any decision and action we make about change should be reasonable and based on meaningfully interpreted data. To ensure the relevance of decisions and actions the organizations should transform their organizations into data-driven, and make the five-step process (questioning people, collecting data, data interpretation, taking actions, and analysis of results) a cycle for continuous update of information, thus, the improvement of actions, and results.

Moreover, each organization is a set of functions divided by elements. Depending on the company's approach, it is possible to improve and transform some of the functions or some of the elements of these functions, which may give a positive result in the short-term perspective. For the long-term perspective, the organization should have an integrated approach to change, transforming all functions: a digital platform that powers all digital tools, a business model which is a foundation of any business, the operations that enable the business model to work, the customer experience which is a main reason of an organization operation, and employees the make all the functions mentioned before, possible.

CHAPTER II. STUDY OF «VI-JET GROUP» AND ITS COMPETITIVENESS ON THE MARKET

2.1. General overview of the business activity of «Vi-Jet Group» LLC

"V-Jet Group" is an international company specialized its services in the innovative technologies sphere. The company was founded in 2013, in Ukraine. The company provides the innovative technologies services for the different business sectors: financial, manufacturing, healthcare, education, e-commerce, and entertainment sectors.

Company works with the local and international clients. Considering that the international clients take a big part of company turnover, the company started to spread its operations all over Europe and Asia. Currently, the company is present in such countries like Ukraine, Poland, and Kazakhstan.

Ukraine, Poland, and Kazakhstan are the offices focused for providing the services and creating the value for the customers; these offices gather the IT experts to manage the business projects, and other experts needed to manage the smooth flow of business activities and operations related to the entity life. Office in Switzerland functions as a representative office and gather mainly the administrative, sales, and marketing experts.

Currently, the company is represented in such markets as: Ukraine, Poland, Kazakhstan.

In the nearest future, the TOP management of the company plans to open offices in other strategically important countries.

"V-Jet Group Ukraine" was registered on the April, 02, 2013, in Dnipro.

- The organizational and legal form of enterprise: «Limited liability company».
- The type of enterprise proprietorship: «Non-state proprietorship».
- The main type of enterprise activity: 62.01 Computer programming activities.

Participants and beneficiaries of "V-Jet Group Ukraine":

1. Vladyslav Chubuk – Chief Executive Officer (the share of the company is 89%)
2. Roman Zinchuk – Operations Director (the share of the company is 11%)
3. Oleksandr Semiletkin – Finance Director (the share of the company is 1%)

The ultimate beneficial owner (controller) of the "V-Jet Group Ukraine" legal entity,

including the ultimate beneficial owner (controller) of its founder is Vladyslav Chubuk. The type of beneficial ownership is a direct decisive influence.

Each office has its different strategical importance according to its location. Based on this all offices have different management structures focusing on gathering experts from different spheres. Vladyslav Chubuk is the founder and owner of all offices of the «V-Jet Group». Vladyslav Chubuk hold the position of Chief Executive Officer in the offices of Ukraine, Poland, Kazakhstan, and Switzerland.

«V-Jet Ukraine» organizational structure (Figure 2.1.2.) involves the departments of the following types of activities: design, operations, project management, human resources, sales. The management team includes the following positions: Art Director, Operations Director, Delivery Director, Finance Director, HR Director, Sales Director.

Art Director manages the design team, primarily connected to the business projects. Partially, design team can be involved into the internal projects focused on the marketing of the company.

Operations Director is responsible for the core activities required for smooth functionating of the company. Technical team lead and QA team both lead report to the Operations Director.

Delivery Director is in charge of the Project office. Project office includes three project managers that are in charge of the on-going projects in the company.

Finance Director acts as Chief Financial Officer of the company and manages the finances of all company's offices. The finances managers from Kazakhstan and Poland report to the Finance Director in Ukraine.

Human Resources Department is introduced by HR Generalist, and two recruiters. Each recruiter has its own area of responsibility: Ukraine or European Union.

Sales Director combine the roles of Marketing and Sales Director. Sales Director manages the sales team in Ukraine and Switzerland. Othe offices do not include the experts of a given sphere.

The Figure 2.1. shows the organizational structure of the management team in the company "V-Jet Ukraine".

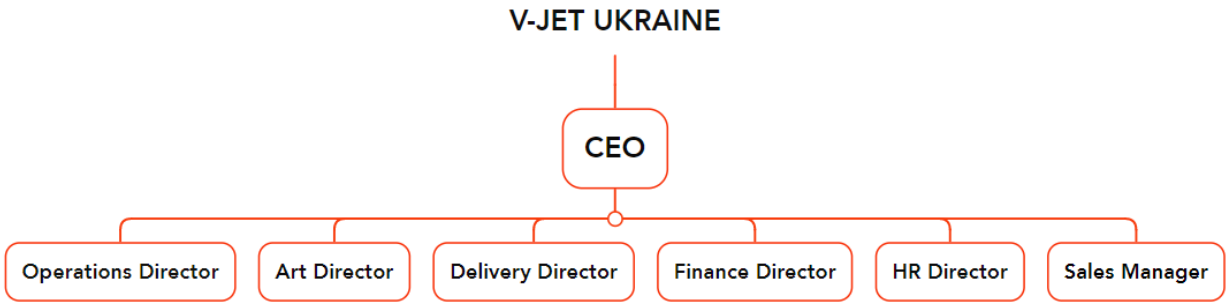

Fig. 2.1. Organizational structure of "V-Jet Ukraine".

Source: compiled by the author.

The management teams of Poland (Figure 2.2.), Kazakhstan (Figure 2.3.) involve the specific experts that are required for the strategic development of the company in the appropriate region. The Figure 2.1.2. shows the organizational structure of the management team in the company "V-Jet Poland".

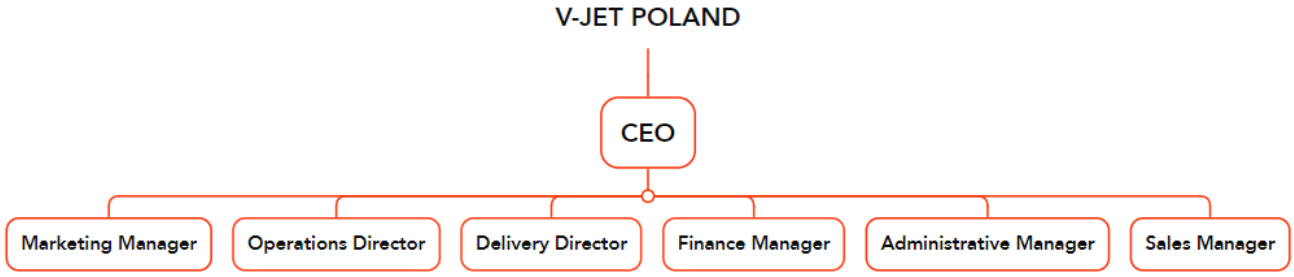

Fig.2.2. Organizational structure of "V-Jet Poland".

Source: compiled by the author.

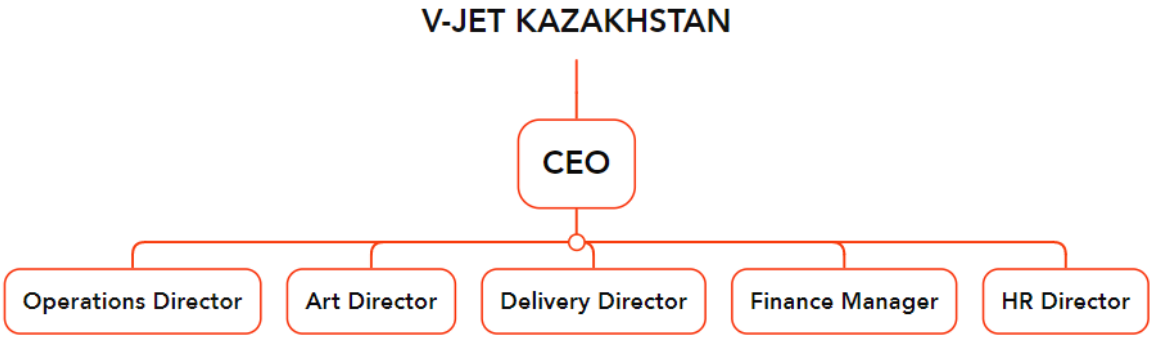

Fig. 2.3. Organizational structure of "V-Jet Kazakhstan".

Source: compiled by the author.

Each management team reports to the CEO. The organizational hierarchy includes different position levels applied to the management structure on the international level between the offices of the «V-Jet Group».

“V-Jet Group” works in the IT sector. The main type of service of the company is service consulting. The company is specialized in the following types of the services:

- Web & mobile development
- Game development
- After-sales service and maintenance

The company offers a comprehensive solution to the client's business problems, focusing on an individual approach. This model is very successful in Ukraine and other markets and creates a huge demand involving the experts of managerial spheres. Such experts as business analysts, product managers, HR specialists, lawyers, accountants, sales managers, marketing experts works closely with the clients to fully understand the requirements of request, offer the best solutions, and finally make a client satisfied.

2.2. Development of «V-Jet Group» LLC in the framework of digitalization

“V-Jet” is a Ukrainian IT service company. Obviously, the Ukrainian market is influenced by global factors as well as other markets. However, the IT industry in Ukraine has its own history and trends that should be taken into account. Therefore, before starting the topic of the company's development in the framework of digitalization, it is worth noting the factors of influence and consequences that have resulted from even greater digitalization of the company.

The Ukrainian software development market shows rapid growth in recent years and became one of the key sectors contributing to the country’s economy. According to Mariana Malashniak [48], from N-iX company, the statistics demonstrate the steep growth of the

sector:

- Ukrainian IT industry is growing at a 26% rate;
- There are currently more than 4,000 tech companies operating on the market;
- There are over 1,600 software development service companies in Ukraine;
- There are over 185,000 software developers in Ukraine;
- Ukraine ranks 20th on 2019 A. T. Kearney Global Services Location Index of the most attractive outsourcing destinations;
- More than 100 companies on the Fortune 500 list are clients of Ukrainian IT firms.

The industry started to grow since the beginning of the 2014 political crisis when the prices for Ukrainian IT services became even more attractive for investors due to inflation (Figure 2.4).

Fig. 2.4. Market growth vs number of IT specialists and Industry revenue in billion USD.

Source: https://www.n-ix.com/software-development-in-ukraine-2019-2020-market-report/

The Figure 2.4. shows the proportional increase in industry revenue and number of IT specialists. The rapid development of IT industry causes the increase of demand in IT specialists offering the attractive working conditions.

It is important to mention that IT industry shows the positive trend starting from 2014

thanks to favorable taxation systems. Almost all IT companies hire their employees as physical individual entrepreneurs obliged to pay 5% income tax and single social contribution, which creates favorable economical environment for the industry development. «At the end of 2021, the Ukrainian IT sector grew by 36% compared to a year earlier, reaching $6.8 billion in exports of computer services (against $5 billion in 2020)» [43].

Talking about IT service companies, which «Vi-Jet Group» currently is, the information about this type of IT companies should be taken into account. In 2020, the number of software development service companies in Ukraine was reaching over 1,600. The majority of these companies are focused on the international market, specifically USA, UK and European Union. Therefore, businesses that look for an IT partner in Ukraine often have to choose among the variety of vendors. The key strengths of Ukrainian software development companies include highly skilled professionals, cultural similarity, convenient geographical location, and of course, competitive prices. These strengths help software development companies to stand out among the competition on the global arena. The Figure 2.5. shows the target markets for Ukrainian IT service companies. The numbers are based on the data taken from Lviv IT cluster database.

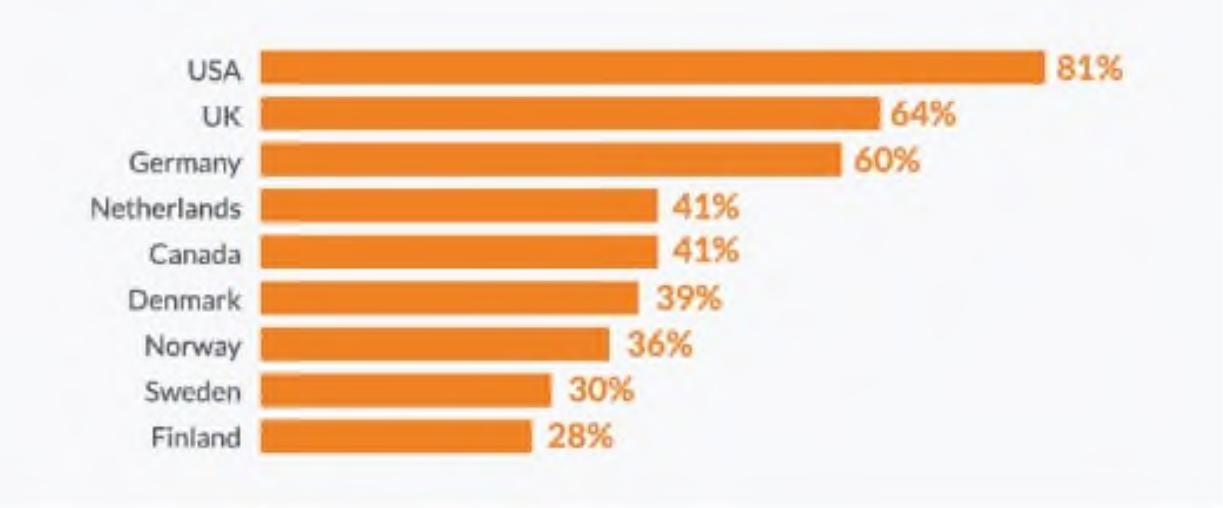

Fig. 2.5. Target markets of the Ukrainian IT service companies (Lviv IT cluster).
Source: https://www.n-ix.com/software-development-in-ukraine-2019-2020-market-report/

Talking about digitalization, all IT companies manage most of their processes digitally,

with the exception of those regulated by the government. The organizational culture in such companies, in most cases, flexible following the laws of Agile methodology. Considering all mentioned above, the digitize functions of «V-Jet Group» can be determined:

- The business model of the company «Vi-Jet Group» involves the element of the information-based service extensions. The main service of the company is a software development. At the same time, the company offers a design service, including concept and brand book development; a POC (proof of concept) document – the concept of the project from the perspective of business analytics; a technical support after web-site release.
- From the perspective of operations, the company manages clients' projects using software tools for project management like Jira Atlassian and ClickUp (depends on the project). The client is able to check the project status by accessing the software.
- Tracking of time spent by each teammate is conducted in the Clockify application. As an extra, the application allows to generate time reports. The client is able access the project in Clockify as well.
- From the perspective of marketing and our services advertisement, beside the personal website, the company has the profile page on the Clutch web-source where the detail company overview is introduced together with customers' review. Furthermore, the company post its design works on the popular web-site Behance. Finally, another important marketing channel is a web-source Awwwards. It is a project created to choose the best websites in terms of creative approach and appearance, in general.
- As it was mentioned in the previous chapter, the year of 2020 brought us the COVID-19 crisis, which significantly change the conditions of business development, accelerated the introduction of digital technologies within the organizations, and, overall, changed the world. Talking about the «Vi-Jet Group» company, and IT business in general, the COVID-19 crisis influenced some aspects of employees' work process, and learning:

- The company has completely transferred its work to cloud technology. Before, the company had some operations and stored part of its documents in the cloud. But the factor of pandemic forced the employees to transfer all of the activities to the cloud. This has caused the following changes in the work process: the remote work became a usual work process; the company has updated its policy – the employees are allowed to work from anywhere in the world; HRs expanded its areas for new personnel search.
- The accounting department started to use the Vchasno.ua service. The service provides the platform for work with electronic document management. The service allows the user to exchange documents with an accountant, sign documents using a digital signature, store the documents in the cloud on the platform. This service no longer requires the physical presence of an employee to sign, for example acts of completed work.
- The employees can register now for any extra learning courses. The company guarantees the payment for the confirmed subscriptions and individual courses from such learning platforms as, for example, Coursera or Udemy.

Continuing the topic of impacting factors, on the 24th of February, 2022, Russia started the war with Ukraine. It is another war risk factor that caused strongly negative economic consequences and the irreversible social ones. The part of Ukrainian business, definitely, suffers losses. The same conclusion can be made in regards to the IT companies that were focused on the CIS market. For example, Parimatch Tech has left the market of Russia and Belarus showing its protest against the war.

However, the main market of the company is Ukraine, does not bring the same level of profit due to the military actions. As the result, in March company held the first wave of downsizing. In regards to the service companies oriented on the other countries than CIS, like «V-Jet Group», these companies continue to work and are the main business that replenishes the state treasury during the war period. Then, it can be stated that the pandemic factor played into the hands in this case and was a preparatory level for such a big crisis and grief.

Overall, the «V-Jet Group» company has a transformed, flexible approach in doing business, and conducting its operations using the ready-made digital solutions for fast and convenient management. Anyway, in my opinion, some of the processes can be partially transformed with the use of digital solutions and new tools in order to improve and develop the business.

2.3. Analysis of the company's business effectiveness in the context of local and international activities

Examining the business effectiveness of the company, the analysis of qualitative and quantitative indicators has been made. I suggest to start with general analysis of the industry in which company operates.

Considering the fact “V-Jet Group” is a service IT company, the analysis of external factors that influence the IT industry has been made. PEST analysis is a descriptive analysis that examine the company or the industry according to political, economic, socio-cultural, technological factors (Figure 2. 6).

Fig. 2.6. PEST analysis.

Source: compiled by the author.

The explanation of each factor of PEST analysis is introduced below.

Political factors:

– Wars and conflicts. The main and core subject to be pointed out is a war and military conflicts with Russia that currently take place on the territory of Ukraine. The outcome of situation cannot be predicted 100%. During the

military state the men in the age from 18-55 years are not allowed to leave country, hence the relocation during the period of war is not possible. After the cancelation of military state, the relocation of employees would be possible to other countries. However, the risk of spreading of military conflict exists. On the May 4, the threat of Russian invasion in Moldova has been already announced. The probability of further conflict spreading cannot be excluded and have to be taken into account;

- Risk of change of legislative system. The low risk of occupation of Ukrainian territory exists. In this case, Ukrainian business will experience the change in legislative system.
- Risk of change of fiscal policy. Last year the government has created Diya.City program specifically for IT industry. According to the law of Diya.City, all the taxation conditions for IT industry are fixed for 25 years. However, considering the risk of long-term war that affects the Ukrainian economy, the conditions might be reviewed and changed;
- Risk of military conflicts in other countries exists. Poland, in the joint with EU, has applied sanctions to Russia, and this will influence the economic indicators that may pull the change in the fiscal policy for businesses. This may influence the Polish office of the company.

Economic factors:

- Negative tendency of economic indicators such as: taxes increase, inflation, decrease in the consumer confidence index. The war and military conflicts affect the economy, thus for business it means the increase in taxes, inflation, and decrease in the consumer confidence index;
- Increase of unemployment rate. The employment rate will be affected by increase in taxes, decrease in the consumer confidence index, and increase of refugees that are coming from the territories which are under the threat of war. Imposing of sanctions by EU slightly may affect business in EU and the

employment rate as well. For IT service company it means the decrease of buying power and less conditions for the business development.

Socio-cultural factors:

- Change of purchasing patterns. Following the idea of decrease in buying power of consumers, the purchasing patterns as an element of social factor got changed as well. This factor primarily affects citizens of Ukraine, since the prioritization un spending has transformed significantly. This factor influences a product IT company a lot, and does not affect much the IT service companies.
- Change of people's lifestyle due to factor of war. Lifestyle has changed for many people: military state in the country, and forced relocation. This has caused the remote work for all employees in IT industry. Some employees entered the military forces and had to temporary leave their companies with the ability to get back to work after the end of the war. This caused the temporary "experts drain" from the companies.
- Change of people's income level. The influence of economic factors described above includes the decrease of income level for the employees in general, including IT sector.

Technological factor:

- Risk of network loss. The missile strikes continue to destroy the infrastructure and strategic objects in the territory of Ukraine. There is a high risk the telecommunication towers being destroyed, thus the loss of network and Internet. This potential risk may stop the operations of the entire IT sector.
- Cloud technology. Currently, the work is remote and a lot of operations and files are stored in the cloud. Business experienced this during the COVID-19 pandemic, when the remote work was a must.

Taking into account all the factors described above, the situation for business remains

uncertain. The primer threat exists for the company office in Ukraine, the rest of the offices are under the risk at the high level.

Following the PEST analysis and the factors that influence IT industry, I suggest to analyze the IT industry from the perspective of competition. Porter's Five Forces analysis helps to analyze the factor of competition within the certain industry (Figure 2.7.).

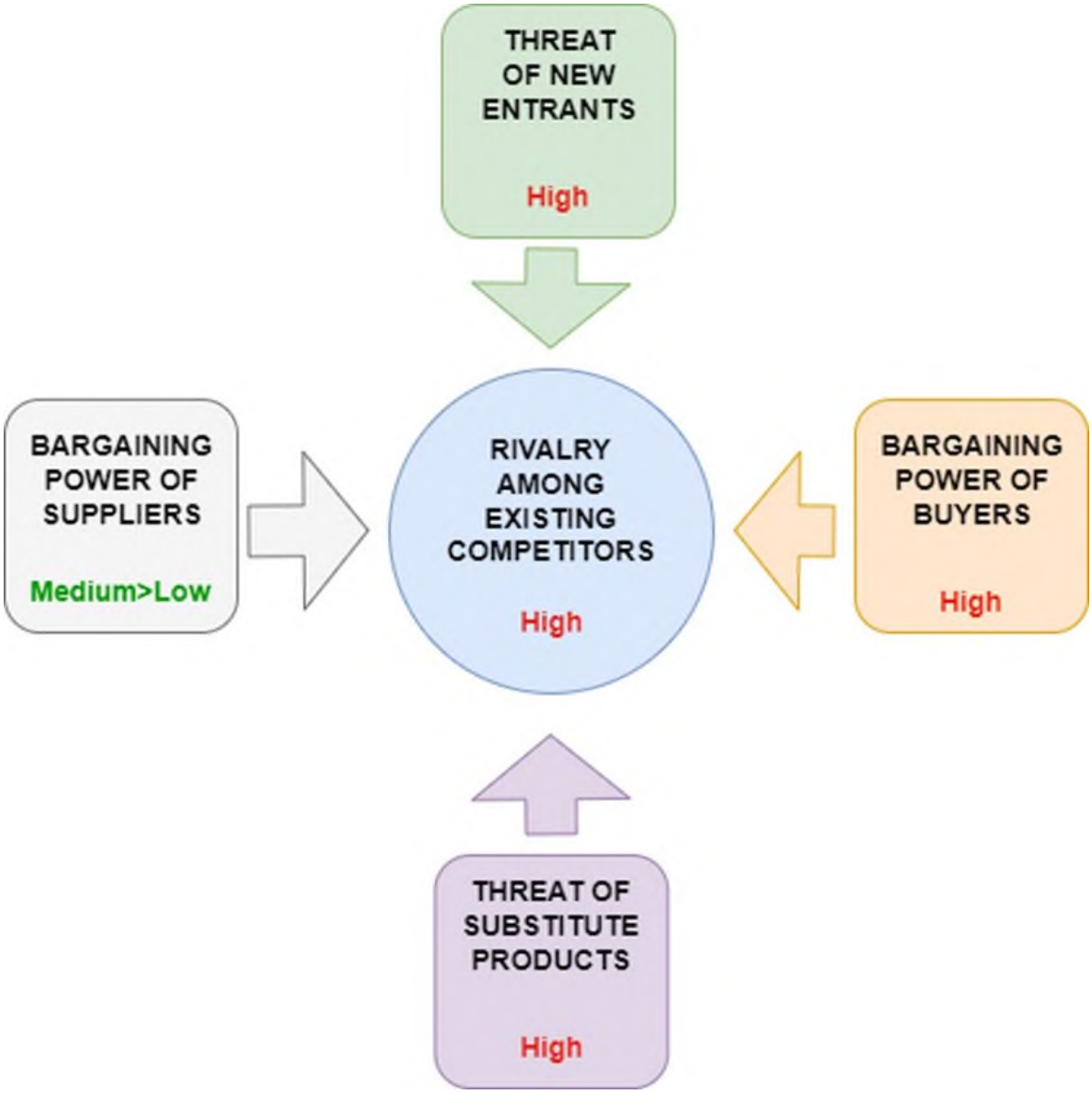

Fig. 2.7. Porter's Five Forces analysis.

Source: compiled by the author.

The explanation of each "force" is introduced below.

- Threat of new entrants is high. IT service company provides the variety of services related to the development of software, applications, web-sites. These services also include the UI/UX design development, brand creation, development of brand concept, and copywriting. These services can be provided by any IT service company or even a freelancer. For opening an IT service company no specific documents are required; the company may be of any size. The key thing is to have a good portfolio of projects for presentation. The same concept is relevant to a freelancer;
- Bargaining power of suppliers is medium to low. The company's suppliers can be considered the products software, software platforms, and services used for the project execution, software development, for example, GitHub, Amazon Web Services, Microsoft Azure, Postman, WordPress. The progress of every projects depends on the correct work of software applications, platforms, services. However, these services are very wide-spread and used worldwide in IT companies, thus they can be considered as suppliers for IT industry in general. Anyway, the alternatives are introduced on the market for every application, platform, or service, that is why, the level of bargaining power of suppliers is identified as medium to low;
- Bargaining power of buyers is high. According to CompTia [14] in U.S. were registered more than 525,000 tech businesses. On the popular web-resource Clutch [13], specialized on the IT service companies 20,324 IT service firms were registered. Hence, buyers have a lot of alternatives on the market, and the company services can be easily substituted;
- Threat of substitute products is high. IT service company does not sell a unique tech product, but custom development services and solutions that can be easily substituted and make buyer switch to an alternative service-provider;
- Rivalry among existing competitors is high. The market of IT services providers has a lot of competitors on the both local and international arenas. The consumers can easily switch to the competitors.

Following the PEST and Porter's Five Forces analyses, the analysis of strengths, weaknesses, opportunities, and threats (SWOT) has been made. SWOT analysis allows to develop the strategic planning and identify the future potential of the company. SWOT analysis is introduced on the Figure 2.8.

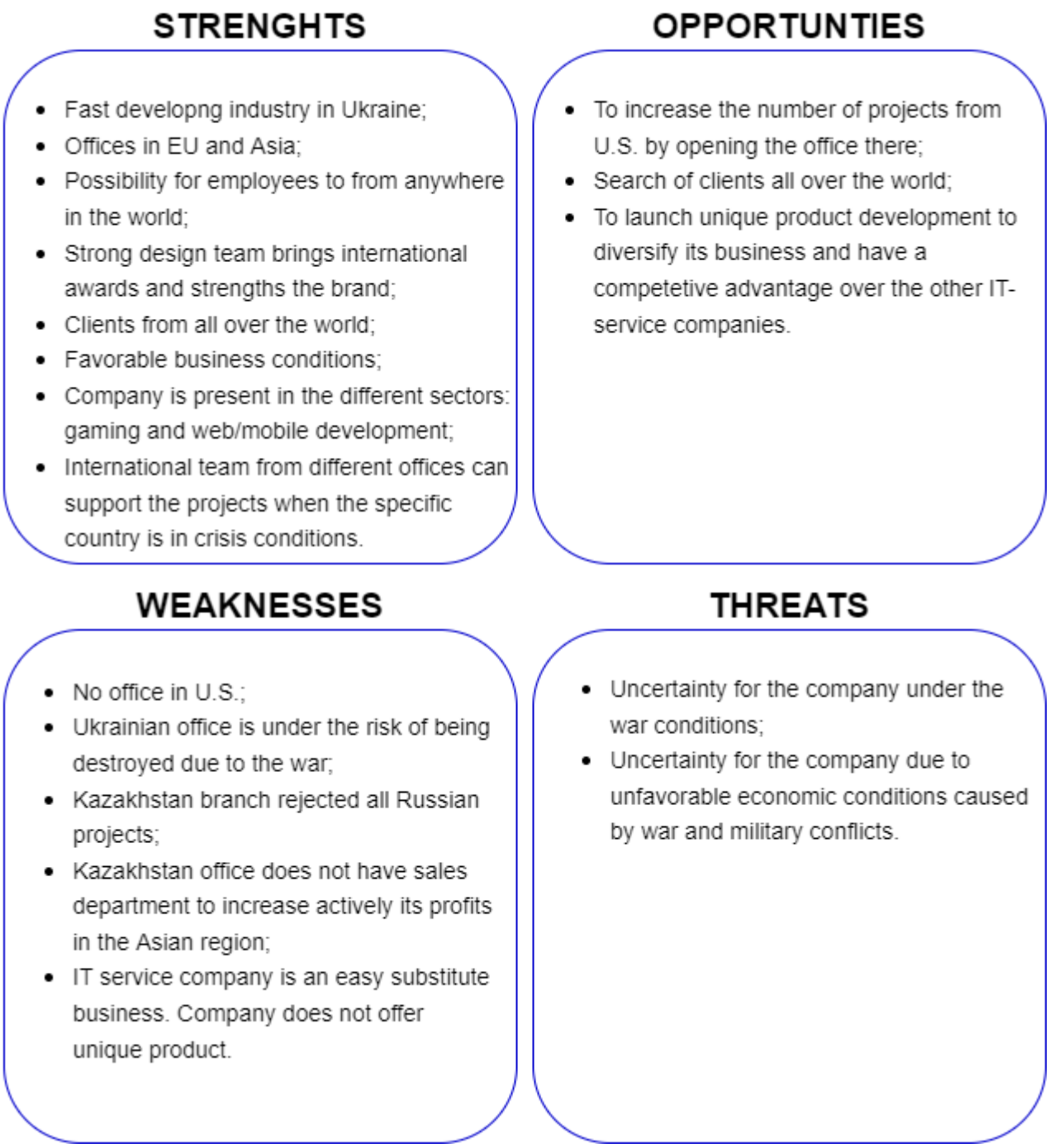

Fig. 2.8: SWOT analysis.

Source: compiled by the author.

Considering the internal strengths and weaknesses, and external opportunities and

threats the strategies described below have been identified:

Strengths-opportunities strategy:

- The company can hire the sales team members from all over the world, to diversify it and reach more markets;
- The company is able to launch the development of unique product to diversify its business and have a competitive advantage over the rest of IT service companies.

Weaknesses-opportunities strategy:

- The company is able to open office in U.S. to increase the number of projects from this market.

Strengths-threats strategy:

- Team relocation from the existing office outside Ukraine to the save country.

Weaknesses-threats strategy:

- Opening of new office in U.S.;
- Team relocation from the existing office outside Ukraine to the save country.
- Kazakhstan office focuses its business on the Asian market only and opens the sales department focused on the Asian market.

The quantitative analysis has been done based on the financial indicators of the company. The income statement represents the company's revenues and expenses over the period from 2019 to 2021 (Table 2.1).

Table 2.1

Performance of "V-Jet Group".

Income statement (thousands, USD).

	Fiscal Year Ended December 31,			
	2019	**2020**	**2021**	**CAGR (%)**
Revenue	643 422,60	662 837,50	801 569,00	**8%**
Cost of Goods Sold (CoGS)	424 056,50	430 130,50	515 674,00	7%
Gross porfit	**219 366,10**	**232 707,00**	**285 895,00**	**9%**
Selling, general, and adminstrative(SG&A)	116 358,50	119 165,50	158 169,00	11%
EBITDA	**103 007,60**	**113 541,50**	**127 726,00**	**7%**
Depreciation, amortization (D&A)	11 321,25	12 794,50	14 835,75	9%
EBIT	**91 686,35**	**100 747,00**	**112 890,25**	**7%**
Interest and other loss/ income, net	1512,25	874,50	- 422,75	-165%
Provision for income taxes	9 451,95	10 386,01	11 637,86	7%
Net Profit	**80 722,15**	**89 486,49**	**101 675,14**	**8%**

Source: compiled by the author.

The income statement represents the growth of all major financial indicators. The compound annual growth rate (CAGR) has been calculated in order to determine the potential returns from the investment into the business. According to Fernando [24] CAGR is a number that describe the rate at which an investment would have grown at the same rate every year and the profits were reinvested at the end of each year. The formula of CAGR is (Figure 2.9.):

$$CAGR = \left(\frac{V_N}{V_0}\right)^{\frac{1}{N}} - 1$$

Fig. 2.9. Formula of CAGR.

Source: https://allfi.biz/glossary/eng/C/cagr.php

I suggest to review the main financial indicators of income statement in details. The graph below shows the number of company revenue being recorded for each consecutive

year from 2019 to 2021 (Figure 2.10.).

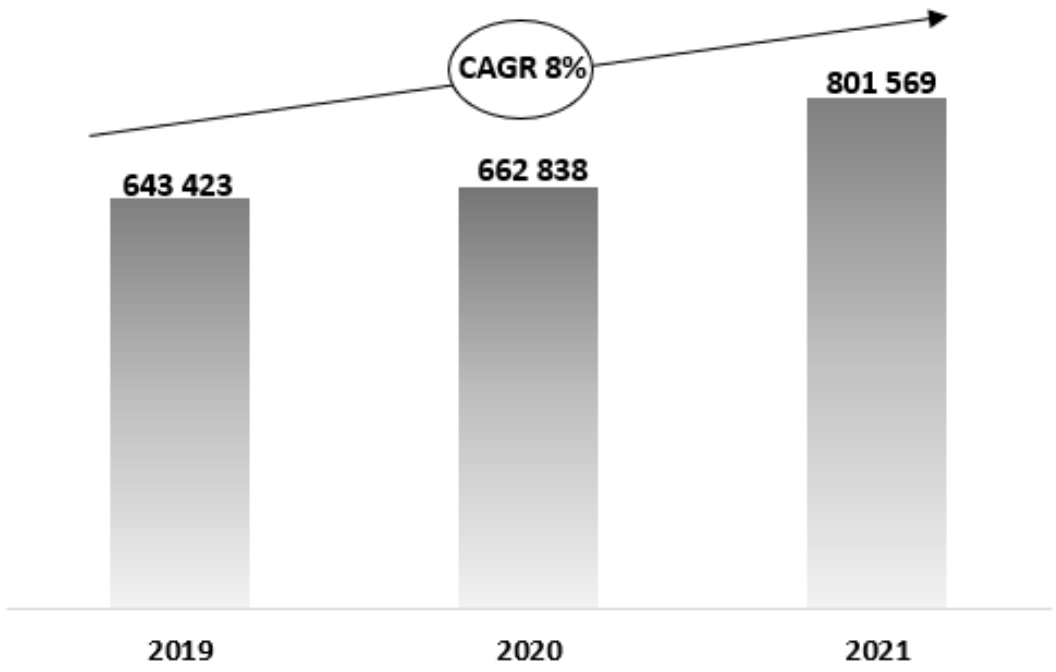

Fig. 2.10. **Revenue (thousands, USD).**

Source: compiled by the author.

Revenue shows the amount of money that company brings into the business to cover the expenses ensuring the selling of company services or products. For the period of 2019-2021, the company shows the growth (CAGR=9%), despite the COVID-19 pandemic crisis in 2020. The growth recorded for the year of 2020 has reached 3% (((662 838/643 423)-1)*100%).

The gross profit of the company has been calculated using the formula

$$Gross\ Profit = Revenue - Cost\ of\ Goods\ Sold$$

Gross profit represents the company efficiency. According the income statement of "V-Jet Group" the company shows the gradual increase in gross profit, which means that company has a smart approach in at using supplies for production of its services. Gross profit measure should be evaluated jointly with gross profit margin to be able to see the general overview of the financial efficiency. The gross profit margin is presented as percentage, and calculated using the formula:

$$Gross\ Profit\ Margin = Gross\ Profit/\ Revenue$$

Gross profit and gross profit margin of the company are presented on the Figure 2.11. and Figure 2.12., respectively.

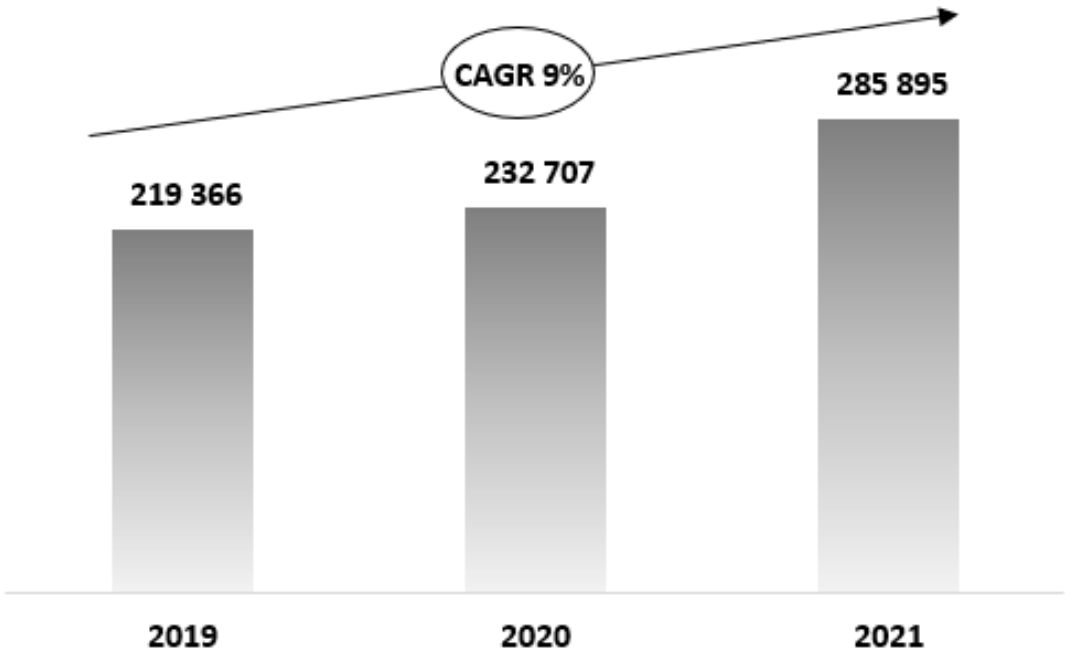

Fig. 2.11. Gross profit (thousands, USD).

Source: compiled by the author.

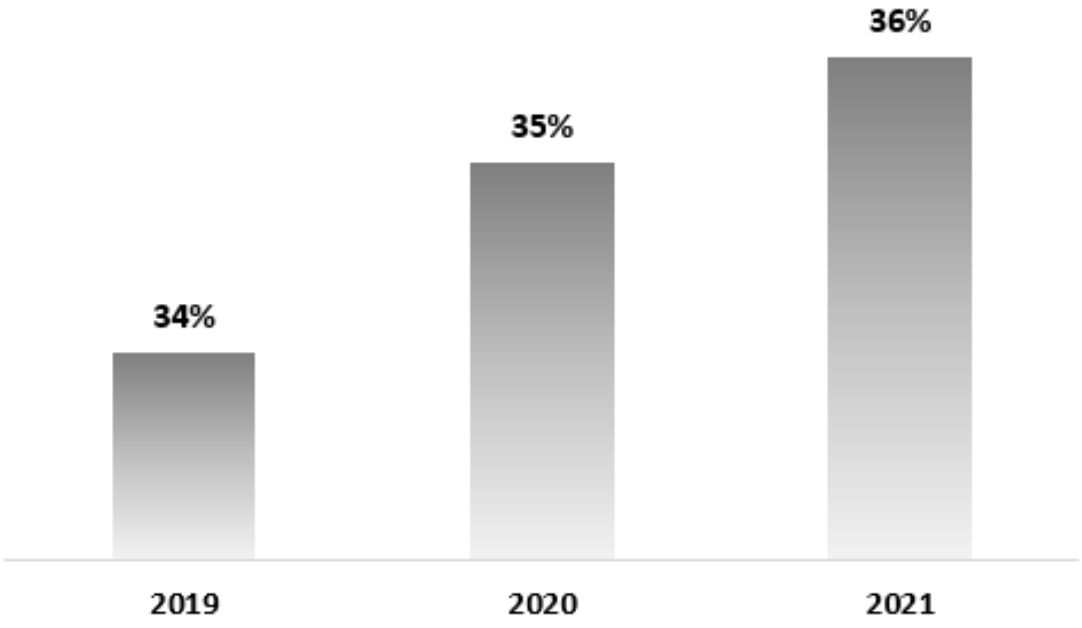

Fig.2.12. Gross profit margin (%).

Source: compiled by the author.

Gross profit margin expresses the financial health or stability of the company by calculating the amount of money left over from product sales after subtracting the cost of

goods sold (COGS) [5]. In the case of “V-Jet Group”, gross profit margin has been increasing by 1% for each consecutive year over the period 2019-2021. However, if company changes its business model in upcoming years it may result in the fluctuations of gross profit margin measure.

The company overall financial performance is depicted by the measure of Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA). The company’s EBITDA is being increased each consecutive year over the period 2019-2021 (CAGR=8%), which means the company operating profit shows the positive trend and identify company as a healthy business including all the expenses, depreciation, and amortization.

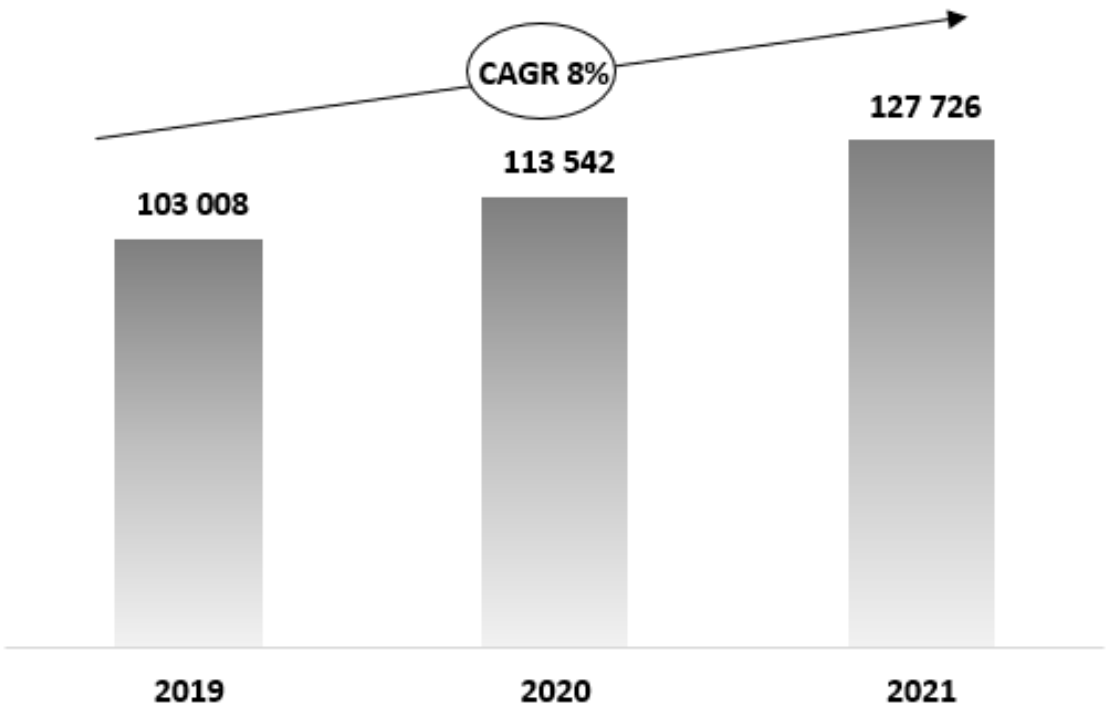

Fig. 2.13. EBITDA (thousands, USD).

Source: compiled by the author.

Additionally, the EBITDA margin has been calculated to show the operating profit of the company in percentage. The formula of EBITDA margin is

$$EBITDA\ Margin = EBITDA/\ Revenue$$

According to the graph below (Figure 2.14.) it is clearly seen that in 2020 the company operating level was higher than in 2021 by 1%. This can be explained by the unintended cost-cutting of SG&A line caused by COVID-19 pandemic. In 2021, the EBITDA margin reached 16%, since the SG&A has been increased due to partial equipment and technology update.

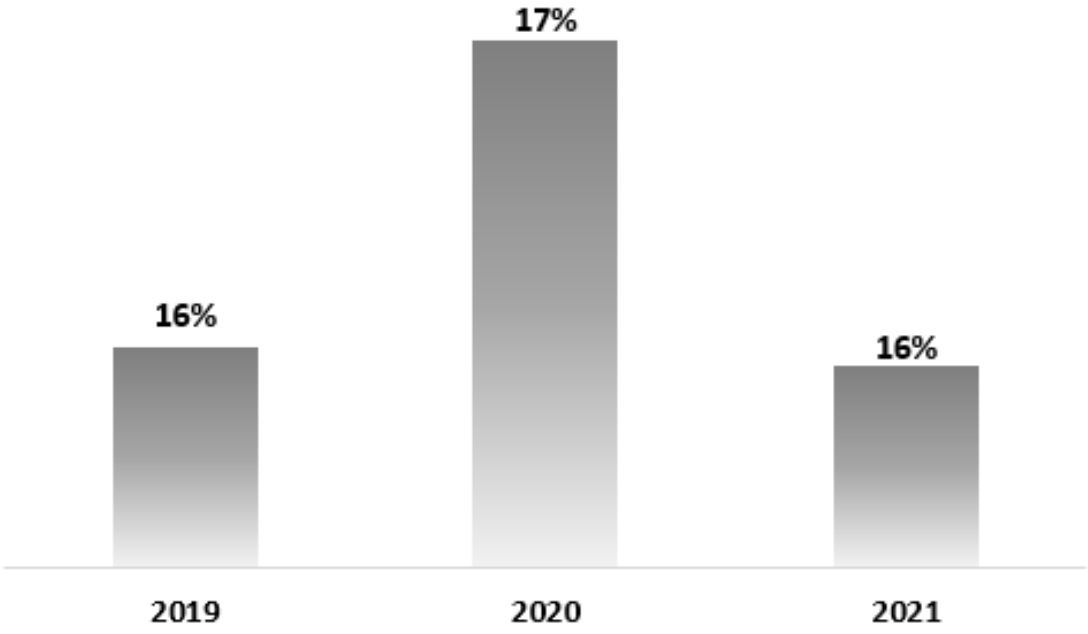

Fig. 2.14. EBITDA margin (%).

Source: compiled by the author.

As I mentioned above, gross profit is one of the main financial metrics to indicate the financial performance of the company. It shows how much profit company earns from the production and sale of its goods and services [49], On the other hand, to determine the overall profitability of the company the measure of net profit is being used. It shows the company's profit after all expenses have been deducted, thus based on the net profit it is easy to see whether the company is profitable or not. The figure below (Figure 2.15.) shows the company net income over the period from 2019 to 2021. Overall, company shows the increase in net profit (CAGR=7%), which means the development of the company business.

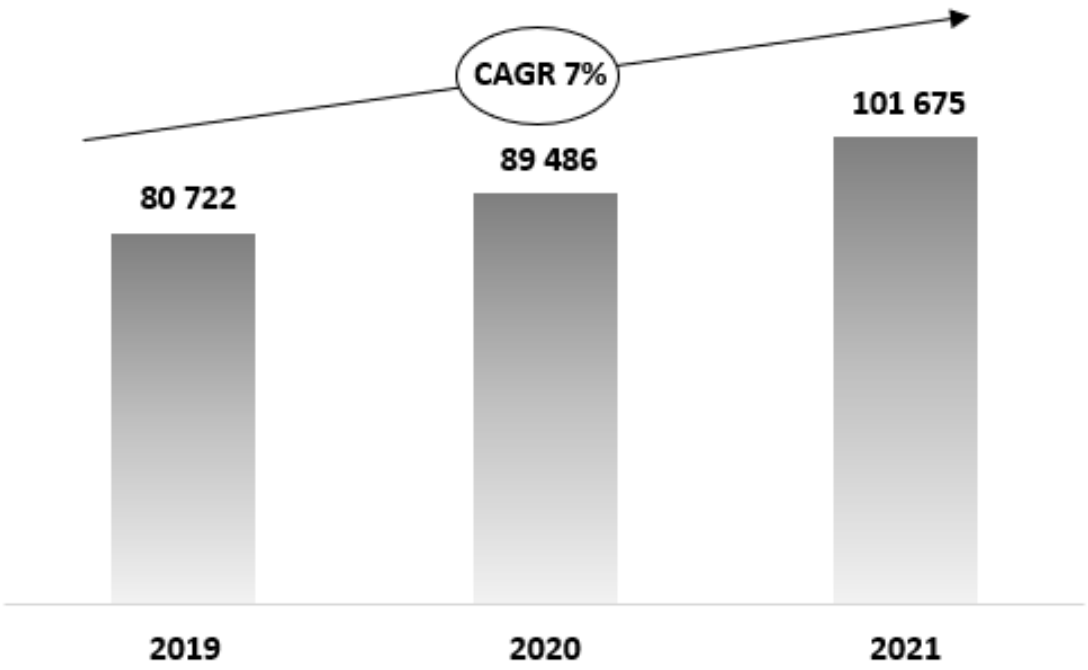

Fig. 2.15. Net profit.

Source: compiled by the author.

To show how much (in percentage) of each dollar in revenue collected by a company translates into profit [50], the net profit margin has been calculated. The formula of net profit margin is

$$Net\ Profit\ Margin = Net\ Profit/\ Revenue$$

The graph below (Figure 2.16.) represents net profit margin by year over the period from 2019 to 2021. According to the results, the correlation between EBITDA margin and net profit margin can be found. In 2020, the company's net profit margin is higher than in 2021 by 1%. The reason for the net profit margin increase in 2020 and its decrease in 2021 can be explained by the same reason the behavior of EBITDA margin fluctuation was explained, the cost -cutting of SG&A line in 2020, and increase in SG&A expenses in 2021.

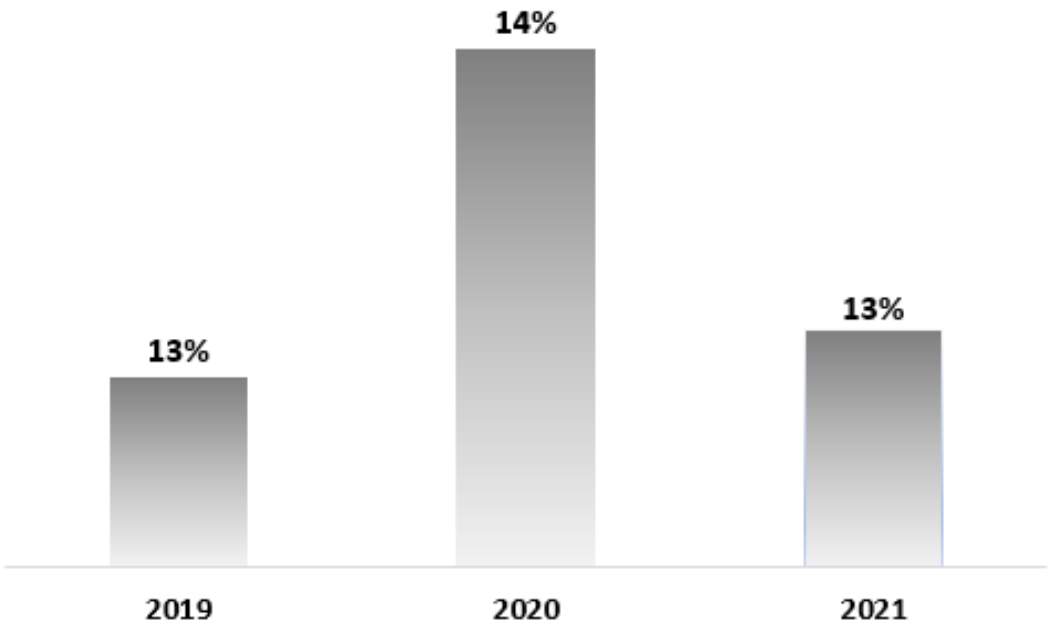

Fig. 2.16. Net profit margin (%).

Source: compiled by the author.

Below the balance sheet of the company is introduced (Table 2.2). The balance sheet shows the state of the finances of the company and divide it on the categories “assets”, “liabilities”, and “stockholders’ equity”. The brief analysis of “assets”, “liabilities”, and “stockholders’ equity” has been made.

Table 2.2

Balance sheet (thousands, USD)

	Fiscal Year Ended December 31,		
	2019	2020	2021
Assets			
Current assets			
Cash and cash equivalent	199 719,71	281 946,99	308 492,78
Short-term investments	-	12 796,49	-
Account receivables	106 137,94	106 851,47	163 973,90
Prepaid assets	8 516,35	6 305,80	11 499,93
Total current assets	314 374,00	407 900,76	483 966,61
Property, plant, & equipment	35 241,48	36 152,91	50 372,64
Operating lease, right-of-use assets	50 964,83	48 764,30	39 417,34
Intangible asssets	11 997,45	11 083,67	21 568,74
Goodwill	41 592,92	45 199,62	113 176,68
Defferred tax assets	15 997,16	19 715,82	30 692,65
Other non-current assets	8 409,51	11 506,97	12 133,50
Total assets	**478 577,36**	**580 324,05**	**751 328,16**
Liabilities			
Current liabilities			
Accounts payable	1 669,96	2 172,80	8 714,46
Accrued compensation and benefits expenses	49 054,96	62 846,69	107 264,11
Accrued expenses and other current liabilities	17 588,01	16 993,89	30 284,49
Income taxes payable, current	1 932,90	4 393,59	5 851,58
Operating lease liabilities, current	12 270,83	12 956,86	10 684,68
Total current liabilities	82 516,66	99 363,84	162 799,32
Long-term debt	5 347,03	5 339,35	6 447,40
Income taxes payable, noncurrent	9 783,48	9 265,29	9 053,32
Operating lease liabilities, noncurrent	38 565,84	38 513,80	30 452,53
Other noncurrent liabilities	1 986,42	4 963,18	10 338,36
Total liabilities	**138 199,43**	**157 445,46**	**219 090,92**
Stockholders' Equity			
Common stock	11,73	11,94	11,94
Additional paid-in capital	278 238,45	352 012,85	457 094,01
Retained earnings	68 856,00	76 331,98	86 728,90
Treasury stock	- 37,75	- 37,75	- 37,75
Accumulated other comprehensive income	- 6 690,51	- 5 440,43	- 11 559,86
Total equity	**340 377,92**	**422 878,59**	**532 237,24**
Total liabilities and stockholders' equity	**478 577,36**	**580 324,05**	**751 328,16**

Source: compiled by the author.

The graph below (Figure 2.17) shows the increase in total assets over the period from 2019 to 2021. Year-to-Year growth measure shows the growth of each year in comparison with a previous one. The formula of Year-to-Year (YoY) growth is

$$YoY = ((Ending\ Value/ Previous\ Value) - 1) * 100\%$$

The increase in total assets mean the company is growing and developing. The increase in total assets can be explained by the increase in retained earnings. It can be seen from the income statement that the company translates the full amount of net profit for every year into retained earnings and reinvest them into business, which caused the increase in total assets amount. The growth in 2021 is higher than in 2020 by 8%. This is connected to the cost-cutting of SG&A line that was described in the analysis of net profit margin. Since the expenses in 2020 were reduced, the amount spent on the assets has been reduced as well. The opposite situation can be seen in 2021, where the expenses were increase, and the amount spent on the new equipment caused the higher increase in total assets.

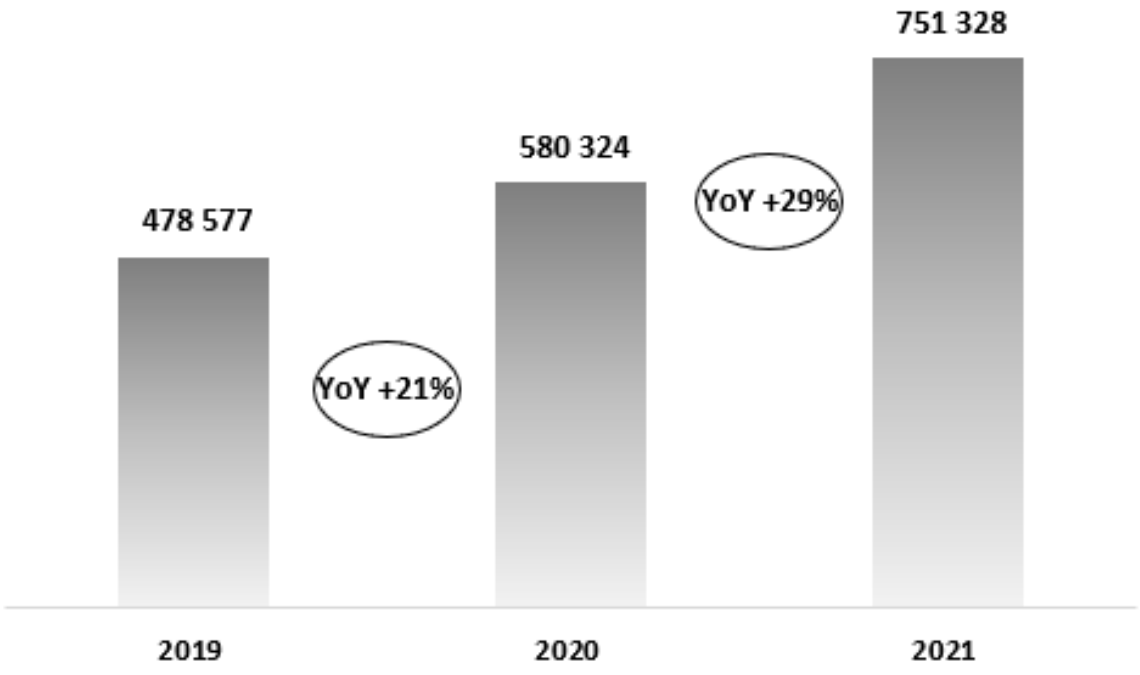

Fig. 2.17 Total assets (thousands, USD).

Source: compiled by the author.

Total liabilities of the company are represented in the Figure 2.18. The increase in

liabilities is highly correlated with the figures of total assets. Also, the increase in liabilities can be explained by the increase in accounts payable, which means that company uses bank credits for purchasing goods, or investing in assets, and conserve the cash. Thus, in 2021, the company used bank credits by 25% more than in 2020.

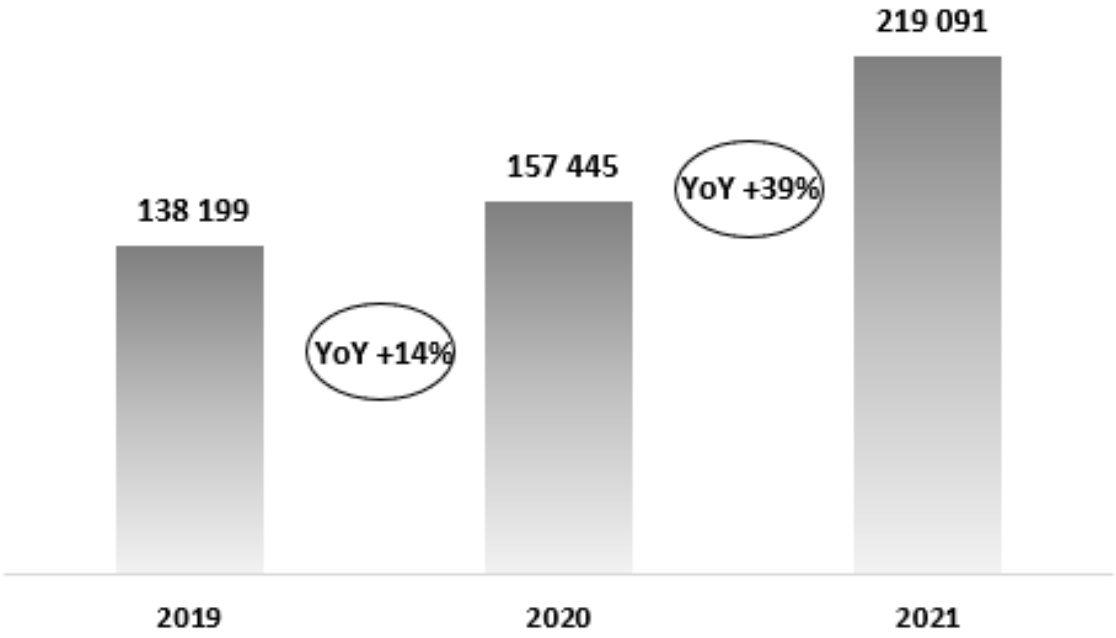

Fig. 2.18. Total liabilities (thousands, USD).

Source: compiled by the author.

The increase in total equity (TE) can be explained by the increase in retained earning each year, and increase in capital mainly recorded in the line “Additional paid-in capital” which shows the growth for each year from 2019 to 2021. Hence, the figures of total equity shows the increase of revenues, operating profit of the company, and increase of investments. This resulted in increase of TE in 2021 by 26%, and in 2020 by 24%. Company’s total equity is introduced in the Figure 2.19.

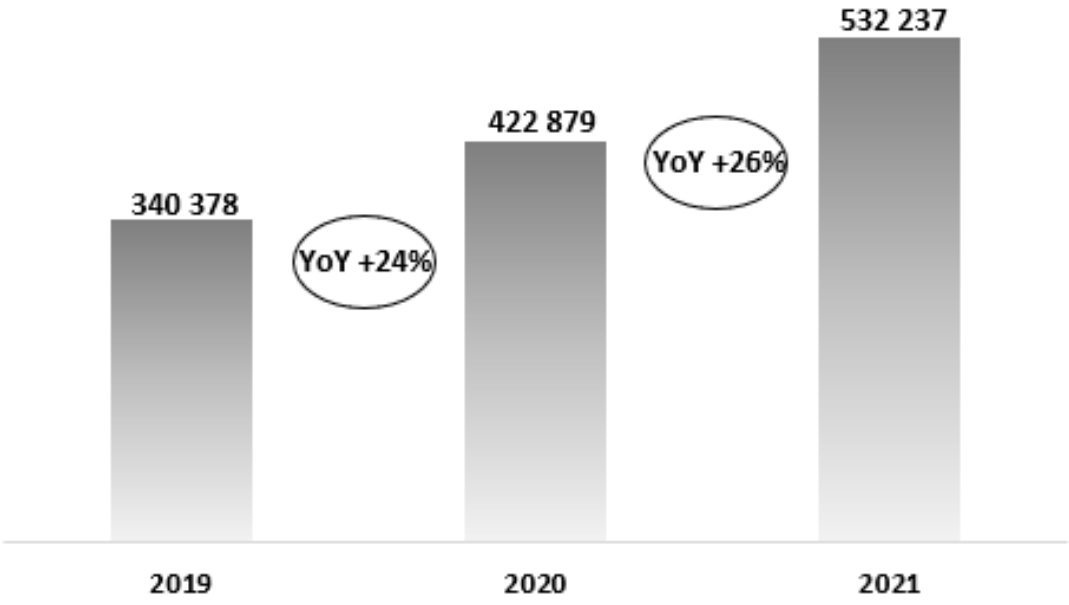

Fig. 2.19. Total equity (thousands, USD).

Source: compiled by the author.

The data on company sales of the first quarter of 2022 has been collected and analyzed. Considering the factor of war that currently takes place in Ukraine, the data has been interpreted to show how the current situation influences the company business. the The figure below shows the comparison of sales by region in the Q1'21-Q1'22 YTD in the «V-Jet Ukraine» (Figure 2.20)

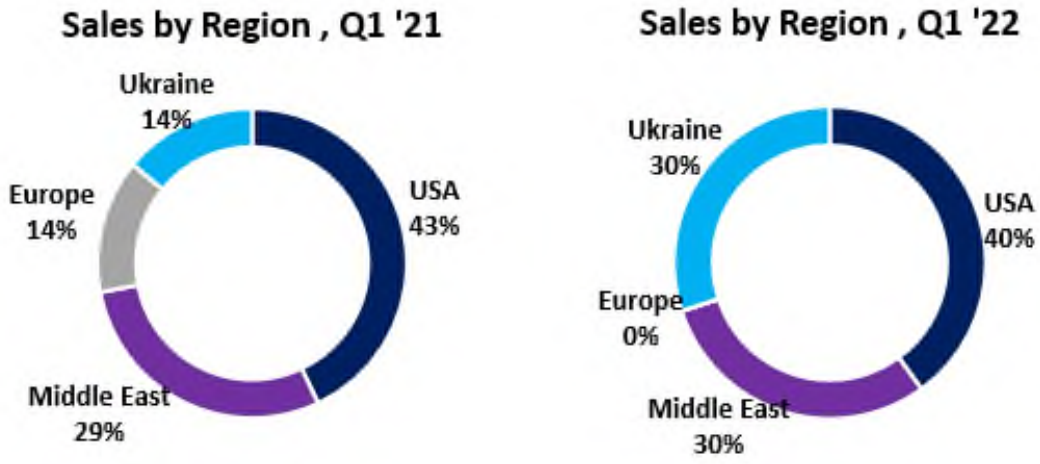

Fig. 2.20. "V-Jet Ukraine "sales by region in Q1'21-Q1'22 YTD.

Source: compiled by the author.

As it is shown on the figure above the sales by region does not illustrate the significant change in the distribution by region. The 14% of sales from Europe shifted to the Ukraine in 2022. However, it is important to note that the part of Ukrainian companies that signed the contracts with «V-Jet Group» are managed by the branch companies in Europe.

According to the data the sales coming from USA market equal 40%-43% for the period of Q1'21-Q1'22. However, the financials show that the company's ROI is higher for U.S. than the other regions. This caused by the market maturity, and the ability of U.S companies to invest more resources into their projects.

Nevertheless, taking into account the inexpedient investments into the Swiss office, and relatively low profits, the company took a decision to close the office in Switzerland in the beginning of December 2021. The functions of this office that were focused primarily on Marketing and Sales were transferred to office in Poland. This action will reflect to the cost optimization, but with the remaining presence in Europe.

In addition, in the first quartile of 2022, the factor of war influenced the projects focused on Ukrainian market. Some of the companies, including the ones that managed by European branches, are located in the currently occupied or destroyed regions of Ukraine. Thus, the 14% out of 30% of the Ukrainian projects are on hold, with the probability to be cancelled due to the suffers losses caused by war (Figure 2.21.).

Fig. 2.21. Projects statuses in Ukraine Q1'22.

Source: compiled by the author.

Talking about the distribution of the projects, the company data shows the relatively equal distribution: Poland has 35% of all project of «V-Jet Group», Kazakhstan – 30%, and Ukraine – 35%. However, this distribution is rather nominal, since this data is reflected only in the reporting of the specific office.

In terms of digitalization, the ROI has not been calculated, so we cannot state clear conclusions. In general, the company uses the ready-made digital solutions, which significantly lower the costs. The company from time to time replace the technologies, or improve them, which means possible slight increase in expenses. In the end, «V-Jet Group» used the technical, digital tools within many processes from the company start, that is why the introduction of digital tools does not affect the company's cost line much.

However, considering the cost line in the profit and loss statement, the costs has decreased by approximately 25% in Q1'21 -Q1'22 YTD. The decrease has been caused by the close of the office in Switzerland, and transfer of its functions to the office in Poland. Thus, such actions impacted the selling, general, and administrative expanses of the company significantly.

Overall, the company «V-Jet Ukraine» shows the increase in sales by 11% Q1'21-Q'22 YTD (excluding the projects that are currently on hold due to the factor of war). And the «V-Jet Group» (including offices in Kazakhstan, and Poland) shows the increase in sales by 8% Q1'21-Q'22 YTD. The company uses the approach of mixing the teams from different offices to work on the one project, which is focused to interconnect employees on the international level, and reduce risks connected on the issues within the specific countries. This approach helped to avoid the large gaps due to circumstances related to the factor of war. Anyway, the Ukrainian office continues to work remotely, but the risk of uncertainty remains.

To conclude, the analysis of indicators from income statement, and balance sheet for the period from 2019 to 2021, the company shows the stable financial situation, and gradual growth despite the COVID-19 crisis in 2020. However, as PEST analysis shows the situation is uncertain from the perspectives of political, economic, socio-cultural, technology factors.

The war and military conflicts create an economic crisis that will influence the entire world, and business ability to develop. In addition, the Porter's Five Forces analysis shows that company does not provide unique product, thus can be easily substituted by the thousands of competitors in the world. The analyses of PEST, and Porter's Five Forces, has helped to shape the strengths, weaknesses, opportunities, threats (SWOT analysis), and build the possible strategies for the company considering the positive and negative sides. The detailed recommendations are described in the next chapter.

CHAPTER 3. CONSIDERATION OF WAYS OF BUSINESS DEVELOPMENT AND ENHANCEMENT IN THE FRAMEWORK OF DIGITALIZATION

3.1. Recommendations for managing development parameters and activities from the business and tech management perspective

According to the topic I have analyzed the «V-Jet Group» from both business and technological perspectives. For the business perspective, I refer to the PEST, SWOT, Porter's Five Forces analyses described in the previous chapter.

The recommendations have been developed considering unfavorable political, thus and economic factors. All of the strategies extracted from SWOT analysis are connected to the war crisis that happening now in the world, especially in Ukraine. As it has been mentioned before the team continuous work in Ukraine, however the further situation is uncertain. One of the options is to relocate the team to the Polish office and continue the working process from there. Talking about the Kazakhstan, this office has been working on the projects coming from Russian market before the war started, and rejected all of them after its beginning. Therefore, the strategy for Kazakhstan is to focus on the Asian market, and continue to build up the client database. Moreover, the Kazakhstan office does not have a sales department dedicated to the development of the Asian region. Thus, the company should hire more personnel so that to provide the company growth on the Asian market.

According to Porter's Five Forces, "V-Jet Group" operates in the highly competitive market of IT service companies. The four out of five Porter's factors have been identified as "high" level:

- the company's threat of new entries is high, since no large investments are needed to provide IT services, even the freelancer can be considered as a new entry;
- the company's threat of substitute is high, since the company sells custom solutions;
- the company is highly dependent on the bargaining power of buyers, since the company does not provide unique product;

– the rival environment of the company is high.

Considering the forces described above the company is able to allocate the risk of being fully dependent on the clients' well-being by creating its own tech solution. Following the market trend my suggestion of the product is a marketplace platform for different purposes. Company needs to hire separate team of ten people for this project. The table below shows the investments needed for this start-up project for 1 year (Table 3.1)

Table 3.1

Investments needed for start-up project

	2023 (thousands, USD)			
SG&A	**Q1**	**Q2**	**Q3**	**Q4**
Personnel	49 553	151 409	152 538	146934
Equipment	149 960	267	267	267
Marketing	4 629	3 644	4 400	5 067
Total	**204 142**	**155 320**	**157 204**	**152 268**
Grand Total (USD)		**668 934**		
Sum incl. 20% reserves		**802 721**	(approx. 803 000)	

Source: compiled by the author.

The Table 3.1 shows the number of required investments for the development of new product on the quarterly basis and in total. The expenses are calculated in USD, since the financial reporting of the "V-Jet Group" is conducted in USD. Twenty percent of reserves are added on top on the total amount in USD. So, the required number of investments results in 802 721 USD, which is approximately 803 000 USD.

Assuming that the company will take a loan for this project in Ukraine using the state program "579". Then, we convert 803 000 USD into UAH at the rate of 31.00 hryvnias/ dollar: the total amount required for the project is 24 893 000 UAH. The company can take a loan at 9% per annum for UAH 13,100,000. This amount is equal to 53% of the total amount required. The remaining amount can be collected by attracting investments.

In the first month of operation, the company must find a client and gather the necessary staff. The cost of services is individual but is formed on the basis of the number of use of man-hours to pay for their work and office rent + 40%. Thus, if the company receives a development project for 6 months, the minimum sale price will be 9 129 929 UAH (294 514 USD).

In a pessimistic scenario (constantly having only one client) the payback period is

$$803\ 000/\ 294\ 514 = 2.73$$

(upon a condition of regular work with one client for the period of 6 months).

Thus, the payback point of the project is:

$$2.73/2 = 1.36 \text{ years}$$

The development of the company product is diversified the company's business and creates unique offer on the market which automatically decrease the number of competitors. However, the potential risks should be taken into account. Some of the risks have been already mentioned in the previous chapter, and they are also related to the unique product development. Among them are:

- War;
- Changes in legislative system of the country;
- Rapid price increase;
- Inflation;
- Changes in the crediting conditions.

Taking into account, that the company will take full responsibility on the product and business development it creates additional risks, such as:

- Bad product quality;
- Failure of negotiations with client;
- Employees dismissal.

Bad product quality may result in unprofitable business, as much as a failure of negotiations with client. However, the most serious risk should be considered an

employee's dismissal. Usually, the development of the company own product means that certain team works on architecture development. These people are very important they now the product from zero. In case these employees leave the company, it can be considered as a threat of product existing and further development.

The analysis of the «V-Jet Group» from the technical perspective has been conducted according to the framework of Bonnet and Westerman called «New Elements of Digital Transformation». I have analyzed and identified the functions and elements that can be improved in the framework of digital transformation (Figure 3.1.).

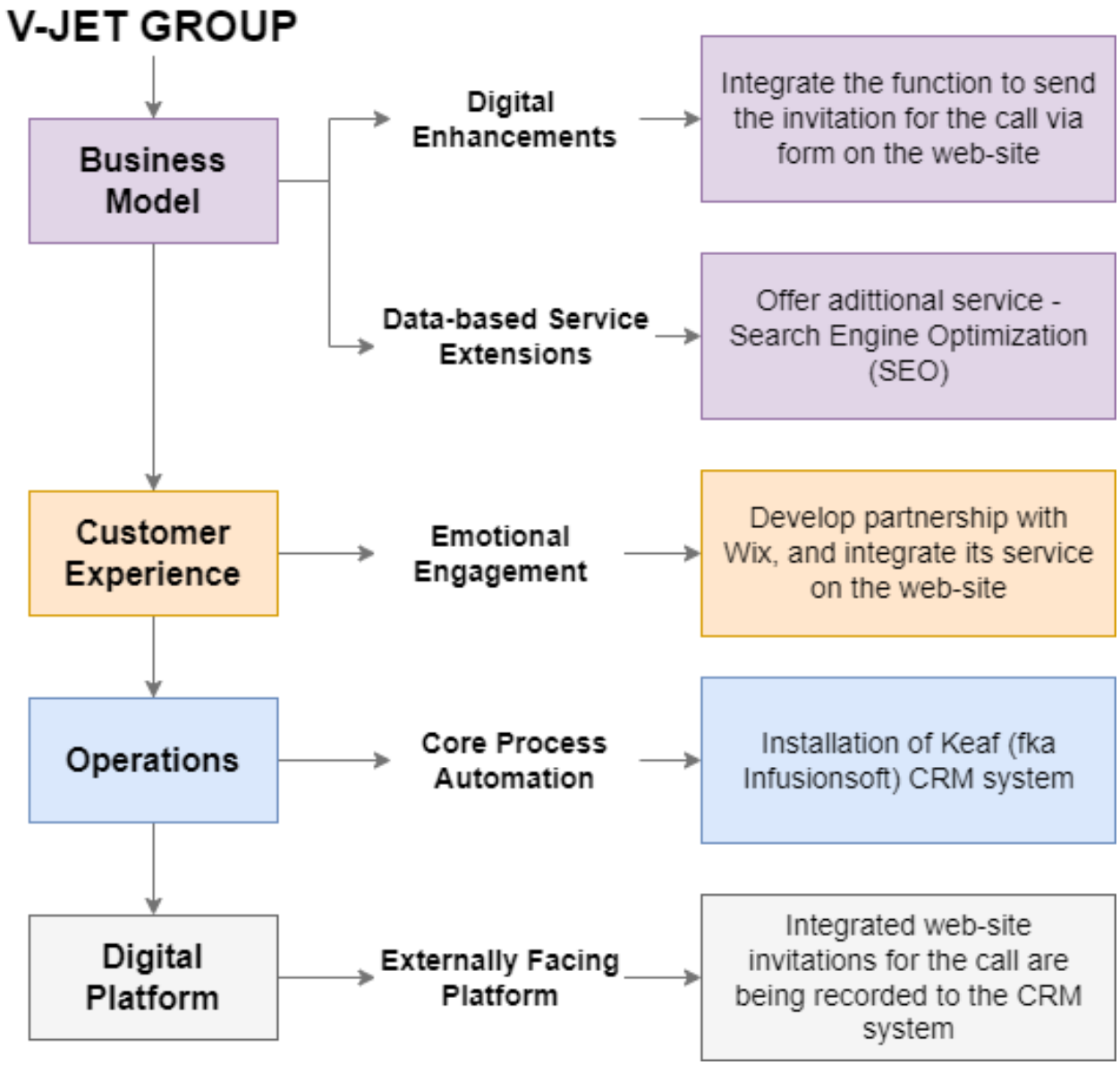

Fig. 3.1. Recommendations for digital improvement of the company.

Source: compiled by the author.

First of all, I would like to determine the suggestions about the transformation of operations functions, since these changes impacts all of the rest functions mentioned in the model. Currently, the company employees use different tools in their working processes. I suggest to install the CRM system called Keaf (Infusionsoft) that will reduce the number of the tools used. The CRM will include all the necessary information about the customers, payment transactions, and projects. Hence, it will be absolutely useful tool that include the information necessary for accounting department, project managers, and clients.

Another suggestion is related to the business model change. The business model of the company can be partially improved due to such elements as digital enhancements and data-based service extensions. Currently, the company receives the request via mailbox or phone calls. My suggestion is to automated this process in the way by integration of the function on the website where the user is able to set the call with a company representative automatically through the specially-designed form (Figure 3.2.).

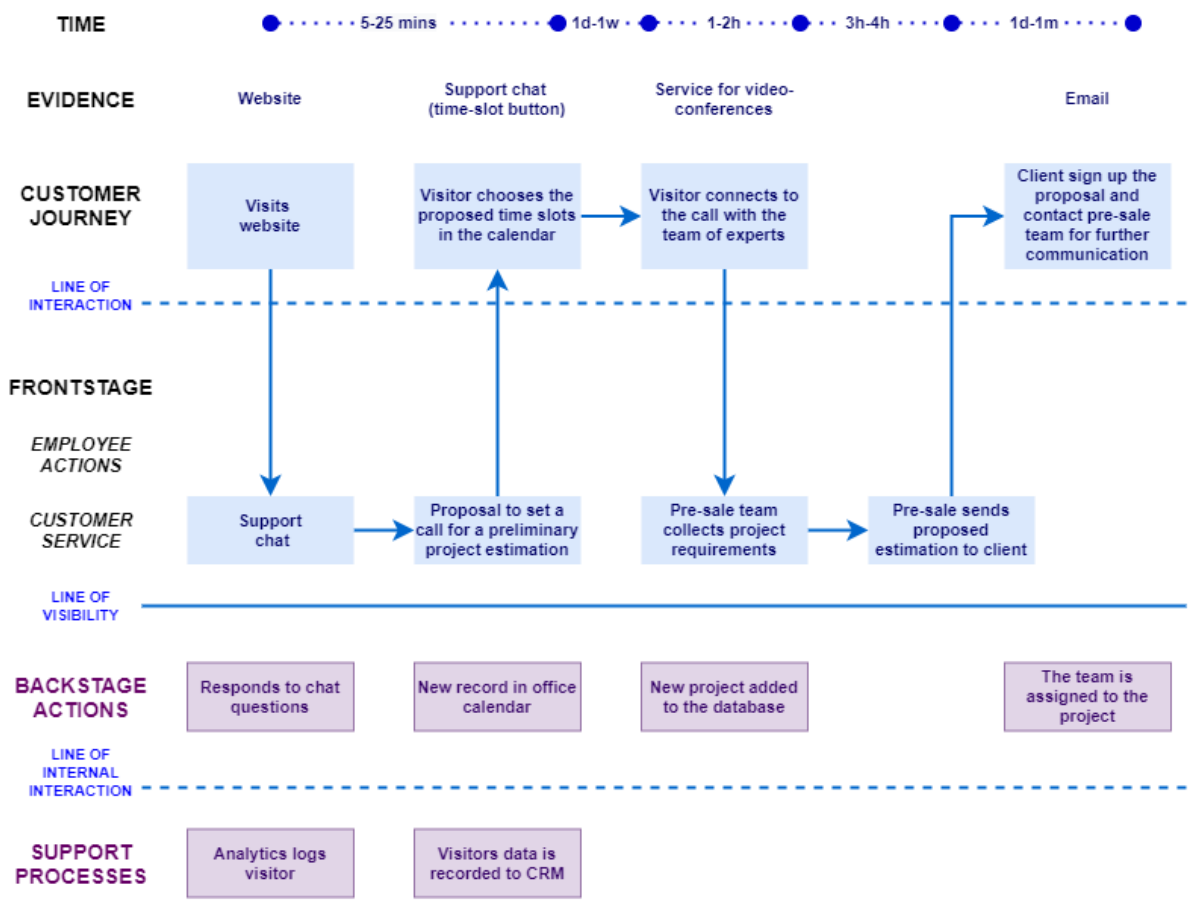

Fig. 3.2. Flow of automated process of sending a request via web-site.

Source: compiled by the author.

This record should go the new connected CRM system (operations element), and notify the salesperson about the new request. Furthermore, this digital enhancement requires the transformation and preparation of externally facing platform element, which is part of digital platform function.

Continuing the topic about business model change. My second suggestion is to use the element of data-based service extensions for business model improvement. According to the statistics, the 85% of the company when requesting the development or updating of the web-site, one of their requirements is to manage search engine optimization (SEO) on their web-site. Currently, the company does not sell such services, but do the SEO for the personal web-sites. The company should add this type of service to the website and connect it to the new CRM system as well as hire the SEO team to perform this job. This improvement will contribute to the company profits.

The company is experienced in the development of the creative web-site with the complex animation as well as simple corporate web-sites. Sometimes, customers have no idea what the web-sites they expect to see in the end, that is why our team looks for the different good references over the internet to identify the web-site direction and level of the creativity required by the client. Then, I suggest to use ready-made technical solutions to partially transform the customer experience in terms of emotional engagement element. There are a lot of applications that help may the client to create the web-site himself using the standard templates and features. The most popular one is Wix. I suggest that the company should develop a win-win partnership, where the Wix application is integrated on the V-Jet Group website and allows the clients to build the approximate web-site they want to see. In the end customer should be able to send this developed web-site to the V-Jet team, and the template should be saved to the clients' folder in the new CRM system.

Generally speaking, the company improvements can influence the business on the different levels. The technological transformations are able to improve the business significantly in terms of operations, business model, digital platform, and customer experience. At the same time, according to SWOT the company should expand its business

operations geographically to ensure the sales increase.

3.2. Recommendations for managing development parameters and activities from the human resources perspective

The activities of human resources department started its transformation already with the beginning of the COVID-19 crisis. As I mentioned earlier, the company has changed its policies, and allowed the employees remotely from anywhere in the world. This has influenced some of the activities of human resources department.

Human resources started to recruit the employees all over the world considering the candidate background and skills required for the specific positions. Especially, this approach is being extremely helpful for salesmen and copywriter positions, since to find native speakers for certain languages became much easier.

From the beginning, the company builds tight interconnections between its offices by mixing the project teams from the different countries. This approach started being more encouraged with the beginning of remote work. In addition, this approach works as a risk mitigation action in case the exact country where the teammates are experiences some issues that affect their productivity (for example, demonstrations in Kazakhstan in January, 2022 caused the internet shutdown). In this way, the project teammates from different countries are able to pick up the tasks while the situation is unstable in the other regions.

All the employees started to take professional courses and trainings online. The employees can register now for any extra learning courses. The company guarantees the payment for the confirmed subscriptions and individual courses from such learning platforms as, for example, Coursera or Udemy.

There is one recommendation that can be suggested to the human resources department. In the framework of Bonnet and Westerman the element of transformation capability is named as flexforcing, mentioned under function «employees». According to the flexforcing definition, companies also need to build agility into their talent sourcing systems [7]. The companies should provide the special professional trainings for the employees to ensure

development of employees' skills in the new areas of development process or new functions. For example, the automation QA engineers can be trained as the back-end developers. From the business perspective this means the optimization of the work process, when automation QA engineer finds the bug, he would be able to fix it himself, without requesting a help from back-end developer. From the human resources perspective, this means that employee becomes more qualified and skillful thanks to the company's investments.

All in all, the new age requires the new approaches in the people management. There is no place for the strict hierarchical organizational structure in IT industry, since the business is made by teams on the horizontal level. The diversification of the project teams and employees, in general, works as an advantage in terms of business development and employees experience exchange. The personnel development remains the important benefit that company can offer. This can be identified as the win-win strategy for both, business and employees.

CONCLUSIONS AND PROPOSALS

In the modern world, such concepts as «digitalization» and «opportunities» are becoming as close as possible to each other in terms of meaning. Obviously, one needs to consider the topic of opportunities and threats of digitalization at different levels, such as the global level, and the level of the organization.

The aim of this thesis was to analyze how digitalization and digital transformation processes have become a framework for international business development and its influence on it; develop the options for the business development and improvement in the framework of digitalization.

The tasks of this scientific work were to develop an understanding of digitalization and digital transformation, study how digitalization and digital transformation influence international business development, and the world in general, study the influence of digitalization on the various businesses and institutions, determine the components of digital transformation, and to explain what elements within the organization has to be transformed to ensure the successful process of digital transformation, provide understanding of modern business development by completing an internship at the company ("V-Jet Group") and analyzing its strategies and competitiveness, conduct analysis to understand how digitalization and digital transformation can help to further improve business development, develop the options of business development and improvement from the business, tech, and human resource perspectives. After completing the work, it is possible to say that the aim of this work has been achieved through accomplishing all the tasks.

The first section discussed the theoretical and methodological framework of digitalization, digital transformation and development of businesses and institutions. Analyzing the impact of digitalization, digital transformation on businesses and institutions, it can be concluded that technical progress opens more opportunities for enterprises and governments, and force the entire world to follow the trend for not leave behind the progress in its competitive environment.

From the perspective of an organizational level, digitalization allows for the improvement of such functions and processes in the company as the customer experience and business operations. Besides this, the transformation of such processes entails superficial or deep changes in the business model, and in the technical platform, which must be able to support all other digitized functions. At the same time, the factor of employees directly affects the process of transformation of the organization, drives it or, on the contrary, blocks it. In the end, all of the above opportunities determine the organization strategy along with the final goal of any company, which is increase of revenue level, and market share.

On the other hand, if the organization identified the wrong digital transformation strategy, this may result in unprofitability, and in unjustified investments, which ultimately leads to losses on the part of the company. The negative outcome may also happen in case of wrong interpretation of the principals of digital transformation. Sometimes, the organizations see the digitalization as the way of costs optimization on the side of human resources, where, in fact, the digitalization should be considered as the tool for the optimization of employee's work process.

In order not to make unprofitable investments, the organization should change the decision-making approach generally, and define which of the organization functions, or elements of these functions should undergo transformation. To change the decision-making approach, the Chamorro-Premuzic model can be used, where the main goal is to transform the organization into the data-centric one. The model suggests that an organization must regularly go through the five stages to become a data-centric organization: people, data, insights, action, result. This method allows the organization to make decisions based on valid data, and each time to change decisions and propose new actions to improve the results and thereby complement the previous data.

In order to identify the functions and elements that should be digitally transformed, the model of Bonnete and Westerman should be taken into account. The authors identify the 5 functions (business model, customer experience, operations, employees, digital platform) along with the elements of these functions that can be transformed, and, thus, can improve

the organization performance. The elements include digital enhancements, information-based service extensions, and multisided platform businesses for business model function; experience design, customer intelligence, emotional engagement for customer experience function; core operations automation, connected and dynamic operations, data-driven decision making for operation function; augmentation, future-redying, flexforcing for employee experience function; core, externally facing, and data for digital platform function. The elements can be considered as the de-composed parts of every function, which suggest the several ways how the function can be transformed. Although the elements are considered to be distinct parts between each other, they are the interrelated processes that influence the performance of each other.

Speaking of transformational processes at the global level, this makes it possible to introduce new technologies that increase the comfort level of our lives; the possibility of forcing the transformation of structures, both governmental and business. In general, digitalization creates new opportunities for the implementation of ideas that were previously not possible to implement.

Schwab, in turn, identified the threats posed by digital transformation. First of all, this is the creation of a huge imbalance among the distribution of income between enterprises in the market. There is a possibility that the medium business will disappear from the market due to the inability to invest in the digitalization of their business, while only digitized corporations and small market entrepreneurs will remain, for the last there is no significant need to digitize their processes.

Digitalization can affect the strong differentiation of profitability between high-skilled and low-skilled employees, where the salaries of the ones are increasing progressively, and unchanged for the last ones. There is also a risk that digitalization completely robotizes the world, having a significant impact on people. And such qualities as creativity, empathy, and stewardship will not have the place to display.

Personally, I think the above-mentioned threats are untimely reaction of the global world to the process of digitalization, and people unwillingness to learn and develop. The threats should be perceived as a call to action, namely, learning new things and developing new

skills, transforming our mindsets in order to promote changes in the government, business, and society as a whole. In fact, the most powerful one dictates the conditions, and in this case, the power comes from the mind and it extend of flexibility.

All in all, the transformation of people mindset is the one of the important components of transformational process that ensure people' ability to dictate the trends to technology, and eliminate the possibility for technology to absorb the people, thus to robotize the humanity.

The second section of the work took a look into analyzing company competitiveness and researching international management and business development practically by doing an internship. The internship took place at IT company "V-Jet Group", a private licensed business operating under the code 38676433 in the Unified State Register of Enterprises and Organizations of Ukraine. The position of Project Manager that was assigned during the internship was challenging and included many responsibilities and tasks, but it was a good experience. The aim of the internship was completely fulfilled and it reinforced the theoretical knowledge learnt at the university in a practical format.

The report analyzed the profile of the organization and its competitiveness, its business environment and other economic factors. The conclusion of the analysis carried out throughout the report have asserted that "V-Jet Group" is well-structured, efficient, and effective business. According to its key figures the company shows the stable financial situation, and gradual growth despite the COVID-19 crisis in 2020. Nevertheless, the company has its weaknesses mainly connected to the category of IT business the company works in. Porter's Five Forces analysis shows that company does not provide unique product, thus can be easily substituted by the thousands of competitors in the world. Moreover, currently the market conditions change progressively due to the factor of war, thus, due economic instability as well.

Following the detailed analysis, the following recommendations and suggestions to improve company performance have been developed and described in the third section:

1. Considering the share of the U.S. project in the company portfolio and its relatively high ROI, the company has to open the office in USA to expand its operations and

build up the presence in the region;

2. Kazakhstan office should focus its efforts on the Asian market, and hire sales team to increase the number of projects coming from this region;
3. Human resources department should change its recruitment strategy, and hire employees for sales and marketing departments all over the world to increase the number of projects worldwide;
4. Company should develop and introduce its own product on the market to diversify its business, thus to minimize the risks for the company.
5. The company should extend the list of services with SEO service, since approximately 85% of the companies request this type of service when developing or updating the web-site.
6. The company should introduce new CRM system called Keaf (Infusionsoft) to eliminate the number of tools used to one. The CRM will include all the necessary information about the customers, payment transactions, and projects and ensure all parties have simultaneous access to it, which determines the process to be transparent;
7. The company should integrate the new function on the website where the user is able to set the call with a company representative automatically through the specially-designed form. This easier the process for the company from the perspective of customer experience and make it more user-friendly;
8. The company should build a partnership with Wix to ensure the transformation of customer engagement element. The company should develop a win-win partnership, where the Wix application is integrated on the V-Jet Group website and allows the clients to build the approximate web-site they want to see. In the end customer should be able to send this developed web-site to the V-Jet team, and the template should be saved to the clients' folder in the new CRM system.
9. The company should transform the externally facing platform to ensure the valid work of new added applications on the web-site like «invitation via form on the web-site» and «use of integrated Wix web-site builder application on the website».
10. The human resources department should transform its function of training and

development from the perspective of flexforcing element. The companies should provide the special professional trainings for the employees to ensure development of employees' skills in the new areas of development process or new functions.

Finally, it can be concluded that digitalization is a powerful force, technical progress that drives business development. Potentially, this technical booster creates both the opportunities and threats. Hence, the factor of people and change of mindsets play a key role to ensuring that the digitalization will not bring a harm to a society, but only a well-being. Nevertheless, in terms of business development and analyzed examples it can be deducted and concluded that phenomena of digitalization and digital transformation has created an excellent framework for business enterprises. Today it allows businesses and institutions to expand, develop, and grow.

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