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Assessment of Behavioural Characteristics of Owners' and Managers' Decision-Making in the SME Segment of V4 Countries

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ABSTRACT

Research background: Small and medium-sized enterprises (SMEs) in the Visegrad Four (V4) countries represent a crucial component of regional economic growth, innovation, and employment. The decision-making behavior of owners and managers in these enterprises is strongly influenced by their individual personality traits, cognitive biases, and attitudes toward risk and uncertainty. Understanding these behavioral characteristics provides valuable insights into how managerial psychology affects strategic choices, firm performance, and resilience in the dynamic and often volatile Central European business environment.

Purpose of the article: The aim of the article was to identify disparities in the perceptions of the four specific behavioral characteristics of decision-makers in the SME segment across the V4 countries. These characteristics include tendency toward analytical decision-making, impulsive decision-making, reliance on personal judgment against group opinion, and self-perceived readiness to the risks. The subject of the analysis was the attitudes of owners and top managers from the small and medium-sized enterprise (SME) segment.

Methods: The questionnaire was completed by 1,126 SMEs from the V4 countries. The research sample suitable for statistical processing included 1,090 responses from managers or owners of SMEs. Data collection was carried out using Computer Assisted Web Interview. Statistical hypotheses were supported by parametric tests.

Findings & Value added: The findings reveal significant cross-country variations in managerial behavioral profiles. Hungarian managers demonstrate the highest risk readiness (73.6%) and analytical tendency (94.0%), suggesting a profile characterized by deliberative risk-taking (systematic analysis combined with uncertainty acceptance). Polish managers show moderate-to-high risk readiness (63.8%) with comparatively lower analytical orientation. Czech managers exhibit significantly lower risk readiness (50.4%) and judgment independence (38.7%) compared to Polish counterparts, indicating risk-averse analytical orientation. In general, among owners and managers operating in the Czech and Slovak SME business environment, there are no statistically significant differences in the assessment of the behavioral characteristics of decision-makers. Owners and top managers from the Hungarian SME segment show the strongest tendency to agree with the statements related to the behavioral characteristics of decision-makers.

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INTRODUCTION

Small and medium-sized enterprises (SMEs) in the V4 operate in a distinct post-transition institutional and economic context that continues to shape firm strategy, resource endowments and performance (Kim & Nguyen, 2024). Relative to the EU average, the V4's SME sector shows heterogeneity in its contribution to GDP and labour productivity (Alexakis et al., 2025; Kozubíková et al., 2018): while SMEs are numerically dominant, their share of value added and productivity per employee fre-

quently lags western European comparators, with notable within-region differences (e.g. Czechia and Slovakia performing differently from Hungary and Poland).

Policy legacies and institutional frameworks, including the speed of market liberalization, financial market development and the availability of targeted public supports, affect SME growth trajectories across the V4 (Guk et al., 2024; Dwiputri et al., 2023). Consequently, access to finance, limited managerial capacity and uneven digital maturity are recurrent structural constraints that shape strategic choices at the firm level and amplify the importance of managerial competencies in smaller firms (Raimi et al., 2025; Tuffuor et al., 2025; Shama & Tarp, 2018).

Digitalization and innovation present both an opportunity and a capability gap for SMEs (Romero & Mammadov, 2025). Post-pandemic investment in online services and digital tools increased across the region, yet many SMEs remain behind in integrating productivity-enhancing technologies because of skill gaps, low managerial awareness and financing frictions; these supply-side shortcomings place a premium on managers who can adopt a learning orientation toward technology and mobilise limited resources for digital transformation (Gómez-Jorge et al., 2025; Naz et al., 2024).

Cultural and individual determinants of entrepreneurship in the V4 matter. Comparative analyses of gem and regional studies indicate that motivations for starting and running firms in central Europe are shaped by risk attitudes, necessity versus opportunity entrepreneurship, and national differences in entrepreneurial intention (for example, among students and nascent entrepreneurs). These individual determinants influence enterprise form (solo self-employment versus employer entrepreneurship) and the strategic posture of SMEs in each country (Kozubíková et al., 2018).

The uniqueness of this research lies in identifying the relationship between owners and managers in terms of their risk aversion within the small and medium-sized enterprise (SME) segment. The collection of a unique questionnaire was carried out in four Central European countries located in proximity to the armed conflict between Ukraine and Russia.

The structure of the scientific article is as follows. The introduction defines the characteristics of the business environment in the V4 countries and highlights the importance of the manager's role within the enterprise. The theoretical section provides a deeper analysis of the personality aspects of competent individuals in the SME segment. The empirical section presents the research objective, data collection methodology, statistical methods, and information regarding the questionnaire and the demographic structure of the respondent sample. The key empirical results are presented in tables, and this section also includes the evaluation of statistical hypotheses. In the discussion, the findings are summarized and compared within an international context. The conclusion not only summarizes the main results but also outlines the study's limitations and proposes directions for future research activities.

THEORETICAL BACKGROUND

Quality of education plays a pivotal role in strengthening This study focuses on four specific behavioral characteristics of SME decision-makers: risk-taking tendency (willingness to accept uncertain outcomes), analytical decision-making (systematic evaluation through detailed analysis), impulsive decision-making (spontaneous choices with minimal deliberation), and independence of judgment (reliance on personal calculations over group consensus). The personality traits of top managers in small and medium-sized enterprises (SMEs) represent a set of psychological and behavioral characteristics that enable them to effectively manage the business, respond to changes in the environment, and support the long-term sustainability and growth of the organization (Navarro Pérez et al., 2024; Raharja et al., 2022; Kent Baker et al., 2018). Unlike managers in large corporations, managers in SMEs are characterized by a higher degree of adaptability, practical thinking, and personal involvement in the daily processes of the enterprise (Badaj & Radi, 2018). Key personality traits include (Rahman et al., 2024; Anwar, 2019) self-confidence and determination; resilience; flexibility and adaptability; social and communication skills; ethical and value anchoring. These traits interact with situational factors and institutional contexts to shape actual decision-making behavior, which forms the focus of this study.

Among these behavioral characteristics, risk-taking tendency has received particular attention in entrepreneurship research due to its direct influence on strategic choices and firm performance. However, risk-taking does not operate in isolation but interacts with other decision-making characteristics such as analytical orientation and judgment independence, creating distinct behavioral profiles across different institutional contexts. Managers or owners of small businesses with risk-taking tendency possess a significant strategic advantage in today's dynamic and uncertain business environment. A strong risk-taking propensity is often associated with entrepreneurial orientation, innovation capacity, and proactive decision-making, which are critical determinants of firm growth and competitiveness (Qalati et al., 2024).

SMEs represent the backbone of most national economies, including those of Central and Eastern Europe, where they contribute substantially to employment, innovation, and regional development (Bate et al., 2025). The investment strategies of SMEs are typically shaped by their limited access to financial resources, higher sensitivity to risk, and dependence on internal financing or short-term credit instruments. Unlike large corporations, SMEs often adopt incremental and adaptive investment strategies, focusing on projects with quick payback periods and moderate capital requirements (Hoque, 2017).

Managerial characteristics play a critical role in shaping SME investment behavior (Tudose et al., 2024). The risk

tolerance, strategic vision, and financial literacy of owners and top managers directly influence both the scale and the structure of investments, particularly in areas such as digital transformation, innovation capacity, and sustainability initiatives (Romero-Parra et al., 2022). Empirical studies show that SMEs led by entrepreneurs with higher openness to innovation and risk propensity are more likely to invest in advanced technologies, energy efficiency, and international expansion, even in uncertain market conditions (Is et al., 2025; Li et al., 2024; Kim et al., 2020).

At the same time, the SME investment environment is strongly affected by institutional factors, including access to EU funding, government support schemes (Kim et al., 2020), and the efficiency of the financial sector. In the V4 countries, differences in regulatory frameworks and administrative burdens create variation in SMEs' investment strategies and their ability to leverage external financing. Thus, successful investment strategies in the SME segment often depend on a combination of managerial competencies, behavioral characteristics, and external institutional conditions that together determine a firm's capacity for growth, competitiveness, and long-term resilience.

Owners and managers in SME segment with a high tolerance for risk are more likely to identify and exploit emerging opportunities, even under conditions of uncertainty or limited information. This trait enables them to make bold strategic moves, such as entering new markets, adopting innovative technologies, or investing in digital and green transformation processes that are essential for achieving sustainable growth (Duréndez & Madrid-Guijarro, 2018). Moreover, risk-taking managers tend to foster a culture of experimentation and learning, which enhances organizational resilience and adaptability to external shocks (Bate et al., 2025; Al Amosh & Khatib, 2022).

In the SME context, where access to financial and human resources is often constrained, risk-oriented leaders are more capable of navigating volatility and uncertainty, transforming potential threats into opportunities for differentiation and long-term success (Barman & Sana, 2025). Their readiness to assume calculated risks contributes not only to improved firm performance but also to greater strategic agility, a key factor in maintaining competitiveness in rapidly changing markets. Risk-taking tendency reflects a crucial element of entrepreneurial leadership, linking individual behavior and cognition to organizational innovation, sustainability, and resilience (Kim & Nguyen, 2025).

In summary, the theoretical literature identifies risk-taking tendency, analytical decision-making, impulsive behavior, and independence of judgment as key behavioral dimensions shaping SME management. While previous research has examined these characteristics in isolation, limited attention has been paid to their combined patterns across different institutional contexts. The V4 countries, sharing post-transition heritage but diverging in subsequent development paths, provide an ideal setting to examine how institutional and cultural factors shape managerial behavioral profiles. This study addresses this gap by investigating cross-country variations in all four behavioral dimensions coincidentally, contributing to understanding of how environmental context influences individual-level decision-making characteristics.

RESEARCH OBJECTIVE, METHODOLOGY AND DATA

The aim of the article is to identify disparities in the perceptions of the behavioral characteristics of decision-makers in the SME segment across the V4 countries.

Data collection and questionnaires

Quantitative research was conducted in the V4 countries – Poland (PL), Czechia (CZ), Slovakia (SK), and Hungary (HU). Respondents were defined as owners or top managers conducting business in one or more countries within the V4 region ("respondents"). The total number of respondents from the V4 countries was 1,129. The first question in the questionnaire was: "I agree to the publication of my answers in this questionnaire for scientific purposes." Among the 1,129 respondents, 26 did not provide consent for their responses to be used for scientific purposes. In addition, 13 respondents represented enterprises with more than 250 employees. These 39 respondents were therefore excluded from the statistical analysis. The structure of respondents (n = 1,090) according to nationality was as follows: Poland – 301 (27.61%), Czechia – 362 (33.21%), Slovakia – 162 (14.86%), and Hungary – 265 (24.31%). The minimum required number of SMEs in the V4 countries was met. An external agency was engaged in the preparation and data collection process.

The questionnaire was developed in cooperation with several foreign universities operating in the V4 countries, including Tomas Bata University in Zlín (Czechia), the University of Gdańsk (Poland), the University of Žilina (Slovakia), and the University of Debrecen (Hungary), among others. The final version of the questionnaire was prepared in English. Afterwards, it was translated into the native languages of the respondents to ensure better comprehension of the questions. The Computer-Assisted Web Interviewing (CAWI) method was used to collect data on respondents' perceptions.

Statements in the questionnaire, statistical hypotheses and statistical methods

The subject of evaluation were the following statements to the behavioural characteristics of the decision-maker (BCHs):

- BCH1: When making investment decisions about the purchase of a new fixed asset (e.g. computer, car, machine), I carefully consider the importance of the characteristics of this product and carry out detailed analyses.
- BCH2: When making investment decisions about buying a new fixed asset (e.g. a computer, a car, a

machine), I sometimes make decisions on the spur of the moment.

- BCH3: I decide to invest in fixed assets in a situation where, in the opinion of other people in the company, the investment is unprofitable, but according to my detailed calculations it should be implemented.
- BCH4: I consider myself a person fully prepared to take risks.

These four statements operationalize distinct behavioral dimensions identified in the theoretical literature. BCH1 measures analytical decision-making tendency through focus on systematic evaluation of fixed asset investments a significant, relatively infrequent decision where thoroughness matters (Kent Baker et al., 2018). BCH2 captures implulsive decision-making using the same investment context, enabling comparison between deliberative and spontaneous approaches (Buelow & Cayton, 2020). BCH3 assesses idependence of judgment by presenting a scenario where personal analysis conflicts with group opinion, measuring willingness to rely on individual calculations (Anwar, 2019). BCH4 directly measures self-perceived risk readiness a fundamental dimension of entrepreneurial orientation (Kozubíková et al., 2018). The five-point Likert scale enables nuanced assessment of agreement intensity while maintaining simplicity for respondents.

To evaluate and identify differences in the perception of the behavioural characteristics of the decision-maker (BCHs) between individual V4 countries, the following statistical hypotheses were formulated:

- SH1: There are a statistically significant differences on among of respondents on the perception of BCH1 according to their nationality (SH1_PL_CR; SH1_PL_SR; SH1_PL_HU; SH1_CR_SR; SH1_CR_HU; SH1_SR_HU).
- SH2: There are a statistically significant differences on among of respondents on the perception of BCH2 according to their nationality (SH2_PL_CR; SH2_PL_SR; SH2_PL_HU; SH2_CR_SR; SH2_CR_HU; SH2_SR_HU).
- SH3: There are a statistically significant differences on among of respondents on the perception of BCH3 according to their nationality (SH3_PL_CR; SH3_PL_SR; SH3_PL_HU; SH3_CR_SR; SH3_CR_HU; SH3_SR_HU).
- SH4: There are a statistically significant differences on among of respondents on the perception of BCH4 according to their nationality (SH4_PL_CR; SH4_PL_SR; SH4_PL_HU; SH4_CR_SR; SH4_CR_HU; SH4_SR_HU).

The focus on cross-country comparison within the V4 region is theoretically justified by institutional theory, which posits that managerial behavior adapts to environmental conditions. Despite shared post-transition heritage, V4 countries have followed divergent development paths since 1989, creating distinct institutional environments. Czech Republic and Slovak Republic share the closest institutional history

Descriptive statistical methods were employed, including simple frequency distribution, cross-tabulation based on two statistical variables, and the construction of contingency tables. Both absolute and relative frequencies of respondents' answers to selected questionnaire items were examined, alongside the z-score test for two population proportions, level of significance equal 0.05 (5%). The statistical methods are widely used for identifying and analyzing disparities between two groups of respondents. The economic interpretation of the obtained results is precise, transparent, and provides practical applicability for entrepreneurs and decision-makers. Empirical results were computed using IBM SPSS Statistics, and the findings were subsequently verified through non-parametric methods, yielding consistent outcomes. This analytical approach enables identification of cross-country disparities in behavioral characteristics while acknowledging that the cross-sectional design captures associations rather than casual relationships between national context and managerial behavior.

Structure of SMEs according to the nationality

Structure of respondents from V4 countries (PL/ CR/ SR/ HU: 301/ 362/ 162/ 265):

- size of enterprise: 202/ 222/ 121/ 159 - Microenterprises (less than or equal to nine employees), 69/ 84/ 27/ 84 - Small enterprise (between ten to 49 employees), 30/ 56/ 14/ 22 - Medium enterprise (between 50 to 249 employees);
- type of enterprise: 203/ 143/ 98/ 145 - Sole trader, 81/ 183/ 52/ 89 - Limited liability company, 11/ 32/ 9/ 18 - Joint-stock company, 6/ 4/ 3/ 13 - Another form of business;
- time period in business: 62/ 64/ 40/ 73 - Less than or equal to 3 years, 99/ 38/ 34/ 92 - More than 3 and less than or equal to 5 years, 64/ 75/ 35/ 49 - More than 5 and less than or equal to 10 years, 76/ 185/ 53/ 51 - More than 10 years;
- level of internationalisation of enterprise: 266/ 329/ 152/ 236 - domestic market – national business environment, 35/ 33/ 10/ 29 - foreign market – international business environment;
- locality of business: 85/ 155/ 55/ 132 - capital, 216/ 207/ 107/ 133 - others city.

RESULTS

The following table (see Table 1) presents the empirical results of respondents' perceptions regarding the statement that, when making investment decisions about the purchase of a new fixed asset (e.g., computer, car, or machine), they carefully consider the importance of the product's characteristics and conduct detailed analyses.

Empirical results (see Table 1) confirmed that more than 85% of respondents (1: 39.1%; 2: 48.3%) expressed a

Table 1: Evaluation of behavioral characteristics of the decision-maker, Statement No. 1.

NT	BCH1									
	1		2		3		4		5	
	n	%	n	%	n	%	n	%	n	%
V4	**426**	**39.1%**	**526**	**48.3%**	**105**	**9.6%**	**29**	**2.7%**	**4**	**0.4%**
PL	132	43.9%	123	40.9%	39	13.0%	4	1.3%	3	1.0%
CR	111	30.7%	201	55.5%	32	8.8%	18	5.0%	0	0.0%
SR	46	28.4%	90	55.6%	24	14.8%	1	0.6%	1	0.6%
HU	137	51.7%	112	42.3%	10	3.8%	6	2.3%	0	0.0%

Note: NT – Nationality; V4 – Visegrad countries; PL – Poland; CR – Czechia; SR – Slovakia; HU – Hungary; 1 – Strongly agree; 2 – Agree; 3 – Neither agree nor disagree; 4 – Disagree; 5 – Strongly disagree. Source: own research

Table 2: Evaluation of behavioral characteristics of the decision-maker, Statement No. 2.

NT	BCH2									
	1		2		3		4		5	
	n	%	n	%	n	%	n	%	n	%
V4	**178**	**16.3%**	**296**	**27.2%**	**185**	**17.0%**	**295**	**27.1%**	**136**	**12.5%**
PL	62	20.6%	83	27.6%	52	17.3%	66	21.9%	38	12.6%
CR	29	8.0%	106	29.3%	49	13.5%	143	39.5%	35	0.0%
SR	27	16.7%	52	32.1%	31	19.1%	34	21.0%	18	11.1%
HU	60	22.6%	55	20.8%	53	20.0%	52	19.6%	45	17.0%

Note: NT – Nationality; V4 – Visegrad countries; PL – Poland; CR – Czechia; SR – Slovakia; HU – Hungary; 1 – Strongly agree; 2 – Agree; 3 – Neither agree nor disagree; 4 – Disagree; 5 – Strongly disagree. Source: own research

Table 3: Evaluation of behavioral characteristics of the decision-maker, Statement No. 3.

NT	BCH3									
	1		2		3		4		5	
	n	%	n	%	n	%	n	%	n	%
V4	**153**	**14.0%**	**364**	**33.4%**	**351**	**32.2%**	**180**	**16.5%**	**42**	**3.9%**
PL	57	18.9%	96	31.9%	101	33.6%	33	11.0%	14	4.7%
CR	21	5.8%	119	32.9%	128	35.4%	86	23.8%	8	0.0%
SR	20	12.3%	58	35.8%	53	32.7%	25	15.4%	6	3.7%
HU	55	20.8%	91	34.3%	69	26.0%	36	13.6%	14	5.3%

Note: NT – Nationality; V4 – Visegrad countries; PL – Poland; CR – Czechia; SR – Slovakia; HU – Hungary; 1 – Strongly agree; 2 – Agree; 3 – Neither agree nor disagree; 4 – Disagree; 5 – Strongly disagree. Source: own research

Table 4: Evaluation of behavioral characteristics of the decision-maker, Statement No. 4.

NT	BCH4									
	1		2		3		4		5	
	n	%	n	%	n	%	n	%	n	%
V4	**226**	**20.7%**	**422**	**38.7%**	**264**	**24.2%**	**147**	**13.5%**	**31**	**2.8%**
PL	77	25.6%	115	38.2%	80	26.6%	22	7.3%	7	2.3%
CR	56	15.5%	130	35.9%	81	22.4%	82	22.7%	13	0.0%
SR	22	13.6%	53	32.7%	47	29.0%	33	20.4%	7	4.3%
HU	71	26.8%	124	46.8%	56	21.1%	10	3.8%	4	1.5%

Note: NT – Nationality; V4 – Visegrad countries; PL – Poland; CR – Czechia; SR – Slovakia; HU – Hungary; 1 – Strongly agree; 2 – Agree; 3 – Neither agree nor disagree; 4 – Disagree; 5 – Strongly disagree. Source: own research

positive attitude (1+2) toward BCH1 in the V4 countries. The results (see Table 1) show that respondents from Hungary expressed the most positive attitudes toward the BCH1 statement (Answer Types 1 + 2: 94.0%). Positive attitudes toward the BCH1 statement among respondents from other countries (PL, CZ, SK) were at comparable levels (Answer Types 1 + 2: 84.0%–86.2%).

The following table (see Table 2) presents the empirical results of respondents' perceptions regarding the statement that, when making investment decisions about buying a new fixed asset (e.g. a computer, a car, a machine), I sometimes make decisions on the spur of the moment.

Empirical results (see Table 2) confirmed that more than 40% of respondents (1: 16.3%; 2: 27.2%) expressed a positive attitude (1+2) toward BCH2 in the V4 countries. The results show that respondents from Poland and Slovakia expressed the most positive attitudes toward the BCH2 statement (Answer Types 1 + 2: PL - 48.2%; SR - 48.8%). Positive attitudes toward the BCH2 statement

Table 5: Evaluation of disparities between respondents on the behavioral characteristics of the decision-maker (BCHs) according to the nationality.

BCH1	PL	CR	SR	BCH2	PL	CR	SR
PL				**PL**			
CR	***3.737***			**CR**	***2.824***		
	0.001				***0.005***		
SR	***2.278***	0.672		**SR**	0.122	***2.469***	
	0.023	0.503			0.905	***0.014***	
HU	***6.181***	***3.133***	***3.371***	**HU**	1.128	1.542	1.081
	0.001	***0.002***	***0.001***		0.254	0.124	0.281
BCH3	**PL**	**CR**	**SR**	**BCH4**	**PL**	**CR**	**SR**
PL				**PL**			
CR	***3.138***			**CR**	***3.213***		
	0.002				***0.001***		
SR	0.551	***2.033***		**SR**	***3.633***	1.076	
	0.582	***0.042***			***0.001***	0.281	
HU	1.014	***4.078***	1.395	**HU**	***2.501***	***5.625***	***5.675***
	0.313	***0.001***	0.165		***0.012***	***0.001***	***0.001***

Note: NT – Nationality; V4 – Visegrad countries; PL – Poland; CR – Czechia; SR – Slovakia; HU – Hungary. Source: own research

among respondents from Czechia was less than other countries (Answer Types 1 + 2: 37.3%).

The following table (see Table 3) presents the empirical results of respondents' perceptions regarding the statement that, I decide to invest in fixed assets in a situation where, in the opinion of other people in the company, the investment is unprofitable, but according to my detailed calculations it should be implemented.

Empirical results (see Table 3) confirmed that more than 45% of respondents (1: 14.0%; 2: 33.4%) expressed a positive attitude (1+2) toward BCH3 in the V4 countries. The results (see Table 3) show that respondents from Poland and Hungary expressed the most positive attitudes toward the BCH3 statement (Answer Types 1 + 2: HU - 55.1%; PL - 50.8%). Positive attitudes toward the BCH3 statement among respondents from Czechia was less than other countries (Answer Types 1 + 2: 38.7%).

The following table (see Table 4) presents the empirical results of respondents' perceptions regarding the statement that, I consider myself a person fully prepared to take risks.

Empirical results (see Table 4) confirmed that more than 55% of respondents (1: 20.7%; 2: 38.7%) expressed a positive attitude (1+2) toward BCH4 in the V4 countries. The results (see Table 4) show that respondents from Hungary expressed the most positive attitudes toward the BCH4 statement (Answer Types 1 + 2: HU - 73.6%). Positive attitudes toward the BCH4 statement among respondents from Slovakia was less than other countries (Answer Types 1 + 2: 46.3%).

A comparison of respondents' positive answers regarding the behavioral characteristics of the decision-maker (BCH) according to nationality is presented in Table 5.

These empirical results (see Table 5) confirmed the following statistical hypotheses (the p-value of the z-score is less than the level of significance): SH1_PL_CR; SH1_PL_SR; SH1_PL_HU; SH1_CR_HU; SH1_SR_HU; SH2_PL_CR; SH2_CR_SR; SH3_PL_CR; SH3_CR_SR; SH3_CR_HU; SH4_PL_CR; SH4_PL_SR; SH4_PL_HU; SH4_CR_HU; and SH4_SR_HU. Other statistical hypotheses were not significant

DISCUSSION

The quantitative research from the business environment of V4 countries shows the interesting findings:

Managers and owners from Poland and Hungary (PL: 63.8%; HU: 73.6%) positively evaluated the statement compared to owners and managers from Slovakia (46.3%) and Czechia (50.4%), indicating that they consider themselves fully prepared to take risks. This pattern reflects institutional differences across V4 countries. Hungarian managers operate in an environment characterized by greater policy variability and regulatory. Uncertainty, which may select for risk-tolerant entrepreneurs or develop adaptive risk-taking capabilities over time. Polish managers elevated risk readiness likely stems from competitive intensity in Poland's larger market, where aggressive strategies are rewarded. Conversely, Czech and Slovak managers benefit from more stable institutional frameworks and better access to EU funding, reducing the necessity for high-risk strategies (Guk et al., 2024). This finding aligns with Zhou et al. (2025), who demonstrated that risk attitudes vary systematically with institutional quality across countries.

The lowest level of agreement among respondents (V4: 43.5%) was recorded for the statement: "when making investment decisions about buying a new fixed asset (e.g., a computer, a car, a machine), I sometimes make decisions on the spur of the moment." Significant cross-country differences emerged, with Czech managers showing lowest impulsivity (37.3%) compared to the Po-

lish (48.2%) and Slovak (48.8%) managers. This pattern suggests several mechanisms. Firstly, the generally low impulsivity across V4 may reflect survival bias, as our sample consists of established SMEs (with an average of over 5 years in operation), meaning that highly impulsive decision-makers may have already exited the market due to failure. Secondly, Czech managers particularly low impulsivity likely reflects their access to developed financial markets and institutional advisory services, enabling more deliberative decision-making (Alexakis et al., 2025). Third, the fixed asset investment context naturally encourages caution even among opportunistic managers, as these are significant capital commitments with long-term consequences. The Czech-Polish difference may indicate that competitive intensity in Poland's larger market creates more situations where rapid decisions capture fleeting opportunities.

Medium agreement among respondents (V4: 47.3%) was recorded for the statement: "I decide to invest in fixed assets in a situation where, in the opinion of other people in the company, the investment is unprofitable, but according to my detailed calculations, it should be implemented." Czech managers demonstrated significantly lower judgment independence (38.7%) compared to Hungarian (55.1%), Polish (50.8%) and Slovak (48.1%) managers. This divergence may reflect institutional differences across V4 economies. The Czech SME environment is characterized by relatively developed financial markets and established advisory networks, where external expertise and collective input may provide valuable decision-making resources (Kim & Nguyen, 2024). Under such conditions, incorporating others' opinions could represent rational information-processing rather than managerial weakness. Hungarian and Polish managers, operating in different institutional contexts, may face environments where autonomous judgment becomes more necessary for timely decision-making. These patterns suggest that effective decision-making orientations are contingent upon institutional context. The results showed that the country of the SME within the V4 region is a significant factor influencing the perception of this statement (disparities were identified between the Czechia and other V4 countries – Hungary, Slovakia, and Poland): "I decide to invest in fixed assets in a situation where, in the opinion of other people in the company, the investment is unprofitable, but according to my detailed calculations, it should be implemented."

Empirical results from the V4 countries confirmed that the country in which the enterprise operates is a significant factor determining its attitude toward risk-taking. These findings are consistent with the conclusions of several authors, such as Zhou et al. (2025), Kozubíková et al. (2018), and Barro & Mccleary (2003).

He & Lei (2025) found in their research that taking excessively high risks has negative emotional impacts even on the company's employees. They are more frequently exposed to stress and fear concerning their own financial security and that of their family members. On the other hand, Alkaraan et al. (2025) or Buelow & Cayton (2020) stated that the tendency to take risks in the area of a company's investment activities and financial health is positively correlated with the sustainability and stability of its financial performance.

The risk-taking behavior of executives in their entrepreneurial activities plays an important role in strategic decision-making (Chakabva & Tengeh, 2023). Risk aversion is a significant personal characteristic of key individuals in a company (owners and top managers), which they apply in their investment activities (Koski & Karvanen, 2025; Chodokufa, 2016).

CONCLUSION

The aim of the article was to identify disparities in the perceptions of the behavioral characteristics of decision-makers in the SME segment across the V4 countries.

This study reveals significant cross-country variations in managerial behavioral profiles within the V4 region, extending beyond simple confirmation of differences to demonstrate how institutional contexts shape decision-making characteristics. Hungarian managers exhibit a distinctive combination of high analytical tendency (94.0%) and high-risk readiness (73.6%), suggesting systematic risk-taking under uncertainty. Polish managers demonstrate moderate-to-high-risk readiness (63.8%) with comparatively lower analytical orientation, while Czech and Slovak managers show greater caution in risk-taking (50.4% and 46.3% respectively) combined with lower judgment independence, particularly among Czech respondents (38.7%). These patterns indicate that behavioral characteristics reflect adaptive responses to environmental conditions rather than purely dispositional traits, contributing to institutional theory by demonstrating that national context influences individual-level cognitive and behavioral orientations.

The findings make three theoretical contributions. First, they demonstrate that managerial behavioral characteristics are systematically shaped by institutional environment, with post-transition development trajectories creating distinct behavioral profiles across V4 countries despite shared socialist heritage. Second, the multi-dimensional approach reveals complexity in risk-related behavior-high risk readiness can coexist with high analytical tendency (Hungary) or lower analytical orientation (Poland), challenging one-dimensional concepts of entrepreneurial risk-taking. Third, the study extends understanding of judgment independence by showing it varies with institutional quality. Practically, these findings suggest that entrepreneurship support policies should be tailored to national behavioral profiles rather than applying universal approaches across the V4 region. Hungarian SMEs may benefit from institutional stability measures more than risk encouragement, while Czech and Slovak programs should focus on reducing perceived innovation risks through demonstration effects and safety nets.

The quantitative research conducted through a questionnaire has certain limitations. Methodologically, the data collection was carried out by an external agency which, despite its reputation, transparency, and willingness to address all inquiries from the research team, may have gathered data without taking into account the proportional representation of enterprises based on the demographic structure within the respective national business environments. The results were obtained using parametric tests, which have certain limitations and could be verified through alternative statistical approaches. Moreover, the subjectivity and mood variability of respondents during the questionnaire completion process could distort the achieved conclusions and findings.

The research was conducted in the V4 countries, where the personality and character of key decision-makers critically determine business management and entrepreneurial risk handling. Future research should address several priorities. First, continuing design tracking managers across institutional changes would enable stronger causal interference about how environmental shifts shape behavioral characteristics over time. Furthermore, direct measurement of institutional quality, cultural values, and market characteristics would permit explicit testing of mediation mechanisms linking national context to individual behavior. Third, expansion beyond behavioral measures to include behavioral experiments or case studies of actual decision-making processes would validate self-reported orientations. Fourth, examination of additional personality dimensions such as proactivity, innovativeness and strategic flexibility would provide a more comprehensive behavioral profile. Finallly, comparative research extending to Western European countries or other post-transition regions would test whether observed patterns reflect post-transition timing effects or region-specific factors, advancing theoretical understanding of how historical trajectories shape contemporary managerial psychology.

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