

THE IMPACT OF DIGITALIZATION ON THE DEVELOPMENT OF ENTREPRENEURIAL PERFORMANCE IN THE CONTEXT OF GLOBALIZATION

CZU: [334:004]:316.42

DOI: 10.5281/zenodo.6997263

Rina ȚURCAN¹, Technical University of Moldova Iuliu ȚURCAN², Technical University of Moldova Alina STRATILA³ Technical University of Moldova

ABSTRACT. The topicality of the research in this article is indisputable, considering that we live in the era of intense digitalization in all areas of socio-economic life. In order to face stiff competition and not be left behind, it is important to continuously improve its activities, intensifying the use of information technologies in the organization of its processes and in communication with customers. The main purpose of this article is to examine the importance of business digitalization in the eyes of different researchers and in this context, to examine the real situation of business digitalization trends in the Republic of Moldova to establish the link between digitization and business performance. In the context of identifying future directions of development, this article has taken into account the results of the survey report organized within the Erasmus + Project "Connecting universities-industry through smart entrepreneurial cooperation & competitive intelligence of students in MD, GE and AM (CONNECT)", being examined the desire for the participation of its employees in the trainings focused on the use of digital platforms in business and in the trainings focused on digital tools for communication and content creation. At the same time, in this article was examined the appreciation by the companies of the knowledges in communication and information technologies for entrepreneurship. The methods of discretionary statistics were applied as methods of analysis.

As methods of analysis were applied the methods of descriptive statistics and it was performed the dynamic and structural analysis, as well as the survey method focused on a sample of 78 companies operating in the Republic of Moldova.

The research was conducted within the Erasmus+ Project "Connecting universities-industry through smart entrepreneurial cooperation & competitive intelligence of students in MD, GE and AM (CONNECT)", reference number: 617393-EPP-1-2020-1-MD-EPPKA2-CBHE-JP.

Keywords: communication, digitization, digital platforms, efficiency, entrepreneurship, information technology, performance.

Introduction

Today, human society and entrepreneurship are undergoing a rapid and intense transformation aimed at the transformation and use of information technologies more and more intensively. Digital tools come to streamline business, improve communication, facilitate employee work, increase sales, and more.

¹ **Rina ȚURCAN,** PhD, Technical University of Moldova, Faculty of Economic Engineering and Business, Department of Economics and Management, Chisinau, Republic of Moldova, e-mail: <u>rina.turcan@emin.utm.md</u>

² **Iuliu ȚURCAN**², PhD, Technical University of Moldova, Faculty of Economic Engineering and Business, Department of Economics and Management, Chisinau, Republic of Moldova, e-mail: <u>iuliu.turcan@emin.utm.md</u>

³ Alina STRATILA, PhD, Technical University of Moldova, Faculty of Economic Engineering and Business, Department of Economics and Management, Chisinau, Republic of Moldova, e-mail: <u>alina.stratila@emc.utm.md</u>

Business digitalization is the driving force behind progress and performance that saves time and increases productivity, optimizes and improves communications, both internal and external, ensures competitiveness at all levels of activity. The strategies that companies take in terms of digitization differ considerably from one company to another. Some changes in this regard are well weighed and planned, and others are undertaken on purpose in response to the pressing needs of the environment or the market. In this context, the situation created in connection with the COVID-19 pandemic was a visible example that forced companies to move quickly to new technologies that they did not intend to implement for a while and to revise their strategic priorities.

1. Literature review

Technologies and the considerable increase in the amount of information in the internal and external environment of the company (Fernandez-Portillo A. and others, 2022). Digitization, according to some scholars, is a key factor in helping SMEs to develop and implement competitive strategies focused on innovation, cost reduction and internationalization (Raimo N. and others, 2021).

The research of many authors confirms that there is a very close direct link between the level of business digitalization and the level of business performance. Using the most advanced ICT tools, the digitalization of business has a direct impact on the performance of SMEs (Curraj E., 2020).

Innovation plays a very important role in ensuring the digitization and economic and financial performance of companies (Fernandez-Portillo A. and others, 2022). Research in the field shows that one of the most effective development strategies is to integrate digitization directions that will include the latest digital technologies, using modern online business platforms to create substantial digital changes (Miethlich B. and others, 2021).

A digital transformation project of the company must ensure the integration of innovative information technologies and in some cases combine them with existing technologies, developing complex automation projects so as to ensure the reduction of the number of operations in which manual work is performed (Sotnyk I and others, 2020).

Another important direction of digitization is the possibility of using it to analyze decisions and select new decision-making possibilities, considering the challenges of big data / fast data. Namely, the use of powerful intelligent systems is one of the relevant solutions after digitization, thus optimizing and streamlining the processes of planning, problem solving and decision making (Carlsson C., 2017).

Digitization currently underpins the priority model of global development, directly affecting production efficiency, economic and financial performance, competitiveness and growth, at various levels, from the business level, then to the country, region and up to world economy as a whole (Stroiko T. and others, 2022).

The development of information technologies is not only the basis of economic growth, but directly determines the transformation of the competitive space both at the company level and the transformation of acts of competition from a procedural and legal point of view, ultimately ensuring multiple advantages in terms of regarding the increase of labor productivity, the creation of new jobs and the improvement of living standards (Huru D. and others, 2021).

In order to intensify the digitalization of companies on the inside through processes, products, labor force, business models, etc. Adequate administrative-legal conditions, a digital-oriented society, available human capital and a thriving innovation landscape are needed (Buchel J. & Engels B., 2021).

Obviously, in addition to its positive and beneficial effects, digitalization is also linked to multiple risks: technical, competence, acceptance by staff, acceptance by customers and partners, data privacy and security and financial risks. According to research (Kovaite K. & Stankeviciene J., 2019) the biggest effect is related to customer channels, key resources, revenue and customer segmentation, while the lowest risk has been shown to be related to key partners.

With the support of the Erasmus+ Programme of the European Union

2. Research results and analysis

The level of interest and the effort made to improve the situation regarding the use of information technologies can be assessed on the basis of the expenses incurred in this regard. Thus, figure 1 reflects the evolution of the legal entities' expenditures for information technologies in the Republic of Moldova during 2011-2020.





Source: Elaborated by the authors based on statistical data available at <u>https://statistica.gov.md/</u>

The expenditures for information technologies of the legal entities from the Republic of Moldova during 2011-2020 have a continuous growth trend, increasing in the analyzed period 2.37 times. The maximum level of these expenses was reached in 2019 and amounted to about 2579.6 million lei. As shown by the regression coefficient in the trend line equation, annually the expenditures for information technologies of the legal entities from the Republic of Moldova increase by about 153.12 million lei. Theoretically positive is the increase in spending of domestic companies for the development of information technology, on the other hand is that these increases are quite modest, considering the number of active enterprises and the annual inflation rate.

If we analyze the directions for allocating expenditures for information technologies of legal entities from the Republic of Moldova in 2020, we will have the following situation:

- Procurement of computer equipment 569.6 million lei;
- Procurement of software products 359.03 million lei;
- Designs and elaborations of information systems 182.31 million lei;
- Other expenses 852.2 million lei.

The first three categories of expenses mentioned above have the highest expenses, the leader being the direction of purchasing computer equipment. It is positive that companies are investing in the acquisition and development of software tools, but their growth rates remain quite modest.

One of the statistical reports presented by the economic entities operating in the Republic of Moldova assumes the existence of the company's website. The following figure reflects the evolution of the number of legal entities that have a website in the Republic of Moldova during 2011-2020.

EUSHARE: European economic integration of the Republic of Moldova through EU shared values: education-research- innovation www.eushare-project.eu





Source: Elaborated by the authors based on statistical data available at https://statistica.gov.md/

According to the data presented, the number of companies that have a website is increasing, increasing in 10 years by about 53.4%. Thus, every year the number of legal entities that have a website in the Republic of Moldova increases by 111 companies. Finally, it can be concluded that the growth rates of the number of legal entities that have a website in the Republic of Moldova are quite modest.

At the same time, business digitization directly contributes to:

- meeting customer needs faster and better;
- facilitating communication between the company and the client;
- development of new sales tools;
- optimization of delivery and payment processes;
- automation of communications within the company;
- improving product quality;
- reduction of labor costs;
- improving the efficiency of the company's activity as a whole;
- encouraging self-confidence in its position in relation to technical and scientific progress.

The fact that Moldovan entrepreneurs are interested in increasing the use of digital tools is confirmed by the results of the survey. When the companies were asked about their desire of employees participating in trainings focused on the use of digital platforms in business, there obtained the following results (figure 3):



Fig. 3. The structure of the answers regarding the companies' desire for the participation of its employees in the trainings focused on the use of digital platforms in business
Source: Elaborated by the authors based on the statistical data obtained in the Erasmus+ Project 617393-EPP-1-2020-1-MD-EPPKA2-CBHE-JP ,, Connecting universities-industry through smart entrepreneurial cooperation & competitive intelligence of students in MD, GE and AM

(CONNECT)"

With the support of the Erasmus+ Programme of the European Union

hare

As the responses of the interviewed companies regarding the companies' desire for the participation of its employees in the trainings focused on the use of digital platforms in business were distributed, it is observed that 75.64% (59 companies out of the 78) of the interviewed companies. would like to participate in such trainings. Although only 24.36% (19 of the 78 companies) of the interviewed companies consider that they do not need such training, we consider this share to be quite high, ie a part of the companies operating in the Republic of Moldova failed to be aware of the importance of digital tools in promoting and developing entrepreneurship.

Another question in the survey focuses on desire of employees participating in trainings focused on digital tools for communication and content creation, with the following results (figure 4).



Fig. 4. The structure of the answers regarding the companies' desire for the participation of its employees in the trainings focused on digital tools for communication and content creation *Source: Elaborated by the authors based on the statistical data obtained in the Erasmus+ Project* 617393-EPP-1-2020-1-MD-EPPKA2-CBHE-JP ,, Connecting universities-industry through smart entrepreneurial cooperation & competitive intelligence of students in MD, GE and AM (CONNECT)"

The companies' answers regarding the companies' desire for the participation of its employees in the trainings focused on digital tools for communication and content creation confirm that 73.08% (57 companies out of the 78) of the interviewed companies would like to participate in such trainings. At the same time, 26.92% (21 of the 78 companies) of the interviewed companies consider that they do not need such training. It is quite suspicious that in the age of digitalization, when more and more sales are made in the online format, local businesses are closed to change.

On the other hand, it is impressive that companies are aware of the importance of knowledges in Communication and Information Technologies for entrepreneurship. Figure 5 reflects the companies' distribution of answers to the question: "How important is knowledge in Communication and Information Technologies for entrepreneurship?".





Source: Elaborated by the authors based on the statistical data obtained in the Erasmus+ Project 617393-EPP-1-2020-1-MD-EPPKA2-CBHE-JP "Connecting universities-industry through smart entrepreneurial cooperation & competitive intelligence of students in MD, GE and AM (CONNECT)"

With the support of the Erasmus+ Programme of the European Union

According to the distribution of the answers of the companies that participated in the study, the vast majority of companies, namely 92.30% consider that the knowledges in communication and information technologies for entrepreneurship are extremely important, very important and important. From this distribution of answers is observed the awareness by entrepreneurs of the importance of the knowledges in communication and information technologies for entrepreneurship.

When asked to mention the topics / themes of the courses / trainings that will increase the efficiency and productivity of your employees, the companies indicated the following:

- digital business instruments;
- digital business platforms;
- acceleration program for existing companies.

If we compare the results of the survey based on the last 3 figures, it can be concluded that local entrepreneurs are aware of the importance and need of the knowledges in communication and information technologies for entrepreneurship, but do not intend to improve their employees in this field.

Conclusions and suggestions

It is obvious that in the conditions of fierce competition that manifests itself in different fields of activity, only those companies that have the best digital tools able to respond to market changes, to perfect the organization of processes within the organization will survive in the long run. As evidenced by the results of the research, digitization is very important for businesses and provides multiple benefits in order to increase their performance.

In the Republic of Moldova, the evolution of the number of legal entities' expenditures for information technologies, as well as the number of legal entities that have a website has a positive dynamic, although the growth rates of this indicator are quite modest.

As demonstrated by the results of the survey report organized within the Erasmus+ Project "Connecting universities-industry through smart entrepreneurial cooperation & competitive intelligence of students in MD, GE and AM (CONNECT)", most companies express their desire for the participation of its employees. In the trainings focused on the use of digital platforms in business and in the trainings focused on digital tools for communication and content creation. At the same time, local entrepreneurs are aware and appreciate at a high level the knowledges in communication and information technologies for entrepreneurship.

As an idea for previous research could serve to establish the mathematical-economic model that would reflect the dependence of the correlation between the intensity of digitization and the level of performance of companies.

References:

- 1. Fernandez-Portillo A., Almodovar-Gonzalez A, Sanchez-Escobedo M.C., Coca-Perez J.L. (2022). The role of innovation in the relationship between digitalization and economic and financial performance. A company-level research. *European research on management and business economics* 28 (2022) *100190*, www.elsevier.es/ermbe, available on <u>https://www.researchgate.net/publication/357599724_-</u> The role_of_innovation_in_the_relationship_between_digitalisation_and_economic_and_financial_pe_rformance_A_company-level_research
- 2. Curraj E. (2020). Business digitalization of SMEs in Albania: innovative approaches and their impact on performance. Available on <u>https://doi.org/10.31237/osf.io/p3yq9</u>
- 3. Raimo N., Turi I., Rubino M., Vitolla F. (2021) Which Italian SMEs fall in love with digitalisation? An exploration into the determinants. DOI: <u>10.1108/MEDAR-02-2021-1210</u>
- Miethlich B., Belotserkovich D., Abasova S.T., Zatsarinnaya E., Veselitsky O. (2022) Transformation of Digital Management in Enterprises Amidst the COVID-19 Pandemic. DOI: <u>10.22452/IJIE.vol14no1.1</u>
- Sotnyk I., Zavrazhnyi K., Kasianenko V., Roubík H., Sidorov O. (2020) Investment Management of Business Digital Innovations. *Marketing and Management of Innovations. Issue 1, 2020*, available on <u>http://doi.org/10.21272/mmi.2020.1-07</u>



- 6. Carlsson C. (2017), Decision Analytics Key to Digitalisation. DOI: <u>10.1016/j.ins.2017.08.087</u>
- Stroiko T., Nazarova L., Danik N. (2022) Transformation of economic processes on the basis of digitalization. *Baltic Journal of Economic Studies* 7(1), DOI: <u>10.30525/2256-0742/2021-7-1-102-106</u>
- 8. Huru D., Paraschiv A.M., Santa A.M. (2021), Digitalisation and Competition in the European Union. *Proceedings of the 4th International Conference on Economics and Social Sciences, 2021.* DOI: 10.2478/9788366675704-027
- 9. Buchel J., Engels B. (2021) Digitalisation of the Economy in Germany Digitalisation Index 2021. Digitalisation Index 2021, available on <u>https://www.researchgate.net/publication/357402351</u>
- 10. Yadav S. (2021), Rethinking business revenue models in the age of digitalization, International Journal of Technology Transfer and Commercialisation 18(3):334, DOI: <u>10.1504/IJTTC.2021.118869</u>
- 11. Kovaite K., Stankeviciene J. (2019), Risks of digitalisation of business models, DOI: <u>10.3846/cibmee.2019.039</u>
- 12. Survey report organized within the Erasmus+ Project "Connecting universities-industry through smart entrepreneurial cooperation & competitive intelligence of students in MD, GE and AM (CONNECT)", reference number: 617393-EPP-1-2020-1-MD-EPPKA2-CBHE-JP
- 13. <u>https://statistica.gov.md/</u>