

INTERNET ENTREPRENEURSHIP OF SMALL ENTERPRISES IN LUBLIN VOIVODESHIP

Elena MIESZAJKINA^{1*}, Agata MYŚLIWIECKA², Magdalena KOZAK³

¹Lublin University of Technology, Faculty of Management, Department of Management, Lublin;
e.mieszajkina@pollub.pl, ORCID: 0000-0002-3449-4059

²Lublin University of Technology, Faculty of Management, Department of Management, Lublin;
a.mysliwiecka@pollub.pl, ORCID: 0000-0001-9543-2508

³Lublin University of Technology, Faculty of Management, graduate; zminczukmagdalena@gmail.com

* Correspondence author

Purpose: The Internet and digital technologies have a significant role in the functioning of modern businesses. They enable effective communication and running business globally, helping improve operational efficiency and increase competitiveness. The Internet is a source of entrepreneurial ideas and creates many business opportunities. Various business ventures are initiated, implemented and managed using Internet technologies. The purpose of the article is to present theoretical considerations and results of empirical research on Internet entrepreneurship of small enterprises from the Lublin region.

Design/methodology/approach: Achieving the stated objective involved the use of two research methods. The first was the method of literary criticism on Internet entrepreneurship, which formed the basis for the methodological assumptions. The second method was the diagnostic survey, a structured interview technique that allowed hypotheses to be verified. The research results allowed for assessing the range of small business activities conducted using the Internet.

Findings: The research undertaken revealed that small businesses perform numerous entrepreneurial activities via the Internet. They are mainly related to information exchange and customer service. It was found that the higher the employment, the greater the extent and intensity of these activities. Companies operating on a larger scale are also using more Internet tools. Younger units obtain more effects from the use of the Internet. It has been found that entrepreneurs are aware of the benefits of strengthening Internet entrepreneurship.

Research limitations/implications: The research enabled the verification of the adopted assumptions and the implementation of the set goal. Analysis of the respondents' answers provided information on small business Internet entrepreneurship. The interviews conducted indicated the need to modify the research tool. The presented research procedure has some limitations due to the methods adopted, the research tool and the small size and non-random nature of the sample.

Practical implications: Research can help guide small businesses towards more effective and systemic use of the Internet in the execution of business processes.

Originality/value: The research's originality involves providing new information on small business Internet entrepreneurship and resulting effects.

Keywords: Small businesses, Internet entrepreneurship, Internet, ICT.

Category of the paper: Research paper.

1. Introduction

Economy 5.0 requires significant changes in how companies operate and their business models. The Internet and Information and Communications Technologies (ICT) are becoming central factors for successful operation and growth. However, in order to find oneself in the rapidly changing digital reality, it is necessary not only to have access to modern technologies but also the ability to use them. This is a particularly difficult challenge for small businesses, which often have insufficient financial, human and technological resources.

The Internet universe gathers a significant part of the society around the world. Businesses and consumers alike obtain a wide range of information and data from the global network. The internet is a significant support for running a business. Having a business in the virtual space is even becoming a necessity. Most people's daily lives rely on Internet search engines, social media and online shopping. Entrepreneurs who do not feel the need to use the potential of the Internet for their business, or who do not have the necessary skills, are unlikely to be able to maintain their position in the market.

In small business, skilfully seizing the opportunities and avoiding the risks associated with the digital transformation of the economy is becoming a key success factor. The transition to the digital world has many dimensions and involves virtually every aspect of a company's operations. It is based on continuous development and flexible adaptation to changes related to ICT developments. It often requires a complete redesign of the processes within the organisation. This means that entrepreneurial activities are required in both real and virtual reality. The former is an integral part of the company's day-to-day operations, while the latter opens up various development opportunities for the company. Internet entrepreneurship can be considered as the business's digital activity involving engaging in intensive activities in Internet and ICT use (Mieszajkina, Myśliwiecka, 2022).

The presented pilot study aims to analyse in which areas and to what extent the Internet is used by small enterprises operating in the Lublin region. The research was conducted in 30 units meeting the criteria for being a small business (Ustawa z dnia 2 lipca 2004 r., art. 105).

2. The essence of Internet entrepreneurship

The phenomenon of entrepreneurship is multidisciplinary and therefore difficult to define unambiguously. The science of entrepreneurship is developing rapidly around the world. New views and theories presented by theorists and practitioners from different scientific disciplines are being published. A new type of entrepreneurship – Internet entrepreneurship – has emerged with the growing role of the Internet in socio-economic processes, the increasing virtualisation of markets and organisations and the development of ICT. It is usually associated with setting up and running an online business. It includes activities related to the use of virtual space and ICT to identify business opportunities, create innovative products and services, reach a wide global audience, connect with business partners, etc. (Anim-Yeboah et al., 2020; Bednarczyk et al., 2019; Glinka, Gudkova, 2011; Le Dinh et al., 2018; Zhao et al., 2016).

The European Commission sees online entrepreneurship much more broadly, emphasising that it includes not only new businesses but also transforming existing ones by creating and using innovative digital technologies (European Commission, 2013). According to Hull et al. (2007), it involves digitising some or all of what would have been physical in a traditional organisation. In the view of Davidson and Vaast (2010), this is a search for opportunities based on the use of digital media and other ICTs. According to A. Roslan-Karaś and J.E. Wasilczuk (2015), it is entrepreneurship practised online using network tools, exploiting the opportunities created by the network and applying various online business models.

Summarising these and other definitions, it can be concluded that Internet entrepreneurship is a form of economic activity in which key tasks related to management, innovation or customer relations are conducted using networks and computer tools. It involves the transfer of a company's activities into a virtual space and the interactive, networked connection between producers, cooperators, suppliers and consumers that create the network (Romanowska, Cylwik, 2004; Malara, 2006; Mieszajkina, 2018).

Internet entrepreneurship activities provide a number of benefits for businesses. These include (Bank Pekao, 2018):

- accelerating and simplifying communication within the organisation,
- increasing business efficiency through data analysis,
- creating cross-organisational virtual teams where members can share knowledge and ideas in real time,
- effective use of existing resources from a strategic and operational perspective.

Internet entrepreneurship has a long history, with the first publications on the subject appearing in the early 1990s. The continuous and rapid development of digital technologies is fostering the creation of various ventures whose business models are based on generating value through electronic information via data networks (Kollmann, 2006; Kraus et al., 2019). As a result, researchers and practitioners around the world have become increasingly interested

in the issue. Kollmann et al. (2022), in an extensive analysis of the academic literature, found that Internet technologies – the basis of Internet entrepreneurship – were also the first major factor in the creation of digital ventures.

The emergence of newer and more advanced digital tools contributes to strengthening digital transformation processes and, consequently, broadening the scope of online entrepreneurial activities at organisational and individual levels. Successful Internet entrepreneurs, however, accept the dynamic nature of the digital world and seek out and exploit new opportunities to create value and achieve business goals in the online environment. This requires knowledge, the ability to adapt, creativity, strategic thinking and an understanding of how Virtual Reality works.

3. The use of the Internet in the activities of small enterprises

Internet entrepreneurship is currently one of the most important factors for the success of small business. ICT implementation has a decisive impact on the course and quality of ongoing organisational processes, the level of employment, the way in which resources are used and how stakeholders are communicated with, as well as many other important aspects of running and developing a business (Mieszajkina, 2020).

The Polish Agency for Enterprise Development has been analysing the development of Internet entrepreneurship in small business for several years. The 2022 'Report on the State of the Small and Medium-Sized Enterprise Sector in Poland' (Skowrońska, Tarnawa, 2022) notes that entrepreneurs are constantly expanding their activities in this area. This has been significantly impacted by the COVID-19 pandemic and the associated constraints, as a result of which companies have been forced to reorganise their work and find new ways of performing basic tasks and communicating with stakeholders. In 2020, 26.2% of small enterprises reported an increase in the level of ICT use in their business compared to the previous year. There has been an increase in the number of online meetings using instant messaging (21.7%), an increase in the percentage of employees with remote access to company e-mail (11.2%), an increase in the percentage of employees with remote access to company systems and applications other than e-mail (13.1%) and an increase in electronic sales (5.7%). The report also presents other parameters characterising online small business entrepreneurship in 2021:

- broadband Internet access – 98.2%,
- equipping employees with mobile devices enabling mobile Internet access – 75.7%,
- having their own website – 67.2%,
- using paid cloud computing services – 24.4%,
- use of the Internet of Things – 14.9%,

- using social media – 42%,
- conducting a security audit of the company's information system – 22.8%,
- use of ERP tools – 24.1%, CRM – 25.5%.

Comparing the data presented in the report, it should be noted that small enterprises' growth parameters are several times lower than large enterprises. Nevertheless, it is undeniable that more and more entrepreneurs, including small enterprises, are aware of the need to digitalize their business and to engage in entrepreneurial activities using ICT. Internet solutions support and streamline the management processes of a small business, facilitate collaboration within the organisation and with stakeholders and allow you to reach customers and contractors anywhere in the world.

The current state of digital technologies used by small Polish enterprises is unsatisfactory. There are a number of barriers to online small business development (Lewandowski, Tomczak, 2017; Mieszajkina, Myśliwiecka, 2022; Orłowska, Żołądkiewicz, 2018):

- significant digital competency deficiencies,
- insufficient funding, limiting technology availability and the purchase of appropriate software,
- low economic potential of enterprises, which leads them to focus more on current activities and not on investment decisions,
- the perception that using ICT is costly and that the investment in its implementation is disproportionate to the benefits achieved,
- no apparent need for ICT implementation,
- low internationalisation, not forcing adaptation to more digitised partners.

The low digital activity of small businesses is a disturbing phenomenon. This is not surprising given that, in the context of the European Union, the Polish economy as a whole is digitising much more slowly than most EU countries. The latest edition of the Digital Economy and Society Index (European Commission, 2022) ranks Poland 24th (4th from last, ahead of Greece, Bulgaria and Romania) with a score of 40.5, less than 77% of the EU average.

In today's global digital world, the role of Internet entrepreneurship is crucial. It is based on a creative approach to using ICT to create innovative products, services and business models. New ideas and revolutionary solutions are being developed as a result, changing the methods of working, communicating, and doing business. It is easier to reach stakeholders from a global perspective, and you can do business regardless of geographical borders. Internet entrepreneurship fosters the transformation of traditional business models into digital ones through solutions such as e-commerce, sharing economy platforms, online subscriptions, etc. This enables the creation of flexible and innovative business structures. The Internet provides entrepreneurs with a wide range of tools and resources to facilitate operations, support growth and allow greater flexibility in time and workplace management. These include business management support systems, software, e-commerce platforms, cloud services, analytics tools,

social media and many others. However, for Internet entrepreneurship to become a key factor in the success of small businesses, it is necessary to strengthen the commitment of those who own them. They should have a clear vision of how to harness the potential of the internet to grow the business, invest in developing the digital competencies of their team, and create an entrepreneurial culture that encourages innovating, experimenting and being open to change.

4. Research methodology

According to W. Czakon (2014), the research procedure provides for the implementation of a sequence of a number of research procedures. It can be formulated in more or less detail depending on the needs of the research. The first stage of the research presented here involved analysing the literature relating to Internet entrepreneurship. A method of literature criticism was used. Based on this, a research gap was identified in relation to the role of Internet entrepreneurship in small business development. There is a general perception that using the Internet and ICT is the domain of large enterprises. Numerous observations and analyses are presented in the literature in relation to this group of enterprises. Research on Internet entrepreneurship in small business is much less frequent. Simultaneously, they usually cover the entire micro, small and medium-sized enterprise sector. However, it is difficult to generalise about their development potential as the sector is very diverse and heterogeneous in many respects. Considering that small entities have the greatest problems in this regard (Mieszajkina, 2020), the research was conducted in this group of enterprises.

The next steps are to define the research problem, purpose and hypotheses. The following research problem was formulated: To what extent do small businesses use the Internet in their operations? The following research questions were posed:

1. For which business activities do small enterprises use the Internet?
2. For which activities are small businesses more likely to use the Internet?
3. What role do small enterprises attribute to the Internet in business development?
4. What Internet tools are most commonly used by small enterprises?

The research purpose was to analyse in which spheres and to what extent the Internet is used in small enterprises' activities. The research hypotheses are as follows:

- H1. Small enterprises most often use the Internet for customer service activities.
- H2. Smaller enterprises in terms of employment perform fewer business activities via the Internet.
- H3. Small enterprises with a wider range of activities use more Internet tools in their activities.
- H4. Younger enterprises achieve better results by using the Internet.

The research was conducted as an in-depth piloted study. To verify the hypotheses, a diagnostic survey was conducted using a structured interviewing technique, which involved asking a series of standardised closed-ended questions and analysing the responses. The results obtained from respondents could be compared by using close-ended questions. During the interviews, particular threads were developed by asking in-depth or clarifying questions. This helped to determine whether the questionnaire questions were fully understood by the respondents. Conducting the interviews was the first stage of further research, which will be carried out using a survey technique.

The questionnaire contained 21 questions. The research was conducted in 30 small enterprises in May 2021. The sampling was non-random, using an occasional sample made up of people readily available to the researchers. Research sample structure (number of enterprises):

- number of employees: 10-19 people – 16; 20-29 people – 5; 30-39 people – 4; 40-49 people – 5,
- Enterprise age: less than one year – 3; 1 to 3 years – 4; 4 to 6 years – 11; more than 7 years – 12,
- industry: manufacturing – 4; trade – 7; services – 24 (results do not add up to 30, as in some cases more than one industry was indicated),
- location of business: city of over 500,000 inhabitants – 11; city of 100,000 to 500,000 inhabitants – 8; city of 50,000 to 100,000 inhabitants – 3; city of up to 50,000 inhabitants – 6; rural areas – 2,
- enterprise area: local – 13, national – 12, international – 5.

The survey contained filter (conditional) questions that redirected respondents to the question appropriate to the answer given.

5. Research results and analysis

Firstly, respondents were asked whether their companies use the Internet and online tools when conducting their business. A negative answer was given by 3 people. Therefore, questions related to the verification of hypotheses 1-4 were answered by 27 respondents.

To verify hypothesis 1, respondents were asked to answer 2 questions. Responses were given on a scale from 1 – the Internet is not used, to 5 – it is used very often. In the first question, respondents were asked to identify the business activities that are conducted via the Internet in their enterprises.

Table 1.*Business activities for which enterprises use the Internet (number of responses)*

Business activities	Rating					Average rating
	1	2	3	4	5	
Information exchange	0	1	1	5	20	4.6
Searching for information	1	0	4	8	14	3.8
Communicating information to stakeholders	3	2	2	6	14	3.6
Invoicing	3	2	4	6	12	3.4
Banking	3	2	7	5	10	3.3
Advertisement	3	2	4	9	9	3.3
Remote work	7	1	4	4	11	3.1
Customer service and support	6	2	3	5	11	3.1
Sale of goods	8	3	7	2	7	2.6
Administration	8	4	3	7	5	2.6
Videoconferencing	11	1	3	6	6	2.5

Source: own elaboration.

The most common use of the Internet by small enterprises was for e-mail communication with stakeholders and information gathering and communication, either through a website or a business card on the Internet. The research was conducted in the period just after the COVID-19 pandemic restrictions were lifted, but it was not very common for the surveyed units to use the Internet to organise remote working and customer service and support. The least frequent use of the network was for video conferencing.

The second question concerned the Internet tools used by small enterprises (Table 2). Responses were given on a scale from 1 – the company does not use the tool, to 5 – it uses it very often.

Table 2.*Internet tools used by enterprises (number of responses)*

Internet tools	Rating					Average rating
	1	2	3	4	5	
Website	2	0	2	7	16	4.3
Social media	1	1	4	7	14	3.8
Business card on the Internet (Google)	8	2	8	4	5	2.6
Audience statistics	12	2	5	3	5	2.3
Google Analytics	13	3	5	2	4	2.1
Google My Company	16	2	3	2	4	1.9
Google AdWords	18	1	3	2	3	1.7
Pixabay	21	3	2	0	1	1.3

Source: own elaboration.

The most commonly used tools were the website and social media. More advanced tools such as Google Analytics, Google My Company, Google AdWords, audience statistics, Pixabay are not in use by the majority of respondents. This may indicate that their employees do not have the necessary knowledge for the use of more sophisticated Internet tools.

The next questions related to the two most commonly used tools. Respondents rate their companies' websites well – most contain all necessary information, are clear and professionally designed. The main objectives that companies want to achieve through the use of a website include: providing information about products and services and consumer opinions, creating

a corporate image and attracting new customers. The second most frequently used Internet tool was social media, e.g. Facebook, Instagram. Respondents' answers suggest that companies focus mainly on presenting up-to-date contact information and displaying images of products or service delivery methods. Summarising the information presented, it can be concluded that hypothesis 1 has been positively verified.

The second hypothesis assumed that smaller enterprises in terms of employment perform fewer business activities via the Internet. Figure 1 presents data on the percentage of units that use the network very often in their activities (answers '4' and '5'), divided into two groups: number of employees from 10 to 29 people and from 30 to 49 people.

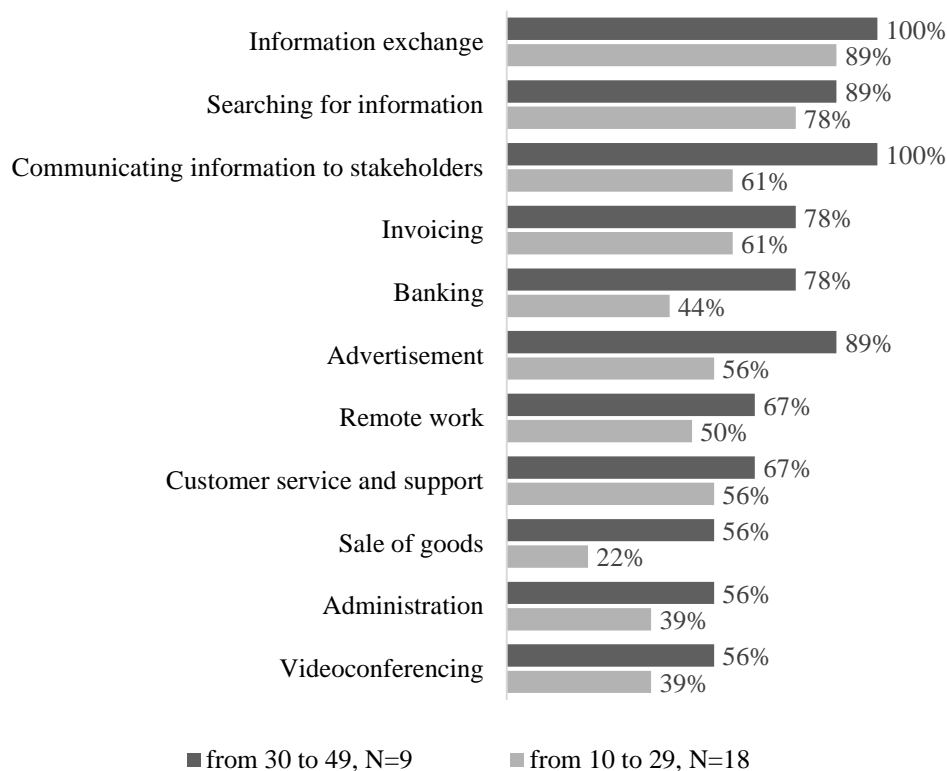


Figure 1. Business activities conducted by small enterprises by number of persons employed.

Source: own elaboration.

A higher proportion of enterprises with between 30 and 49 people employed use the Internet more frequently for each of the activities mentioned. It is much more common for larger companies to use the network to communicate with stakeholders, sell goods and conduct banking transactions. Hypothesis 2 can therefore be assumed that enterprises with fewer employees perform fewer business activities via the Internet.

The third hypothesis stated that smaller enterprises with a wider range of activities use more Internet tools in their activities. The frequency with which tasks are conducted using tools was considered because tools can be said to be in use when they become part of the company's daily practice. Figure 2 presents data on the percentage of international, national and local companies that use each online tool frequently and very frequently (answers '4' and '5').

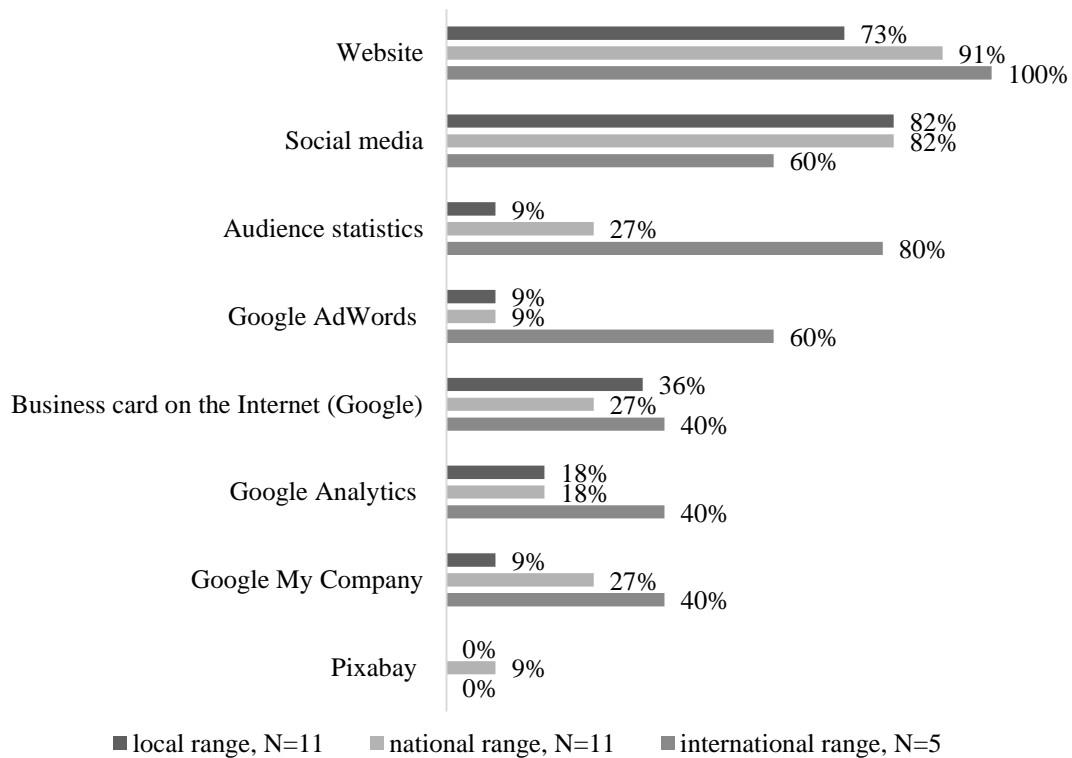


Figure 2. Internet tools used by small enterprises divided by business coverage.

Source: own elaboration.

All of these tools, except Pixabay, are used by a higher proportion of internationally active companies. Two tools – Pixabay and social media – are used by a higher proportion of national and local companies. In order to verify hypothesis 2, the rank method was used, which consists of ranking the observations due to one variable and giving them new values in the form of ranks. Descending order was used (highest frequency – rank 1). The data are presented in Table 3.

Table 3.

Ranks of enterprises according to frequency of Internet tool use

Area of enterprise activity	Website	Social media	Audience group statistics	Google AdWords	Business card on the Internet	Google Analytics	Google My company	Pixabay	Sum of ranks
International	1	2	1	1	1	1	1	2	10
National	2	1	2	2	3	2	2	1	15
Local	3	1	3	2	2	2	3	2	18

Source: own elaboration.

Enterprises functioning internationally have the lowest rank sum and thus the highest frequency of Internet tool use. Therefore, there is no reason to reject Hypothesis 3.

Hypothesis 4 concerned the achievement of effects by the surveyed enterprises through the use of Internet tools. Respondents rated on a scale from 1 – no effect, to 5 – significant effect (Table 4).

Table 4.

Evaluation of the effects obtained by the enterprises through the use of the Internet (number of responses)

Internet tools	Rating					Average rating
	1	2	3	4	5	
We receive inquiries about products/services via the Internet	1	0	3	13	10	4.1
We are able to respond to customer enquiries more efficiently	1	1	4	9	12	4.1
More customers are aware of the existence of our company	1	1	7	7	11	4.0
We have improved our company image	1	3	5	8	10	3.9
We achieved higher revenues	1	2	6	10	8	3.8
We achieved goals that would not otherwise have been possible or would have been too costly	1	2	8	7	9	3.8
We started to use new forms of communication within the team	2	1	7	10	7	3.7
We receive orders for products/services via the Internet	1	5	5	7	9	3.7
We provide a better standard of service to our customers	1	2	8	9	7	3.7
We conduct more effective marketing activities	2	1	6	12	6	3.7
We have improved the flow of information in the company	3	3	4	9	8	3.6
We have succeeded in gaining a competitive advantage	2	2	11	7	5	3.4
We eliminated the need for personal contact with stakeholders	4	5	4	8	6	3.3
We have reduced or eliminated some costs	3	6	7	8	3	3.1
We have dispensed with the support of intermediaries during the transaction	6	3	5	7	6	3.1
We started operations in foreign markets	17	5	0	1	4	1.9

Source: own elaboration.

Significant effects were achieved by small enterprises in the area of communication with customers (first two positions in Table 4) – answers '4' and '5' were given by more than 78% of respondents. Almost 67% said that the Internet had helped to raise awareness of the existence and improve the company's image, as well as generate more revenue. In order to verify hypothesis 4, Figure 3 presents data on the percentage of surveyed units in each age group who rated the effects achieved as significant ('4' and '5' responses).

In most cases, the units with up to and including three years of experience in the market stated that they had achieved significant results through the use of Internet tools. All of them confirm that customer awareness of the company's existence has increased and that they are receiving significantly more enquiries about products and services via the Internet. By using descending rankings, the sum of the ranks of the older companies was 28, the younger ones 19. Hypothesis 4 can therefore be considered confirmed.

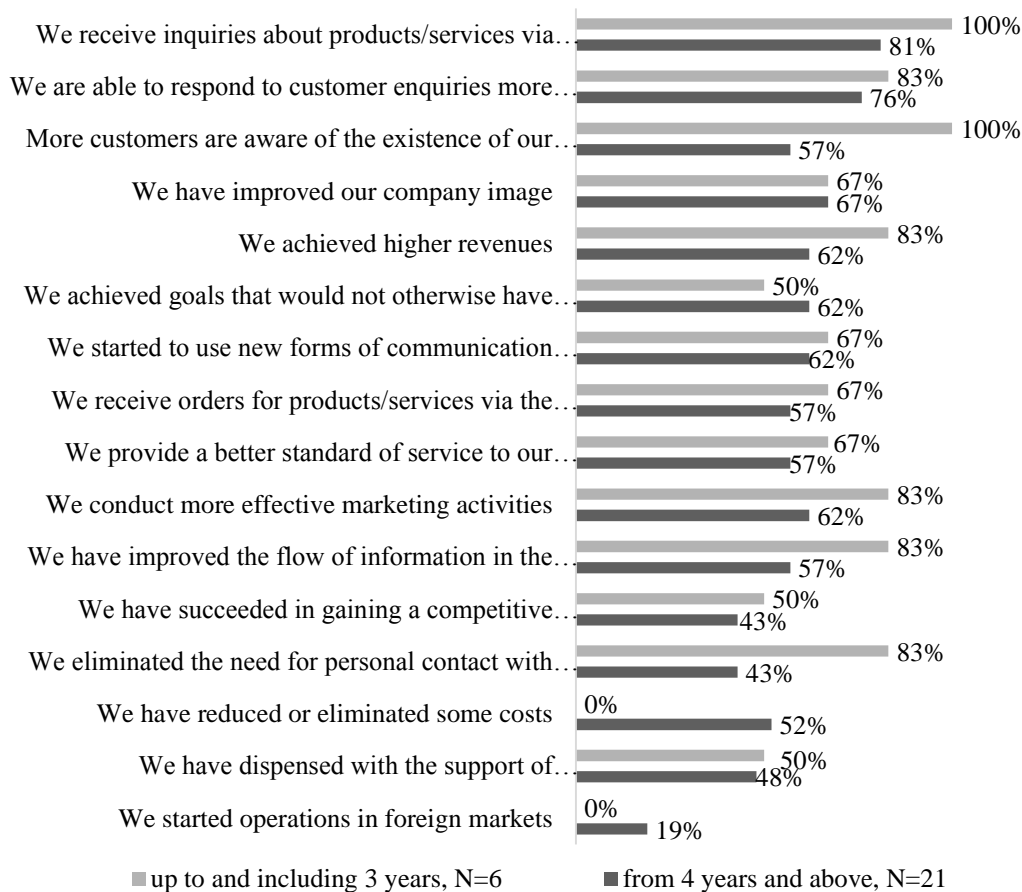


Figure 3. Effects obtained by small enterprises through the use of the Internet divided by the age of the enterprises.

Source: own elaboration.

Subsequently, respondents were asked whether the COVID-19 pandemic had increased the use of the Internet in the company's activities. A positive response was given by 15 of them. Most enterprises have introduced activities that are new to them, such as remote working, video conferencing and online advertising. The next question related to enterprises' intentions to expand their use of the Internet. It was addressed to all respondents, regardless of whether they use the Internet or not (N=30). The responses are shown in Figure 4.



Figure 4. Enterprises' intentions to expand their activities via the Internet.

Source: own elaboration.

Respondents relate the future to Internet entrepreneurship, with the vast majority planning to develop activities in this area – 26 people gave a positive response.

6. Conclusions

Small enterprises use the Internet and simple, generally available Internet tools in their activities. The information obtained during the research provides a positive assessment of entrepreneurs' intentions in the area of digitalisation. There is a general agreement that many tasks can be performed more efficiently and effectively thanks to the opportunities ICT provides. The Internet is growing in number of users every year and is constantly creating new and realisable business opportunities. In the hands of competent entrepreneurs, it can be a powerful tool. The survey did not ask about the extent to which units were prepared for the development of Internet entrepreneurship in terms of organisation, technology and competence. These are the directions of further scientific research of the authors. The respondents' answers on the tools used and the results obtained show that enterprises mainly use tools that do not require specialised knowledge.

The results presented here have some limitations due to the pilot nature of the study, non-random sampling and small number of respondents. However, some recommendations can be made. Primarily, the focus should be on strengthening digital managerial competencies. Knowing how ICT can improve existing processes and tasks is now essential. In a small business, it is often not possible – or even necessary – to employ specialists such as IT experts, analysts or programmers. It is possible to use the outsourcing of IT services effectively. Strengthening Internet entrepreneurship can be done by applying for European Union funding for the computerisation of SME enterprises. Another opportunity that small business representatives can take advantage of is to collaborate with universities that teach and conduct research in computer science, digital technologies, artificial intelligence, etc. Students in internships and dissertations under the guidance of experienced researchers and practitioners can provide significant support for digitisation processes.

Small business may need a radical transformation to operate effectively in the evolving digital economy. Virtual reality is constantly creating new opportunities through the emergence of innovative digital technologies and infrastructure. In addition to opening up new opportunities for entrepreneurs, digitisation has a wider impact on value creation and capture (Nambisan et al., 2019). According to P. Kubisiak, the challenges facing today's entrepreneurs are extremely difficult. However, they constantly require the search for new strategies and the introduction of changes, significantly impeding their functioning. Those who are able to build value in these unpredictable and volatile conditions, however, achieve high levels of leadership, management and strategic mastery (Kubisiak, 2023).

References

1. Anim-Yeboah, S., Boateng, R., Kolog, E.A., Owusu, A., Bedi, I. (2020). Digital Entrepreneurship in Business Enterprises: A Systematic Review. In: M. Hattingh, M. Matthee, H. Smuts, I. Pappas, Y. Dwivedi, M. Mäntymäki (Eds.), *Responsible Design, Implementation and Use of Information and Communication Technology I3E 2020. Lecture Notes in Computer Science*, vol. 12066 (pp. 192-203). doi: 10.1007/978-3-030-44999-5_16.
2. Bank Pekao (2018). *Raport o sytuacji mikro i małych firm w roku 2017. Temat specjalny: Technologie cyfrowe w mikro i małych firmach*. Warszawa: Bank Pekao SA.
3. Bednarczyk, M., Najda-Janoszka, M., Koper, S. (2019). *E-przedsiębiorczość. Zasady i praktyka*. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego.
4. Czakon, W. (2014). Kryteria oceny rygoru metodologicznego badań w naukach o zarządzaniu. *Organizacja i Kierowanie*, Nr 1/214, pp. 51-62.
5. Davidson, E., Vaast, E. (2010). *Digital Entrepreneurship and Its Sociomaterial Enactment*. 43rd Hawaii International Conference on System Sciences, pp. 1-10. doi: 10.1109/HICSS.2010.150.
6. European Commission (2013). *ENTR/E4-Fuelling Digital Entrepreneurship in Europe*. Retrieved from: http://www.catedraempredoria.udl.cat/sites/default/files/digital_entrepreneurship.pdf, 13.07.2023.
7. European Commission (2022). *Digital Economy and Society Index (DESI) 2022*. Retrieved from: <https://digital-strategy.ec.europa.eu/en/library/digital-economy-and-society-index-desi-2022>, 13.07.2023.
8. Glinka, B., Gudkova, S. (2011). *Przedsiębiorczość*. Warszawa: Wolters Kluwer Polska.
9. Hull, C.E., Hung, Y.T.C., Hair, N., Perotti, V., DeMartino, R. (2007). Taking advantage of digital opportunities: A typology of digital entrepreneurship. *International Journal of Networking and Virtual Organisations*, 4(3), p. 290. doi: 10.1504/IJNVO.2007.015166.
10. Kollmann, T. (2006). What is e-entrepreneurship? Fundamentals of company founding in the net economy. *International Journal of Technology Management*, 33(4), pp. 322-340. doi: 10.1504/IJTM.2006.009247.
11. Kollmann, T., Kleine-Stegemann, L., de Cruppe, K., Then-Bergh, C. (2022). Eras of Digital Entrepreneurship. Connecting the Past, Present, and Future. *Business & Information Systems Engineering*, 64(1), pp. 15-31. doi: 10.1007/s12599-021-00728-6.
12. Kraus, S., Palmer, C., Kailer, N., Kallinger, F., Spitzer, J. (2019). Digital entrepreneurship A research agenda on new business models for the twenty-first century. *International Journal of Entrepreneurial Behavior & Research*, 25(2), pp. 353-375. doi: 10.1108/IJEBR-06-2018-0425.

13. Kubisiak, P. (2023). Nieustanne poszukiwanie drogi. *MIT Sloan. Management Review Polska, No. 18*, p. 2.
14. Le Dinh, T., Vu, M.C., Ayayi, A. (2018). Towards a living lab for promoting the digital entrepreneurship process. *International Journal of Entrepreneurship, 22(1)*, pp. 1-17.
15. Lewandowski, J., Tomczak, J. (2017). Nowoczesne technologie ICT szansą na rozwój mikroprzedsiębiorstw. *Zeszyty Naukowe Politechniki Łódzkiej. Organizacja i Zarządzanie, No. 1217(68)*, pp. 123-140.
16. Malara, Z. (2006). *Przedsiębiorstwo w globalnej gospodarce. Wyzwania współczesności*. Warszawa: PWN.
17. Mieszajkina, E. (2018). *Zarządzanie przedsiębiorcze w małych firmach*. Lublin: Wydawnictwo Politechniki Lubelskiej.
18. Mieszajkina, E. (2020). *Współczesne trendy w zarządzaniu małymi przedsiębiorstwami*. Lublin: Wydawnictwo Politechniki Lubelskiej.
19. Mieszajkina, E., Myśliwiecka, A. (2022). Digital activity of polish small enterprises. *Scientific Papers of Silesian University of Technology. Organization and Management Series, Vol. 166*, pp. 565-579. doi: 10.29119/1641-3466.2022.166.36.
20. Nambisan, S., Wright, M., Feldman, M. (2019). The digital transformation of innovation and entrepreneurship: progress, challenges and key themes. *Research Policy, Vol. 48, Iss. 8*. doi: 10.1016/j.respol.2019.03.018.
21. Orłowska, R., Żołądkiewicz, K. (2018). Ograniczenia digitalizacji mikro-, małych i średnich przedsiębiorstw (MMŚP) w Polsce na podstawie badań w województwie pomorskim. *Studia Ekonomiczne. Zeszyty Naukowe Uniwersytetu Ekonomicznego w Katowicach, No. 372*, pp. 94-109.
22. Romanowska, M., Cylwik, A. (Eds.) (2004). *Leksykon zarządzania*. Warszawa: Difin.
23. Roslan-Karaś, A., Wasilczuk, J.E. (2015). Przedsiębiorczość internetowa w blogosferze, *Zeszyty naukowe Uniwersytetu Szczecińskiego. Ekonomiczne problemy usług, No. 116*, pp. 149-150.
24. Skowrońska, A., Tarnawa, A. (2022). *Raport o stanie sektora małych i średnich przedsiębiorstw w Polsce*. Warszawa: PARP.
25. Ustawa z dnia 2 lipca 2004 r. o swobodzie działalności gospodarczej (Dz.U. 2004, nr 173, poz. 1807).
26. Zhao, F., Collier, A. (2016). *Digital Entrepreneurship: Research and Practice*. 9th Annual Conference of the EuroMed Academy of Business, pp. 2173-2182.