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Chapter: Understanding Your Local Economy: to Identify and Analyse Regional Trends

# PROJECT-ORIENTED PERCEPTIONS OF RESEARCH, DEVELOPMENT AND INNOVATION IN HUNGARIAN, POLISH AND ROMANIAN ENTERPRISES

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***Annotation.*** Research, development and innovation is the watchword and driving force of the 21st century. Research, development and innovation initiatives take the form of projects. However, projects are considered to be particularly risky because of the unpredictable outcomes and results of innovation. RDI activities are most likely to result in concrete, tangible improvements that are relevant to the economy as a whole. The most preferred innovation targets are embodied in processes, product developments, production systems, services, channels and networks. For an innovation initiative to succeed, it is essential to have management support that can be learned and developed. For all these reasons, it is very important that RDI activities have the background that can safely take an organisation to the achievement of results. Experience and organisational knowledge are very important for these projects. This kind of knowledge can often only be grasped from the project side, and the key in many cases lies in effective leadership and collaboration. The aim of our study is to investigate how Hungarian, Polish and Romanian SMEs relate to innovation and the background of innovation projects. Our aim is to assess the project and innovation awareness and orientation of these organisations in the light of the results of a primary research study covering three countries.

***Keywords:*** research, development, innovation, project management, effectiveness.

***JEL classification:*** O32, H43, O22.

## Introduction

Effective management of research, development and innovation (RDI) projects is becoming increasingly important for businesses, especially small and medium-sized enterprises (SMEs), struggling to remain competitive in today's fast-evolving market. RDI projects pose a particular challenge due to their high risk and interdisciplinary nature, which requires a well-structured project management approach. Unfortunately, the characteristics of SMEs' RDI projects include limited resources and increased uncertainty. Therefore, effective management is key to their success (Juite *et al*., 2010). These unique challenges emphasise the need for robust program and portfolio management beyond project management to exploit the synergies of KFI projects (Leonardo *et al*., 2023).

This paper fills a critical gap in the literature on the project-oriented understanding of RDI in SMEs in Central European countries, specifically Hungary, Poland and Romania. While there has been


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considerable research on the general factors influencing the success of RDI, a limited number of studies have examined the perspectives and challenges of SMEs operating in these regions. The focus on Central Europe is particularly important, as these countries are characterised by unique economic conditions and resource constraints in their approach to innovation and project management (Klaus-Rosińska, Iwko, 2024). By examining firms' RDI project management practices, this paper aims to contribute to a more nuanced understanding of how regional SMEs view and implement RDI, thereby providing missing empirical evidence on RDI management in these specific national contexts. The importance of an innovation and project approach is evident in international, mainly Western, research, which is the basis for the present research (Blindenbach-Driessen, van den Ende, 2006; Chiesa, 2000).

The primary objective of this paper is to assess the RDI awareness and project-oriented approach of SMEs in Hungary, Poland and Romania based on the results of the primary research conducted. Through this study, the article highlights key success factors, barriers and the extent to which SMEs incorporate structured project management methods into their RDI activities. It also analyses the role of formal project management practices and how they influence the effectiveness and sustainability of RDI outcomes. The research provides valuable insights from a comprehensive survey of a sample of over 500 enterprises in three Central European countries. The novelty of the study lies in its cross-national comparative analysis of how different economic and institutional environments influence SMEs' RDI project management strategies. The results can provide a good basis for policymakers and practitioners on how to better support RDI initiatives among SMEs in these regions. This will increase their innovation capacity and competitive advantage in the global market (Spanjol *et al*., 2024; Ohm, Penickova, 2023).

## 1. Literature Review

The success of RDI projects is a key factor for the competitiveness of companies and the sustainability of results. The specificity of RDI project management is that it often manages longer-term projects with uncertain outcomes, where technological and scientific feasibility can be unpredictable. This uncertainty can present unique problems and new challenges. Thus, the outcome and success of RDI projects cannot be perfectly planned without the necessary inputs. Jain *et al*. and Kauffman and Kock point out that the impact of strong project management activities is greater for more complex, i.e. RDI projects (Jain *et al*., 2010; Kaufmann, Kock, 2022)

The different aspects of project management, such as risk management, time and cost planning, and resource management, have a major impact on the success of an RDI project (Tenhunen-Lunkka, Honkanen, 2024).

When analysing the success of projects, it is worth looking at how the different stages of innovation projects contribute to project success. Good project, programme and portfolio management will help to create synergies between projects and minimise risks. The success of innovation projects is closely linked to when and how decisions are made at the different project stages (ZEW, 2014; Sitenko, Vasa, 2018).

Another important success factor for SMEs is their ability to adapt to a dynamic innovation environment while facing resource constraints. The success of RDI projects can be enhanced by appropriate resource management, collaboration with external partners and the use of agile project management methods (Blindenbach-Driessen, van den Ende, 2006), an idea shared by Klaus-Rosińska and Iwko, among others, who argue that success depends on effective resource management and time management (Klaus-Rosińska, Iwko, 2024).

The importance of cooperation in RDI projects is a major focus of research, and several models have been defined and further developed by researchers and market practitioners (Cai, 2022). One important basic model is the triple-helix model, which defines the cooperation between the market sector, academic organisations and the state for successful RDI activities (Ivanova, Leydesdorf, 2014). Further development of this model by Fernandes and his co-authors highlights the importance of this collaboration and draws attention to the fact that proper management of collaborations between universities and industry can contribute significantly to the success of innovation (Fernandes *et al*., 2022). In agreement with and reinforcing the above, Santos *et al*. also highlight agility and cross-sectoral collaboration as success factors for RDI projects but also consider risk management as an important focus area in RDI project success research (Santos *et al*., 2023). Building on and complementing collaboration, Santos *et al*., in their subsequent research, identify trust-based partnering as a key factor underlying successful KFI projects (Santos *et al*., 2024). Risk as a success factor is understandable, as KFI projects involve a range of technological and market risks, the management of which plays a key role in project success. Proactive risk management and the identification of predefined risk management strategies are important (Santos *et al*., 2023). Taking this idea further, Keefe and co-authors have identified other areas as factors influencing the success of KFI projects. According to the authors, project success for SMEs is best influenced by the development of internal innovation capabilities in addition to the proper management of risks (ECEG, 2013). This is a very important finding because if the source of innovation is internal, it usually means that the projects are also funded internally. Therefore, it is important to note that, in addition to the above, when managing RDI projects, firms often have to balance short-term financial risks with long-term technological benefits (López, Martínez, 2022). In looking at the knowledge areas of project management, we have discussed resource management, risk management, time management, and tangentially, scoping and cost management in relation to RDI projects (Urbinati *et al*., 2021). One of the main tasks of stakeholder management in the field of RDI, and also one of the success factors of RDI projects, is the involvement of stakeholders in the right decisions, as the opinion of experts is essential for research decisions (Ferandes *et al*., 2022; Beam *et al*., 2022). The main stakeholders in projects are middle and senior managers, and their involvement in decisions is important, but there can be significant differences between the two levels of management (Behrens *et al*., 2014). Nevertheless, they must be involved in the decision-making process in order to be successful.

The identification of agility as a success factor for RDI projects is an interesting idea, so it is worth exploring how project management methods can help or hinder the implementation of innovation projects. This illustrates that traditional project management methods are not necessarily suitable for managing innovation projects, especially in the dynamic and fast-changing KFI environment. As Ciric *et al*. concluded, the use of hybrid approaches and agile methods can increase the success rate of innovation projects

It is worth analysing the development and future directions of project management research (Blaskovics *et al.*, 2023). New approaches to programme and portfolio management are needed to measure the success of RDI projects, as we have shown above that traditional project management methods are not always able to deal with the uncertainties that characterise innovation (Akzambekkyzy *et al.*, 2024). Proposed methods for managing innovation programmes and portfolios help to measure alignment with strategic objectives and to exploit the synergies between projects (Geraldi, Söderlund, 2018). One essential way to do this is to tailor project management methods specifically to address the challenges of RDI (Barbosa *et al.*, 2021). Such tailored models are called hybrid methods, which have the advantage of being able to adapt to the dynamic and uncertain environment of RDI projects, not only in the projects but also in programme and portfolio management. The right combination of methodologies can make a

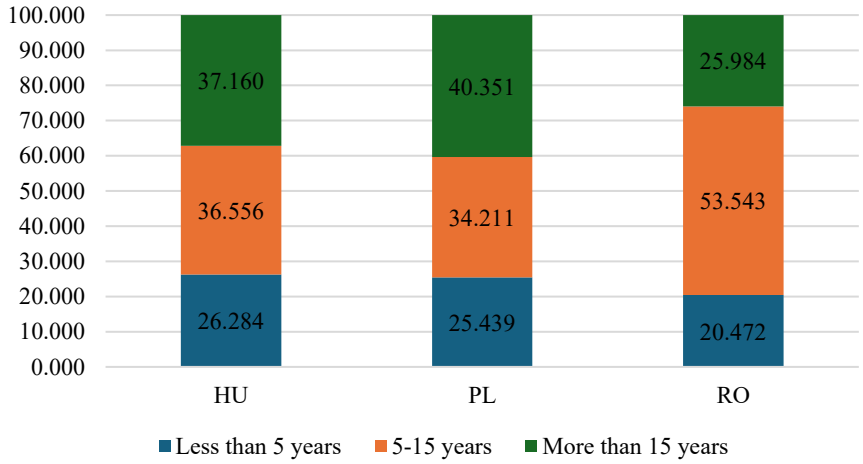
significant contribution to the success of RDI projects by taking advantage of both agile and traditional project management approaches (Mirzaei *et al*., 2024). Kerzner agrees, stressing that programme and portfolio management play a critical role in the success of innovation projects; due to the specific characteristics of RDI projects, traditional project management tools often need to be adapted to achieve innovation objectives (Kerzner, 2022).

As mentioned above, portfolio management of innovation projects is of paramount importance because it manages an organisation's entire portfolio of innovation projects. Lerch and Spieth point out that a number of factors, including strategic fit, resource allocation of projects, and collaboration between projects in the portfolio, influence the success of innovative project portfolios. The study also concludes that successful portfolio management can contribute to the long-term sustainability of RDI projects (Lerch, Spieth, 2012).

Artto *et al*. examine the integrating role of the Project Management Office (PMO), the organisational level responsible for project, programme and portfolio management, in the early stages of innovation. The PMO is key in coordinating innovation programmes, particularly in setting strategic directions and supporting collaboration between projects. In managing innovation portfolios, the PMO helps to exploit synergies between projects and optimise resources (Artto, 2011).

## 2. Material and Method

The research results presented in this paper are the results of a primary research study carried out in 2023. The research was conducted through a questionnaire survey in three Central European countries: Hungary, Romania and Poland. The research was based on questionnaires completed by 331, 127 and 114 enterprises in the three countries, respectively, and our conclusions were drawn. The sampled enterprises are members of the MSME sector. The questionnaires were tested before sampling to ensure the most accurate research results. The questionnaire itself and the responses received provide a reasonable basis for further research, with a view to further reflection. The questionnaire used in the study in the three countries was a pre-tested, standardised, complex questionnaire covering different aspects of research, development and innovation, focusing on various areas of project, programme and portfolio management. For the enterprises included in the survey, we did not ask for any identifiable, sensitive data on the specifics of farming in the questionnaire. Participation in the research was voluntary and anonymous, and all research ethics and the relevant provisions of the GDPR were respected. The research used a snowball sampling method with seeds. Seeds were selected according to the professional knowledge relevant to the topic. The information obtained during the research was used for research purposes only. The results presented in this study are presented along the lines of the market experience of the enterprises, measured in years of market operation. For the statements presented in this paper, respondents were asked to indicate their agreement with the statements on a four-point Likert scale, with the option to disagree (don't know/no answer). The lowest end of the scale indicated disagreement, and the higher end indicated strongly agree. The composition of the sample is shown in the *Figure 1*.




*Source:* own research, 2023, N = 331 (HU), N = 114 (PL), N = 127 (RO).

*Figure 1*. **Composition of the Sample**

**Table 1. Statements and Their Coding in the Research**

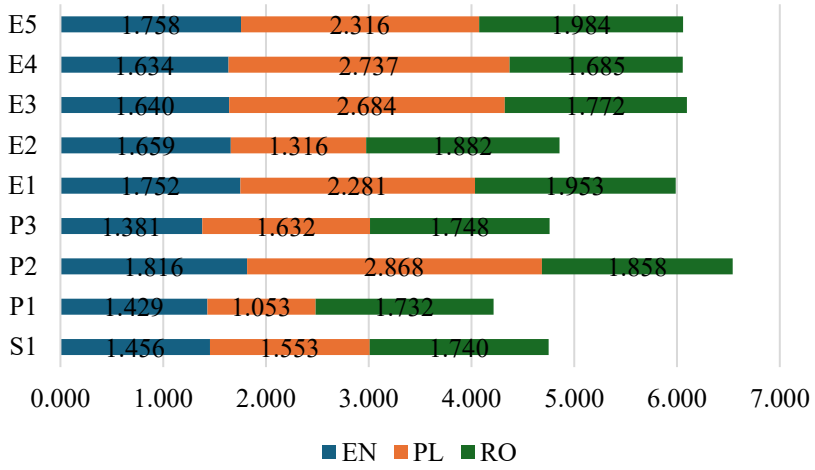
| Code | Claim |
|---|---|
| S1 | RDI is an integral part of the strategy. |
| P1 | RDI activities can be carried out without project management. |
| P2 | Researchers and technicians should lead the RDI projects. |
| P3 | Formal project management is sufficient for RDI results. |
| E1 | RDI results are better when formal RDI project management is used within the organisation. |
| E2 | Synergies between RDI results can be exploited if RDI projects are treated as programmes. |
| E3 | RDI projects are more effective when they are carried out in consortia with research organisations (universities, research institutes). |
| E4 | RDI projects are more effective when research organisations (universities, research institutes) are suppliers to the project. |
| E5 | An important success factor of the RDI project is the sustainability of the results. |

Source: own research, 2023, N = 331 (HU), N = 114 (PL), N = 127 (RO).

The survey asked more than 500 businesses from the 3 countries in the sample to rate 9 statements related to research, development and innovation. Of the statements, 5 were related to the outcome and effective management of RDI activities, 3 were associated with RDI project management, and 1 was related to the strategic management of RDI, as shown in the table below, together with the coding of the statements. The list of the stateements is shown in *Table 1*.

## 3. Results and Discussion

As a first step in the research, the mean values obtained for the statements are examined in detail. Overall, the results show that Polish enterprises were the only ones to give high average scores for the effectiveness of RDI projects and project approaches. For both Romanian and Hungarian enterprises, the ratings of the statements were all below the average, indicating that the vast majority of enterprises disagreed with them. The strategic approach to RDI projects is most common in Romanian enterprises, but in our case, the score was 1.74. In the case of the following inverse statement, which states that RDI activities can be carried out without project management, the lowest mean value was rather dominant. Here again, Polish enterprises performed well, as they gave the lowest average value to this statement. The statement on the management of RDI projects was most agreed upon by Polish enterprises, which scored an integer higher than that of Hungarian and Romanian enterprises. The statement on formal project management for RDI results can also be interpreted as an inverse statement, but here, Hungarian enterprises gave the lowest average value. In all cases, the Polish enterprises were the highest performers in terms of the claims related to the exploitation of results and the creation of RDI results. Overall, Polish enterprises were much more aware of RDI projects and RDI project management, being closer to the positive end of the scale for most of the statements. However, it can be noted that the average scores were still very low, which was most pronounced for Hungarian and Romanian enterprises. In this case, it should also be mentioned that the possibility of not responding, which was taken into account when taking the zero value into account in the evaluation, may have also worsened the average values obtained *(Figure 2)*.




*Source:* own research, 2023, N = 331 (HU), N = 114 (PL), N = 127 (RO).

*Figure 2.* **Statements and Their Coding in the Research**

We then used a Cronbach's Alpha test *(Table 2.)* to see if the results were suitable for further testing. The highest value was measured for the Hungarian sample, which yielded a result above 0.95, but the Polish and Romanian samples also yielded very high values. The reliability analysis shows that all three samples are suitable for further testing. The values obtained were used as the basis for additional testing.

**Table 2. Reliability Values for the Data Used in the Research**

| | Cronbach's Alpha test results |
|---|---|
| EN | 0,954 |
| PL | 0,851 |
| RO | 0,885 |

Source: own research, 2023, N = 331 (HU), N = 114 (PL), N = 127 (RO).

The correlation between each statement was performed using the Inter-Item Correlation Matrix *(Table 3.)* for all three samples. From the matrix, we can determine which statements are correlated with each other. We assume a very strong correlation in the case where the value is above 0.5, as this implies a similar concept in the respondent's mind. A value close to zero implies independent items. If we look at the correlation matrix obtained for the Hungarian sample, we can conclude that practically all statements are perfectly correlated with each other, except for one single statement. All of the project-based statements measuring RDI activity are perfectly correlated, and the same can be said for the outcome statements. This suggests that the Hungarian enterprises in the sample were broadly similar. In general, the correlations are all positive and in the high range. With one exception, most of the correlations range between 0.6 and 0.8, indicating a strong relationship with a high degree of consistency between opinions. It can also be seen that items B1, B2, and B3 are highly correlated with each other due to the measurement of the same dimension.

**Table 3. Inter-Item Matrix of the Hungarian Sample**

| | S1 | P1 | P2 | P3 | E1 | E2 | E3 | E4 | E5 |
|---|---|---|---|---|---|---|---|---|---|
| S1 | 1,000 | | | | | | | | |
| P1 | 0,636 | 1,000 | | | | | | | |
| P2 | 0,524 | 0,690 | 1,000 | | | | | | |
| P3 | 0,601 | 0,804 | 0,704 | 1,000 | | | | | |
| E1 | 0,582 | 0,704 | 0,776 | 0,781 | 1,000 | | | | |
| E2 | 0,573 | 0,704 | 0,736 | 0,749 | 0,813 | 1,000 | | | |
| E3 | 0,551 | 0,685 | 0,748 | 0,726 | 0,768 | 0,769 | 1,000 | | |
| E4 | 0,563 | 0,692 | 0,715 | 0,764 | 0,733 | 0,722 | 0,886 | 1,000 | |
| E5 | 0,497 | 0,600 | 0,708 | 0,631 | 0,748 | 0,684 | 0,809 | 0,805 | 1,000 |

Source: own research, 2023, N = 331 (HU).

For the Polish sample, we see mixed correlations so that the correlation coefficients between items are significantly dispersed, which means that the statements are not evenly *(Table 4.)* related to each other regarding respondents' opinions. It can also be seen that most of the correlations are positive, but we also see negative correlations, e.g. for statements E2 and E3. For the Polish sample, we can say that the correlations are uneven, and the negative correlations in the respondents' opinions may suggest that they do not think that they are fully aligned with the list of statements.

**Table 4. Inter-Item Matrix of the Polish Sample**

| | S1 | P1 | P2 | P3 | E1 | E2 | E3 | E4 | E5 |
|---|---|---|---|---|---|---|---|---|---|
| S1 | 1,000 | | | | | | | | |
| P1 | 0,742 | 1,000 | | | | | | | |
| P2 | 0,131 | 0,112 | 1,000 | | | | | | |
| P3 | 0,706 | 0,770 | 0,198 | 1,000 | | | | | |
| E1 | 0,438 | 0,441 | 0,258 | 0,605 | 1,000 | | | | |
| E2 | 0,612 | 0,622 | 0,038 | 0,613 | 0,407 | 1,000 | | | |
| E3 | 0,064 | 0,054 | 0,788 | 0,058 | 0,293 | -0,028 | 1,000 | | |
| E4 | 0,137 | 0,117 | 0,726 | 0,029 | 0,255 | 0,075 | 0,921 | 1,000 | |
| E5 | 0,461 | 0,372 | 0,496 | 0,596 | 0,604 | 0,410 | 0,383 | 0,334 | 1,000 |

Source: own research, 2023, N = 114 (PL).

For the Romanian sample, we also see mixed correlations. The correlation coefficients range from 0.012 to 0.887, and it can also be seen that some items are more strongly correlated while others are less strongly correlated *(Table 5.)*. The sample is also characterised by moderately strong relationships, as many correlations were tested with values between 0.4 and 0.7, which implies a moderately strong relationship. In the present case, however, no negative correlation is seen.

**Table 5. Inter-Item Matrix of the Romanian Sample**

| | S1 | P1 | P2 | P3 | E1 | E2 | E3 | E4 | E5 |
|---|---|---|---|---|---|---|---|---|---|
| S1 | 1,000 | | | | | | | | |
| P1 | 0,012 | 1,000 | | | | | | | |
| P2 | 0,295 | 0,519 | 1,000 | | | | | | |
| P3 | 0,115 | 0,775 | 0,484 | 1,000 | | | | | |
| E1 | 0,491 | 0,248 | 0,552 | 0,293 | 1,000 | | | | |
| E2 | 0,480 | 0,270 | 0,362 | 0,309 | 0,856 | 1,000 | | | |
| E3 | 0,230 | 0,436 | 0,540 | 0,603 | 0,398 | 0,274 | 1,000 | | |
| E4 | 0,405 | 0,393 | 0,691 | 0,471 | 0,614 | 0,492 | 0,768 | 1,000 | |
| E5 | 0,579 | 0,100 | 0,409 | 0,185 | 0,887 | 0,835 | 0,403 | 0,642 | 1,000 |

Source: own research, 2023, N = 127 (RO).

Overall, in terms of item correlations, the Hungarian sample showed the most homogeneous picture compared to the heterogeneity of the Polish and Romanian samples. In the following, we wanted to group the items under study further according to the respondents' opinions using factor analysis. For all three samples, we opted for a two-factor matrix. An interesting feature of the three-factor matrix is that the respondents did not group the items into the same groups at all, indicating a significant difference in their thinking.

If we take the factor matrix from the Hungarian sample into account, we can see that thanks to Chrombach's Alpha test, we can distinguish much more homogeneous factor groups than in the other two countries. According to the Hungarian respondents, the one-factor group consists of statements that refer to the results of RDI projects, and the other group clearly includes statements that refer to anomalies related to the success of projects *(Table 6.)*. Thus, it can be said that the two constructed factors reflect the subject of the statements we are investigating relatively well. On this basis, it can be said that, along the lines of reliable results, the rationality of Hungarian enterprises is well illustrated.

**Table 6. Factor Matrix of the Hungarian Sample (Varimax Method, Rotated Factor Matrix, KMO = 0.929)**

| | Outcome orientation | Doubt |
|---|---|---|
| E5 | ***0,879*** | 0,232 |
| E3 | ***0,862*** | 0,356 |
| E4 | ***0,831*** | 0,384 |
| P2 | ***0,754*** | 0,424 |
| E1 | ***0,747*** | 0,501 |
| E2 | ***0,708*** | 0,519 |
| S1 | 0,226 | ***0,877*** |
| P1 | 0,500 | ***0,740*** |
| P3 | 0,605 | ***0,658*** |

Source: own research, 2023, N = 331 (HU).

For the Polish sample, what we see in the inter-item matrix is also returned in the factor matrix *(Table 7.)*. In the present case, we also distinguish two groups, one with mixed characteristics and the other group with narrow outcome orientation. Mixed characteristics include statements related to the result itself, as well as statements related to the operational management of RDI projects. The factor of narrow result orientation is also a mixed group of statements, as here we also find statements referring to the result itself, which are more related to cooperation and collaborative thinking, and the statement concerning the project leader in terms of project management.

**Table 7. Factor Matrix of the Polish Sample (Varimax Method, Rotated Factor Matrix, KMO = 0.773)**

| | Mixed characteristics | Narrow result orientation |
|---|---|---|
| P3 | ***0,910*** | 0,050 |
| P2 | ***0,858*** | 0,005 |
| S1 | ***0,848*** | 0,039 |
| E2 | ***0,792*** | -0,051 |
| E1 | ***0,662*** | 0,316 |
| E5 | ***0,625*** | 0,475 |
| E3 | 0,008 | ***0,963*** |
| E4 | 0,046 | ***0,920*** |
| P2 | 0,115 | ***0,886*** |

Source: own research, 2023, N = 114 (PL).

For the Romanian sample, the two factors can be distinguished along the success factors and the results-oriented project orientation *(Table 8.)*. The success factors were clearly categorised by respondents as outcome statements related to specific outputs, and the strategic fit of RDI projects was also included here. The results-oriented project orientation also includes all the statements associated with KPI project management, as well as the two results-side statements related to collaboration.

**Table 8. Factor Matrix of the Polish Sample (Varimax Method, Rotated Factor Matrix, KMO = 0.780)**

| | Success factors | Results-oriented project orientation |
|---|---|---|
| E5 | ***0,945*** | 0,148 |
| E1 | ***0,888*** | 0,276 |
| E2 | ***0,849*** | 0,201 |
| S1 | ***0,718*** | 0,017 |
| P3 | 0,049 | ***0,882*** |
| P1 | -0,036 | ***0,859*** |
| E3 | 0,289 | ***0,752*** |
| P2 | 0,387 | ***0,691*** |
| E4 | 0,579 | ***0,640*** |

Source: own research, 2023, N = 127 (RO).

The three countries examined in this study show that innovation is needed in all societies, as Luimula and his co-authors (Luimula *et al*., 2016) have argued. The authors have examined the case of innovation in a society facing declining competitiveness and an ageing society, using the example of the academic sector. The same can be said for the countries under study. In this environment, the results of innovation are necessary. The proper management of innovation projects is not only crucial for business and technology but is also essential at the societal level (Tenhunen-Lunka - Honkanen, 2024). The authors also make recommendations for the success of projects, which frameworks and tools can help the process, with recommendations for managers to help projects succeed. Klessova and colleagues (2022) emphasise the importance of collaboration in project success, which we have tried to explore in our study. Authors on the topic almost universally agree that RDI activities are highly important at the organisational level (Hashai *et al*, 2015). Still, there is little mention of collaboration for success in studies (Belderbos *et al*, 2018), which is why we thought our paper was a gap-filler in comparing the three countries on the topic. The factors and conclusions assessed in the study confirm the findings in the literature, but its uniqueness across the three countries should be highlighted.

## Conclusions and Limitations of the Research

In terms of the results obtained, we can say that the perceptions of businesses in the three countries regarding research, development, and innovation are quite different. In a comparison of the three countries, it can be said that Polish enterprises are the ones that show a more pro-innovation image along the lines of the statements examined. It can be seen that they are more committed to the results and management of innovation projects. It can also be observed that Hungarian and Romanian enterprises have roughly the same opinion regarding average values. It was also found that, despite this, Hungarian enterprises appear to be much more unified in their opinions, as shown by the correlations between the individual items. This is not the case for Polish and Romanian businesses, where the opinions on the statements are much more mixed, as indicated by the item-by-item matrices. If we look at the thinking of the responding enterprises, based on the factors formed based on the statements, we can see that the factors formed differ significantly in all cases. As long as Hungarian enterprises are clearly able to treat the results consistently, their doubts about RDI projects can be seen. The Polish enterprises also have a heterogeneous view on the grouping of statements, broadly grouping statements related to project management, results and strategic level management and putting some statements on results orientation in a separate group. For Romanian enterprises, there is a clear distinction between success factors and statements related to results and project orientation. Thus, despite the fact that Polish enterprises gave the highest mean scores to the statements, they are the ones with the least

consistent thinking in terms of the factors in their perception of the statements under study, as the factor analysis shows. A limitation of the study is its non-representative nature. However, for the three countries, the sample fully captures the characteristics of the population, so it certainly contributes to the baseline picture. It is intended to continue the research along similar themes to achieve a representative sample in order to get an accurate picture of the current state and improvement of RDI activity in the post-pandemic period. An additional limitation was the post-pandemic period when the data collection took place, which highlighted a little more the importance of innovation in a period of change. Overall, businesses in the three countries surveyed do not prioritise innovation and RDI projects. Overall, this points to the need for organisations responsible for encouraging the involvement of SMEs in research, development and innovation projects, as the number of SMEs and the number of employees they employ indicate that they play an important role in the national economy. The future success of a country depends on successful innovation activity, which is why it is necessary to manage this consistently from the project side.

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## Į PROJEKTUS ORIENTUOTAS MOKSLINIŲ TYRIMŲ, PLĖTROS IR INOVACIJŲ SUVOKIMAS VENGRIJOS, LENKIJOS IR RUMUNIJOS ĮMONĖSE

**Oszkár Dobos, Ágnes Csiszárik-Kocsir**

***Santrauka.*** XXI amžiaus šūkis ir varomoji jėga yra moksliniai tyrimai, technologinė plėtra ir inovacijos. Mokslinių tyrimų, plėtros ir inovacijų iniciatyvos vykdomos projektų forma. Labiausiai pageidaujami inovacijų tikslai yra procesai, produktų kūrimas, gamybos sistemos, paslaugos, kanalai ir tinklai. Tačiau projektai laikomi ypač rizikingais dėl nenuspėjamų inovacijų rezultatų ir išeičių. Dėl visų šių priežasčių labai svarbu, kad MTEPI veikla turėtų pagrindą, galintį padėti saugiai organizacijai pasiekti rezultatą. Šio tyrimo tikslas – ištirti, kaip Vengrijos, Lenkijos ir Rumunijos MVĮ susijusios su inovacijomis ir inovacijų projektų fonu. Tyrimo tikslas – įvertinti šių organizacijų sąmoningumą ir orientaciją į projektus ir inovacijas, atsižvelgiant į pirminio tyrimo, apimančio tris šalis, rezultatus.

*Reikšminiai žodžiai:* moksliniai tyrimai; plėtra; inovacijos; projektų valdymas; efektyvumas.