THE ROLE OF PERCEIVING ORGANIZATIONAL CULTURE IN THE DEVELOPMENT OF EMPLOYEE INNOVATION

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Abstract

The paper examines the role of perceptual flows in shaping employees' innovative behaviour. It analyses the differences in the perception of constructive elements of innovative organizational culture between managers and employees. The research is based on the assumption that there is no homogeneity of perceptual flows among organizational stakeholders. The empirical study was conducted in 2024 on a quota sample of 340 respondents from various organizations in the Republic of Croatia. The method of linear discriminant analysis (LDA) was applied to identify differences between the two groups of respondents. The findings confirm the existence of a significant gap in perceptual flow between managers and employees, with respondents aligning themselves with different constructs of innovation culture. Although the constructs were drawn from relevant literature, only 40% of respondents could be statistically classified into the discriminant groups, indicating a weak intensity of the perceived innovation

culture and a potentially limited understanding of the provided statements. The limitations of the research include a restricted number of constructive statements and the possible inadequate adaptation of measurement instruments to the local context. It is suggested that future research expands the methodology by including additional constructs and qualitative methods to gain deeper insight into the dynamics of perceptions. The practical implications highlight the need to align stakeholder perceptions in order to successfully implement an innovative organizational culture. Managing homogeneous perceptual flows is a crucial step in developing the innovative potential of organizations.

Keywords: *organizational culture, innovation, discriminant analysis*

JEL Classification: *D23, L23, M12, O31*

1. INTRODUCTION

Innovation is the key to organizational survival. Therefore, studying the processes that support innovation should be of equal interest to both researchers and practitioners. A strong innovation capability can effectively enhance an organization's ability for sustainable development, while innovation performance represents the most direct and effective measure of the outcomes of innovation activities. Innovation culture is an important component of embodying and strengthening an organization's capacity for sustainable development (Gerasimov & Ozernov, 2023). As a fundamental element of organizational competitiveness, innovation is considered an indispensable business process that must be properly managed in order to promote organizational success in terms of profitability, productivity, service quality, and customer and employee satisfaction (Neto & Mechado, 2022). Enhancing innovation capability and organizational performance should be one of the main concerns of management.

Previous studies have intensively explored the relationship between organizational elements and innovation outcomes from an organizational perspective, examining the impact of organizational culture, structure, and atmosphere on innovation performance (Rubio-Andrés et al., 2024; Vargas-Halabi et al., 2024; Nurlina, 2022).

This paper investigates the mechanism of how organizational culture perception influences an organization's innovation orientation from a management context perspective. Despite the considerable attention given to organizational culture, the existing literature does not sufficiently document the characteristics

of organizational culture perception that support innovation. Earlier studies do not adequately explain the explicit process through which organizational values (i.e., the fundamental building blocks of an innovation-oriented organizational culture) are translated into visible and desirable stakeholder behaviours. Moreover, advancing research requires a more nuanced perspective and clearer explanations of how specific layers of organizational culture are perceived. The paper contributes to existing literature by providing a clearer understanding of the connections between the perception of different layers of organizational culture, which represents a key prerequisite for stakeholders' innovative behaviour.

The research aims to demonstrate that perceptual flows of innovation-oriented organizational culture should be homogeneous across all organizational stakeholders (specifically between managers and employees). When such flows are homogeneous, they create fertile ground for employees' inclination toward innovative behaviour, and vice versa. Heterogeneous perceptual flows among organizational stakeholders will neither create such fertile ground nor foster the development of an innovative-oriented organizational culture. The aim of this paper is to examine whether the perceived constructive elements of an innovation-oriented organizational culture, as viewed by managers and employees, converge or significantly differ. In other words, the paper seeks to determine whether there is a perceptual gap between managers and employees regarding the constructive elements of an innovation-oriented organizational culture. Based on this aim, the following hypothesis is proposed:

H_1 - The perceived constructive elements of an innovation-oriented organizational culture differ significantly between managers and employees.

This paper is important because it examines the managerial context of organizational stakeholders' perceptual flows as a variable relevant to the relationship between organizational culture and innovation performance. The findings of this study are expected to enrich the understanding of the mechanism of organizational culture perception and provide practical guidelines for organizations in developing a management context for perceptual flows with the aim of improving innovation performance. Distinguishing subtle yet distinct dimensions that support stakeholder behaviours offers a more detailed picture and better understanding of the interrelations between specific layers of organizational culture that drive desired behaviours. As such, this research provides a starting point for further studies and for managing specific elements of an innovation-oriented organizational culture. Therefore, the study establishes clear guidelines for managers who aim to build an organizational culture of innovation.

2. LITERATURE REVIEW

In general, organizational culture is characterized as the "combination of artifacts" (often referred to as practices, expressive symbols, or forms), along with the values, beliefs, and fundamental assumptions that members of an organization collectively hold regarding acceptable behaviour (Detert et al., 2000). Organizational culture is contingent upon the interactions of numerous individuals within the organization, as they collaborate to reach shared objectives in their designated environment. (Choi et al., 2023; Shein, 1983). Although organizational culture comprises numerous elements, this research narrows its focus to those that are particularly significant for organizational innovation (Dombrowski et al., 2007).

The concept of psychological safety has been utilized at both individual and team levels since its inception. On an individual level, psychological safety pertains to an employee's capacity to express themselves, undertake actions, or fulfil roles without the fear of detrimental effects on their reputation, status, or career progression (Kahn, 1990; Detert et al., 2000). At the team level, psychological safety is characterized as a common belief among team members, fostering a collective environment that encourages employees to engage in interpersonal risks within the team (Choi et al., 2023). Team psychological safety encompasses more than just interpersonal trust; it describes an organizational culture defined by mutual respect and trust among individuals (Detert et al, 2000). Psychological safety is commonly understood as the way team members perceive their interpersonal relationships, engagement, collaboration, and the dependability of resolving issues within the workplace. Furthermore, when employees experience a high level of psychological safety, they are more likely to take bold steps in fostering innovation (Choi et al., 2023). Baer and Frese discovered that psychological safety positively influences long-term organizational change and the attainment of goals. Additionally, it plays a significant role in shaping the organizational culture within companies, thereby enhancing the effect of process innovation on overall organizational performance (Baer & Frese, 2003).

In a collectivist society, people are closely intertwined within a social network, each valuing loyalty to its members and maintaining an emotional dependence on their group (Hofstede, 1980). Collectivism provides security and resources to group members (Suh & Son, 2016). Tang et al. (2020) found that collectivism had a strong positive effect on team performance.

It is anticipated that all stakeholders within the organization, encompassing both managers and employees, will perceive the innovative organizational culture in a uniform or at least somewhat comparable manner. However, is this truly the reality? Numerous published studies have frequently analysed and showcased specific segments that reflect the perceptual flows of an innovative organizational culture. The perceptions can vary, sometimes being more pronounced and at other times less so, occurring not only between managers and employees but also within each of these groups.

What constructive elements of innovative organizational culture have been recognized in published scientific research concerning managers, and which have been identified among employees?

Dombrowski et al. (2007), Migaleva et al. (2022), Aisjah et al. (2023) and Li (2023) have highlighted the significance of employees' personal characteristics, including their interests and preferences, organizational position, age, expertise, and experience.

Employee job satisfaction (flexible working hours, remote work options, salaries and benefits, opportunities for career advancement, etc.) is highlighted as a crucial component in fostering an innovative organizational culture, as demonstrated by the research of Pakdil and Leonard (2015), Luo et al. (2024), Khan et al. (2022), and others. However, it is important to point out that none of these authors assert that employee job satisfaction alone has a direct and robust causal relationship with the engagement of satisfied employees in the active development of an innovative organizational culture.

As constructive and stimulating elements of an innovative-oriented organizational culture, managers, however, perceive and point to some other constructs. For example, Chaubey et al. (2022) argue that employees' innovative creativity and inclination toward an innovation-oriented culture are primarily influenced by training and various forms of acquiring new job-related knowledge. Popa et al. (2023), Ali (2021), and Gloet and Terziovski (2004) contend that by acquiring new knowledge, employees strengthen their competencies, which in turn encourage their inclination to build an innovation-oriented organizational culture that enables them to further develop those acquired competencies.

Numerous studies highlight how managers emphasize the role and importance of information and communication within organizations as stimulating or key factors in building an innovation-oriented organizational culture. Wu and

Mithas (2021), Saldanha et al. (2021), Solomon and Brown (2021), and Volery and Tarabashkina (2021) are just some of the proponents of these perceptual constructs of an innovation-oriented organizational culture. Although they do not directly link the implementation of new technologies in the workplace with employees' innovative organizational behaviour, a considerable body of research suggests that managers who believe that technology implementation will trigger positive perceptual flows among employees also consider it a driver toward an innovation-oriented culture. Key studies in this regard include Osano (2023), Shuaib and He (2021), Mingaleva and Danilina (2014), and Albors-Garrigos et al. (2019).

3. METHODOLOGY

The study encompasses both employees and managers from across the Republic of Croatia. The manager category consists of all respondents engaged in human resources management. These individuals represent various industries and organizations of differing sizes. It is our assertion that neither the industry type nor the organization's size significantly influences the achievement of the research's objectives and hypotheses. Furthermore, the employees participating in this study are not restricted by their tenure within the organization or their specific roles. They are not distinguished by gender or age. Both the managers and employees included in the study represent a diverse range of industries, organizational sizes, and hierarchical levels.

The primary data for this research were gathered via an online survey specifically designed for this research. Conducted throughout 2024, the survey utilized social media platforms, mainly Facebook and Twitter, allowing it to be sent, shared, and circulated among the target participants. It was entirely anonymous, with respondents being made aware of this before taking part in the survey. Additionally, they were informed about the survey's objectives. In developing the survey and its perception constructs, the authors drew upon existing findings and validated results from previous research, which were referenced in the literature review. The authors tailored these constructs for this research.

The sample size was n=340, employing a quota sampling method. This sample size and technique were derived from stratified random sampling, applied in a context where the respondent population is heterogeneous. The sample structure included an equal distribution of 170 employees and 170 managers.

The survey questionnaire was developed as a research measurement tool utilizing the foundational principles and assumptions of the Likert scale. This scale comprises ten statements designed to assess the perceptual flows among respondents, reflecting their perceptions, understanding, and experiences related to innovative organizational culture (see Table 1). Each respondent was posed with a singular question: "In your view, what is essential for fostering an innovative orientation among members of the organization?" The respondents' levels of agreement with the provided statements are categorized as follows: 1 - I completely disagree, 2 - I disagree, 3 - I somewhat agree, 4 - I agree, and 5 - I completely agree. For employees, the scale is assigned weight ratios that correspond to the levels of agreement, ranging from 1 point for 'I completely disagree' to 5 points for 'I completely agree.' Conversely, for managers, the weight ratios are assigned in reverse order, with 1 point for 'I completely agree' and 5 points for 'I completely disagree.'

Table 1. Statements from the survey for assessing perceptual flows

Number	Statement	Source*
1.	Innovative behaviour is exclusively a matter of the personal interests of individuals.	Dombrowski et al., 2007. Migaleva et al., 2022.
2.	Depending on their age, individuals may or may not behave innovatively.	Aisjah et al., 2023. Li, 2023.
3.	The motivation for innovation is derived from the acquisition of new knowledge and its application in the workplace.	Popa et al., 2023.
4.	High-quality, timely, and accessible communication and information act as a driving force for promoting innovative tendencies and behaviours in an organization.	Wu & Mithas, 2021. Saldanha et al., 2021.
5.	Innovative behaviour and a propensity for innovation are absent without significant incentives and motivation.	Albors-Garrigos et al., 2019.
6.	Depending on their position and function within the company, a person may or may not be innovative.	Pakdil & Leonard, 2015.
7.	The introduction of new technology tends to enhance creativity among employees.	Osano, 2023. Shuaib & He, 2021.
8.	Employees can only be innovative if they are fully content with their job.	Luo et al., 2024.
9.	Employee incentives and creative behaviour stem from workplace autonomy.	Ali, 2021.
10.	An individual's inventive behaviour is solely determined by their level of experience and competence.	Khan et al., 2022.

Source: contribution of the authors. * The statements were formulated by the authors and tailored to align with the research content based on the referenced sources.

Statements numbered 1, 2, 6, 8, and 10 were designed to assess the perceptual flows of employees, while statements numbered 3, 4, 5, 7, and 9 were formulated to evaluate the perceptual flows of managers. The objective of this questionnaire was to ascertain whether the perceptual flows and constructs of an innovative organizational culture, as expressed by all respondents (both employees and managers), are consistent or if they exhibit differences. The consistency of the respondents' statements was assessed using the Cronbach alpha coefficient.

In this research, discriminant analysis is utilized as a technique to identify the variables, specifically the responses of participants, that distinguish between two or more naturally occurring groups (objects) (Yucel et al., 2023). Huberty and Olejnik (2006) state that the objective of this method is to minimize and enhance the number of variables that characterize the differences among the specified (selected) groups. These identified variables are referred to as discrimination variables. Discriminant function analysis is a statistical method employed to examine data when the dependent variable, or outcome, is categorical, while the independent variable, or predictor, is parametric. This study utilizes linear discriminant analysis (LDA). Discriminant analysis systematically determines a linear combination of variables, referred to as canonical discriminant functions (equations), that optimizes the differentiation between groups. By projecting high-dimensional data into a lower-dimensional space, LDA enhances the separation of groups while reducing the variance within each group (Izenman, 2018). The structure of a linear equation resembles that of regression (1).

$$D = V_1X_1 + V_2X_2 + V_3X_3 \ldots\ldots\ldots V_iX_p + a \quad (1)$$

where:
D – discriminant function
V_i – discriminant coefficient
X_i –respondent's score for the i-th variable
A –constant
p – number of predictor variables

This function aims to enhance the distance between the observed groups by developing an equation that exhibits significant discriminatory power between them, specifically by maximizing the standardized squared distance between the two groups (in this instance). The variable V represents unstandardized discriminant coefficients similar to those found in regression equations, which

serve to maximize the distance between the means of the criterion (dependent) variable (Izenman, 2018). The model is constructed based on the matrix of sums of squares between the groups. (2)

$$B = \sum_{k=1}^{g} n_k (a_k - a)(a_k - a)^T \quad (2)$$

Also, it is based on the disparity between the class means (a) and the comparison with the overall data means, as well as the sum of squares matrix within the group. (Izenman, 2018), (3)

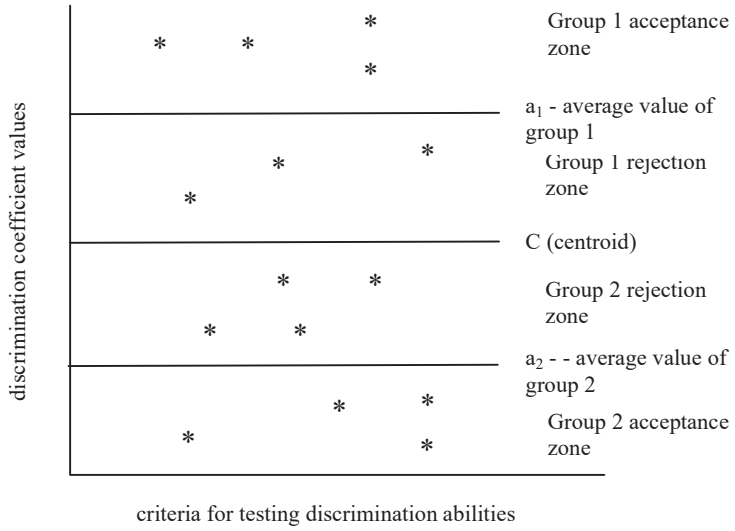
$$W = \sum_{k=1}^{g} \sum_{i=1}^{n_k} (x_{ki} - a_k)(a_{ki} - a_k)^T \quad (3)$$

The primary characteristic of LDA analysis is its ability to identify a set of linear discriminants that optimize the ratio of between-group variance to within-group variance. Additionally, it presumes that the observations within each group are derived from a normal distribution, characterized by a group-specific mean and a shared variance across all groups. LDA further assumes that the data conforms to a Gaussian distribution and that the covariance matrices of the various groups are identical (Izenman, 2018). LDA is intricately linked to one-way multivariate analysis of variance (MANOVA) and regression analysis. It is frequently conducted within the framework of a multivariate analysis of variance (MANOVA), as both methodologies share certain common assumptions (Gkalesis et al., 2012). Similar to other multivariate analyses, the linear combinations or composites of the outcome variables are predetermined. This example employs discriminant analysis to assess the degree to which the chosen discrimination statements reveal differences in the perception of perceptual flows between two respondent groups. These differences are based on the connoted elements involved in fostering an innovative organizational culture. The first group consists of employees, while the second group comprises managers.

As per the findings validated by McLachlan (2004), discriminant analysis involves identifying the distinctions between two chosen groups concerning the average values of their variables. If these values show significant differences across the selected groups, it is asserted that this variable serves to differentiate between the groups (Sugiyama, 2007). The resulting matrices are then compared to ascertain whether significant differences exist between them, as noted by Yucel et al. (2023). The allocation of a variable to the group exhibiting the highest value is frequently performed, as suggested by McLachlan (2004), uti-

lizing the Mahalanobis distance metric, which is grounded in the principles of Euclidean space theory. In statistical terms, LDA evaluates the null hypothesis asserting the equality of group means (centroids) for a group of independent variables, with the statistical significance determined by the generalized distance between group centroids (Wang et al., 2024; Oh & Kwak, 2013). The primary objective of this research is to identify the dimension or dimensions along which the groups exhibit differences and to develop classification functions that predict group membership (Pang et al., 2014). Decisions regarding the assignment of discriminant quantities to the appropriate group can be made as illustrated in Fig. 1.

Figure 1. Decision-making according to the method of discriminant analysis



Source: contribution of the authors

4. RESEARCH RESULTS

The predominant demographic among respondents was female, accounting for 62.04%, with the majority aged between 42 and 60 years (39.28%). Additionally, 57.43% of respondents had completed secondary education, and 41.76% were from organizations employing between 31 and 50 individuals. Table 2 shows assessment of the consistency of the respondents' statements using the Cronbach alpha coefficient.

Table 2. Indicators of consistency of the respondents' statements

Statement	Calculated α	Reference α	Consistency
1	0.832	0.8 to 0.9	Good
2	0.917	0.9 to 1.0	Excellent
3	0.735	0.7 to 0.8	Acceptable
4	0.826	0.8 to 0.9	Good
5	0.710	0.7 to 0.8	Acceptable
6	0.759	0.7 to 0.8	Acceptable
7	0.833	0.8 to 0.9	Good
8	0.751	0.7 to 0.8	Acceptable
9	0.936	0.9 to 1.0	Excellent
10	0.704	0.7 to 0.8	Acceptable

Source: contribution of the authors

All ten statements from the participants exhibit a consistent nature, as they fall within the acceptable range of 0.7 to 1.0. Consequently, the overall consistency of the questionnaire is appropriate for subsequent statistical analysis and processing. The second and ninth statements demonstrate the highest and lowest levels of consistency, respectively, while statements 3, 5, 6, 8, and 10 are deemed acceptable despite being less consistent (Cronbach, L.J., 1951).

The indicators of reliability and convergent validity of this measurement tool are detailed in Table 3.

Table 3. Indicators of reliability and convergent validity of respondents' statements

Variables	CR (composite reliability)	AVE (average variance extracted)	FW (factor weights)
1	0.846	0.692	0.726
2	0.735	0.654	0.598
3	0.947	0.768	0.815
4	0.723	0.513	0.629
5	0.730	0.604	0.580
6	0.811	0.671	0.829
7	0.702	0.570	0.714
8	0.794	0.538	0.692
9	0.918	0.703	0.575
10	0.838	0.629	0.843

Source: contribution of the authors

The value of factor weights (Table 3) exceeds 0.5 for ten statements, demonstrating that these statements align effectively with the latent variables, thereby fulfilling the initial criterion of convergent validity. The second criterion, namely the composite reliability of the statements, is also met for all ten statements, as their composite reliability exceeds 0.7 (Hair, 2010).

4.1. Discrimination values of statements

To consolidate the discrimination values of the statements made by respondents, all statements from both groups were categorized into five subgroups (pg). In this process, the responses from 170 questionnaires were categorized into subgroups of 34, according to the order in which they were received. The discrimination values for group 1 and group 2 are presented in Tables 4 and 5.

Table 4. Discrimination values of group 1 statements

pg	Discrimination value of statements									
	1	2	3	4	5	6	7	8	9	10
1	4.051	3.471	3.151	2.858	3.361	4.105	3.205	3.427	2.736	4.068
2	3.709	4.682	2.847	2.409	3.283	3.883	3.044	3.205	2.618	4.332
3	3.886	4.026	2.563	3.116	2.526	3.736	2.618	4.471	3.435	3.401
4	4.514	3.380	3.662	3.075	2.790	4.282	3.332	4.638	3.171	3.862
5	4.726	3.926	3.016	2.727	2.478	4.379	2.794	4.053	3.089	4.573

Source: contribution of the authors

Table 5. Discrimination values of group 2 statements

pg	Discrimination value of statements									
	1	2	3	4	5	6	7	8	9	10
1	3.879	4.510	2.257	2.016	1.115	4.484	1.271	3.491	2.796	4.826
2	4.261	3.746	1.038	3.117	2.714	4.273	2.511	3.685	1.683	4.403
3	4.583	3.266	2.241	1.418	2.282	3.506	2.607	4.362	2.404	3.899
4	3.779	4.372	2.759	2.559	1.362	4.012	2.858	4.227	2.816	4.258
5	4.829	4.617	1.716	3.240	3.017	3.738	2.943	4.133	1.522	4.612

Source: contribution of the authors

The coefficients of quartile deviation (Vq) are displayed in Tables 6 and 7.

Table 6. Coefficients of quartile deviation of group 1

pg	Coefficients of quartile deviation (Vq) according to respondents' statements									
	1	2	3	4	5	6	7	8	9	10
1	0.147	0.057	0.221	0.526	0.289	0.375	0.271	0.033	0.263	0.4242
2	0.035	0.163	0.538	0.472	0.077	0.491	0.066	0.517	0.195	0.507
3	0.303	0.282	0.460	0.033	0.526	0.628	0.172	0.461	0.338	0.381
4	0.411	0.075	0.339	0.534	0.448	0.644	0.245	0.049	0.411	0.675
5	0.282	0.118	0.017	0.371	0.072	0.059	0.448	0.338	0.065	0.226

Source: contribution of the authors

Table 7. Coefficients of quartile deviation of group 2

pg	Coefficients of quartile deviation (Vq) according to respondents' statements									
	1	2	3	4	5	6	7	8	9	10
1	0.319	0.076	0.446	0.063	0.125	0.291	0.592	0.639	0.404	0.726
2	0.147	0.158	0.303	0.082	0.139	0.384	0.713	0.334	0.238	0.141
3	0.350	0.432	0.271	0.255	0.248	0.557	0.353	0.426	0.671	0.526
4	0.289	0.561	0.496	0.144	0.077	0.621	0.488	0.075	0.552	0.663
5	0.261	0.073	0.557	0.131	0.064	0.340	0.571	0.139	0.398	0.479

Source: contribution of the authors

The discrimination values, derived from the average responses of the participants, are distinctly differentiated visually. In the first group, these values are notably higher for statements 1, 2, 6, 8, and 10, while in the second group, they are more pronounced for statements 3, 4, 5, 7, and 9. The computed coefficients of quartile deviation (Vq) for the respondents' statements suggest a significant level of homogeneity within the subgroups, with values ranging from 0.1 to 0.8 in both groups.

4.2. Discriminant Analysis: Equations, Process and Outcomes

The DW values for both groups, as shown in Table 8, are approximately 2 (ranging from 1.5 to 2.5), suggesting that there is no first-order autocorrelation among the subgroups presented. Consequently, it can be concluded that the estimation of the parameters in the included equations is both unbiased and consistent.

Table 8. Values and scores of discriminant equations (Yc) for groups 1 and 2

pg	Group 1			Group 2		
	Y_{c1}	F	DW	Y_{c2}	F	DW
1	0.461	3.517	2.057	0.542	7.322	1.859
2	0.385	5.062	1.830	0.263	5.048	2.263
3	0.537	2.481	1.947	0.407	3.819	2.501
4	0.282	6.833	2.364	0.426	5.716	2.337
5	0.373	4.590	2.406	0.305	4.606	1.739

*At a significance level of 5%
Source: contribution of the authors

To discriminate between variables, the mean values of the discrimination statements for subgroups within each group (a), the overall average of the discrimination variables (pa), and the centroid (C), representing the overall average of the discrimination equations, were computed for both respondent groups, as presented in Table 9.

Table 9.

Statement	a_1	a_2	pa
1	4.177	4.266	4.222
2	3.897	4.102	4.000
3	3.048	2.002	2.525
4	2.837	2.470	2.654
5	2.888	2.098	2.493
6	4.077	4.003	4.040
7	2.999	2.438	2.719
8	3.959	3.980	3.970
9	3.010	2.244	2.627
10	4.047	4.400	4.224

Source: contribution of the authors

$$C = (0{,}408 + 0{,}389) / 2 = 0{,}399$$

The computed centroid value of 0.399 acts as the reference point for the comparison of the discrimination coefficients listed in Table 8. Two key assumptions must be considered: (1) If the calculated discrimination coefficient for the first group exceeds 0.399, then it will remain in that group; conversely, if it falls below this threshold, then it will be reassigned to the second group. Similarly,

if the calculated determination coefficient for the second group is below 0.399, then it will stay in that group; however, if it surpasses this value, then it will be reclassified and reassigned to the first group. This process is illustrated in Fig. 1.

In the first group situated above the centroid, there are merely two subgroups that should be accepted, whereas three groups fall below the centroid value and must be rejected, meaning they cannot be part of this group. Similarly, in the second group of respondents, there are two subgroups that lie below the centroid value and should be retained, while three subgroups above the centroid value should be excluded or rejected from this group.

5. DISCUSSION

In developing the questionnaire, we incorporated ten constructs that prior research has validated as essential for fostering an innovative organizational culture. Among these, five constructs were identified as perceptual influences on employees: personal interests (Dombrowski et al., 2007; Migaleva et al., 2022); employee age (Aisjah et al., 2023; Li, 2023); status and role within the organization (Pakdil & Leonard, 2015); employee satisfaction (Luo et al., 2024); and expertise along with work experience (Khan et al., 2022). Five constructive elements have been suggested for managers to facilitate the development of perceptual flows: the acquisition and application of new knowledge in the workplace (Popa et al., 2023); effective information and communication strategies (Wu & Mithas, 2021; Saldanha et al., 2021); fostering employee motivation (Albors-Garrigos et al., 2019); the implementation of new technologies (Osano, 2023; Shuaib & He, 2021); and promoting employee autonomy in their roles (Ali, 2021). The findings of this research indicate that the constructive elements are indeed recognized and integrated into the development of an innovative organizational culture; however, the experiences of employees and managers differ significantly.

Furthermore, the research results indicate that these perceptual flows are of relatively weak intensity (as shown by the discriminant values of the respondents' statements). In both groups of respondents, significant identification with the offered statements occurred only in two out of the five formed subgroups of respondents-that is, only 40% of the total sample (340). There are several possible reasons why this percentage was not higher. The constructs were drawn from studies conducted on populations entirely different from the

one used in this research. It is realistic to assume that respondents may not have sufficiently identified with the constructs that were offered to them. There is also a real possibility, considering the structure of the studied population, that organizational culture-especially of an innovative character-has not been sufficiently implemented in the organizations from which the sample was drawn, and therefore could not be adequately perceived.

On the other hand, an innovation-oriented organizational culture is still an insufficiently researched and even less represented phenomenon in organizations. Beyond the constructs included in this study, there is a wide range of other proven factors that influence the perception of such a culture. Hornsby et al. (2009) and Valliere (2013) advocate intrapreneurship as a model for leveraging internal resources. Similarly, there are approaches based on asynchronous, synchronous, and hybrid brainstorming (perception of storms, perception of roles, the "quick ideas" model, the so-called "crazy eights" model, the "silent circle" model). Among the advocates of these perceptual constructs are Beda and Smith (2022), Danes et al. (2020), and Maaravi et al. (2021). Proponents of these approaches to innovation-oriented organizational culture offer numerous perceptual constructs, approaches, and models-some of which should likely be incorporated so that respondents could perceive them more strongly and identify with them more intensively.

The relatively slow progress in implementing an innovation-oriented organizational culture has been emphasized in the findings of numerous studies (Gerasimov & Ozernov, 2023; Rubio-Andrés et al., 2024; Vargas-Halabi et al., 2024). There is broad consensus among these authors that this culture is created and sustained by all stakeholders, not just by specific groups within the organization. It can be stated with some certainty that there have not been published (or at least widely recognized) studies aiming to identify the constructive elements of this culture through the perceptual flows by which different segments of stakeholders experience it. This paper has sought, at least in part, to highlight this gap and to inform the scientific and professional community of the existence of perceptual discrepancies in how innovation culture is viewed by different segments of organizational members. Specifically, the perceptual flows of employees and managers in implementing this culture differ significantly. These findings largely confirm the proposed hypothesis that the perceived constructive elements of an innovation-oriented organizational culture differ significantly between managers and employees. This discrepancy, even on

its own-without excluding other numerous aspects of implementation-contributes to unsatisfactory outcomes and trends. Management as a discipline should devote much greater attention to exploring the subtle elements that lead to the implementation of an innovation-oriented organizational culture in order to accelerate and improve the current state.

The results of this research show that perceptual flows of innovation-oriented organizational culture differ between employees and managers. What should, and realistically can, organizational leadership and HR managers do? It is not possible to build such a culture on heterogeneous perceptual flows, but only on homogeneous ones across all stakeholders. This represents the fundamental premise and key message of this contribution. If further, more in-depth research were to show that although the perceptual flows of managers and employees are different, they are nonetheless constructive elements of this culture, then efforts should be directed toward ensuring that these flows are accepted and harmonized not within each individual stakeholder segment, but across all organizational segments. The discrepancy identified here between the constructive elements of innovation-oriented organizational culture should serve as an incentive to eliminate it as effectively as possible.

6. CONCLUSION

The findings of the study reveal notable disparities in how managers and employees perceive the constructive components of an innovative organizational culture. This divergence in perception prompts a critical inquiry: is it possible for an innovative culture to thrive in organizations where stakeholders lack a unified understanding of its fundamental values and supporting elements? While the constructs employed were derived from validated scientific sources, the choice to limit them to closed statements presents a methodological constraint that may diminish the richness and depth of the respondents' true attitudes. The fact that merely 40% of respondents were statistically identified as exhibiting discriminatory relevance underscores the necessity for creating a more comprehensive and contextually aware tool for assessing perceptions of organizational culture.

The importance of this research is underscored by its emphasis on the necessity for a more profound comprehension of the internal structure and dynamics of perceptual flows, which serve as the basis for fostering a sustainable culture of

innovation. By incorporating the management context as a mediating element in the interplay between culture and innovation, this paper enhances the theoretical framework and paves the way for new avenues of research. Furthermore, the findings offer practical insights for management, highlighting that a genuine culture of innovation cannot be mandated from the top down; rather, it necessitates alignment and active participation from all levels within the organization.

This research makes a significant contribution to the scientific literature by introducing a novel perspective on organizational culture. It emphasizes that organizational culture should not be viewed as a homogenous concept, but rather as a complex array of multi-faceted and sometimes conflicting perceptions. Understanding and reconciling these perceptions is essential for fostering an environment conducive to innovative employee behaviour.

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