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Startups: the Global Context of Functioning and the Need for Innovation Openness

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ABSTRACT

Objective: The presented work is part of the discussions on evaluating the organizational surroundings, which, in the context of an increasingly globalizing world, is becoming regarded from a global perspective. Considerations of the environmental perception are supported with reflections on innovation and, in particular, startups' innovation. Businesses, which are characterized by the ambition of dynamic scalability, are able to accomplish this dynamism precisely through innovative intensity, which in turn can also be associated with openness to knowledge and solutions coming from the surroundings, not only the closest – local or regional but also international or even global. Striving to develop toward smart enterprises, startups should concentrate on the digitalization of their processes, entering the path of Industry 4.0. The purpose of the work is to contribute to the perception of the environment by startups and the perception of open innovation.



Methodology: In order to meet the objectives of the work, in addition to considerations based on the existing results available in the literature, the results of an analysis of data from a questionnaire survey conducted among future start-ups were also used. To achieve the objectives of the study, research questions were formulated referring to the general view of future innovation openness, then the view of the propensity to share knowledge, that is, openness from the enterprise side, and finally also the view of the need for openness of the organization at different stages of its development. In the context of organizational openness, the broadest geographically possible context of the organization's environment, namely the global context, was also considered.

Findings: As a result of the analysis, a relationship emerged between perceptions of innovative openness and the global environment of companies. The greater geographical scope of operations is accompanied by a higher demand for innovation, the more globally the enterprises would like to operate, the more innovation intensive they should be. Future entrepreneurs are strong advocates of open innovation, and they are also strong advocates of viewing the environment in an increasingly global dimension.

Key words: openness, globalization, competitiveness, innovation, entrepreneurship, start-ups, Industry 4.0

Introduction

The accompanying processes lead to the unification of the image of the world as a homogeneous entirety, where a combination of an economic element and a common consumer-type culture takes place. As a result of globalization, territorial boundaries lose their importance, and the trends that facilitate the process occur outside the framework of nation-states. The practical expression of globalization of the economy are the economic changes and trends in the supply of world trade, the realization of foreign direct investment, the increase

in the number of corporations and their shares or subsidiaries in the world. Among the characteristics of globalization, what may be identified are, among others, the need for continuous observation of the surroundings and continuous re-thinking of the organizational strategy, the need for operational internationalization, diagnosis of organization's competitive capabilities and the need to search for new tools for building competitiveness on a global market.

The continuous, progressive development of globalization, which is distinctively perceived by the consumer and, from the point of view of organizations, represents both opportunities for greater access to consumers and the risk of greater external competition, brings not only modifications in the form of understanding and perception of the environment. When defining the environment from the perspective of an organization, the main focus is on other organizations that create this environment. With increasing globalization, less importance is ascribed to the element of territoriality which, among other things, is the result of the impact of one of the determinants of globalization, that of digitization. The increase in the level of globalization, resulting mainly from intensifying technological processes (Borowiecki & Siuta-Tokarska, 2016), has an ever greater impact on the functioning of modern economic organizations, which seems to be related to the more global context of perception of the organization's environment. Thus, as a result of globalization, territorial boundaries are losing their previous meaning (Kusio, 2016) and the distant environment, thus also acquires a new significance, especially bearing in mind that globalization processes affect the directions of the organization's activities (Nogalski & Niewiadomski, 2014). Thus, it may be justifiable to conclude that it is increasingly necessary to look at the functioning and effects of business-oriented and non-business-oriented organizations from the perspective of globalization (Kusio, 2016). At the same time, the environment is a determinant of development for organizations (Chojnicki, 1999). The definition of the environment, which, from the point of view of the most common classification, is divided into internal and external, and closer and further away, has also begun to undergo some terminological modification. In the territorial context, as Scholte (2006), points out, supraterritoriality should be identified, within which social relations should be largely transferred beyond the territorial space. Place ceases, thus, to be territorially bound. The perception

of the environment is determined by the progressive globalization processes, which increasingly causes it to be recognized in broad terms, not only local or even regional but supra-local and supra-regional.

The environment is also understood as the collective of organizations with which an organization interacts (Olesiński, 2014). The organization, in the subjective approach, in the science of organization and management, is defined as a certain separate entity, often with a specific legal status like a company or a bank, a school a hospital, a theater (Olesiński, 2014). The quality of inter-organizational relations, as well as the quality of functioning of organizations, is determined by the behavior of the managers of these very organizations. In the era of globalization, the formation of inter-organizational relations is, as a rule, supra-local, supra-regional, and even supra-national. Besides, sometimes, supra-national cooperation is a prerequisite for the existence of a cooperation in order to achieve particular tasks (knowledge and technology transfer)(Gross-Gołacka et al., 2021). The stronger the need to intensify inter-organizational relations, and at the supra-local or supranational level, the more important are the knowledge, skills, and competencies of the people who make up a given organization. The creativity of managers and animators of inter-organizational cooperation is determined by their entrepreneurial inclinations and attitudes, which are noticeable both in international profit-oriented and not-for-profit organizations.

An interesting context of the environment is also outlined by Borowiecki & Siuta-Tokarska (2016) in which the global environment is formed through three key factors – natural, economic, and human capitals. What the authors also point out in the context of globalization is the growing importance of the financial sector, which demonstrates an overarching role in relation to the economic sector, as well as the need to discuss sustainable development, which reveals dependencies with globalization.

Changes in the environment, therefore, which, in accordance with the dynamics of globalization (Rzepka, 2013), also involve, with greater or lesser intensification, changes in the organizations, are associated with the need to increasingly adapt to the evolving patterns of consumer behavior, growing and changing needs in this regard, which the literature (Schumpeter, 1943) defines as

innovation. However, it can be concluded, at the same time, that there is a feedback loop between globalization and innovation, and innovation itself is also strongly evolving, which is reflected in the current generation of open innovation. The rationale of the open innovation model, under which a higher level of efficiency in the creation and implementation of innovations is achieved when relying on external sources rather than intra-organizational sources (Chesborough, 2003), seems to be confirmed more and more, and additionally, this model is evolving (Sopińska & Diurski, 2019). Given the continuing evolution of innovation, or rather, evolution in relation to open innovation, what still seems to be the subject of a cognitive gap, the question is to what extent the current and future organizations will be open in terms of innovation (Rzepka, 2019). Open innovation can be exemplified as the uptake of data streams that reach the organization is also produced by it and can be shared by it – what level of openness the organization is willing to accept as a level beneficial to its development.

The issue of perception of the environment by the current and future entrepreneurs is an interesting subject of consideration, taking into account the imperative of change, the imperative of innovation, that is, management through the prism of the dynamics of intensification of the introduction of innovative (Rzepka, 2018) solutions in the organization in the subject not only of products, but also of processes and organization of work that occur in the organization (Kusio, 2019).

Analysis of the environment, or environmental analysis, in the context of seeking directions for innovation development (Filipowicz, 2013) is linked to the creation of a model of regional pro-innovation policy in the 1990s. It is also related to the development of the new technology sector, as well as the attraction of globally operating companies and the stimulation of spin-offs. What is, therefore, important from a management perspective and, at the same time, stands as the first research question is the extent to which an organization is ready to share information, data, i.e., media, and knowledge, i.e., already processed data (RQ1). In turn, bearing in mind high-tech startups, as well as techno-starters, among others, in academia – an interesting cognitive issue, which creates the second research question, is how the potential future entrepreneurs perceive the issue of open innovation and the level of organizational openness,

among others, at the very beginning of operations, but also in the acceleration phase, the adjustment of the organization (RQ2).

Striving to develop toward smart enterprises may be composed of:

- 1.** Investing in digital infrastructure (Miśkiewicz et al., 2021): Startups should invest in digital infrastructure, such as cloud computing, artificial intelligence, and the Internet of Things (Jędrych et al., 2021), to improve their operations and increase efficiency.
- 2.** Utilizing data analytics: Startups should use data analytics to gain insights into customer behavior (Turulja & Bajgoric, 2019), market trends, and other key metrics. This will help them make better decisions and stay ahead of the competition.
- 3.** Automating processes: Startups should automate processes (Borowski, 2021) wherever possible to reduce manual labor and increase efficiency. This will also help them save costs and increase profits.
- 4.** Developing smart products: Startups should develop smart products that are connected to the internet and can be controlled remotely. This will allow them to provide better customer service and improve customer experience.
- 5.** Leveraging AI and machine learning: Startups should leverage AI (Borowski, 2020) and machine learning to automate tasks and improve decision making. This will help them stay ahead of the competition and increase their competitive advantage (Rzepka & Sabat, 2022).

Embracing digital transformation (Jędrych et al., 2022): Startups should embrace digital transformation and use it to create innovative solutions (Miśkiewicz, 2020) and products. This will help them stay ahead of the curve and remain competitive.

In order to gain knowledge (Kraus et al., 2019a) in the indicated area, and thus with a view to partially fill the cognitive gap, a literature analysis supported by the results of the empirical study will be carried out. The construction of the model of considerations thus outlined in this paper consists of a section on the literature review, followed by a description of how the empirical study

was carried out and the presentation of its results accompanied by an interpretation of the data. As a result of the study, conclusions and implications for further considerations will be drawn.

Literature Review

Globalization, according to the EU definition, is the process of creating interdependence of markets and production of countries around the world. The tightening interdependence of markets and production results from the increasing dynamics of the exchange of goods, services, and the flow of capital and technology (Economic Report, 1998). As a result of the process of dynamizing the interdependence of markets and production in the world, the very concept of the world economy has lost its previous meaning in which the autonomous economies of individual countries co-created the overall world economy. As a result of the globalization processes, which refer to the growing interdependence of markets and production, the world economy is emerging as a system of integrated goods, services and financial markets (Bogdanienko, 2006). Under the interdependence of markets, companies are shifting their strategies in a global direction. This means locating new companies in other countries which is facilitated by the openness of markets and technological advances. The diffusion of business in a global context is due to the advantages associated with the possibility of lowering production costs, or the possibility of increasing sales. Formal issues related to this are of lesser importance, which has a dynamic effect on the processes of globalizing the strategy of business operations (Liberska, 2002). The current business environment is therefore determined by global conditions, which are characterized by, among other things, so-called hypercompetition (Otola, 2013). It forces companies to make quick decisions and imposes dynamic modification of their operations, and the source of competitive advantage are competence resources. In turn, gaining competitive advantage is achieved through continuous innovation, which these resources are responsible for creating and implementing,

establishing a series of temporary advantages (Bratnicki, 2001). Hypercompetition, the postulates of which are closely related to the need and logic of innovative intensity, is an important factor in the construction of current strategies for the functioning of enterprises. It is related to the perception of the leading role of the dynamics of environmental change, which causes the need for dynamic adaptability of enterprises (Klimek, 2020). Large and small enterprises should strive to meet the demands of adaptive dynamics. Adaptive dynamics is a factor that determines the competitive strength of small enterprises, where this process occurs easier. It seems that the dynamics of change increasingly determines not only the operating strategies of enterprises, but also affects the decisions of establishing new enterprises. An example of this is intrapreneurship is the process of setting up businesses by existing employees.

The requirements of competitiveness and even hyper-competitiveness pose for all enterprises, regardless of their size, the need to redefine the boundaries of the enterprise organization system toward its flexibility (Bettis, 1995), the increased importance of learning, the ability to respond quickly and strategically to new situations in the environment. The environment of an enterprise, or more broadly of an organization, is defined by such attributes as uncertainty, volatility, complexity, and hostility. Some authors treat volatility, complexity, and hostility as attributes of uncertainty (Pichlak, 2014). Changes in the environment occur dynamically and require dynamic adaptability – they are unstoppable – therefore, in the strategies of enterprises, it becomes important to take advantage of the phenomenon of the dynamics of change, as recognized by Chesbrough (2002), and Borowiecki and Siuta-Tokarska (2012), point to the necessity of a change imperative. According to the concept of the change imperative (Borowiecki, 2015), innovation is a *sine qua non* for the process of functioning of an organization at every stage of its development. Applying the need for innovation to not only for-profit but also not-for-profit organizations is linked to the issue of management universalism (Kusio, 2019). The need for organizational change leading to the increase of economic effectiveness refers to all organizations: SMEs, large enterprises, NGOs and other not-for-profit entities, such as social economy entities (Borowiecki & Siuta-Tokarska, 2012).

Only by defining and considering the environment in the quoted categories can one consider the innovativeness of an organization, i.e., the propensity to implement innovative solutions, the ability to implement them, and the readiness to bear the associated risks (Pichlak, 2014). The urge for dynamism in the adaptability of enterprises directly relates to the dynamics of the development of globalization, while the observed phenomena point to the imperative of innovation, which arises not only from the need but also from the necessity to adapt to changes in the environment.

The company's adaptive measures to changes in the operating environment refer to the behavior of employees who, by undertaking adjustment actions, strive to bring the company into a state of equilibrium with the business surroundings (Skonieczny, 2001). A significant role in global governance, moreover, is attributed to managers (Mączka, 2003). A highly innovative organization should have more numerous and detailed work standards than an organization with an organic organizational structure. The results of the study of Hopej-Kamińska and Hopej (2008) indicate that organizational hierarchy can benefit and positively build the organizational learning. It occurs when, the main role of superiors, among others, is to inspire the creativity of subordinates. The above statement can be followed up with the possibility that leaders who build pillars of organizational learning in their leadership culture can build the creativity of subordinates, regardless of whether it is a similar behavior of their main role in the organization. In small organizations, relationships between employees should be found to be less formal compared to large corporations. Transnational corporations, i.e., those businesses in which global operating strategies have become effective and efficient, and which have succeeded in gaining the desired share in the markets of individual countries, as well as locating production cost-effectively in accordance with the financial cost logic, have a great competitive strength, especially toward local small businesses (Liberska, 2002). In contrast, from the point of view of the dynamics of adaptability, large companies may be behind in this regard, compared to small companies, which can take advantage of these dynamics competitively.

From the viewpoint of the recipient of products and services, globalization is associated with the homogenization of certain segments of commodity

markets, the unification of consumer tastes, needs, and demands. This is the result of a growing number of alliances, mergers, and acquisitions, as well as foreign direct investment (Bogdanienko, 2006). This may have the effect of creating a similarity situation between key success factors on most global markets. This applies to both large and small enterprises striving for market success. The boundary in understanding the success of a business operation has shifted – from the concept of profit orientation to the concept of value orientation underlying the theory of stakeholders (representing the neighborhood) and the theory of corporate social responsibility. The development of stakeholder value also involves both internal and external stakeholders, who thus determine the internal and external environment. External stakeholders include, among others, business partners, customers, and end users of products, who are a valuable source of explicit information (comments, remarks), but also implicit information resulting from observations of product application in practice and product adaptations introduced unconsciously (Pralhad & Ramaswamy, 2004). Prosumerism, i.e., the participation of consumers in the creation of the concept of value for the organization should be considered an essential factor of innovation in the organization but also a determinant of the possibility of market success.

Enabling small businesses to compete on markets around the world has been made possible by recent advances in manufacturing, telecommunications, and transportation (Etemad & Wright, 2003). Due to the intrusion of large global corporations into local domestic markets, competition with them by small businesses has become an everyday reality; moreover, the very nature of intensified competition on domestic markets has changed the reality of competing. Small businesses, thus, face global competition when competing with locally operating subsidiaries of global companies.

Companies that are younger may have a higher propensity to enter international markets, not least because new techno-starters are pioneering cutting-edge product development and innovation. Intense innovation is required to compete successfully in a global environment (Etemad & Wright, 2003). In addition to their propensity to enter international markets, SMEs should also be considered pioneers in bringing new products to market. Opinions can be

encountered regarding the leading role of SMEs in introducing new, innovative products and services to markets (Soczewska, 2002). The innovation success of small companies that have used an open model including a prosumer model is represented by the example of Amazon (Chesborough, 2011), currently a global corporation. This company, by introducing open services innovation, gained the ability to source free information from customers on the level of product acceptance, including services, which were offered on the corporate platform. Currently, a similar mode of collecting customer feedback is largely spread globally. There are also automated mechanisms in place to facilitate feedback on products, their features, the purchase process, post-purchase, even warranty. Automation is accompanied by additional mechanisms not only to facilitate reviews but also to reward them.

The example of Amazon, as one of the first companies to make such extensive use of prosumerism to intensify innovation processes, underscores the importance of the global context, mainly the participation of customers from around the world in the co-creation of the value concept. Consumers, as external stakeholders, through their contribution to the creation of the value concept, among other products, acquire the characteristics of internal stakeholders, acting for the benefit of the organization whether profit-oriented or not. In addition, prosumerism is characterized by a large share of the human factor in the creation of the value concept. Subsequently, adequate information management appears to be important.

Information management performs a crucial role in the process of organization management. Adequate process of information gathering and, first of all, the identification of proper and reliable sources of information are the very important elements of this information management system. As the organization possesses the mission and vision of its operations, it is important to adequately refer the information processed to these very objectives of the organization. One of the features of the information management is the dynamics of the interactions of the elements of the information system. The quicker the sources are identified and then information processed as valuable, the quicker the decision may be taken. Therefore, this dynamics is important and instruments which may lead to the dynamics increase are valuable too. The information management system

consists of technical tools and is operated by the people, who also design and operate the system. People very often create the system and people deliver the information to the organization. The importance of information is growing and it is also possible to see the increasing importance of information processing efficiency. Primarily, it is a matter of getting to both explicit and implicit information.

Major factors having a strong impact on innovative openness include the development of mechanisms for searching (Trantapoulos et al., 2017), among others, for sources of ideas and sources of funding (crowdsourcing, crowd-funding). The mechanisms mentioned involve sources shared by communities, particularly online communities. This further indicates the great potential and ever-increasing impact of digitization on the processes of sharing and acquiring information. The Fourth Industrial Revolution, the beginning of which is dated to year 2000 (Górka et al., 2020) is characterized by data evolution (Big Data Management), data systems with cyber physical characteristics, and smart factories, manufacturing sites, among others. Systems of high-speed wireless Internet access, the Internet of things, autonomous cars not requiring the presence and supervision of a driver are being introduced, and, in a personal context, there is the emergence and development of social media. Important consequences that can be considered as a result of the development of the above include industrialization programs, personalization of products and services, but also a strong focus on services. Access to companies and their product offerings is facilitated, precisely because of digitalization and the ubiquitous Internet. Artificial intelligence (Sharp et al., 2019) is recognized as one of the controversial socio-economic consequences of the Fourth Industrial Revolution. A particularly interesting issue is the impact of the Fourth Industrial Revolution on the development of non-urbanized areas, which can be considered significant. Due to the opportunities provided by the Internet, digital access to the range of products that are produced by agricultural producers can be facilitated. However, the examples of family businesses in rural areas are not widespread enough to discuss the full use of the opportunities created by the Fourth Industrial Revolution.

In the era of disseminating intensification of digitalization processes, it is also possible to see significant changes in communication systems. While in the previous understanding of communication, the role of the human has

always been prominent, in the era of the Fourth Industrial Revolution, a new dimension of communication is emerging, namely machine-to-machine. Both the sender and the receiver of the message in a face-to-face context become a machine and not just a computer. It should be clarified that in the definition of the Internet of Things, access to a global digital communication network refers not only to computers but to an increasingly wide and growing spectrum of devices. Among them, cell phones or rather personal miniature computers for digital communication, including audio and visual, are considered the most common. Naturally, the leading source of communication is a human being, but the role of machines in the communication process has increased significantly. Remarkably, digitalization continues to advance, which authorizes the statement that to an even greater extent the importance of the Internet of things, communication, and digitalization will affect the processes of globalization and the dynamics of open innovation.

Materials and Methods

Apart from the introductory literature analysis, the survey method has been applied for this study (Singleton & Straits, 1999). The research questionnaire was entitled “Scaling up by means of innovative solutions.” It was sent to an 82-person group of people aged 20–25, interested in issues of entrepreneurial development. Of those invited to participate in the study, 75 correctly completed the questionnaire, answering the questions posed. All questions in the questionnaire were closed questions. The choice of this method appeared sufficient to collect standardized data and the necessary info (Rukuni & Maziriri, 2020).

The form contained 19 questions, 17 of which were based on a 5-point Likert scale (1-completely disagree, 5-fully agree). The topics the respondents were asked about covered four basic blocks:

- creation of new innovative concepts,
- openness of the organization to cooperation with other entities,

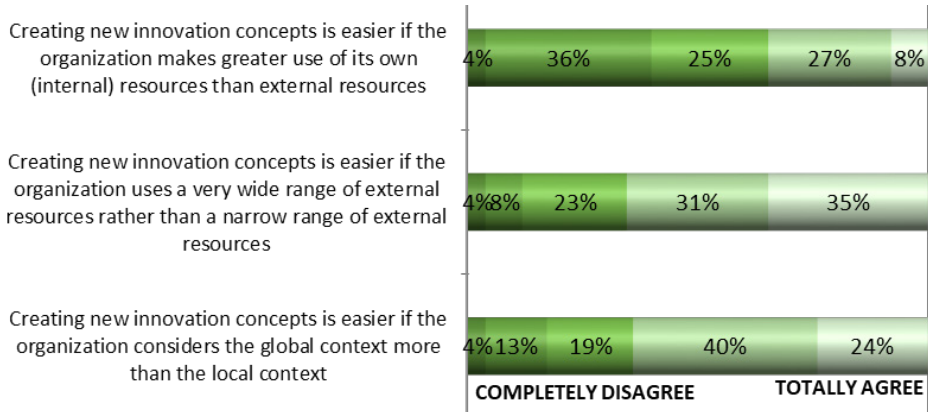
- management of own resources at different stages of the enterprise's operation (1 question without the Likert scale, indicating at which stage of development the enterprise should/or should not be more willing to provide its own resources),
- inborn entrepreneurship vs. learned entrepreneurship (1 question on a 10-point scale, where 1 meant the view of “born entrepreneur” and 10 meant the view of “learned entrepreneur”).

As for the results of the responses to the question on the ability to acquire pre-entrepreneurial skills, they were not considered for the purposes of this study. The choice of the target group was the result of the interests indicated by these people, namely the voluntary application for a course on startup development. The survey was implemented between October 19–27, 2021 and as a result, 75 correct answers were obtained. The questionnaire did not ask about the gender of the respondents, as there was no research intention to consider the results of the survey depending on this factor.

Research Results

Responding to questions about whether the organization needs to use its own internal resources to a greater extent in conceptualizing new innovative ideas, the answers are inconclusive, but most respondents tend to answer in the negative (Figure 1).

Figure 1. Opinion on the use of internal resources to conceptualize new ideas



Source: own elaboration.

Thus, using more of one’s own resources is not at all considered an effective formula for creating innovative solutions. The view presented by young people who express an orientation towards entrepreneurial behavior may be an expression of their understanding of the limitation of the innovative capacity of small and even micro-enterprises. Despite the fact that the creation of an innovative startup, by its very nature, is the implementation of an innovative solution, the process of developing new concepts may not be an easy one, in the implementation of which their own resources, such as human, intellectual, among others, could be entirely sufficient.

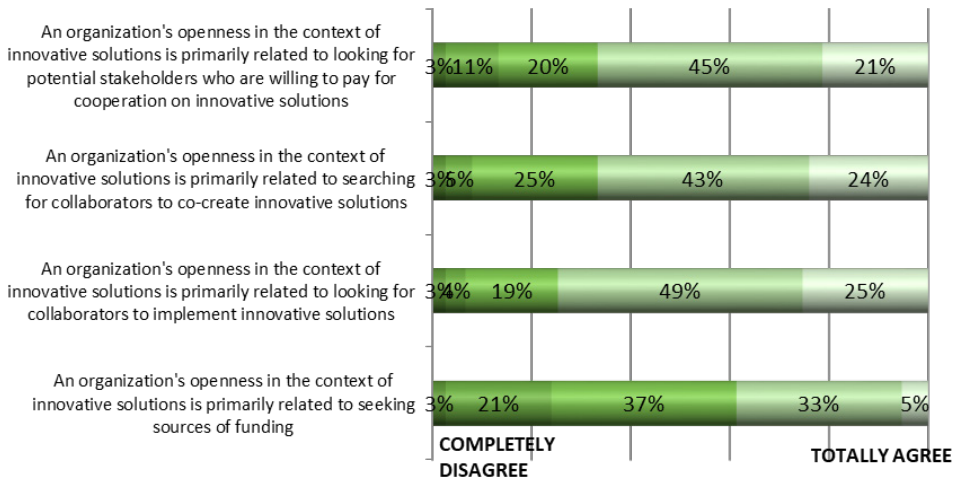
Another issue is the question of financing innovation, which for small companies is often an insurmountable barrier, which clearly indicates the need to reach for external financial resources.

A far more polarized view emerges from an analysis of answers to the question on the broad scope of external sources in conceptualizing new innovative ideas. As many as 66% of definitely yes and yes answers were indicated by those questioned in response to the legitimacy of using the broadest possible external source base. Interviewees thus perceive a positive dimension to broad cooperation with external partners. Very similar indications apply to the view of the global context when it comes to sources of innovative ideas. The results of our research prove that the global context is more important than the local

context, as it found supporters in 64% (Figure 3). In contrast, strong opposition to this view, as well as weaker negation, was indicated by a total of 17% compared to 12% of respondents in the context of comparing the broad AND narrow external context of information sources for innovation creation. The data in Figure 1 provide a very clear indication of the perception of the need for external cooperation as broad as possible in the case of innovation activities. Moreover, a clear global context is perceived, which may indicate the need to go beyond the local environment in the case of building an organization’s competitive strength.

Another interesting finding in the context of innovation is the openness of the organization. When asked whether the organization’s openness in the context of innovation solutions is primarily related to seeking potential cooperators willing to pay to obtain such solutions, the vast majority answered positively (Figure 2) – 66%.

Figure 2. Opinion on openness to cooperation



Source: own elaboration.

Another driver which, according to the respondents (67%), determines innovative openness for the sake of innovation is cooperation, the purpose of which is to jointly develop innovative solutions. To an even greater extent (74%),

the organization’s openness to the neighborhood is required during the implementation phase of innovative solutions. The only driver that received little approval from respondents was the search for funding sources. In this case, positive answers (definitely yes and yes) were expressed by only 31% in contrast to 24% in opposition, and as many as 37% of those with no opinion on the subject. Thus, the search for funding sources for innovative solutions does not necessarily affect the openness of the organization, according to the respondents.

Thus, in the opinion of potential startups, the greatest extent of seeking external support is related to the implementation of innovative solutions, to a lesser extent to the development of such solutions, financial issues alone are not as problematic for respondents.

The next chart (Figure 3) graphically summarizes opinions on the relationship of innovation openness with the organization’s level of maturity, the organization’s level of globalization, and the organization’s size.

Figure 3. Opinions on the relationship of innovation openness with the organization’s level of maturity, the organization’s level of globalization, and the organization’s size



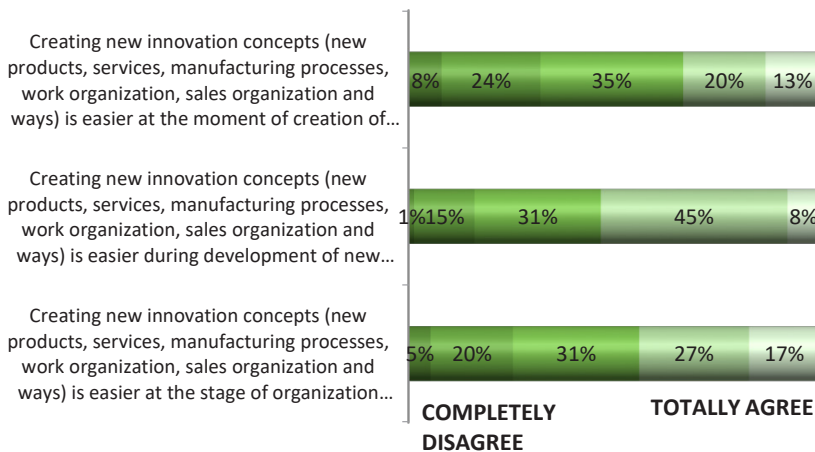
Source: own elaboration.

According to the prospective entrepreneurs, to the greatest extent, this convergence occurs in the second case, i.e., in developing new innovative solutions, then it occurs to the greatest extent the more global the organization is, i.e., the more global the organizational environment is. As many as a total of 60% of respondents indicated such an opinion in their answers. 10% of all responses

were strongly in favor of such an opinion, while 43% agreed less strongly with the relationship in question. Neither the maturity of the organization nor its size, according to the respondents, seems to be related to the openness of the organization in the context of creating new innovative solutions. This is in line with the earlier opinions on the question of how an organization’s own resources and the use of those resources affect its level of innovation (Figure 1).

The next chart (Figure 4) shows a graphical representation of the responses to the question of at what stage of the organization’s development the creation of new, innovative solutions is the easiest.

Figure 4. Respondents’ opinion on the impact of the organization’s development stage on the ease of creating new, innovative solutions

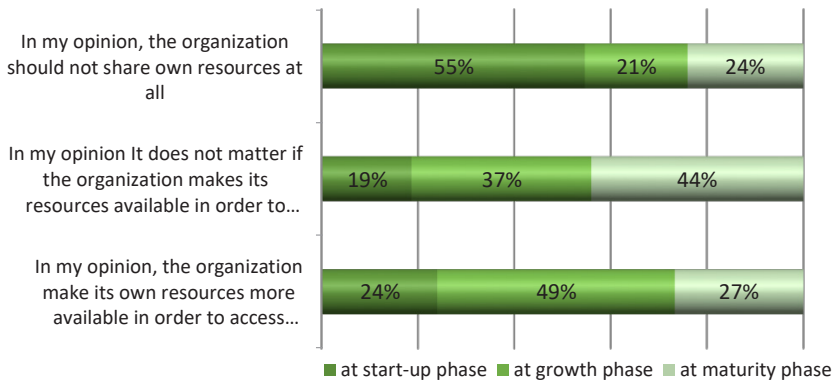


Source: own elaboration.

The respondents considered this phase to be the development stage of the organization (total responses of definitely yes and yes are 53%), followed by the maturity stage of the organization (total affirmative responses of 44%), and finally the phase of the formation of a new business entity (33% of total affirmative responses). Surprisingly, in each of the three phases to which respondents referred to, there is a large and very similar percentage regarding the neutral (hard to say) response – 31 to 35%, which is basically 1/3 of the responses and indicates a lack of knowledge in this area.

Figure 5 shows the respondents' view of innovation openness in the context of making one's own resources available at three stages of an organization's operation: in the formation, development, and maturity stages.

Figure 5. Respondents' view of innovation openness in the context of making own resources available at different stages of the organization's operation



Source: own elaboration.

According to the respondents, as it is shown in Figure 5, the sharing of own resources at the initial stage of the company's functioning, i.e., in the startup phase, should be definitely limited. This is claimed by as many as 55% of the respondents, while 45% believe that there should be no sharing of own resources at all in the later stages of the business, i.e., in the development and maturity phases of the company. It appears that indications of innovation closedness, so to speak, are due to the need to preserve trade secrets, so that the potential imitation of products that will be marketed will be hindered and postponed. 21% of people believe that it is not appropriate to share one's resources at all during the company's development stage, and 24% believe that it is not appropriate to share one's resources at all during the company's maturity stage, i.e., regular operation. For 19% of the respondents, sharing their own resources does not affect the similar practice of other organizations when it comes to the initial stage of operation. 37% have a similar opinion, but with

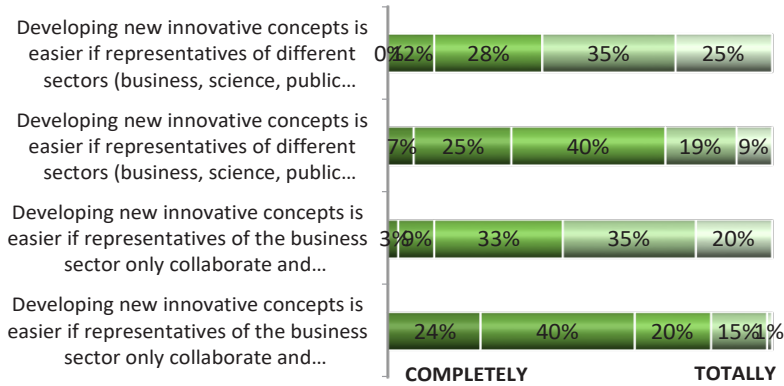
regard to the development phase, and as many as 44% relate this regularity to the maturity phase.

As for the view regarding the recognition of the need to share one's own resources in order to gain access to the resources of other organizations, the highest percentage of responses in this regard relates to the company's development phase (49%), compared to comparable response percentages when it comes to the startup phase – 24% and the maturity phase – 27%. Respondents, therefore, consider as necessary this practice of action aimed at increasing the relational level with other organizations, the high importance in this regard is assigned to the practice of openness of sharing one's own resources.

As for the respondents' opinion of the impact of triple helix and B2B relationships on the emergence and development of innovation concepts, direct communication was considered the most important (Figure 6). This was first within the triple helix (a total of 10%) of affirmative responses, followed by direct B2B relationships (55%). The emergence of innovation concepts is far less influenced by virtual communication, with responses within the triple helix of 28% and within B2B communication of only 16%. Virtual communication was generally rated negatively in terms of its impact on the development of innovation concepts – in the case of triple helix communication, negative responses (definitely no and no) exceeded positive ones at 32%, while within B2B, it was as high as 64% of total negative responses.

It can be concluded that in the formation of innovation concepts, directness effect, face-to-face contact, direct quicker expression of one's own opinions on the proposed solutions that would carry improvement, whether product, process, organizational or marketing. It is also possible to relate the results of the survey to the post-pandemic period, or a period that qualifies as post-pandemic, in which the negative effects of the lack of direct relations have already begun to be felt. Thus, from the point of view of those interested in setting up startups, it is necessary to conduct direct discussions, meetings with both scientific, administrative, public, and business representatives.

Figure 6. Respondents' view of innovation openness in the context of making own resources available at different stages of the organization's operation



Source: own elaboration.

Conclusions

Globalization has led organizations to recognize sales opportunities beyond national borders, and for large companies, this means opportunities to cut costs, access new customers, and diversify risks (Urbański, 2021). Business with a transnational nature, which is identified with the global nature of the company's operations, affects the readiness to change in the event of unfavorable business conditions on one of the markets on which the company operates (Wiśniewska-Placheta, 2015). In addition, access to broader markets also implies an increase in the company's innovation potential (Iqbal & Hameed, 2020).

Changes in markets also help business organizations because of innovation issues (Rzepka, 2023). This is due to the fact that new markets mean new sales opportunities for existing products. Products that are not new on the existing markets can be innovative on the new markets, which means new profits for the companies bringing them in. Therefore, the wider the geographical scope in the context of new markets to which products are introduced, the higher

the level of innovation for the company, even though the product is no longer innovative on its home market. From this point of view, innovation, which is the result of changes in, among other things, the production offer, or the system of provision of the offer, is not only a necessity – an imperative, but also should be subject to appropriate dynamics – innovative intensity. Given that the resources of the organization are often far from sufficient to meet these demands, there is a need to reach for external resources to create innovation concepts and their implementation – open innovation.

Open innovation to a greater extent may be demanded by small enterprises that are in possession of fewer resources including primarily human resources, which are predominantly responsible for the creation of innovation concepts. Nevertheless, the possibility of acquiring external knowledge is also an opportunity for large enterprises to raise the dynamics of innovation. From the point of view of the dynamics of adaptability to changes in the environment, small enterprises have an advantage over large ones. On the other hand, from the point of view of prosumerism (Rzepka et al., 2021), i.e., the participation of stakeholders (mainly customers) in the co-creation of value concepts – large enterprises, by reason of their larger number of customers, find it easier to acquire a greater amount of knowledge – ideas, comments, and suggestions on products, among other things.

Global competition takes place due, among other things, to an increase in the level of homogeneity of markets. Thus, competition from the local or regional level is more easily transferred to other markets, especially when it comes to offering products and services via the Internet (Miśkiewicz, 2019). This also promotes the perception of global competitiveness (Rzepka et al., 2022).

The results of the questionnaire survey show that prospective entrepreneurs rely on external sources in the creation of innovative concepts, both in the broadest possible sense and by perceiving the environment in a global way that is consistent with Ristviej et al. (2017). It shows that the global context is, to some extent, a natural perspective for perceiving opportunities for startups. In addition to a decidedly open-minded approach when it comes to sourcing innovation concepts, the similar nature of respondents' answers concerns

cooperation with external entities. Cooperation in the joint development of solutions, as well as their implementation, is viewed positively, also taking into account the issue of commercial sourcing of solutions, but not with regard to the search for funding. The openness of an organization is equated with its level of globalization. This also provides an answer to the research questions formulated in the introductory section of this paper. In addition, examination of the reflections that other researchers have carried out on the topic in question seems to coincide directly or indirectly with the results of the questionnaire study. This is because what emerges from these two sources of inference is the current state of perception of the functioning of startups.

References

- Bettis, R. A., & Hitt, M. A. (1995).** The New Competitive Landscape. *Strategic Management Journal*, 16, 7–19.
- Bogdanienko, J. (Ed.). (2006).** *Firma w otoczeniu globalnym*. Toruń: Wydawnictwo Dom Organizatora.
- Borowiecki, R. (2015).** *Permanent restructuring of enterprises in terms of challenges of modern economy*. The honoris causa honorary degree for R. Borowiecki lecture. Szczecin: University of Szczecin.
- Borowiecki, R., & Siuta-Tokarska, B. (2012).** *Wyzwania i dylematy społeczno-gospodarcze Polski w procesie transformacji*. Toruń: TNOiK Stowarzyszenie Wyższej Użyteczności Dom Organizatora.
- Borowiecki, R., & Siuta-Tokarska, B. (2016).** Zrównoważony i trwały rozwój wobec postępujących procesów globalizacji. Globalizacja i regionalizacja we współczesnym świecie. *Miscellanea Oeconomicae*, 20(3, 2), 71–81.
- Borowski, P. F. (2021).** Digitization, Digital Twins, Blockchain, and Industry 4.0 as Elements of Management Process in Enterprises in the Energy Sector. *Energies*, 14(7), 1885. DOI: 10.3390/en14071885.
- Borowski, P. F. (2020).** New Technologies and Innovative Solutions in the Development Strategies of Energy Enterprises. *HighTech and Innovation Journal*, 1(2), 39–58.

Bratnicki, M. (2001). Pod znakiem przewag konkurencyjnych. Kilka uwag o tworzeniu strategii organizacji w nowej ekonomii. In M. Moszkowicz (Ed.), *Strategie i konkurencyjność przedsiębiorstw po dziesięciu latach transformacji*. Materiały III Ogólnopolskiej Konferencji Naukowej w Polanicy Zdroju.

Chesbrough, H. W. (2002). Graceful Exits and Foregone Opportunities: Xerox's Management of its Technology Spin-off Companies. *Business History Review*, 76(4), 803–838.

Chesbrough, H. W. (2003). *Open innovation. The new imperative for creating and profiting from technology*. Boston: Harvard Business School Press.

Chesbrough, H. (2011). *Open Services Innovation: Rethinking your Business to Grow and Compete in a New Era*. San Francisco, CA: Jossey-Bass.

Chojnicki, Z. (1999). *Podstawy metodologiczne i teoretyczne geografii ekonomicznej*. Poznań: Bogucki Wyd. Naukowe.

Economic Report for 1997 (1998). European Economy, No. 63. Brussels: European Commission. Belgium.

Etemad, H., & Wright, R. (Eds.) (2003). *Globalization and Entrepreneurship Policy and Strategy Perspective*. Northampton, MA: Edward Elgar Publishing Ltd.

Filipowicz, P. (2013). *Zarządzanie proinnowacyjne technologią w kształtowaniu strategii konkurencyjności przedsiębiorstwa. Aspekty teoretyczne i praktyczne*. Kraków: Wydawnictwa AGH.

Górka, K., Their, A., & Łuszczuk, M. (2020). Consequences of the Fourth Industrial Revolution in Social and Economic Development in the 21st Century. In P. Buła, & B. Nogalski, B. (Eds.), *The Future of Management. Industry 4.0 and Digitalization* (pp. 60–71). Kraków: Wydawnictwo UJ.

Gross-Gołačka, E., Kusterska-Jefmańska, M., Miśkiewicz, R., & Rzepka, A. (2021). The intellectual capital and its Impact on the Sustainable Development of the SML-Sized Enterprises in Poland. *European Research Studies*, XXIV(2B), 410–429.

Hopej-Kamińska, M., & Hopej, M. (2008). Otoczenie organizacji a jej struktura organizacyjna. *Przegląd Organizacji*, 7/8(822/823), 3–5.

Iqbal, J., & Hameed, W.U. (2020). Open Innovation Challenges and Coopetition-Based Open-Innovation, Empirical Evidence From Malaysia. In P. Ordon de Pablas, X. Zhankg, K. T. Chui (Eds.), *Innovative Management and Business Practices in Asia*. Hershey: IGI Global.

Jędrzych, D., Klimek, A., & Rzepka, A. (2021). Principles of Sustainable Management of Energy Companies: The Case of Poland. *Energies*, 14(8), 2042.

- Jędrzych, E., Klimek, D., & Rzepka, A. (2022).** Social Capital in Energy Enterprises: Poland's Case. *Energies*, 15(2), 546. DOI: 10.3390/en15020546.
- Klimek, D. (2020).** Sustainable Enterprise Capital Management. *Economies*, 8(1), 12.
- Kraus, S., Palmer, C., Kailer, N., Kallinger, F. L., & Spitzer, J. (2019).** Digital entrepreneurship: a research agenda on new business models for the twenty-first century. *Int Journal Entrep Behaviour Res*, 25(2), 353–375. DOI: 10.1108/IJEER-06-2018-0425.
- Kusio, T. (2016).** Wyzwania przedsiębiorczości i innowacyjności uczelni w warunkach globalizacji i inteligentnej specjalizacji regionów. *Miscellanea Oeconomicae. Studia i Materiały*, 3, 201–208.
- Kusio, T. (2019).** *Więzi relacyjne uczelni z biznesem*. Kraków: Wydawnictwa AGH.
- Liberska, B. (2002).** Współczesne procesy globalizacji gospodarki światowej. In B. Liberska (Ed.), *Globalizacja. Mechanizmy i wyzwania* (pp. 17–37). Warszawa: PWE.
- Mączka, L. (2003).** *Gospodarka globalna u progu XXI wieku*. Kraków: Wydawnictwo Akademii Ekonomicznej w Krakowie.
- Miśkiewicz, R. (2020).** Efficiency of Electricity Production Technology from Post-Process Gas Heat: Ecological, Economic and Social Benefits. *Energies*, 13, 6106.
- Miśkiewicz, R. (2019).** Industry 4.0 in Poland – selected aspects of its implementation, Scientific papers of Silesian University of Technology 2019. *Organization, and Management*, 136, 403–413. DOI: 10.29119/1641-3466.2019.136.3.
- Miśkiewicz, R., Rzepka, A., Borowiecki, R., & Olesiński, Z. (2021).** Energy Efficiency in the Industry 4.0 Era: Attributes of Teal Organisations. *Energies*, 14(20), 6776.
- Nogalski, B., Niewiadomski P. (2014).** Elastyczność w obliczu wyzwań globalnej gospodarki – kontekst dopasowania rynkowego. In R. Borowiecki, & A. Jaki (Eds.), *Restrukturyzacja w obliczu wyzwań gospodarki globalnej* (pp. 123–138). Kraków: Fundacja UEK.
- Olesiński, Z. (2014).** Paradygmat sieciowy w nauce organizacji i zarządzania. In R. Borowiecki, & T. Rojek (Eds.), *Współczesne formy relacji międzyorganizacyjnych. Współpraca-Kooperacja-Sieci* (pp. 18–42). Kraków: Katedra Organizacji i Ekonomiki Przedsiębiorstw, Fundacja UEK.
- Otoła, J. (2013).** Dynamiczne podejście do strategii w warunkach hiperkonkurencji. In R. Borowiecki, & B. Siuta-Tokarska (Eds.), *Zarządzanie rozwojem współczesnej organizacji. Uwarunkowania. Innowacje. Strategie* (pp. 245–252). Kraków: Uniwersytet Ekonomiczny.
- Pichlak, M. (2014).** Wpływ otoczenia na generowanie i przyjmowanie innowacji w organizacjach. *Przegląd Organizacji*, 5(892), 7–12.

- Prahalad, C. K., & Ramaswamy, V. (2004).** Co-Creating Unique Value with Customers. *Strategy & Leadership*, 32, 4–9.
- Ristviej, J. Sokolová, L., Starackova, J., Ondrejka, R., & Lacinak, M. (2017).** Experiences with Implementation of Information Systems within Preparation to Deal with Crisis Situations in Terms of Crisis Management and Building Resilience in the Slovak Republic. In Proceedings – International Carnahan Conference on Security Technology; ICCST 2017. DOI: 10.1109/CCST.2017.8167821.
- Rukuni, T. F., & Maziriri, E. T. (2020).** Data on Corona-virus Readiness Strategies Influencing Customer Satisfaction and Customer Behavioural Intentions in South African Retail Stores. *Data Brief*, 31, 105818.
- Rzepka, A. (2013).** *Globalisation and global economy in theory and practice*. Saarbrücken: Lap Lambert.
- Rzepka, A. (2018).** Innovative character of the contemporary enterprise and determinants of innovation. In *New Trends in Process Control and production management* (p. 445). CRC Press.
- Rzepka, A. (2019).** Innovation, inter-organizational relation, and co-operation between enterprises in Podkarpacie region in Poland. *Procedia Manufacturing*, 30, 642–649.
- Rzepka, A. (2023).** *Innovation in the Digital Economy New Approaches to Management for Industry 5.0*. London & New York: Routledge.
- Rzepka, A., Maciaszczyk, M., Wiśniewska, A. M., & Kocot, M. (2021).** E-Consumers and their Agile Qualities as Creators of Eco-Innovations: A Case Study. *European Research Studies*, 24(2B), 23–38.
- Rzepka, A., & Sabat, A. (2022).** Knowledge Creation in Teal Organizations. In A. Rzepka, Z. Olesiński, & E. Jędrych, *Self-Management, Entrepreneurial Culture, and Economy 4.0 A Contemporary Approach to Organizational Theory Development* (pp. 184–196). London & New York: Routledge.
- Rzepka, A., Olesiński, Z., & Jędrych, E. (2022).** *Self-Management, Entrepreneurial Culture, and Economy 4.0 A Contemporary Approach to Organizational Theory Development*. London: Routledge.
- Scholte, J. A. (2006).** *Globalizacja. Krytyczne wprowadzenie*. Sosnowiec: Oficyna Wyd. Humanitas.
- Schumpeter, J. (1943).** *Capitalism, Socialism and Democracy*. New York: Harper.

Sharp, R., Lopik, K. V., Neal, A., Goodall, P., Conway, P. P., & West, A. (2019). An industrial evaluation of an Industry 4.0 reference architecture demonstrating the need for the inclusion of security and human components. *Computers in Industry*, *108*, 37–44. DOI: 10.1016/j.compind.2019.02.007.

Singleton, R. A., & Straits, B. C. (1999). *Approaches to Social Research*. Oxford: Oxford University Press.

Skonieczny, J. (2001). Działania adaptacyjne przedsiębiorstwa. *Przegląd Organizacji*, *6*, 13–15.

Soczevska, K. (2002). Tendencje zmian w sektorze małych i średnich przedsiębiorstw w kontekście globalizacji gospodarki. In J. Rymarczyk, & W. Michalczyk (Eds.), *Internacjonalizacja i globalizacja przedsiębiorstwa i gospodarki*, t. 1. Wrocław: WAE im. Oskara Langego we Wrocławiu.

Sopińska A., & Diurski, P. (2019). Motives for Creating Open Innovation in Enterprises operating in Poland. In B. Nogalski, & P. Buła (Eds.), *The Future of Management – Entrepreneurship, Change and Flexibility* (pp. 193–204). Kraków: Jagiellonian University Press.

Turulja, L., & Bajgoric, N. (2019). Innovation, firms' performance and environmental turbulence: is there a moderator or mediator?. *European Journal of Innovation Management*, *22*(1), 213–232. DOI: 10.1108/EJIM-03-2018-0064.

Trantapoulos, K., von Krogh, G., Wallin, M. W., & Woerter, M. (2017). External knowledge and information technology. Implications for process innovation performance. *MIS Quarterly*, *41*(1), 287–300.

Urbański, M. (2021). Ocena postrzegania globalnej strategii przez pracowników dużych przedsiębiorstw. *Przegląd Organizacji*, *3*, 12–19.

Wiśniewska-Placheta, E. (2015). Determinanty gotowości przedsiębiorstwa do zmiany. *Zeszyty Naukowe, Seria: Organizacja i Zarządzanie*, *77*, 249–264.