

Examining the Impact of Intra-Group or Inter-Group Social Capital on Innovative Climate in Enterprises of the Innovation Sector

Felician Bylok

Czestochowa University of Technology, Poland

felician.bylok@pcz.pl

Abstract. One of the significant factors that have an impact on the level of innovativeness is that of the intra-group social capital and inter-group social capital. Both of these types of social capital support the innovative climate and may constitute a key attribute in creating new knowledge and innovation, which in turn increases the opportunities of enterprises in terms of market competition. The acceptance of the assumption that social capital has an impact on the creation of the innovative climate in enterprises facilitated the formulation of the research aim, which was to search for answers to the following three research questions: What is the scope of occurrence of the intra-group and inter-group of social capital in enterprises in the innovative sector in Poland? To what extent does the intra-group and inter-group of social capital have an impact on the processes that are favourable to creating knowledge and innovation in enterprises? To what extent does the intra-group and inter-group of social capital have an impact on the creating the innovative climate in enterprises? The assumed goal was executed thanks to the application of the survey method. Empirical research, together with the use of a standardized questionnaire was conducted by means of the CATI technique in 2022. A total of 575 department heads and employees of the innovative sector participated in the research. As a result of the research, significant statistical relations were discovered between the intra-group and inter-group of social capital and the indicators of the innovative climate. Likewise, the positive impact of their attributes on the intra-organizational processes was illustrated, which are favourable towards the creation of knowledge and innovation.

Keywords: Intra-group social capital, Inter-group social capital, Knowledge, Innovativeness, Innovative climate

1. Introduction

Business entities seek opportunities to increase competitive potential in the market and are increasingly paying attention to the need for developing interpersonal cooperation skills within employee groups and organizations to increase innovativeness. Corporate innovation can significantly support social capital, which, with values and qualities such as social interaction, mutual trust, understanding, and shared vision and norms, allows the organization and its members to successfully pursue their goals (Leana and Frits 2006). Social capital, forming the foundation of interaction and cooperation, becomes essential in innovation efforts because it supports the flow of knowledge and information. Occurring in the form of intra-group and inter-group capital, it supports the creation of innovation in the organization if there is a specific organizational culture based on innovative climate, which promotes openness, freedom of action, implementation of new ideas, tolerance of risk, or openness to change necessary for the development of innovative behavior among employees. Assuming that intra-group and inter-group social capital affects the innovative climate, three research questions were formulated: What is the incidence of the intra-group and inter-group social capital in enterprises in the innovative sector in Poland? To what extent does the intra-group and inter-group social capital have an impact on the processes that are favorable to creating knowledge and innovation in enterprises? To what extent does the intra-group and inter-group social capital have an impact on creating an innovative climate in enterprises?

2. Theoretical Background

Innovation is considered imperative for an organization's success. It is defined as intentional changes and improvements to services and/or processes to achieve an expected specific outcome (Koch and Hauknes 2005). Previous authors have emphasized that it is "invention and use" involving the implementation of a new or significantly improved product, process, or service, and the commercialization of the innovation (Dzallias and Blind 2019). Related to the concept of innovation is the term innovativeness, understood as the process, results, and products of attempts to develop and introduce new and improved ways of doing things (Anderson et al. 2014). Innovativeness can be managed by building an innovative organization (e.g., a structure and climate that encourages people to be innovative) and creating networks for innovation (e.g., internal and external cooperation). (Tidd and Bessant 2014). Innovativeness is supported by an organizational culture that shapes the mindset regarding the internalization of innovation by individual members of the organization where innovation is instilled and ingrained (Kahn 2018). There is a strong relationship between organizational culture and the level of innovation (Lau and Ngo 2004). One manifestation of organizational culture is organizational climate, that is, the formally and informally shared perceptions of organizational policies, practices, and procedures (Holloway 2012). Organizational climate is seen as "an attribute of the organization, a conglomerate of attitudes, feelings,

and behaviors which characterizes life in the organization" (Ekvall 1996, 105). In general, the organizational climate is conducive to innovation at the organizational level (Jung et.al. 2008, Bylok et al. 2019). It affects the communication, coordination, supervision, motivation, and involvement of employees. (Ekvall 1996). It is of key importance for organizations to use innovation to create a competitive advantage and improve performance (Kissi et al. 2012).

The organizational climate that stimulates employee innovation behavior can be termed the organizational innovative climate. According to Isaksen and Ekvall (2010), this climate encourages creativity and change among employees and allows employees to share and build on their ideas and suggestions. The innovative climate can be described as a combination of employees' perceptions of the organizational environment that supports risk-taking behavior, allocates sufficient resources, and promotes a competitive environment conducive to innovation at work (Malibari and Bajaba 2022). The innovative climate fosters creativity, innovative behavior among employees, and efforts to discover and apply new ideas throughout the enterprise (Park and Jo 2018). Shanker et al. (2017) found that innovative behavior at work plays a mediating role in the relationship between organizational innovative climate and organizational performance.

A factor that fosters the development of an innovative climate is organizational social capital. An analysis of numerous studies on organizational social capital indicates that authors have focused on its social functions, such as trust, norms and networks (Burt 2000), social relationships (Leana and van Buren 1999), and organizational resources (Inkpen and Tsang 2005), among others. Some define organizational social capital as corporate social capital, that is, "a set of physical or virtual resources available to a corporate actor through social relationships with other actors, facilitating pursuing his or her goals". (Gabbay and Leenders 2001, 10). In general, it encompasses the form and nature of the social relationships that link the employees of a given enterprise, which influence the formation of a climate of cooperation and enable employees and the enterprise to achieve common goals.

Social capital plays an important role during innovation activities. Most studies have demonstrated a positive relationship between social capital and innovativeness. High social interaction and close relationships have a positive impact on innovation activities (Ozgun et al. 2022). The social capital of an organization's members can effectively facilitate knowledge transfer within the organization and enhance innovation performance. The results of numerous studies have shown that knowledge transfer (viewed as the mobilization, assimilation, and utilization of knowledge resources) mediates between the intra-organizational social capital of organizational members and organizational performance outcomes in terms of growth and innovation (Maurer et al. 2011). For entities in innovative sectors such as IT, social capital remains significantly and positively related to innovation performance. Digital companies with high social capital are more effective at creating innovation outcomes than those with low levels of social capital (Lyu et al. 2022).

To understand the links between organizational social capital and innovative climate, the concept of group social capital was introduced, which allows for a deeper exploration of how social relationships of employee group members within and outside the organization are related to an organizational culture based on innovative climate. Oh et al. (2006, 70) define group social capital "as the set of resources made available to a group through group members' social relationships within the social structure of the group itself, as well as in the broader formal and informal structure of the organization". Due to both internal and external dimensions of labor relations in an employee group, intra-group and inter-group social capital should be emphasized. This division is based on the concept by R.D. Putman (2000), who proposed the division of social capital according to the prevailing types of relationships into inclusive (bonding) social capital and exclusive (connecting) social capital.

In an enterprise, intra-group social capital is based largely on the personal ties that bind members of an employee team together. This helps develop cooperation, and identification with group goals, whereas loyalty to the group improves communication within the team (Łopaciuk-Goncaryk 2008). The strong group bonds reduce the likelihood of opportunism, decrease transaction costs, and provide employees with mutual emotional support, especially important for employee effectiveness in times of crisis (Oh et al. 2004). Social capital enables team members to take collective action with consistent goals through trust and widespread recognition (Wang et al. 2021, Bylok and Kuceba 2021). Inter-group social capital, on the other hand, is based on the subject ties that are the basis for the social networks built across work teams. They ensure a flow of information and knowledge, which promotes greater efficiency. Oh, Chung & Labianca (2004) showed that external contacts of team members with leaders from other teams have a positive effect on the performance in the groups studied. Another benefit is access to group resources, engagement in joint management, facilitated collaboration, and achieving group goals (Fischer et al. 2014).

3. Methods

In Poland, research on the role of social capital in the functioning of organizational culture based on the innovative climate in enterprises is relatively rare. This study attempts to fill this research gap by conducting an analysis of the impact of intra-group and inter-group social capital on the innovative climate. The aim of the study was to analyze the degree of intra-group and inter-group social capital in enterprises of the innovation sector in Poland, the differences in the degree of social capital resources, and the extent to which they influence the innovative climate. The research tool was a standardized survey questionnaire. A computer-assisted telephone interview (CATI) was used to survey employees of enterprises in the innovation sector. Spearman's rank correlation coefficient was used to analyze the research questions. This nationwide survey was conducted in Poland. The survey frame was entities employing more than 50 people. Based on a random sampling method, a survey sample of 575 employees working in enterprises of innovative industries, i.e. pharmaceuticals (25.2%), energy (23.3%), automotive (26.4%), and IT (25.1%) was collected. The employees surveyed were white-collar (97.2%) and blue-collar (2.8%) workers with job seniority ranging from 4-8 years (10.3%), 9-13 years (23.8%), 14-18 years (33.7%), and 19 or more years (32.2%). Random sampling yielded a representative sample with an error of $\alpha=4\%$ and a confidence interval of 95%.

4. Results

A factor influencing the growth of employee innovativeness is developed intra-group social capital, known as integration capital. This type of social capital promotes group solidarity and knowledge sharing (Adler and Kwon 2002). Table 1 shows the results of the incidence of intra-group social capital in enterprises. The level of incidence of intra-group capital in enterprises of the innovation sector is high ($\bar{x}=4.10$). Analysis of indices of intra-group capital showed that its strongest attribute is a good team atmosphere (team spirit), followed by a high frequency of relations between members of the employee group and a strong influence of social norms. The weakest attribute was the frequency of employee-manager relationships.

Table 1: Indices of Intra-Group Capital

Specification	Mean $\bar{x}$	Standard deviation SD
(INTC1) Relationships between team members are frequent	4.15	0.733
(INTC2) Employee-supervisor relationships are frequent	4.01	0.764
(INTC3) Social norms (reciprocity, loyalty) in the team are strong	4.12	0.856
(INTC4) The atmosphere in the team (team spirit) is good	4.20	0.858
(INTC5) Employees identify with the team	4.03	0.908
Total capital ratio	4.10	0.829

Rating scale: 5- to a very high degree, 4 - to a high degree, 3- to a medium degree, 2 - to a low degree, 1- to a very low degree

Source: Author's own elaboration

Inter-group social capital, which supports the creation of organizational knowledge and its flow between work teams, plays an important role in the creation of innovation in the enterprise. The survey of innovation sector employees found that the level of incidence of inter-group social capital was lower compared to intra-group social capital. Furthermore, the following attributes were rated highest: high frequency and a high number of relationships with employees of other teams. The diversity of these relationships at the professional and social levels was rated relatively lower.

Table 2: Indices of Inter-Group Capital

Specification	Arithmetic mean $\bar{x}$	Standard deviation SD
(INRC1) Number of relationships with employees of other work teams is high	3.98	0.891

Specification	Arithmetic mean $\bar{x}$	Standard deviation SD
(INRC2) Relationships with employees of other teams are diverse (professional, social)	3.94	0.917
(INRC3) Employees have easy access to higher positions in the enterprise	3.96	0.915
(INRC4) Relationships with employees of other teams are frequent	4.04	0.983
Total capital ratio	3.98	0.927

Rating scale: 1- I strongly disagree, 2 - I disagree, 3 - I neither agree nor disagree, 4 - I agree, 5 - I strongly agree.

Source: Author's own elaboration

Social capital influences a variety of intra-group and inter-group processes that foster innovation. Among intra-group processes, respondents rated knowledge sharing ($\bar{x}=4.08$, $SD=0.883$ on a scale of 1- very low, 2- low, 3- medium, 4 - high, 5- very high), employee satisfaction ($\bar{x}=4.05$, $SD=0.808$), competition between team members ($\bar{x}=4.03$, $SD=1.002$), and reducing team opportunism ($\bar{x}=4.00$, $SD=0.625$). On the other hand, the lowest ratings were found for mutual assistance within the team ($\bar{x}=3.89$, $SD=0.829$), communication within the team ($\bar{x}=3.93$, $SD=0.776$), speed of performance of tasks requiring team collaboration ($\bar{x}=3.97$, $SD=0.886$), quality of performance of tasks requiring team collaboration ($\bar{x}=3.99$, $SD=0.839$), and increase of innovativeness in the team ($\bar{x}=3.98$, $SD=0.900$).

Among inter-group processes, the highest ratings were given to collaboration between work teams, departments in the enterprise ($\bar{x}=3.21$, $SD=0.846$), information flow between work teams and departments ($\bar{x}=3.19$, $SD=0.852$), and quality of task performance in collaboration with employees of other teams and departments ($\bar{x}=3.15$, $SD=0.807$). Relatively lower ratings were given to the creation of innovations in collaboration with other teams ($\bar{x}=2.95$, $SD=0.824$), the speed of performing tasks that require collaboration with employees of other teams and departments ($\bar{x}=2.99$, $SD=0.824$), and the flow and creation of knowledge through collaboration between employees of different teams ($\bar{x}=3.01$, $SD=0.847$).

In conclusion, inter-group processes are rated lower compared to intra-group processes. This indicates that there are significant organizational barriers to the creation of innovation because collaboration between teams and the flow of knowledge between them promotes the development of new solutions and the improvement of existing ones.

From the perspective of developing employee innovation, it is important to examine the relationships between organizational social capital and group processes. Spearman's rank correlation coefficient analysis was used to diagnose the relationship between intra-group social capital and organizational processes that foster innovation. For group processes, the strongest correlation was between the index of identification with the team and the quality of performance of tasks requiring team collaboration ($r_s = 0.346$, $p=0.000$), reducing team opportunism ($r_s = 0.294$, $p=0.000$), sharing knowledge with other employees ($r_s = 0.189$, $p=0.013$), competition between team members ($r_s = 0.183$, $p=0.015$), and communication within the team ($r_s = 0.177$, $p=0.026$). For the index of the strength of social norms (reciprocity, loyalty) in the team, the strongest correlation occurred for reducing team opportunism ($r_s = 0.343$, $p=0.000$), speed of performance of tasks requiring team collaboration ($r_s = 0.298$, $p=0.000$), quality of performance of tasks requiring team collaboration ($r_s = 0.297$, $p=0.000$), sharing knowledge with other employees ($r_s = 0.187$, $p=0.016$), and level of employee satisfaction ($r_s = 0.182$, $p=0.019$). Furthermore, the index of good team atmosphere (team spirit) was correlated with the reduction of team opportunism ($r_s = 0.324$, $p=0.000$), communication within the team ($r_s = 0.292$, $p=0.000$), and level of employee satisfaction ($r_s = 0.173$, $p=0.023$).

The index of frequent employee-supervisor relationships was positively correlated with the speed of performance of tasks requiring team collaboration ($r_s = 0.327$, $p=0.000$) and with reducing team opportunism ($r_s = 0.187$, $p=0.016$). The index of frequent team member relationships was positively correlated with knowledge sharing with other workmates ($r_s = 0.312$, $p=0.000$) and the quality of performance of tasks requiring team collaboration ($r_s = 0.183$, $p=0.015$).

In conclusion, intra-group social capital significantly influences group processes, especially, the quality of tasks that require team collaboration, sharing knowledge with other employees, and reducing team opportunism. Consequently, one of the important tasks of managers is to build this type of capital and provide favorable conditions for its development, thus increasing the effectiveness of the goals pursued.

In addition to identifying the relationships between intra-group social capital and group processes, one of the goals of the study was to evaluate the extent to which inter-group social capital influences the organizational processes that foster innovation. A feature of inter-group capital is its positive impact on processes occurring within employee groups. Tsai & Ghoshal (1998) studied a multinational electronic collaboration and showed the positive impact of social interactions among the corporation's departments on the exchange of resources among the departments and the number of innovations. The present study also examined the relationships between inter-group capital and processes in an organization and identified significant relationships. The strongest effect was observed for the frequency of relationships with employees of other teams, particularly on the increased innovation in the team ($r_s = 0.302$, $p = 0.000$), competition between team members ($r_s = 0.338$, $p = 0.000$), the quality of performance of tasks requiring team collaboration ($r_s = 0.296$, $p = 0.000$), knowledge sharing with other employees ($r_s = 0.294$, $p = 0.000$), reducing team opportunism ($r_s = 0.186$, $p = 0.015$), and employee satisfaction ($r_s = 0.144$, $p = 0.019$).

Another index of inter-group capital, i.e. diversity of relationships with employees of other teams, significantly influences the reduction of team opportunism ($r_s = 0.340$, $p = 0.000$), communication within the team ($r_s = 0.314$, $p = 0.000$), quality of performance of tasks requiring team collaboration ($r_s = 0.314$, $p = 0.000$), competition between team members ($r_s = 0.294$, $p = 0.000$), level of employee satisfaction ($r_s = 0.189$, $p = 0.011$), and increased innovation in the team ($r_s = 0.167$, $p = 0.025$).

The number of relationships with employees from other work teams is high and positively correlated with competition between team members ($r_s = 0.304$, $p = 0.000$) and knowledge sharing with other employees ($r_s = 0.296$, $p = 0.000$). The index of employees having easy access to higher positions in the enterprise affected only the reduction of team opportunism ($r_s = 0.307$, $p = 0.000$).

In conclusion, the demonstrated positive impact of inter-group social capital is an indicator for building and developing this capital in enterprises. In particular, it has a positive effect on increasing competition between team members, reducing team opportunism, fostering knowledge sharing among employees, and improving innovativeness in the team.

In an innovation-oriented enterprise, a factor that fosters innovation is an innovative climate that supports, among other things, openness to novelty, new ideas, and knowledge creation and sharing. To determine its level, a scale of 18 statements construed on a modified scale by Krot and Lewicka (2016) was used. Analysis of Table 3 shows that the generalized level of innovative climate in enterprises of the innovation sector is above average ($\bar{x} = 4.03$). A detailed analysis indicates that the innovative climate is evidenced by the belief that innovation is a key value in the enterprise. Innovation has a much better chance of success with the ability to turn ideas into profitable ventures and quick utilization of suggestions from customers or competitors to improve products and harness the creativity of employees to make a profit.

The innovative climate is improved by the right conditions created by enterprises to undertake innovative activities. The most important of these is the creation of free access to information and knowledge and optimal conditions for collaboration between departments/divisions.

Taking innovative initiatives depends on creative attitudes among employees. They are influenced by the expectation of employees to improve their skills, and increase their knowledge, which helps support innovative ventures, managers' expectation of employee initiative, and the increase in recognition within the enterprise with the creation of a new solution. It is also important to convince employees that innovation processes pose a high risk and therefore errors may occur. Innovation is much more likely to succeed if employees can express unusual and unique solutions in their everyday work.

Another important component of the innovative climate is managerial support, which manifests itself in the help of managers in breaking down barriers in the process of implementing innovation, and the support of employees who want to seek innovative solutions. It is important that the manager has a high degree of autonomy to accelerate, slow down, or completely abandon the innovative project.

Table 3: Assessment of Innovative Climate in Enterprises

Specification	Mean $\bar{x}$	Standard deviation SD
(IC1) Innovation is a key value in the enterprise	4.04	0.842
(IC2) Ability to turn ideas into profitable ventures	3.99	0.801
(IC3) The belief that innovation processes pose a high risk and therefore errors may occur	4.01	0.921
(IC4) Quickly using customer or competitor suggestions to improve products	4.06	0.877
(IC5) The project manager has a high degree of autonomy to accelerate, slow down, or completely abandon the innovation project	4.01	0.859
(IC6) Creating free access to information and knowledge	4.09	0.853
(IC7) Creating optimal conditions for cooperation between departments/divisions	4.05	0.782
(IC8) Expectations of employees to improve their skills and increase their knowledge, which may support innovative ventures	4.07	0.823
(IC9) Innovation is much more likely to succeed if employees can express unusual and unique solutions in their everyday work.	3.96	0.894
(IC10) Using employees' creativity for profit, which means using it well	3.90	0.879
(IC11) Success in the area of innovation sometimes causes envy in other employees	3.88	0.951
(IC12) Mutual help of employees in solving problems within one department or several departments	4.17	0.844
(IC13) Expecting employees to be creative, think, and act in innovative and original ways	4.18	0.793
(IC14) With the creation of a new solution, there is an increase in recognition within the enterprise	3.94	0.816
(IC15) Employees are too busy solving everyday problems to spend time thinking about the future	3.81	0.991
(IC16) Expecting employee initiative from managers	3.91	0.831
(IC17) Manager's assistance in breaking down barriers in the innovation process	4.10	0.811
(IC18) Encouraging junior managers to take a risk and seize opportunities to develop the company by senior managers	4.11	0.871
Generalized level of innovative climate	4.03	0.871

Rating scale: 1- I totally disagree, 2 - I mostly disagree, 3 - I partially disagree 4 - I neither agree nor disagree, 5- I partially agree 6 - I mostly agree, 7 - I totally agree.

Source: Author's own elaboration

One of the aims of the paper was to determine the impact of social capital on the innovative climate. The analysis of the research shows that the effect size of individual attributes of intra-group and inter-group social capital on innovative climate indices varied. For intra-group social capital, the attributes that influenced the largest number of innovative climate indices (8 indices) were: employee-supervisor relationships are frequent and employees identify with the team. On the other hand, in the case of inter-group capital such attributes were: relationships with employees of other teams are diverse (professional, social) (8 indices) and employees have easy access to higher positions in the enterprise (7 indices).

Table 4: Spearman's Correlation Coefficient Between Inter-Group Capital (INRC) and Intra-Group Capital (INAC) Attributes and Innovative Culture Indices

	INTC1	INTC2	INTC3	INTC4	INTC5	INRC1	INRC2	INRC3	INRC4
IC1		0.290 p=0.000							0,230 p=0,002
IC2		0.292 p=0.000	0.299 p=0.000	0.302 p=0.000					
IC3				0.325 p=0.000	0.297 p=0.000				
IC4						0.312 p=0.000	0.346 p=0.000		
IC5						0,193 p=0,010	0.302 p=0.000		
IC6	0.295 p=0.000	0.184 p=0.013			0.189 p=0.011	0.319 p=0.000	0.311 p=0.000	0.316 p=0.000	
IC7	0,157 p=0,036	0.295 p=0.000							
IC8		0.334 p=0.000					0.185 p=0.015		
IC9		0.332 p=0.000	0.294 p=0.000	0.295 p=0.000	0.292 p=0.000			0.310 p=0.000	0.311 p=0.000
IC10	0.306 p=0.000	0.338 p=0.000		0.293 p=0.000	0.290 p=0.000	0.182 p=0.017		0.314 p=0.000	0.319 p=0.000
IC11	0.185 p=0.0403	0.323 p=0.000				0.313 p=0.000	0.188 p=0.0339		
IC12			0.294 p=0.000						0,221 p=0,003
IC13	0.291 p=0.000		0.336 p=0.000		0.0283 p=0.000			0.255 p=0.001	0,173 p=0,021
IC14					0.310 p=0.000				
IC15							0.147 P=0.000	0.389 p=0.000	
IC16				0,171 p=0,022				0.299 p=0.000	
IC17	0,198 p=0,008						0.282 p=0.000		
IC18			0.336 p=0.000	0.302 p=0.00	0.185 p=0.0393	0.343 p=0.000	0.389 p=0.000	0.316 p=0.000	

Source: Self-analysis

5. Discussion and Conclusion

Social capital is an important factor in strengthening innovativeness in enterprises as it enables the effective use of the potential of employees and managers to create knowledge and develop innovations. The results of the present study on the incidence of intra-group and inter-group social capital in enterprises of the innovation sector indicate their above-average level, with the highest value found for intra-group capital, particularly for attributes such as atmosphere in the team (team spirit), frequency of relationships between team members, and the strength of social norms (reciprocity, loyalty). It creates a favorable environment for employees to take innovative actions.

Organizational processes related to innovation are important in the enterprise. The research shows that in enterprises of the innovation sector, the main emphasis is on sharing knowledge with other employees, competition between team members, reducing team opportunism, and the quality of performance of tasks requiring team collaboration, a collaboration between work teams and departments in the enterprise, and the quality of performance of tasks requiring collaboration with employees of other teams and departments. There is limited flow and creation of knowledge through collaboration between employees of different teams, which is a barrier to creating innovation.

Analysis of the relationships between intra-group and inter-group social capital attributes and organizational processes related to innovation creation reveals that it is important to point out the differences between the two. The former significantly affects group processes, particularly the quality of tasks requiring team collaboration, sharing knowledge with other employees, and reducing team opportunism, while the latter increases competition between team members, reduces team opportunism, fosters knowledge sharing among employees, and improves team innovation.

One of the essential factors affecting the level of innovation in enterprises is the organizational culture based on the innovative climate. The generalized index of innovative climate in the enterprises surveyed is at an above-average level and can be considered an important factor that creates a good basis for the development of innovativeness in enterprises of the innovation sector. The highest ratings were given to the importance of expecting employees to be creative, think, and act in innovative and original ways, employees helping each other solve problems within one department or several departments, and free access to information and knowledge.

Analysis of Spearman's correlation coefficients between intra-group or inter-group social capital attributes and innovative climate indices revealed that intra-group capital has the strongest effect. Its attributes were shown to have the strongest effect on making good use of employees' creativity for making a profit, creating free access to information and knowledge, allowing employees to create unusual and unique solutions in their daily work, and encouraging junior managers to take risks and opportunities for the enterprise's growth. The study showed that social capital to a large extent supports the creation of innovation in enterprises of the innovation sector.

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