Development of Digital Innovations in Company Financial Management

Svitlana Oneshko[1,*], Yevheniia Ostropolska[2], Oksana Pomazun[3], Yaroslav Hrynchyshyn[4] and Roman Rak[5]

[1]PhD of Economics, Associate Professor, Professor Department of Economics and Finance, Institute of Marine Business, Odessa National Maritime University, Mechnikova str, 34 Odessa 65029,
[2]PhD in Economics, Associate professor the Department of Management, Marketing and Public Administration Higher Educational Institution "Academician YuriyBugay International Scientific and technical university" (HEI "ISTU"), Department of Management, Marketing and Public Administration Ukraine, Kyiv, Magnitohorskyi lane 3.
[3]Candidate of Economic Sciences, Associate Professor Economics Information Systems Department Institute Information Technologies in Economics Kyiv National Economic University named after Vadym Hetman 54/1 Peremogy Ave., Kyiv, 03680, Ukraine.
[4]Candidate of Economic Sciences, Associate Professor Department of Financial Management Faculty of Financial Management and Business,Ivan Franko National University of Lviv, 1, Universytetska str., Lviv, 79000.
[5]PhD in Economics,Associate Professor Department of finance Faculty of Economics, Taras Shevchenko National University of Kyiv,Vasylkivska 90-A, room 410, Kiev-22, 03022, Ukraine,

Abstract: Relevance of the research. Digital innovations are increasingly penetrating all areas of business operations and management. Today's companies are often faced with the choice of introducing digital innovations or ceasing to exist. Therefore, the study of how to make the implementation of digital innovations in the financial management of the company as effective as possible is a modern and relevant topic of research.

The purpose of the study: The article aims to investigate the role, advantages, and disadvantages of digital innovations in the financial management of the company, as well as to determine current trends in digital innovations and the degree of their integration into the activities of companies.

Methodology: Used methods: analysis and synthesis, the method of economic-statistical analysis, graphic methods. As a result of the study, the necessity of implementing digital innovations in the financial management of the company was established, the advantages and disadvantages of this process were identified, the priority areas of innovation implementation, and the main barriers to their implementation were outlined. The range of modern digital innovations in company finance was presented and the percentage of companies that use them was determined. The novelty of the research consists in comparing the theory and practice of implementing digital innovations in the management of company finances by determining the share of companies that use new technologies. The practical significance lies in the possibility of applying the results in the activities of companies planning to introduce digital innovations.

Keywords: Digital innovation, Digitalization, Financial management, Fintech, Company, Data analysis, Information.
JEL Classification: D 33, E 52, G 14.

1. INTRODUCTION

Digital innovations are an integral part of today's business operations. They reveal a wide range of new opportunities for businesses, allowing them to be more flexible and adapt to external changes, cooperate effectively with counterparties, reduce business risks, save money, accelerate business processes, attract a wider range of customers, etc. (Shevchenko & Rudich, 2020).

*Address correspondence to this author at the PhD of Economics, Associate Professor, Professor Department of Economics and Finance, Institute of Marine Business, Odessa National Maritime University, Mechnikova str, 34 Odessa 65029, osvfox1@gmail.com, https://orcid.org/0000-0003-2313-3984

1.1. Research Problem

By the way, customer satisfaction is one of the most important goals of an organization, because the longer the period of customer commitment to the company, the more positive its image, and the greater the economic benefit (Khan et al., 2021). At the same time, modern consumers prefer convenience and accessibility of goods and services, saving time, in the realization of which digital innovations play a significant role. In addition, digital business models bring benefits such as increased operational efficiency, increased company growth, synchronization of external and internal communication, and the emergence of new types of revenue sources (Ilcus, 2018).

However, along with the many benefits, the implementation of digital innovation is in itself a challenge for the company. The survival of financial firms is closely tied to the adoption of innovation, embracing digital change to improve the efficiency and operations of organizations (Mosteanu, 2020). If a business successfully integrates innovation into its operations, it greatly increases its chances of adapting and surviving into the future (Pomazun, 2018). However, companies that fail to implement the latest technology at the appropriate level risk losses, losing customers, and ceasing to exist.

The introduction of digital technologies in company financial management is extremely important. The need for new methods and tools of financial management responding to dynamic changes in the external environment of companies' functioning pays special attention to the financial aspects of economic activity (Oneshko&Ilchenko, 2017). Finances serve to ensure the functioning of all other areas of activity, the effectiveness of financial management also depends on the effectiveness of the business as a whole. Such efficiency may consist in the speed of financial transactions, protection of financial data, ensuring profit maximization, quality financial analytics, etc. Dokienko (2022) accurately notes that the constant transformation of approaches to financial management is becoming a way of life, and digital transformation is a fundamental part of it. The researcher also notes that more than 50% of Fortune Global 500 companies have ceased to exist precisely because of digitalization.

However, despite the significant risks associated with the digitalization of operations, particularly in the financial sector, this process is generally recognized as necessary and irreversible. Therefore, despite the disadvantages and the risk of choosing the wrong path for the development of digital innovation, companies should at least gradually move towards digital transformation, as it is a matter of their survival in general. Innovation is, beyond the other, a key aspect of the smart economy, which is recognized as an effective way to improve the competitiveness of the economy as a whole and economic growth. Many scholars identify the concept of the smart economy with the innovation economy based on Industry 4.0 and various networks, the diffusion of technology, and its incorporation into the economic system Bulkot, O. (2021).

Innovations in financial management primarily include innovative tools for financial information management, which can be divided into groups according to their purpose:

- information creation and automation;
- deep analytics;
- cognitive computing;
- managed analytics function;
- data management and content management;
- cybersecurity;
- automation using robots, etc. (Deloitte, 2022).

These tools allow you to process more financial information many times faster and more efficiently, as well as to easily operate with financial information, analyze it, improve data security, etc.

1.2. Research Aim and Research Questions

Being aware of the above, it is reasonable to form the purpose of the article, which is to investigate the role, advantages, and disadvantages of digital innovations in company financial management, as well as to outline current trends in digital innovations and the extent of their integration into companies' operations.

To achieve these goals, it is necessary to solve the following research tasks:

justify the importance of digital innovations in the financial management of the company and the benefits of their application;

- to disclose the characteristics that a company needs to have and what measures should be implemented for the successful implementation of digital innovations in financial management, as well as the existing barriers to it;
- to investigate what currently exist in digital technologies in financial management, which will help the business to improve the efficiency of its activities;
- determine the current state of implementation of digital innovations in company financial management, and which innovations are preferred.

2. LITERATURE REVIEW

Many researchers have studied the implementation of digital innovations in financial management. Mainly scientists focus on identifying the advantages and disadvantages of this process, as well as on revealing the possibilities of new technologies. An insufficiently covered issue remains the comparison of existing technologies and their actual use by companies. Therefore, it is relevant to investigate what percentage of companies are introducing modern digital innovations, how many companies are only planning to implement, as well as establishing what barriers exist for those companies that are not planning to introduce digital innovations and what threats this poses.

2.1. Theoretical Framework

Ilcus (2018) conducts a thorough study on the impact of innovations in various areas of people's activities, in particular the results of their implementation in business processes. The researcher proves that a deliberate, managed, and well-planned innovation process will contribute to numerous business benefits.

Elsinger et al. (2018) draw a parallel between the use of digital innovation in financial management and financial stability. Researchers reveal the opportunities offered by the latest technology regarding saving and saving.

Möller et al. (2020) in their study seeks to bridge the gap between theory and practice in researching the impact of digital innovation on corporate financial management and the financial sector as a whole. The researchers note that digitalization allows a variety of new forms of collaboration between companies, suppliers, customers, and employees, leading to new product and service offerings. At the same time, digitalization is a challenge for incumbent companies, as it requires them to think about their current strategy and explore new business opportunities. In finance, digitalization has led to the automation and robotization of routine processes, the implementation of business intelligence, and the application of data analytics.

Dorfleitner& Braun (2019) look at digital innovation in the position of its use in rural finance. Researchers high-level Fintech and blockchain technology that can be used for companies, financial management for large access to investment and large investor.

Dokienko (2022) conducts a thorough and consistent study of the impact of digital innovation on company finances. The researcher reveals in detail the benefits, ways to implement innovations, the latest technologies, and establishes a link between the theory and practice of innovation in enterprises.

3. METHODOLOGY

3.1. Instrument and Procedures

The complex nature of the study requires its breakdown into sequential and interrelated stages. In the first stage, the importance and advantages of applying digital innovations in financial management were identified. A list of such advantages is given, as well as a number of disadvantages.

The second stage reveals the prerequisites for the successful implementation of innovations in business operations and the barriers to it. The process of preparation for the implementation of digital innovations in the financial management of the company is defined and broken down by stages. Priority areas of introducing innovations in the financial management of the company were outlined. The importance of appropriate qualification of personnel to work with digital innovations was noted. The main barriers to the implementation of digital innovations in the financial management of the company were identified.The third stage includes the main digital innovations in company financial management. Several approaches to the classification of the mentioned digital innovations are given, and the changes of key digital technologies depending on the time are defined. The fourth step draws a parallel between the highlighted types of digital innovations and their use by companies. The percentage of aware companies that use or plan to use relevant technologies in the future is established. The percentage of Ukrainian companies that are innovatively active is investigated, and their spending on innovations is indicated.

3.2. Data Analysis

The article used the following scientific methods: analysis and synthesis to study the impact of digital innovations in financial management on the companies' activities; method of economic-statistical analysis - to establish the percentage of companies that use the appropriate type of digital technology, as well as trends in the percentage of innovation-active companies in Ukraine and their spending on innovation; graphic methods - to conveniently and visually represent the results.

4. RESULTS

4.1. Importance and Benefits of Digital Innovations in Financial Management

At the intersection of the interaction of company financial management and digital innovations, a new category has been formed, called Fintech or financial technology. Financial technologies are a combination of digital technologies and innovations in the financial sphere, which are used to provide, expand the range and distribution of financial services by Fintech companies (Shevchenko &Rudych, 2020).

As it was mentioned in the introduction of the article, one of the main goals of the company is customer satisfaction, their desire to apply again and again to this company. Fintech opens up wide opportunities for customers, including cost savings, online payments at any time and from any location, a wide range of services. The important advantages of Fintech include expanding access to finance for all subjects of financial relations. The main financial technologies that provide alternative sources of financing for companies, as well as new investment opportunities, include crowdfunding, fintech lending (including P2P lending), and ICO (Initial coin offering or cryptocurrency) (Bollaert et al., 2021).

In addition to customer satisfaction, the main advantages of using digital innovations in financial management include:

- improvement of the customer experience through personalization of interaction, which is appreciated by most customers;
- adaptability to current requirements and needs of customers, flexibility and acceleration of business processes, efficiency in decision-making;
- opening a wide range of innovative opportunities, for example, cloud computing technology allows several teams to work on one project at the same time, ready-made solutions (SaaS) contribute to significant time savings, the use of numerous applications and applications simplifies and increases work efficiency;simplifying and increasing the convenience of working with data - technologies such as Big Data and artificial intelligence help to accumulate, structure, and operate large amounts of information in a convenient and understandable form;improved opportunities for cooperation with counterparties - the ability to cooperate remotely, the use of API technology as a system of interaction between different services, etc. (Dokiienko, 2022).

Along with the numerous advantages, researchers highlight a number of disadvantages of Fintech, including the lack of legislative regulation due to the use of non-traditional business models, the inaccessibility of some services for the number of consumers whose access to gadgets or the ability to use them is limited, insufficient cybersecurity, etc. (Shevchenko &Rudych, 2020). However, these shortcomings can be minimized through effective company management, for example, by consulting with lawyers before introducing new business models, the problem of insufficient legal

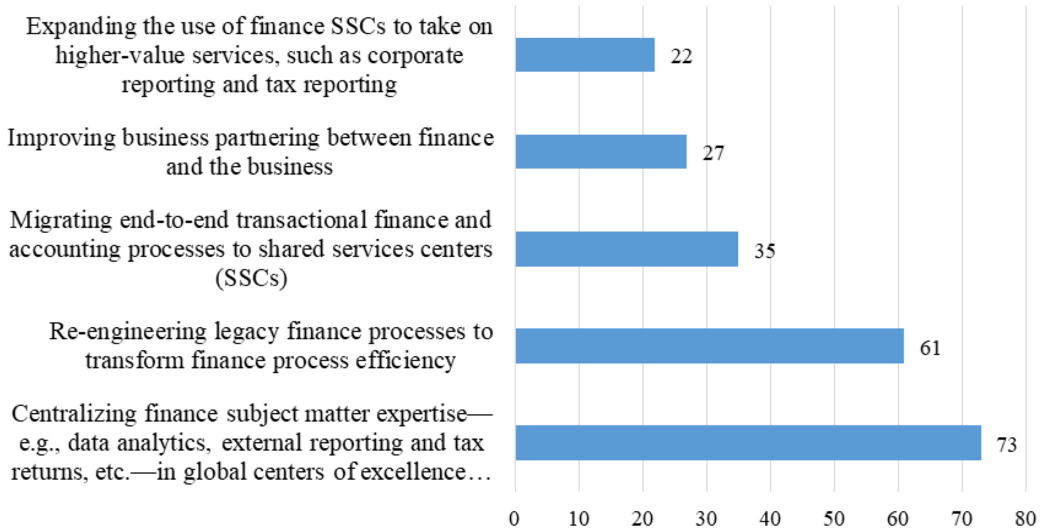

Fig. (**1**). Critical priorities for building the smart finance operating model of the future: large organizations (designed by the author for («Agile finance unleashed: the key traits of digital finance leaders», 2019)).

regulation can be resolved. By informing users and creating a user-friendly interface, it is possible to attract customers who have difficulties using gadgets and applications. And, finally, the involvement of highly qualified cybersecurity specialists will help to reduce cybersecurity risks to a minimum.

4.2. The Key to the Successful Implementation of Innovation in Business and the Barriers to it

The success of the implementation of digital innovations in financial management largely depends on a balanced preparation for this process, which includes:

- setting goals and objectives of the strategy for the implementation of digital technologies in financial management;
- determining the list and awareness of the existing processes to which digital transformation will be applied and the number of new processes that will appear during the transformation;
- awareness of the range of data that will be used in the course of digitalization;
- organization and involvement of a team of specialists who will participate in the digitalization process;
- defining the scope and plan of financial management transformation, defining achievable and measurable criteria, building team interaction;
- development of requirements that the future result must meet (Dokiienko, 2022).

In preparation for the introduction of digital innovations in the financial management of the company, it is necessary to determine the priorities or directions of building a future innovative model of financial management. According to the results of a survey conducted by the Chartered Global Management Accountant and the Association of International Certified Professional Accountants (CGMA & AICPA), the critical priorities for building a “smart” financial management model according to the respondents are:

- centralization of financial expertise (e.g. data analytics, external reporting, and tax returns, etc.) in global centers of excellence;
- reorganization of outdated financial processes to improve the efficiency of the financial process;
- moving end-to-end transactional financial and accounting processes to shared service centers;
- improving business partnerships between finance and business;
- expanding the use of financial SSCs for more valuable services such as corporate reporting and tax reporting(«Agile finance unleashed: the key traits of digital finance leaders», 2019).

Fig. (**1**) shows the percentage distribution of these priorities among respondents.

As Fig. (**1**) shows, more than 70% of respondents identified centralization of financial expertise (e.g., data analytics, external reporting and tax returns, etc.) in global centers of excellence as a top priority. Also, many respondents (over 60%) emphasized reengineering outdated financial processes to improve the efficiency of the financial process.

However, all these measures and prioritization, etc. will not be effective and will not give results without experienced management of the digital transformation process, as well as without highly skilled executives. Therefore, one of the keys to the effective implementation of digital innovations in financial management is the presence of company employees who are aware and capable of managing the process and performing the appropriate activities at each of its stages. Modern specialists in the field of economics, in particular finance, should have highly developed technical, digital and mathematical skills (Sydoruk et al., 2022).

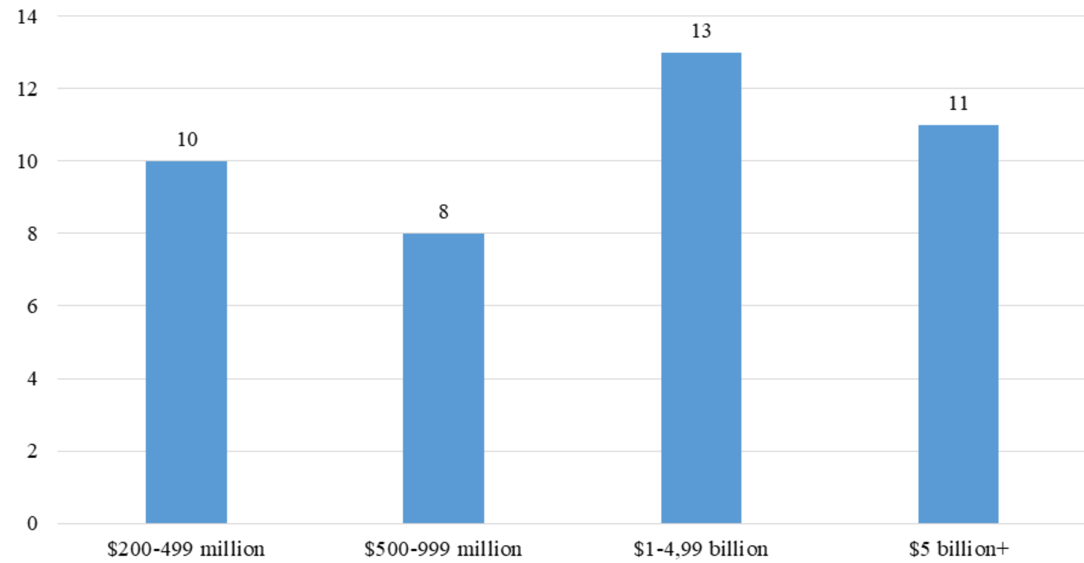

Fig. (**2**). Respondents who confirmed that their company's finance team has the right skills for digital transformation (designed by the author for («Agile finance unleashed: the key traits of digital finance leaders», 2019)).

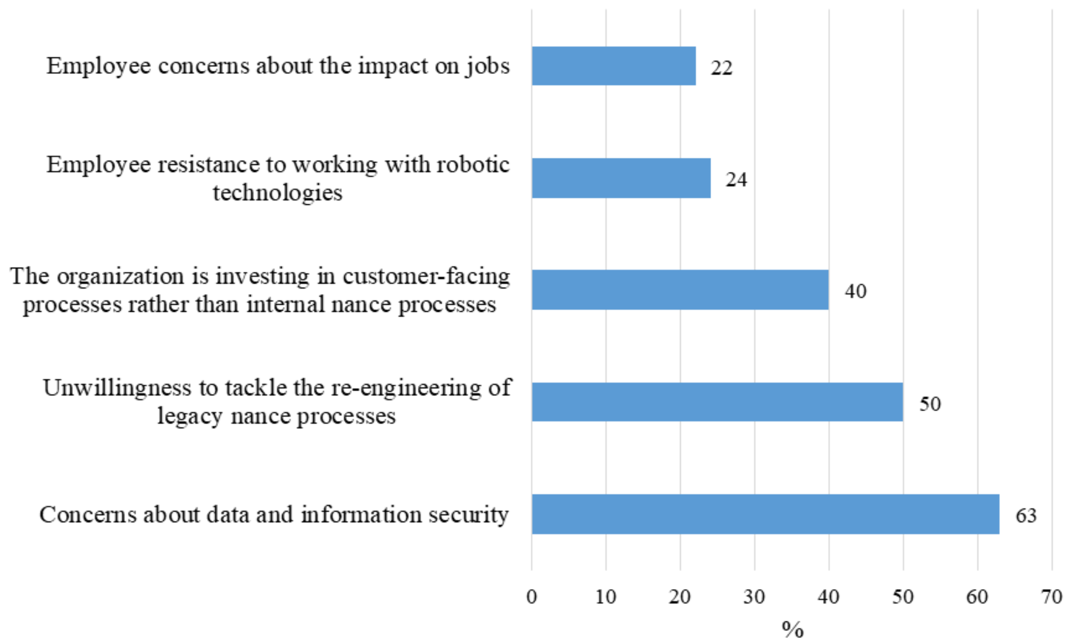

Fig. (3). The most significant barriers to process automation in financial management («Agile finance unleashed: the key traits of digital finance leaders», 2019).

According to the CGMA&AICPA survey, quite a few (about 8-13%) respondents believe that their company's finance team has the skills needed to support the company's "digital ambitions." The distribution of companies by income level and the corresponding percentage of positive responses is shown in Fig. (**2**).

From this, we can conclude that even before preparing to implement digital innovations, a company should make sure that its employees have the necessary skills for digital transformation. If there is a shortage of specialists with the appropriate skills, the company must hire experienced workers with the necessary qualifications, otherwise, the implementation of the innovation can be extremely inefficient, if not damaging.

In the world of the above, it is advisable to form a list of the main barriers to the implementation of digital innovations in the financial management of the company.

As shown in Fig. (**3**), the most significant barrier to innovation in finance in the CGMA&AICPA survey is the fear of data and information security. The reluctance to deal with the re-engineering of established financial processes also plays an important role. The third place among barriers to implementing digital innovations is a company's desire to invest in client-oriented processes, rather than internal financial processes. The third and fourth places are occupied by workers' reluctance to work with robotics and their fears about the impact of innovations on their work.

Fig. (4). Sectors of innovative financial services (summarized by the author according to Bank for International Settlements, 2017).

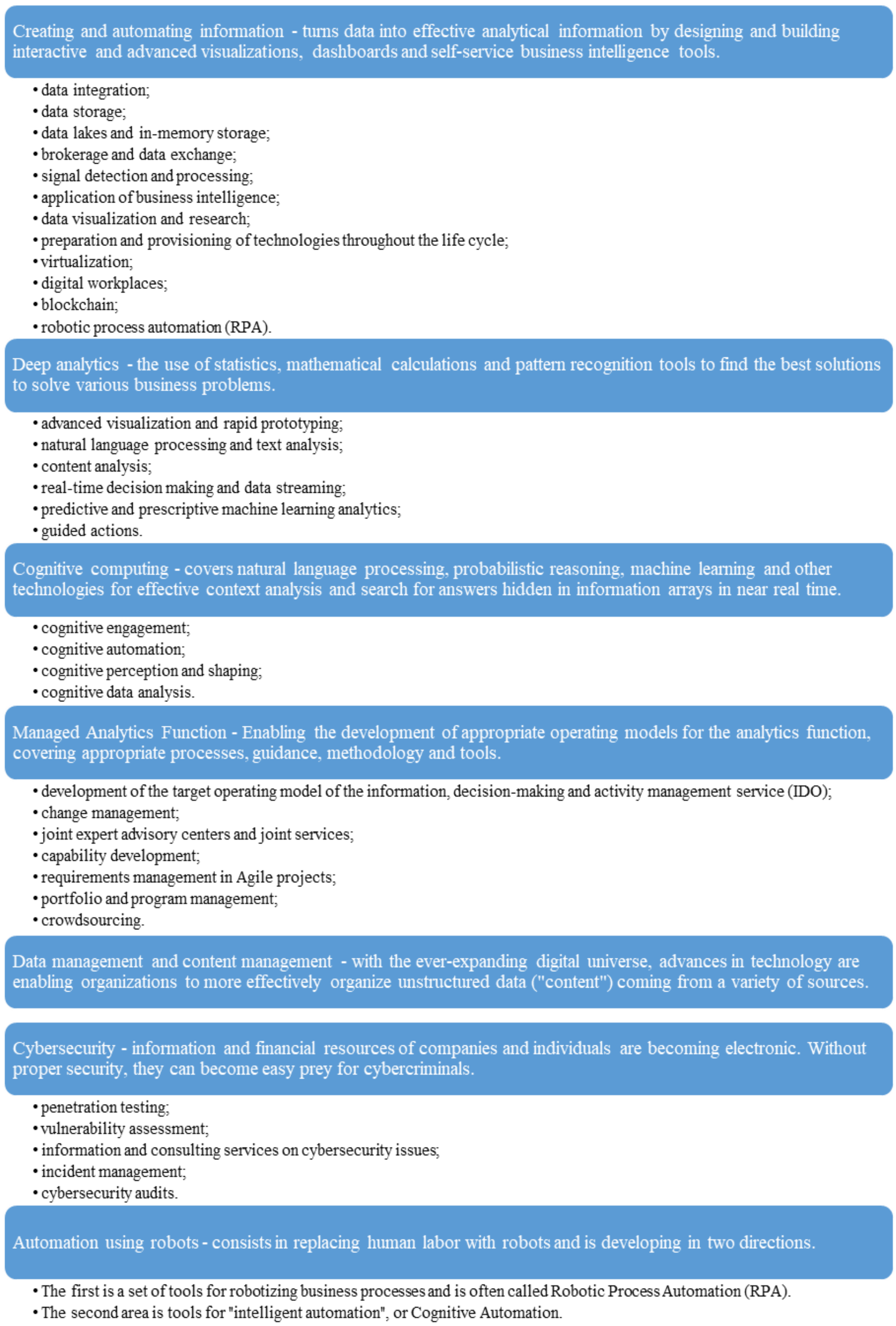

Fig. (5). Main digital technologies in the financial management of the company (Deloitte, 2022).

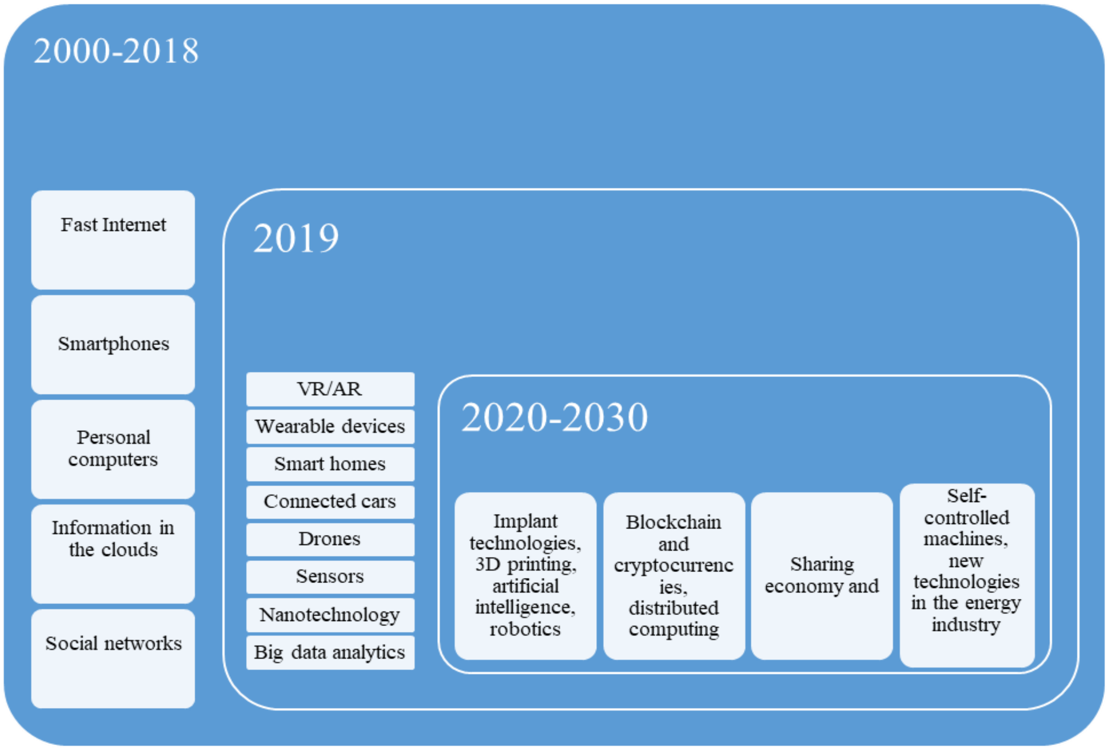

Fig. (6). Key global digital trends (built by the author according to (Amelin et al., 2019).

As noted, the process of implementing digital innovation is always associated with certain risks, from cybercriminal attacks to workers losing their jobs. However, abandoning this process can lead to the complete shutdown of a company. Therefore, thoughtful preparation for the transformation, risk analysis, communication with employees, and experienced management of the process are extremely important, which will ensure the necessary balance between the threats posed by digital innovations and the benefits from their implementation.

4.3. Key Digital Innovations in Company Financial Management

Modernity offers a wide range of digital innovations in company financial management. The Basel Committee on Banking Supervision proposes the following classification of innovative financial services (Fig. **4**).

A broad classification on innovative financial information management tools is provided by Deloitte (2022) and is shown in Fig. (**5**).

It can be summarized from the above classifications that today there is a wide range of innovative financial services and services developed both for individuals and companies.

This leads to high competition between fintech companies, the emergence of a large number of companies providing advisory services in the financial sphere. This contributes to the expansion of opportunities and a wide choice of services for users, but in order to survive in the competition, companies have to work hard to respond and adapt to the changing conditions virtually daily.

Until recently, the Internet, the personal computer, and the smartphone were some of the main technologies that businesses could be considered innovative using.

However, in just a couple of decades, a number of other innovations have emerged without which today's companies can become market outsiders.

Fig. (**6**) summarizes the changes in key trends in digital innovation that companies have been using for certain periods around the world.

As can be seen from Figure 6, many of the innovative technologies that will be introduced between 2020 and 2030 are already on the market and used by innovative companies.

4.4. The current State of Implementation of Digital Innovations by Businesses

The existence of a wide range of digital innovations is not yet an a priori fact that they are widely used by companies. Figure 7 shows the results of the survey presented in Dokienko's (2022) study, containing a list of popular digital technologies and the percentage of positive answers of company respondents to the following questions: do they know about this technology; is the technology used by the company; is the company planning to invest in this technology within the next 12 months; is the company planning to invest in this technology within the next 3-5 years.

As can be seen from the figure, companies' awareness of the listed innovations does not mean that these techniques are used by them or will even be introduced in the future. The most popular technology among the presented ones is cloud computing technology, which is used by more than half of the surveyed companies.

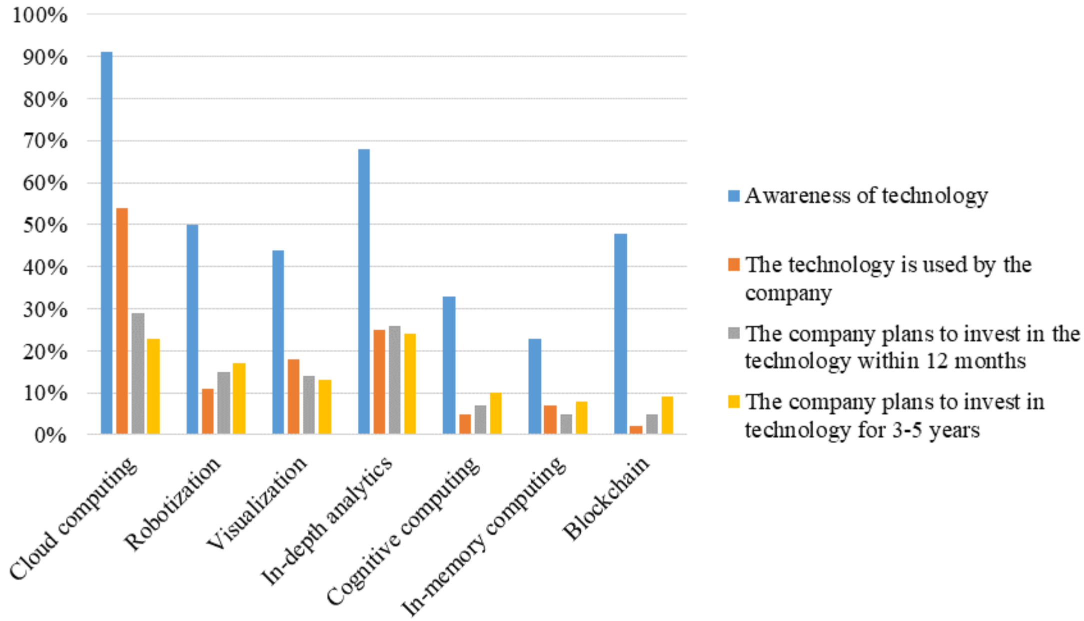

Fig. (7). Results of the survey of companies on awareness, use, and implementation of digital innovations in the future (Dokiienko, 2022).

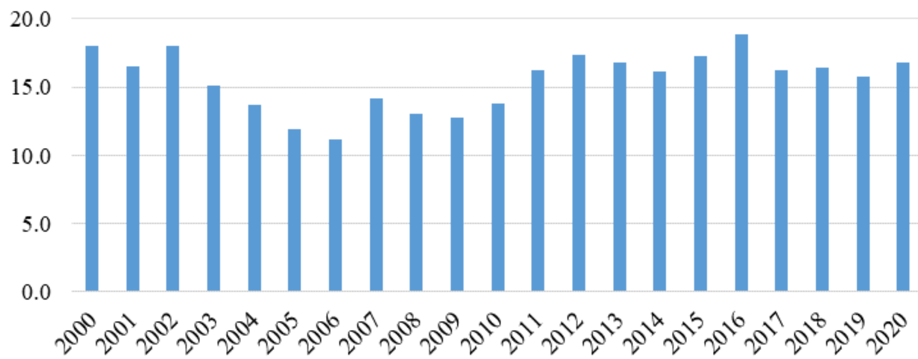

Fig. (8). Share of innovation-active enterprises in the total number of industrial enterprises in Ukraine, % (constructed by the author according to the State Statistics Service of Ukraine))

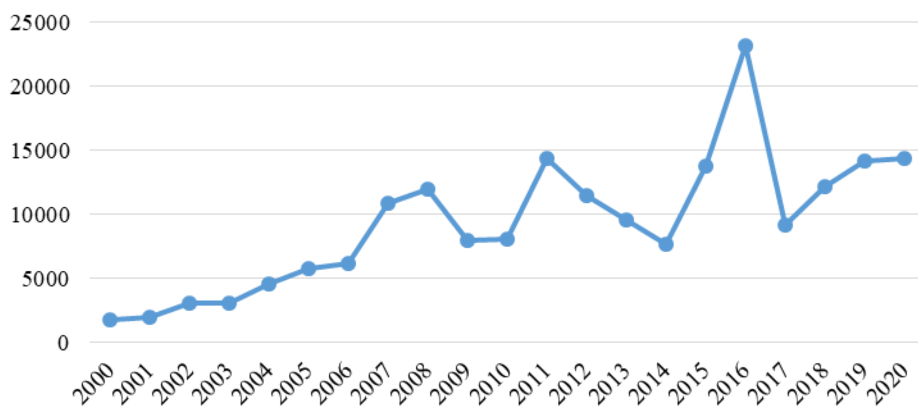

Fig. (9). Expenses of Ukrainian industrial enterprises on innovations, million UAH (built by the author according to the data of the State Statistics Service of Ukraine).

The share of innovation-active enterprises among Ukrainian industrial enterprises is also not high enough (about 17% in 2020). At the same time, there is no clear growth trend over the past 20 years (Fig. **8**).

Fig. (**9**) shows the expenditures of Ukrainian enterprises on innovation, which are also not characterized by a steady upward trend. However, it should be noted that a significant increase in costs occurred in the period from 2014 to 2016. Probably, the impetus for this was the hostilities in the East of Ukraine, which led to the rejection of the Russian sales market. Ukrainian companies began to look for other markets, in particular European markets that require high quality and production standards. Therefore, many companies began to actively introduce digital innovations in their activities during this period.

From the above, it can be summarized that the introduction of digital innovations in modern companies, in particular in financial management, is often not only a matter of prestige or popularity with customers but also the survival of the company among competitors. Therefore, modern companies should not only be aware of innovative technologies but also actively develop plans, strategies to introduce innovations into their operations, as well as prepare their staff for this process and conduct an in-depth assessment of potential benefits and risks.

5. DISCUSSION

The analysis in this article suggests that although the introduction of digital innovations in financial management creates new challenges for companies, such as increased cybersecurity risks, uncertainty regarding the legal framework, and the possibility of employee noncompliance with new requirements, it is a necessary condition for companies to survive in a competitive environment. The wide range of available digital innovations in the financial sector requires highly skilled professionals, deliberate planning, and risk management.

Most digital innovation researchers have a general consensus on the necessity of such innovations for the successful functioning of businesses in today's environment. For example, Ilcus(2018) notes a number of benefits of implementing digital innovation, including improved efficiency, quality, and consistency of business processes, integration of records with digital systems, improved access and facilitation of better knowledge sharing, faster response times and customer service, reduced costs, facilitation of greater staff flexibility, better business continuity plan, and customer satisfaction. Interestingly, the researcher highlights among the benefits of promoting greater workforce flexibility. The article focused mainly on the risks to staff from the possibility of not accepting new technology and not having the skills to work with it. However, Ilcus approaches this problem from a different perspective, considering, on the contrary, the greater opportunities that digitalization offers to employees. Among these opportunities is the ability to work remotely, which is especially relevant in today's world.

Elsinger et al. (2018) consider another opportunity for fintech and digital innovation in financial management not discussed in the article. This is a broader savings and accumulation opportunity realized through direct access to investors without intermediaries.

Möller et al. (2020) note that there is a significant gap between theory and practice in studies of the impact of digitalization on financial processes. One can fully agree with this view, given that this article also established the fact of a “gap” between studies focusing on general aspects of digital innovation and their application to real enterprises.

Research related to the use of digital innovation in green finance is important. Dorfleitner& Braun (2019) highlight the importance of fintech and blockchain technologies in accessing new sources of funding and investment from a larger investor base for green finance companies. Thus, digital innovation in this case not only improves a company's external and internal financial processes but also fulfills a socially important task.

According to the author, the most comprehensive and thorough study of the impact of digital innovation on a company's financial management is the study of Dokienko (2022). The researcher consistently reveals the benefits of digitalization, current trends, and the main thing in the study is the comparison of theory and practice. Dokienko examines the use of outlined technologies by global companies, examines the reasons for reluctance to use certain technologies, and as a result of the study determines the percentage of companies grouped by the level of readiness to adopt digital technologies in finance. According to the author, a similar study should also be conducted for Ukrainian companies, which may be the direction of further research.

6. CONCLUSIONS

The article substantiates the importance of digital innovations in company financial management and identifies the benefits of their application. The main benefits of using digital innovations in financial management are: improved customer experience through personalized interaction; adaptability to current customer requirements and needs, flexibility and acceleration of business processes, speed of decision-making; opening a wide range of innovative features; simplified and more convenient data management; improved opportunities for cooperation with counterparties, etc.

It was found that today there are a number of barriers to the implementation of digital innovations, in particular, increased cybersecurity risks, lack of clear rules of legislative regulation, aversion of employees, etc. However, it is also proven that the implementation of innovations provides a positive image, customer and counterparty loyalty, cost savings, faster processes, ease of information handling, etc. In addition, it is a well-known fact that failure to implement innovations can lead to the termination of the company.

It is defined that for successful implementation of innovations in the financial management of the company, this process should be clearly planned and thought over at each stage. In addition, companies should focus on priority areas of digital innovation, in particular, the centralization of financial expertise in global centers of excellence; reorganization of legacy money actions to make the money process more efficient; transfer of end-to-end transactional financial and accounting processes to shared service centers; improved business partnerships between finance and business; increased use of financial SSCs for more valuable services. An indisputable success factor is the availability of the necessary skills to work with relevant digital innovations in the company's personnel, as well as their sufficient qualification to conduct a pilot process of innovation implementation.

The study revealed the range of modern digital innovations in the financial sphere and gave several classifications. Innovations in financial management primarily include innovative financial information management tools, which can be divided into groups by purpose: information creation and automation, deep analytics, cognitive computing, managed analytics function, data management, and content management, cybersecurity, automation using robots, etc.

Such innovations were compared with what percentage of companies apply them in practice. In addition, the percentage of innovation-active companies in Ukraine and their spending on innovations was determined. The direction of further research may be the definition and distribution of Ukrainian companies by groups of readiness to adopt innovation.

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COMPETING INTERESTS

The authors declare that they have no competing interests

REFERENCES

"Agile finance unleashed: the key traits of digital finance leaders." 2019. AICPA & CIMA and Oracle. Retrieved October 19, 2022 (https://www.cgma.org/content/dam/cgma/resources/reports/downloadabledocuments/agile-finance-unleashed-aicpa-cima-oracle.pdf.)

Amelin, A., V. Fishchuk, YaLavryk, O. Yurchak, Ye Cherniev, and V. Matiushko. 2019. "Ukraine 2030E - a country with a developed digital economy." Uifuture.org. Retrieved October 19, 2022 (https://strategy.uifuture.org/kraina-z-rozvinutoyu-cifrovoyu-ekonomikoyu.html.)

Bank for International Settlements. 2017. "The Basel Committee on Banking Supervision, consultative document: Sound Practices: Implications of fintech developments for banks and bank supervisors". Bis.org. Retrieved October 19, 2022 (https://www.bis.org/bcbs/publ/d415.pdf)

Bollaert, Helen, Florencio Lopez-de-Silanes, and Armin Schwienbacher. 2021. "Fintech and access to finance." *Journal of Corporate Finance* 68 (June): 101941. doi: 10.1016/j.jcorpfin.2021.101941.

Bulkot, O.2021. "Formation of Ukraine's smart economy in the context of global challenges". In *Futurity Economics & Law*, 1(1). https://doi.org/10.57125/FEL.2021.0325.2

Dokiienko, L. M. 2022. "Digital transformation of enterprise finance". *Entrepreneurship and innovation.* no. 22 (January 31): 18–25. doi:10.37320/2415-3583/22.3.

Dorfleitner, Gregor, and Diana Braun. 2019. "Fintech, Digitalization and Blockchain: Possible Applications for Green Finance." In *Palgrave Studies in Impact Finance*, 207–37. Cham: Springer International Publishing. doi:10.1007/978-3-030-22510-0_9.

Elsinger, Helmut, et al. 2018. "Digitalization in financial services and household finance: fintech, financial literacy and financial stability". *Financial Stability Report* 35: 50-58. Retrieved October 19, 2022(https://ideas.repec.org/a/onb/oenbfs/y2018i35b1.html)

Ilcus, Magdalena Alina. 2018. "Impact of Digitalization in Business World." *Review of International Comparative Management*, October 1, 350–58. doi:10.24818/rmci.2018.4.350.

Information management and analytics. 2022. Deloitte.Retrieved October 19, 2022 (https://www2.deloitte.com/ua/uk/pages/technology/solutions/emea-csf/information-management-and-analytics-offerings.html%20+.html)

Sayimer, İdil, and Banu Küçüksaraç. 2022. "Corporate Reputation and Customer Loyalty in Social Media." In *Reputation Management Techniques in Public Relations*, 222–53. IGI Global. Accessed December 4. doi:10.4018/978-1-5225-3619-2.ch012.

Möller, Klaus, Utz Schäffer, and Frank Verbeeten. 2020. "Digitalization in management accounting and control: an editorial." *Journal of Management Control* 31, no. 1–2 (April): 1–8. doi:10.1007/s00187-020-00300-5.

Mosteanu, N. R. 2020. "Finance digitalization and its impact on labour market". *Technium Soc. Sci. J.*8:598. Heinonline.org. Retrieved October 19, 2022 (https://heinonline.org/HOL/LandingPage?handle=hein.journals/techssj8&div=56&id=&page=)

Oneshko, Svitlana, and SvitlanaIlchenko. 2017. "Financial monitoring of the port industry companies on the basis of risk-oriented approach." *Investment Management and Financial Innovations* 14, no. 1 (May 8): 191–99. doi:10.21511/imfi.14(1-1).2017.05.

Pomazun, O. M.2018. "Current state and trends of fintech development".Pp. 70-72 in *Innovative entrepreneurship: state and development prospects*: collection. materials of the II All-Ukrainian Scientific and practical conferences (March 29-30, 2018, Kyiv). Kyiv: KNEU.Retrieved October 19, 2022 (https://core.ac.uk/download/pdf/197269025.pdf)

Shevchenko, O., and L. Rudych. 2020. "Development of financial technologies in conditions of digitalization of ukraine's economy." *Efektyvnaekonomika*, no. 7 (July 30). doi:10.32702/2307-2105-2020.7.61.

Sydoruk, Liudmyla, NataliiaBakhmat, Hanna Poberezhets, Viktoria Misenyova, and Olena Boyarova. 2022. "Formation of future economist professional competence in adaptive-digital environment conditions of higher educational institution."*International journal of health sciences* 6, no. 1 (January 30): 103–14. doi:10.53730/ijhs.v6n1.3390.

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