

APPLICATION OF DIGITAL TOOLS IN ENTERPRISES IN THE CONTEXT OF COMMUNICATION MANAGEMENT

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Purpose: The purpose of the article is to identify the digital tools used and their role in enterprise communication management.

Design/methodology/approach: The paper uses a literature analysis method focusing on the identification and characterization of digital tools. A survey method was also used. The survey research conducted in 2024 was aimed at employees and managers of enterprises in the Silesian province. The analysis of the literature and the empirical research conducted in enterprises made it possible to achieve the stated purpose.

Findings: The empirical research conducted allowed the verification of four research hypotheses. Three of them were confirmed and one was falsified. The results of the research confirmed that most of the surveyed enterprises use digital tools for internal and external communication. The research also confirmed the positive impact of digital tools on communication in most of the surveyed enterprises.

Research limitations/implications: A limitation of the research conducted in the research process is the size of the research sample and the scope of the research limited to the Silesian province.

Practical implications: The research shows a number of practical implications that can significantly improve the efficiency of business processes and improve the competitiveness of companies. What is needed in this regard is further education of employees and investment in new technologies and tools, as well as the creation of standards and procedures for the use of these tools.

Social implications: The research has important social implications. The use of digital tools in companies can contribute to greater transparency in business operations, which can in turn have an impact on increasing the trust of various stakeholders. The introduction of more flexible work models, remote or hybrid work through the use of digital tools can increase employee satisfaction contributing to a better quality of life.

Originality/value: The issues raised concerning the application of digital tools in enterprises with a focus on communication is a timely and important topic in both scientific and practical layers. The results of the research can be of value to enterprise managers in particular.

Keywords: digital tools, communication, communication management, enterprises.

Category of the paper: Research paper.

1. Introduction

Digital tools are playing an increasingly important role in enterprise communications, offering a range of opportunities related to knowledge sharing, easier access to information, faster communication and strengthening social relationships, among others. As Szombathelyi K.M. et al. (2015) point out, the most important challenges for communication management are issues related to digital evolution, the development of communication instruments and networks and social media.

Communication in the modern world is of great value, it has become the basic foundation for the functioning of all organizations. Effective communication is a source of important information in the organizational and individual spheres (Drucker, 2009). It refers to the exchange of information, thoughts, opinions and feelings between the addressee and the recipient through a variety of channels and codes (Griffin et al., 2018). Communication is not only the transmission of information, but also the understanding of the intentions and emotions behind it. Communication, as defined, is the process of exchanging information, thoughts and emotions between individuals. Depending on its established goals, it can serve many different functions. It can be used to communicate results and rewards, establish cooperation, form trust, norms and values, mediate and negotiate, share experiences and ideas (Robbins, Judge, 2018). Communication can help coordinate activities, motivate employees, build relationships, create organizational culture, resolve conflicts and transfer knowledge (Ober et al., 2018). All of this underscores the importance of effective communication in our daily lives, both on a personal and professional levels. Regardless of its form, communication is crucial for understanding and cooperation between people. It provides a mechanism for creating and developing interpersonal relationships (Cooley, 1983).

In the 21st century, digitization has affected all fields, and many digital tools have been created and developed. They have also affected communication, which has undergone tremendous changes. These tools have significantly expanded the boundaries of information exchange, enabling it to spread on an unprecedented scale and communication has run beyond the boundaries of transmitted paper messages to their digital counterparts. However, the use of these tools also brings certain risks and challenges, such as potential privacy violations and the spread of misinformation. In order to fully realize the potential of digital tools for managing corporate communications, it is necessary to use them consciously and responsibly, taking into account possible risks and limitations.

The purpose of the article is to identify the digital tools used and their role in enterprise communication management.

2. Literature review - the role of digital tools in enterprise communications management

In the current era, dynamic advances in digital technology are having a significant impact on various aspects of daily and business life, including corporate communications management. It has changed various areas of human life on a global scale (Szadok-Bratun, Bratun, 2022). Effective communication in an enterprise is crucial to achieving organizational goals, improving cooperation among employees, and improving organizational performance. It is important for the organization itself as well as its environment (Klinowski, 2011). Communication in an enterprise can occur at different hierarchical levels, from horizontal, interpersonal communication between organizational members working at the same level, to vertical communication, which flows from management to employees and vice versa (Stoner, Freeman, Gilbert, 1999; Friedberg, 2019). Different forms of communication are used in an enterprise, including formal communication that takes place through official channels and procedures, and informal communication that takes place outside official channels (Sypniewska, 2013).

Nowadays where digitization dominates many aspects of life, communication takes a variety of forms using increasingly digital tools. The teleworking, in which digital tools play a large role, is becoming increasingly important (Clark et al., 2012; Smith et al., 2018). Modern digital tools, which are the result of technological advances, have the potential to optimize communication processes and contribute to achieving higher efficiency. Digital tools are one of the key success factors in an organization's communications, ceasing to be mere add-ons and becoming generating factors. The reason for their growing role is their effectiveness (Grandys, 2000). Nevertheless, adapting to innovative systems brings with it certain challenges, including the need for continuous education in new technologies.

The challenge is to match the right digital tools to the communication goals (Biesaga-Słomczewska, 2015). The choice of appropriate tools depends on the individual needs of the organization (Wojcik, Rybicka, 2013). Digital tools can include various technical means and methods that are necessary for the implementation of information systems. These include computer and communication hardware, system and application software, as well as data stored on electronic media (Grabowski et al., 2012). Popular digital tools used by companies include programs for creating and editing documents, such as Microsoft Office, Microsoft Outlook, Google Calendar and other scheduling and email software (Biesaga-Słomczewska, 2015). General uncategorized digital tools include the Internet and email, mobile devices such as tablets and smartphones, which, combined with the cloud and appropriate software, allow access to all company data. They make corporate communication easier and more efficient.

Digital technology tools can be divided into different types depending on their function and application. One of them is video conferencing tools that are communication platforms. Among these tools are Microsoft Teams, Zoom, Google Workspace, which are increasingly used by organizations for both internal and external communication (Dash et al., 2022). These platforms are used for real-time communication, enabling messaging, file sharing and simultaneous collaboration among multiple people in teams creating opportunities for employees to work together in a virtual environment. They enable video meetings, remote team collaboration. These tools are increasingly using artificial intelligence.

Communication, the better it is planned, the more effectively it works, the easier it is to conduct projects thanks to it, and it significantly affects the building of relationships between employees and external partners. Nowadays, many tools have been developed to support the area of project management. Among them we can mention tools such as Trello, or Jira (Clemente, Domingues, 2023).

In the era of modern digital economy, broadly applicable technologies have emerged that enhance, intensify and stimulate development. The literature distinguishes so-called intensifying technologies that can include cloud solutions, the Internet of things, artificial intelligence (AI), blockchain, among others (Śledziwska, Włoch, 2020). In the context of ever-evolving digital technologies, it is worth paying attention to cloud technologies, which allow organizations to manage communications more efficiently by using the right software (Shawish, Salama, 2014; Kopishynska et al., 2016). Cloud solutions are important in project management, among other things (Szydłowski, 2019). The Internet of Things (IoT), in turn, defined as a method of connectivity that allows data to be collected, transmitted and flowed between devices with or without human involvement over a network (Trzop, 2020; Guzowski et al., 2024). It plays a special role in the sphere of internal communication in companies. Thanks to its various functions, the Internet of Things supports communication by transmitting data on the availability of resources, the status of projects, allows control and monitoring of the working environment, the status of devices and infrastructure. This translates into a quick response to any irregularities making communication more efficient (Śledziwska, Włoch, 2020). The next intensifying technology that is finding increasing use is artificial intelligence (AI). It has a range of capabilities and functions that work well in situations where rapid communication is crucial. AI can be applied in areas such as speech recognition in voice systems, sharing records in real time, sorting messages, analyzing engaging content, translating speech into different languages, among others, which is invaluable in multinational companies (Makowski, 2023). One of the many functions of artificial intelligence is to manage, support and create so-called corporate communication channels. The development of artificial intelligence has resulted in the creation of chatbots, which can provide quick responses while relieving the burden on employees of the various departments of a given company (Makowski, 2023). In addition, they can also create their own content, text documents. Blockchain, in the context of internal communication, can be used to save documentation or messages that can be

transmitted internally using the platform (Kitsantas, Chytis, 2022). Another useful feature of this program is the ability to monitor the progress of work and report it in the current time so that all the stages of, for example, a project can be saved in it (Casey, Vigna, 2018).

Digital tools, play an extremely important role in communication, influencing all aspects of it. These tools have changed the way people establish and maintain connections, both in their personal and professional lives. Thanks to text and video communication applications, social media and online collaboration platforms, it is possible to transmit information instantly, significantly speeding up communication processes and eliminating geographical barriers. Digital tools used in social media that change the way we communicate are becoming increasingly important (Appel et al., 2020; Fraccastoro et al., 2021). Faraj, S., Jarvenpaa, S.L., and Majchrzak, A. (2015) argue that collaboration regarding knowledge sharing in online communities, which are a virtual organizational form, fundamentally changes the way members of an organization work together. The impact of social media applications on communication and improving corporate performance is also highlighted by Wang et al. (2016). Digital tools enable real-time communication, which is especially important in the business world, where a quick response can determine the success or failure of a venture. With platforms such as Zoom and Microsoft Teams, it is possible to hold meetings and collaborate with people from different parts of the world without being physically present. This global accessibility not only facilitates international business collaboration, but also supports the development of social relationships on an unprecedented scale.

The literature analysis conducted identified a research gap related to the paucity of studies on the application of digital tools in enterprise communication management.

3. Methods

The research problem focuses on finding an answer to the question: what is the role of digital tools in enterprise communications? It is important to understand which of the proposed tools are used for communication in companies and how they affect internal and external communication.

In order to solve the research problem and realize the formulated purpose of the paper, appropriate research methods were selected, such as literature analysis and survey method. The survey questionnaire consisted of closed questions and the answers were in scaled form. The collected data were analyzed using a Microsoft Excel spreadsheet.

Based on the literature analysis, the following research hypotheses were formulated:

- Hypothesis 1: Most of the surveyed companies use digital tools for communication.
- Hypothesis 2: Most of the surveyed employees use digital tools for internal and external communication like Zoom, Microsoft Teams, Slack.

- Hypothesis 3: The digital tools used have a positive impact on communication in most of the surveyed companies.
- Hypothesis 4: Artificial intelligence tools like Chat GPT are used in most of the surveyed companies.

The hypotheses were verified through quantitative research conducted using a survey questionnaire. Based on the data obtained, an analysis was conducted on the role of digital tools in enterprise communication.

The research used a random sampling method to select respondents from different companies operating in the Silesian province. This method made it possible to obtain a variety of opinions and experiences from employees working in different positions and in companies of different sizes. The largest group of respondents out of a total of 83 comes from small companies (33 people), which dominate the market, justifying their large representation in the sample. The second largest group is made up of people working in large enterprises (27). The smallest segment consists of medium-sized enterprises, with 23 responses. In terms of positions held, the sample consists mainly of employees (64 people), which is the vast majority, while a smaller percentage are middle managers (10 people) and top managers (9 people). This distribution of respondents makes it possible to analyze both the perspective of those who perform day-to-day tasks in companies and those who manage them, which allows a more complete view of the phenomenon under study.

4. Results and discussion

In order to verify the formulated hypotheses, research was conducted using a survey questionnaire.

As part of the survey, respondents were asked about the frequency of use of digital tools in the company. The results of the responses obtained are shown in Figure 1.

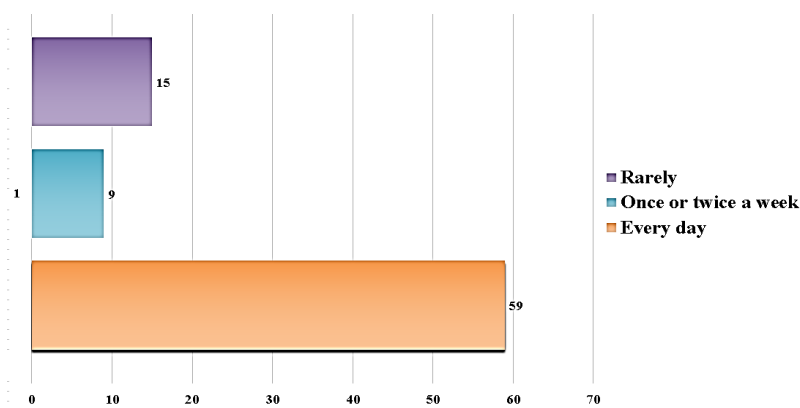


Figure 1. Frequency of use of digital tools in the company.

Source: own study based on research results.

The data presented in Figure 1 indicates that the majority of respondents—as many as 59 people - use digital tools daily. The least common response was using digital tools once or twice a week, marked by 9 respondents. Meanwhile, 15 respondents stated that they rarely use digital tools. Thus, the largest group are those who use digital tools frequently.

Project management tools, such as Trello, are playing an increasingly important role in both internal and external communication. The distribution of responses is illustrated in Figure 2.

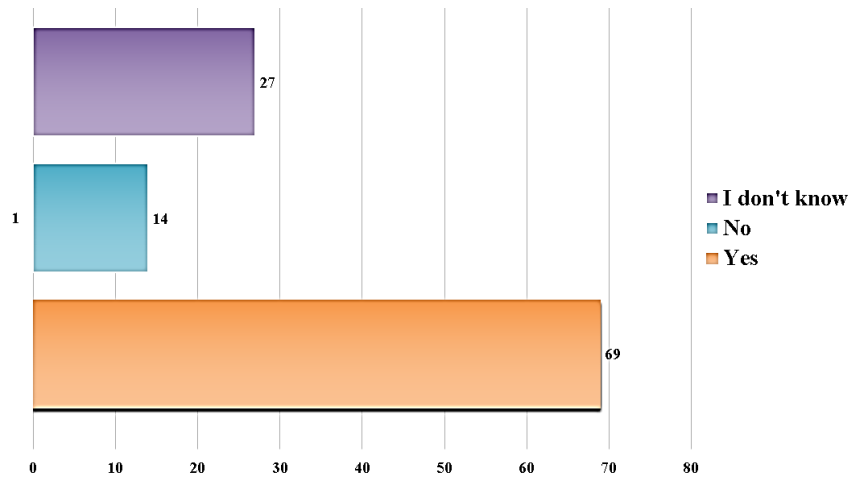


Figure 2. Using tools for project management e.g. type Trello.

Source: own study based on research results.

Figure 2 shows that 18 respondents use project management tools like Trello, while 38 respondents do not use such tools. Additionally, 27 respondents stated that they are unsure about their usage.

In the context of how digital tools impact team communication, respondents were asked whether digital tools facilitate communication within a team. The results are presented in Figure 3.

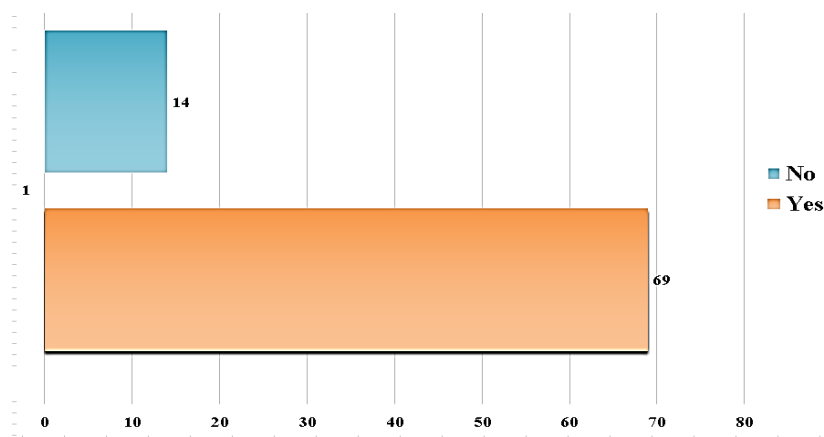


Figure 3. Impact of digital tools on team communication.

Source: own study based on research results.

As shown in Figure 3, 69 respondents indicated that digital tools help improve communication with other team members. Meanwhile, 14 respondents selected the answer "no". The presented data suggests that, for the majority of employees, digital tools make teamwork communication more efficient.

Digital tools such as Slack, Microsoft Teams, Workplace, and Zoom can be useful in both internal and external communication. Figures 4 and 5 illustrate the level of their utilization. Figure 4 presents the survey results regarding the use of digital tools like Slack, Microsoft Teams, Workplace, and Zoom among company employees.

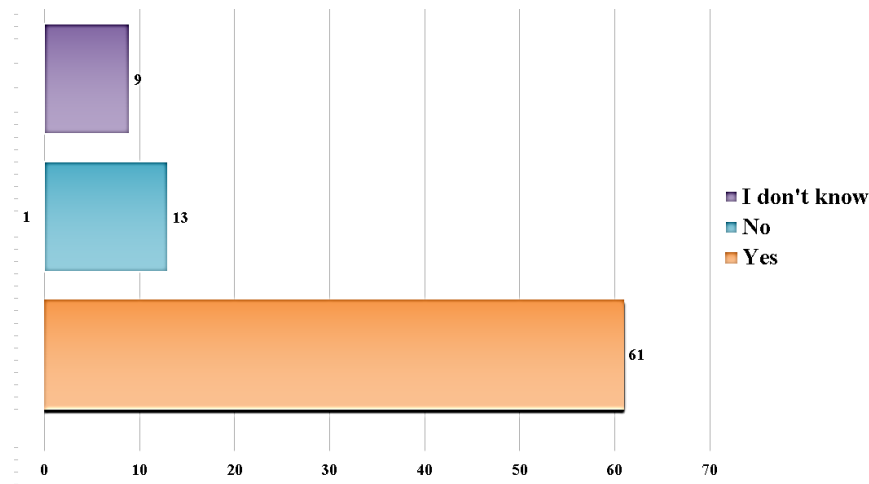


Figure 4. Using tools such as Slack, Microsoft Teams, Workplace, Zoom in internal communication between company employees.

Source: own study based on research results.

The data presented in Figure 4 shows that the vast majority of respondents—61 people—confirm that their company uses digital tools for communication between employees. In contrast, 13 respondents claim that such tools are not used in their company. The final group, consisting of 9 respondents, is unsure whether these tools are implemented in their organization. These findings suggest that the adoption of tools such as Slack, Microsoft Teams, Workplace, and Zoom in workplace communication is becoming increasingly popular due to their functionalities and benefits.

The use of digital tools such as Slack, Microsoft Teams, Workplace, and Zoom for external company communication is presented in Figure 5.

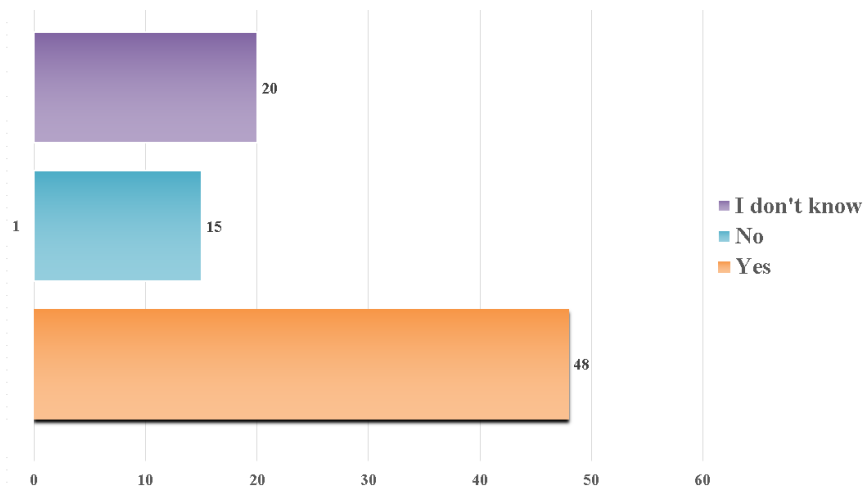


Figure 5. Using tools such as Slack, Microsoft Teams, Workplace, Zoom for external communication. Source: own study based on research results.

The data presented in Figure 5 indicates that the majority of respondents (48 people) confirm the use of digital tools for communication with external partners, clients, and contractors. In contrast, 15 respondents state that such tools are not used in their company, while 20 respondents are unsure whether these tools are implemented. More than half of the employees therefore confirm the use of digital tools for external communication, which highlights the company's strong engagement in modern technologies to maintain relationships with clients and business partners.

As part of the study, respondents were also asked to evaluate the impact of digital tools on internal communication within the company. The results are presented in Figure 6.

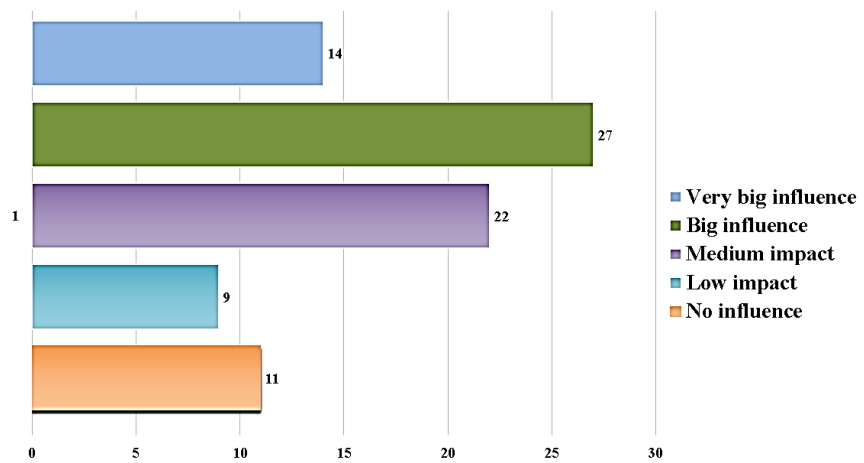


Figure 6. The degree of impact of digital tools on internal communication in the company.

Source: own study based on research results.

The largest group of respondents, 27 people, believes that digital tools have a significant impact on internal communication within the company. Another substantial group, 22 respondents, rated this impact as moderate, while 14 respondents consider it very significant. A smaller number of employees stated that digital tools have little impact (9 people) or no impact (11 people) on internal communication. The results suggest that digital tools

positively influence internal communication in the company. However, there is still room for further optimization and support to ensure their use is more consistent and effective across the organization.

Figure 7 presents the results regarding the use of artificial intelligence tools, such as ChatGPT.

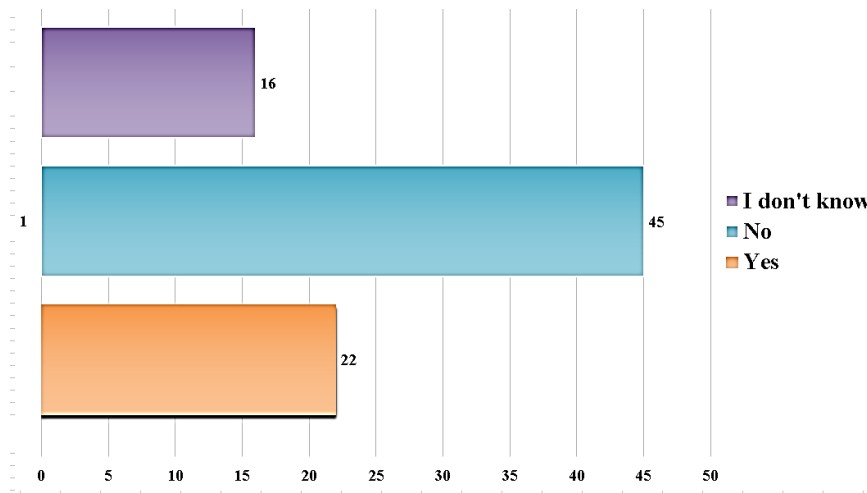


Figure 7. Use of AI tools in the company.

Source: own study based on research results.

The largest group of respondents, 45 people, stated that their company does not use AI tools. Meanwhile, 16 respondents are unsure whether such tools are in use, whereas 22 respondents confirmed that AI tools, such as ChatGPT, are used in their company. These results may suggest a lack of sufficient interest or awareness regarding the potential benefits of AI implementation in business processes.

The research conducted on the use of digital tools in the management of corporate communications allowed verification of the formulated research hypotheses. The results indicate that:

- Hypothesis 1 supposing that the majority of the surveyed companies use digital tools for communication has been verified and confirmed. 64 respondents out of 83 surveyed answered affirmatively to the question whether their company uses digital tools for communication between company employees.
- Hypothesis 2 supposing that most of the surveyed employees use digital tools for internal and external communication such as Zoom, Microsoft Teams, Slack was confirmed by more than half of the respondents who, when asked if their company uses digital tools for external and internal communication, answered that they use the above communicators. Moreover 61 respondents use the above tools to communicate among themselves, internally. 48 respondents use the same tools for external communication.
- Hypothesis 3 supposing that the digital tools used have a positive impact on communication in most of the surveyed companies was verified and confirmed. Respondents answered questions about the positive impact of internal and external

communication as follows: 54 respondents confirmed that the digital tools used in the company have a positive impact on both internal and external communication.

- Hypothesis 4, which assumes that artificial intelligence tools such as Chat GPT are used in most of the surveyed companies, was verified but not confirmed. This is because the majority, as many as 45 respondents, do not use AI tools of the Chat GPT type in their company.

The use of digital tools in the workplace can help make communication more effective, improving collaboration and information flow. Digital tools play an important role in both internal and external enterprise communications. Despite the increasing importance of artificial intelligence in both professional and everyday life, studies conducted indicate their use is not at the highest level. Given their scope and capabilities, their increasing use can be expected.

5. Conclusions

Contemporary enterprises in the era of an uncertain and dynamically changing environment must constantly adapt their communication strategy. Digital tools play a key role in this process, enabling effective management of enterprise communications. The use of digital tools can have a significant impact on increasing the efficiency and competitiveness of businesses. The use of tools such as Zoom, Microsoft Teams, Slack, real-time project management platforms in communication allows faster exchange of information within the organization and with external partners, better coordination and monitoring of the work of teams, faster decision-making. The use of digital tools also enables better management of interpersonal relationships, both with employees and customers.

Within the framework of the conducted research, some limitations can be pointed out related to the adopted scope of the research limited to the Silesian province and the size of the research sample. The research involved only quantitative research. In order to obtain the possibility of general inference, future research should focus on a larger research sample and a wider range covering enterprises in different countries and industries. Conducting also qualitative research, case studies could enrich the obtained results.

Research conducted confirms the growing impact of digital tools on communication management in companies, pointing to a number of social implications related to, among other things, improved quality of life for employees, greater satisfaction through the introduction of more flexible work models, such as hybrid, remote work. The results of a survey of 100 companies by H. Shahriar and B. Habibul (2024) showed the impact of digital tools on increasing employee satisfaction, collaboration and overall productivity. On the other hand, the results of a cross-sectional quantitative study conducted by K. Afridi et al. (2023) show that

digital communication tools have an impact on the performance of ongoing projects. Research by Marlow et al. (2017) finds a positive impact of platforms, digital tools for project management, among others, on communication and collaboration. Based on the findings of Ninye-Ranor et al. (2022), they recommend that employees and managers continuously improve their knowledge in the use of digital tools through various training and upskilling programs. More efficient communication processes through the use of digital tools can contribute to faster resolution of social problems. In addition, the integration of digital tools in the area of internal and external communication of companies can have an impact on greater transparency of business operations, which in the long perspective can increase the trust of society, customers in the company and lead to more responsible and sustainable practices. Companies can become more socially responsible.

Therefore, it is important to continuously improve the communication skills of employees while making wise use of available digital tools that can improve the efficiency of the communication processes carried out. It is also important for companies to invest in new technologies and digital tools that would support the integration of communication processes. In view of the risks posed by the use of digital tools, artificial intelligence, companies should also focus on developing and introducing standards and procedures for the use of these tools. It is also worthwhile to align the tools with an organization's communication strategy. As technology develops, the role of digital tools in communication will deepen and evolve, opening up new opportunities and posing new challenges for employees.

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