SILESIAN UNIVERSITY OF TECHNOLOGY PUBLISHING HOUSE

SCIENTIFIC PAPERS OF SILESIAN UNIVERSITY OF TECHNOLOGY 2025
ORGANIZATION AND MANAGEMENT SERIES NO. 216

REASONS FOR IMPLEMENTING INNOVATION ON THE EXAMPLE OF SMALL AND MEDIUM ENTERPRISES

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Purpose: The aim of the article is to determine the factors determining the introduction of innovations in the enterprise, as well as the way the company is perceived as innovative by employees.
Design/methodology/approach: In pursuit of this goal, the first one presents the level of innovation of the Polish economy compared to other European Union countries. Then, the results of research on enterprises from the SME sector are presented. The data show that Poland is one of the least of the literature on the subject and research results, the reasons for implementing innovations in enterprises were indicated
Findings: Most often, the surveyed respondents did not agree or rather disagreed that legal regulations are the reason for introducing innovations in the company (86.7% of responses), followed by reasons such as: "the desire to reduce costs" (48% of responses) and "the desire to increase the company's efficiency" (29.3% of responses). Most often, the respondents did not have an opinion that reasons such as: "forcing innovations by contractors" (61.3%), "market needs" (52.0%) and "the desire to increase the company's efficiency" (51.3%) are the reasons for introducing innovations in the company. Most often, the respondents agreed or rather agreed with reasons for introducing innovations in the company such as: "the desire to increase profits" (80.7%), "expanding the sales market" (80.0%) and "meeting the competition on the market" (69.3%).
Originality/value: Innovation is a tool supporting sustainable development. Only entities operating in a modern and innovative way gain a competitive advantage. The considerations contained in the article concern the perception of the company as innovative by employees and indication of the reasons for implementing innovations. The survey included enterprises representing the group of small and medium-sized enterprises, the so-called SMEs. The article is part of research on innovation in information systems in small and medium-sized enterprises
Keywords: sustainable development, innovation, small and medium-sized enterprises, management.
Category of the paper: research paper.

1. Introduction

In the face of growing environmental and social challenges, enterprise innovation has become a key element of the transformation of the economy towards sustainable development. In this context, small and medium-sized enterprises (SMEs) play a special role as flexible and dynamic economic actors that can introduce environmentally friendly and socially responsible innovations. Innovations are currently considered the driving force of economic changes taking into account the requirements of sustainable development. Their creation and implementation in business entities allows not only for development, but also for maintaining a competitive advantage. Innovation in small and medium-sized enterprises (SMEs) is a key factor in sustainable development that not only supports environmental protection, but also contributes to the competitiveness and long-term success of these companies. Supporting innovation and eliminating barriers can bring benefits to both businesses and society as a whole.

Entities in the micro, small, and medium-sized enterprise (SME) sector make up 99% of all companies in Europe. In Poland, this group is estimated at 99.8% (European Commission, 2024). At the European level, the sector is dominated by micro-enterprises (i.e., companies employing up to ten people), which account for approximately 92.2% of all firms in Europe. On the Polish market, this phenomenon is even more pronounced, as micro-enterprises constitute 96% of all firms (PARP, 2024). Small and medium-sized enterprises employ a significant portion of the workforce and play a key role in this transformation. The development and enhancement of innovation within this sector are crucial not only for gaining a competitive advantage but also for survival in the market.

Therefore, the aim of this research was to answer the following research questions:

1. Is the company innovative?
2. What are the reasons for implementing innovations in the surveyed enterprises, according to respondents?

2. Literature review

The innovativeness of small and medium-sized enterprises (SMEs) in the context of sustainable development is a topic that is gaining importance in entrepreneurship research. It should be emphasized that sustainable development is a complex and multidimensional concept, covering three basic goals: economic, social and ecological, and which can be applied to all entities creating the economy (Leśniak-Łepkowska, 2011, p. 23). This idea applies to all organizations participating in the economic life of a given country. The implementation of the concept of sustainable development by enterprises, according to many researchers, allows them to gain a competitive advantage (Koszel, Weinert, 2013, p. 155; Kabus et.all, 2024).

SMEs are a key part of the economy and their innovation plays an important role in the transformation towards more sustainable business models. The European Union has long been emphasizing the importance of the SME sector and their implementation of innovative solutions. This is manifested in the provisions of subsequent treaties and long-term strategies, in which research and development activities, cooperation between science and business representatives, and ultimately the commercialization of the results of scientific work play a key role. Research shows that SMEs have the potential to introduce innovations that support sustainable development, although they face various challenges. Innovations may include, among others: new technologies, products or processes that reduce the negative impact on the environment while contributing to economic growth (Lukács, 2005).

Many reports on the innovation of EU countries are published in Europe. These include OECD Economic Surveys, Global Competitiveness Report – World Economic Forum. However, for this analysis, the tool will be the most appropriate one called the European Innovation Scoreboard (EIS). It is an annual survey of the level of innovation to which all EU Member States plus Croatia, Serbia, Turkey, Iceland, Norway, Switzerland and the Former Yugoslav Republic of Macedonia are subjected. The current version of the survey allows countries to identify their strengths and weaknesses in terms of innovation. The authors of the EIS use 32 indicators, i.e. key elements contributing to the development of competitiveness and innovation, and they are divided into three main categories:

1. factors enabling innovation (human resources, financial resources);
2. factors showing the “actions of enterprises” and thus their degree of innovation (investments, connections and entrepreneurship, intellectual assets);
3. factors illustrating the impact of innovation on the economy (innovators, economic effects).

Based on the results of the EIS, published in 2023, the 27 EU countries were divided into four groups. Poland ranks below the European Union average and is classified as a "Moderate Innovator". In 2023, Poland maintained this position, recording a result that is around 70-80% of the EU average innovation. Compared to other EU countries, Poland shows strengths in areas such as human resources and ecological innovation, but weaker results in terms of financing and support and the use of digital technologies. In comparison, the innovation leaders in Europe are countries such as Sweden, Finland and Denmark, which belong to the "Innovation Leaders" group (EIS, 2024). However, expanding the international comparison could provide a more comprehensive perspective. Below is an expanded international comparison: countries such as Sweden, Finland, and Denmark consistently rank among the top in the EIS (Rognstad et al., 2024). These nations are characterized by strong investments in research and development robust intellectual property frameworks, and close collaboration between academia and industry. For example (Lee, 2024; Bakker, 2024):

- Sweden: Known for a high percentage of GDP devoted to R&D (around 3.5%), strong public funding, and innovative ecosystems such as Stockholm's tech hub.
- Finland: Strong focus on education and public-private partnerships fosters a culture of innovation, particularly in ICT and green technologies.
- Denmark: Emphasizes clean technology and circular economy solutions, supported by clear policies and funding.
- Poland: Classified as a "Moderate Innovator," Poland's innovation performance is about 70-80% of the EU average. Strengths include human resources and ecological innovation, but weaknesses persist in financing and the use of digital technologies.

Countries like Germany and the Netherlands provide clear examples of how targeted SME support programs, such as subsidies and innovation hubs, can enhance competitiveness. Scandinavian countries exemplify how universities and research institutions can act as catalysts for innovation. An expanded international comparison reveals that while Poland is progressing in innovation, particularly in SMEs, there is significant potential to learn from global leaders. Focusing on enhanced collaboration, increasing R&D investment, and streamlining regulatory frameworks could help Polish SMEs bridge the gap and better compete in the global market.

SMEs are of particular importance for Poland's economic development. They play a significant role in improving the quality of human resources, creating jobs, building a culture of entrepreneurship, supporting large industries and encouraging the creation of new business opportunities (Harindranath et al., 2008). Their flexibility and ability to quickly adapt to changing market conditions make them important actors in creating innovation. However, due to limited resources, SMEs face particular challenges in the process of implementing innovations, especially those related to sustainable development. According to the PARP report (2024), innovation in Polish SMEs is gaining importance. In 2024, 27% of enterprises in this category implemented product innovations, and 23% introduced process innovations. This growth is driven by the need to adapt to global trends such as digitalization and sustainable development.

In the light of the cited report, the search for new or improved solutions (innovations) results from the need to stay on the market and seek competitive advantages. In this context, responding as quickly as possible to changing customer needs, keeping up with competition and new market trends is a factor stimulating innovation processes in enterprises. The main reasons for implementing innovations in information systems include: changes in legal regulations and changes forced by market needs (e.g. the desire to expand the sales market), (Martínez-Conesa et al., 2020). According to Kowalkowski and Witell (2020), these are also: the desire to develop the company or improve its image, the so-called "forcing" of innovations by both customers, contractors and suppliers. The reasons mentioned also include: coping with constant competition on the market, the desire or need to improve work, the desire to increase profit, the desire to reduce costs, the desire to increase the company's efficiency or operational effectiveness (Foss, Saebi, 2018; Yudi et al., 2019; Krawczyk, 2022). The main reason that

leaves no choice and is somehow obligatory in relation to the decisions of enterprises regarding the implementation of innovations is certainly the aspect of legal regulations. Slogans proclaiming the need to increase the competitiveness of the Polish economy based on increasing the pace and scope of introduced innovations and the development of the knowledge society have been present in Poland for many years and as a long-term goal are not questioned. Unfortunately, slogans are not always accompanied by everyday practice of systematic actions of all participants of innovation processes, which is why we do not do well in international assessments of the competitiveness of the economy, lagging behind most EU countries. Since Poland joined the EU structures and joined the implementation of the so-called Lisbon Strategy, many actions of the Sejm and the government have been observed to improve the situation (Sosnowska, 2005, p. 17). A major problem in the implementation of innovation is the failure to comply with intellectual property law (Hoffman, Śnierzyński, 2015, pp. 125-141). Although all legal aspects are the basic reason for innovative changes in an enterprise, they are often the biggest obstacle and problem for SME sector enterprises (Rudawska, 2020, pp. 166-178). Very large bureaucracy, lack of knowledge of legal procedures, but also the instability of the legal system is a big challenge for SME sector entrepreneurs (Szopik-Depczyńska, 2014, pp. 113-120). Taking into account the literature review and the specificity of SMEs, the authors believe that the most important reasons for implementing innovations in SME information systems are:

- legal regulations,
- company development,
- improving the company's image,
- market needs,
- "forcing" innovations by customers,
- "forcing" innovations by contractors,
- "forcing" innovations by suppliers,
- meeting market competition,
- expanding the sales market,
- the desire to streamline work,
- the desire to increase profit,
- the desire to reduce costs,
- the desire to increase the company's efficiency,
- the desire to increase the company's operating efficiency.

However, despite progress, many SMEs struggle with restrictions in terms of access to financing and a lack of adequate human resources. The report shows that only 15% of companies use EU funds for research and development. Additionally, many companies do not have sufficient technological resources, which limits their ability to introduce innovations.

3. Methods

The study used a self-administered questionnaire technique. The survey was directed at the owners/managers of the surveyed companies, with a request for consent to participate. Data was obtained regarding active and registered SMEs in the Silesian Voivodeship, and companies were randomly selected to achieve a representative sample. The selection of the research sample was random, while the snowball method was also used to obtain respondents. However, this selection was based on the following premises: the research subject is SME sector enterprises, Silesian Voivodeship, the subject of the research is innovations in information systems in enterprise management, the research group includes all employees of enterprises. The questionnaire was divided into two sections: Part 1 focused on collecting demographic information about the company, while Section 2 concentrated on barriers to the adoption of information and communication technologies (ICT). Responses were provided using a five-point Likert scale (options: 1 - "strongly disagree", 2 - "somewhat disagree", 3 - "neither agree nor disagree", 4 - "somewhat agree", 5 - "strongly agree").

In total, 250 questionnaires were sent to the owners/managers of SMEs in the Silesian Voivodeship. A cover letter was included, outlining the purpose of the research and ensuring respondents' anonymity and that of their organizations. A total of 190 questionnaires were returned, of which 160 were complete, yielding a response rate of 54%. This sample size is considered sufficient for further analysis.

4. Results

In the survey, respondents were asked to respond to several statements regarding the innovativeness of the companies they work for. The percentage structure of ratings using a 5-point Likert scale regarding statements regarding the innovativeness of the company is presented in Figure 1.

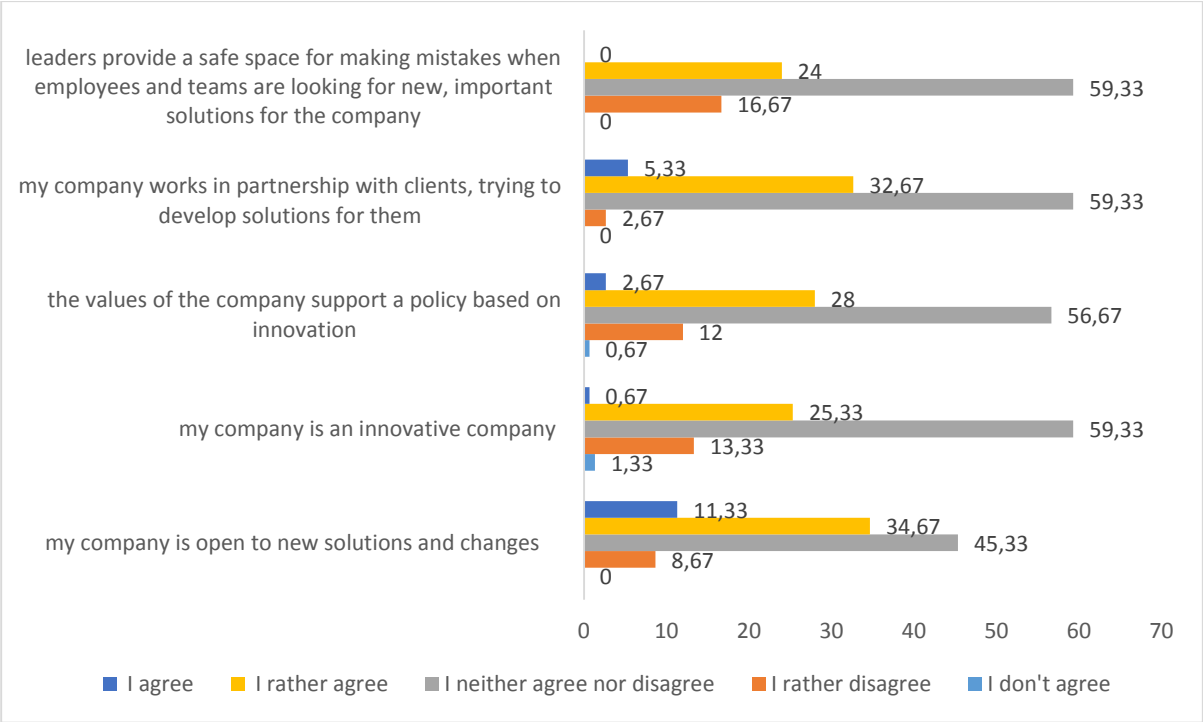

Figure 1. Percentage characteristics of responses to statements regarding the perception of the company as innovative.

Source: own study.

The most frequently indicated assessments of the surveyed statements concerning the perception of the company as innovative were assessments of the type: "I neither agree nor disagree". Respondents most often had no opinion in relation to statements such as: "my company is an innovative company" (59.33%), "my company works in partnership with customers, trying to develop solutions for them" (59.33%), "leaders provide a safe space for making mistakes when employees and teams are looking for new, important solutions for the company" (59.33%). Respondents never once agreed with the statements that: "my company is open to new solutions and changes" (0.00%), "my company works in partnership with customers, trying to develop solutions for them" and "leaders provide a safe space for making mistakes when employees and teams are looking for new, important solutions for the company" (0.00%). Respondents also never agreed with the statement that “leaders provide a safe space for making mistakes when employees and teams are looking for new, important solutions for the company”. Box-and-whisker plots showing the values of positional statistics such as median, range, and quartiles for statistical analysis of the distribution of ratings for statements (arrangement of statements as in Figure 1) regarding the perception of the company as innovative are presented in Figure 2.

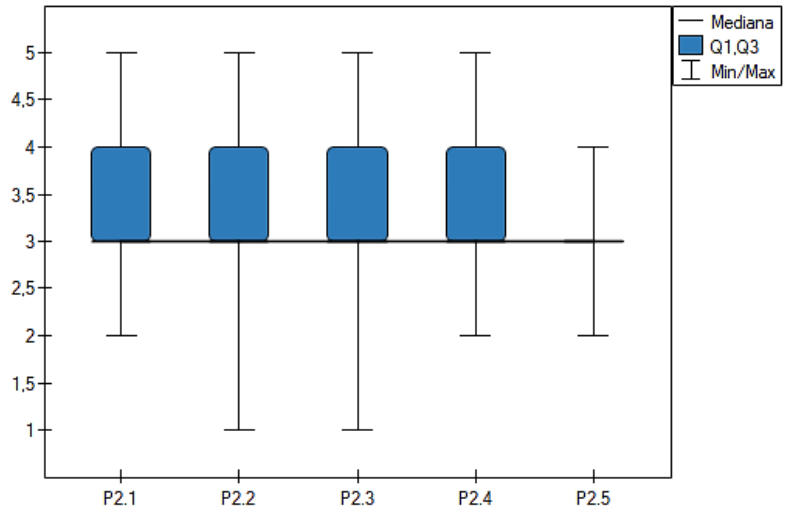

Figure 2. Distribution of ratings for the surveyed statements regarding the perception of the company as innovative.

Source: own study.

The smallest discrepancy in ratings, in terms of the rating scale used, concerned the statement marked as P2.5, i.e. "leaders provide a safe space for making mistakes when employees and teams are looking for new, important solutions for the company". In this case, respondents used only three ratings from the scale out of five possible options, which indicated their lack of a clear opinion as to whether or not they agreed with a given statement. The most dispersed ratings concerned statements marked as P2.2 and P2.3, i.e. "my company is an innovative company" and "the values professed by the company support a policy based on innovation". In the case of these statements, respondents used the entire rating scale. The median rating for all statements was 3, which means that 50% of the ratings were less than or equal to this value, while 50% were greater than or equal to this value. Then, the number of assessment categories was reduced from five to three, i.e.: 1 – "I do not agree or rather disagree", 2 – "I neither agree nor disagree", 3 – "I rather agree or agree". The respondents most often agreed or rather agreed with the statement regarding the company's innovativeness, such as: "My company is open to new solutions and changes" (46.00% of responses). The most responses of the "I do not agree or rather disagree" type concerned the statement: "Leaders provide a safe space for making mistakes when employees and teams are looking for new, important solutions for the company" (16.67% of responses). Another aspect of the research was to indicate what the reasons for implementing innovations in the surveyed companies are in the opinion of the respondents. The results in percentage terms are presented in Figure 3.

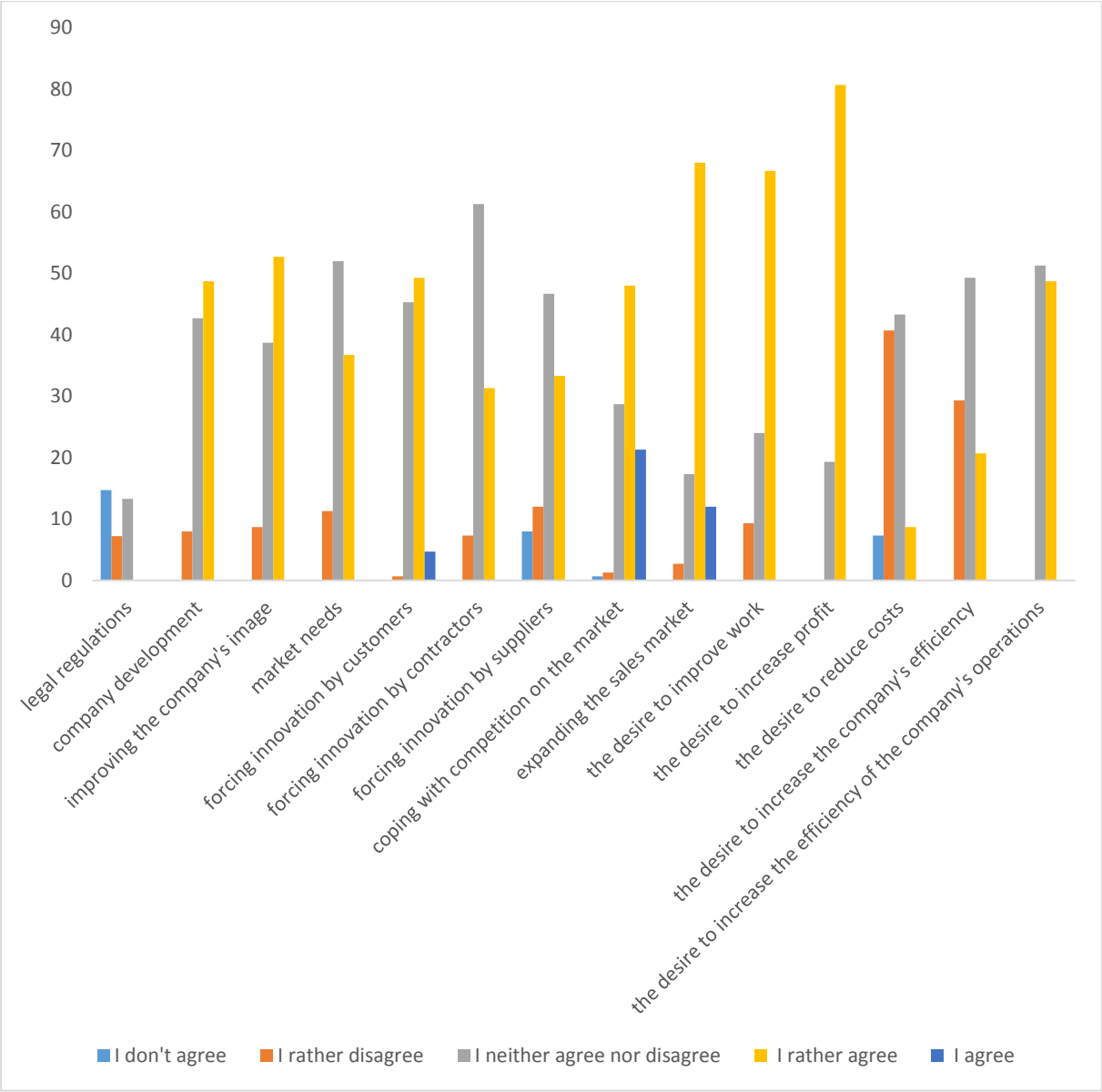

Figure 3. Percentage characteristics of responses regarding the reasons for introducing innovations in the company.

Source: own study.

The highest percentage of "agree" ratings concerned the reason for introducing innovations in the company such as: "meeting market competition" (21.33%), while the highest percentage of "disagree" ratings concerned the reason: "legal regulations" (14.7%). Most respondents did not have an opinion (i.e. neither agreed nor disagreed) that forcing innovations by suppliers was the reason for introducing innovations in their companies (61.3%).

Analyzing the distribution of answers in Figure 4, the most consistent in terms of scale were noted for the reasons for perceiving the company as innovative, marked as: P3.11, i.e. "the desire to increase profit" and P3.14, i.e. "the desire to increase the efficiency of the company's operations". In the case of these factors, only the ratings of the following types were used: "neither agree nor disagree" and "rather agree". The greatest divergence in the assessment

scale (the full assessment scale was used) was noted for the reason for perceiving the company as innovative, marked as P3.8, i.e. "coping with the competition on the market".

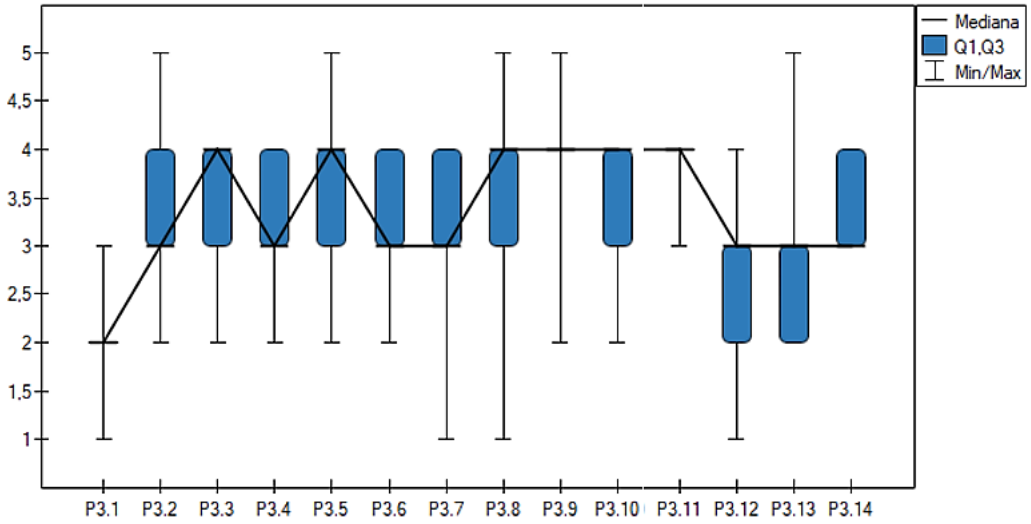

Figure 4. Distribution of ratings for the surveyed statements regarding the perception of the company as innovative.

Source: own study.

5. Summary

The theoretical framework highlighted the critical role of innovation in driving sustainable development and maintaining competitiveness within the SME sector, particularly in Poland. The empirical analysis reinforced these themes, revealing that primary motivations for innovation include the desire to increase profits, expand market reach, and address competitive pressures. Conversely, legal regulations and external enforcement by suppliers or contractors were less influential. Respondents largely emphasized internal drivers, such as efficiency improvement and cost reduction, while external factors like market needs were acknowledged but less consistently agreed upon. In summary, the results confirm the article's thesis that innovation is pivotal for SMEs' sustainability and market relevance. The findings underscore the necessity of addressing financial and resource barriers to enhance innovation, suggesting that policy and support mechanisms should target these areas to foster greater SME participation in innovative practices. These insights validate the article's focus and provide a foundation for future studies in broader geographical contexts or more dynamic market conditions.

Polish micro, small and medium-sized enterprises are characterized by a low level of innovation, especially in comparison with other EU countries. In light of the literature review and conducted research, it can be indicated that innovations in enterprises, especially in the small and medium-sized enterprise (SME) sector, are often the result of the need to stay on the

market and seek competitive advantages. Companies must respond quickly to changing customer needs, keep up with competition and new market trends, which stimulates innovation processes. The main reasons for implementing innovations include changes in legal regulations and market needs. Additionally, companies strive to increase profits, reduce costs and improve efficiency and effectiveness of operations. Of course, the conducted research has certain limitations: only organizations operating in Poland in the Silesian Voivodeship participated in the research, therefore the analyses take into account the specificity of innovations implemented in these organizations, therefore in the future it is worth considering verifying the formulated hypotheses in organizations operating in other voivodeships. This may be an indication for future research. The current situation also requires repeating the study in a more turbulent environment, which may additionally confirm the obtained views the future it is worth considering verifying the formulated hypotheses in organizations operating in other voivodeships. This may be an indication for future research. The current situation also requires repeating the study in a more turbulent environment, which may additionally confirm the obtained views.

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