

## RELATIONS BETWEEN INTRA-GROUP SOCIAL CAPITAL AND ORGANIZATIONAL PROCESSES IN INNOVATION INDUSTRY COMPANIES

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**Purpose:** The importance of intra-group social capital, which supports the flow of knowledge and information necessary for the creation of innovations, by strengthening cooperation between employees, is increasingly pointed out in the search for factors that stimulate development of enterprises. The primary purpose of the article is to seek answers to the following research questions: *What is the level of intra-group social capital in innovation industry companies?; To what extent do the attributes of intra-group social capital affect organizational processes?; What effect do these attributes have on economic efficiency and enterprise development indicators?*

**Design/methodology/approach:** The stated objective was achieved through the use of a survey method which was used to identify the attributes of intra-group social capital and their impact on organizational processes in the surveyed the innovation industry companies.

**Findings:** As a result of the research, the influence of the intra-group social capital attributes on intra-group processes was demonstrated, in particular, on *Quality of performance of tasks in cooperation with employees of other teams and company departments, Sharing of knowledge with colleagues* and *Reducing opportunism in the team*. Also, inter-group processes were described, including the *Information flow between employee teams and departments* and *Cooperation between employee teams and departments in the company*, as well as *Development of innovations in cooperation with other teams*. Significant relations between social capital and indicators of economic efficiency and business development were also discovered.

**Research limitations/implications:** The research results, due to their quantitative nature (survey), provide a basis for limited conclusions.

**Practical implications:** The results of the research provide knowledge about the attributes of intra-group social capital and its importance in intra-organizational processes.

**Social implications:** The research results presented highlight the role of social capital in stimulating organizational processes that support employee innovation.

**Originality/value:** The results of the study contribute in a cognitive sense to the knowledge of the role of social capital in the development of the innovation industry companies.

**Keywords:** organizational social capital, inter-group social capital, enterprise, organizational processes.

**Category of the paper:** Research article.

## 1. Introduction

The success of a company on the market is increasingly determined by intangible resources. Social capital is a distinctive intangible resource (Herrero, 2018) that enables access to resources which could not otherwise be accessed (Nahapiet, Ghoshal, 1998). It includes resources inherent in the structure of relations between individual actors (Bourdieu, 1986; Burt, 2000; Coleman, 1988). Actors as individuals and groups of people are connected to others, creating a network of interdependent social exchanges in which members become trusted exchange partners, enabling the acquisition of resources and support necessary to achieve individual and collective goals. The key element of social capital are the relations between participants in social networks. In order to examine how social relations influence effectiveness of group activities, it is worth introducing the concept of group social capital, which is based on cooperation, common values and norms, as well as trust, which determines its strength and the role it plays in the functioning of the organization. Although many researchers address the problem of social capital in organizations, there is a lack of a multi-level perspective that would focus simultaneously on intra-group relations and relations with other participants of employee groups within the social structure of the organization. For this purpose, a multi-level research perspective is needed, covering the internal and external context. The author decided to investigate the impact of intra-group social capital on organizational processes. The research intention was to identify the level of intra-group social capital in enterprises in the innovative industry, in order to determine the degree of influence of its attributes on organizational processes and the influence of intra-group social capital on economic efficiency and development of the enterprise.

The study aimed to make two main contributions to understanding the role of intra-group social capital in driving organizational processes. First, the study contributed to highlighting the impact of intra-group capital attributes on internal processes in enterprises. Secondly, the study identified the importance of social capital attributes in the development of the innovation industry companies.

## 2. Organizational social capital – theoretical background

Social capital is widely described by researchers as a resource embedded in the relations between individuals, communities, networks or societies. Its concept is based on the belief that relational resources in a community can be used by certain actors to achieve desired results (Bourdieu, 1980). Analyzing the definitions of social capital, one can distinguish four approaches to its recognition. Firstly, the network theory, which assumes that social capital is

precisely a social network, i.e. the structure of relations between two or more participants (Coleman, 1988; Lin et al., 2022).

Secondly, the criteria theory which claims that social capital refers to integrity, criteria, and values embedded in a social network (Fukuyama, 1997). Thirdly, the theory of resources, according to which social capital is a set of actual and potential resources that are associated with having a permanent network, more or less institutionalized relations based on mutual knowledge and recognition (Bourdieu, 1986). Fourthly, the capability theory which shows that social capital refers to the connection between an actor and society and the ability to absorb scarce resources through such a connection (Portes, 1998). Fifthly, the theories of the properties of communities, which include networks, norms, and trust that facilitate coordination and cooperation for mutual benefit (Putman, 1994). In conclusion, social capital means the ability of humans to cooperate within social groups, organizations and institutions of various types to achieve common goals (Fuchs, 2006).

Social capital may be a resource of society, community, social group, institution or organization. In organizations, social capital occurs in the form of organizational social capital. If organizations can be considered “social communities in which individual and social knowledge is transformed into economically useful products and services” (Kogut, Zander, 1992, p. 384), then relations between members of the organization are potentially “a valuable resource for conducting social affairs” (Nahapiet, Ghoshal, 1998, p. 243). Organizational social capital is the subject of research at the level of both conceptualization and operationalization. At the conceptualization level, attempts are made to define it. Leana and Van Buren (1999) define organizational social capital as *a resource reflecting the character of social relations within the organization, realized through members’ levels of collective goal orientation and shared trust*. According to Inkpen and Tsang (2005, p. 151), organizational social capital is a public good because *members of an organization can tap into resources derived from the organization’s network of relations without necessarily having participated in the development of those relations*. Sometimes organizational social capital is defined as social capital in the workplace that is “as an ecological resource that concerns employees’ perceptions regarding trust, reciprocity (cognitive), and network interactions (structural) that exist both among peers (bonding) and among individuals across different hierarchical levels or organizations (bridging) (2023). In general, it can be said that the capital covers the form and nature of social relations between employees of a given enterprise, which influence the creation of a climate of cooperation and enable the achievement of common goals by the enterprise and its employees.

At the operational level, attempts are made to determine importance of the capital for the life of the organization. Important research on social capital in organizations includes, among others, research by Lin et al. (2006) on 125 companies using high-tech in Taiwan, which showed the need to include social capital in the strategy of enterprises. Research by Chuang et al. (2013, p. 678) found in their study on 161 participants that there was *a positive relationship between human resources management applications and organizational social*

*capital*. Interesting research was presented by Kemper et al. (2013, p. 589) who examined the relationship of social capital with marketing and corporate R&D) in 280 companies. The research suggests that *social capital is important not only because it is linked to organizational capabilities but also because of its link to superior performance, although indirectly through organizational capabilities*. And F. Di Vincenzo and D. Mascia (2012), while examining project implementation teams, discovered that through appropriate management of structural social capital, project units can improve coordination and efficiency of project implementation. Based on the qualitative methodology of Camps and Marques (2016), they described the impact of social capital on the development of various types of innovations in products, processes, marketing, strategies and behaviors. Social capital enables achieving a sustainable competitive advantage (García-Sánchez et al., 2019), improves the team's ability to innovate (Akhavan, Mahdi Hosseini, 2016), builds intellectual capital (Allameh, 2018), supports knowledge sharing (Bhatti et al., 2020; Cai et al., 2020; Lin, Huan, 2023).

When analyzing the organizational social capital in an organization, two approaches can be distinguished: external capital and internal capital (Leana, Frits, 2006). In the first case, social capital is created by the company's connections with its stakeholders, partners and competitors. In the second case, it is perceived as a resource that reflects the nature of social relations in the organization and manifests itself through information sharing, mutual trust and collective goal orientation (Leana, Pil, 2006). Ortiz et al. (2021) define intra-organizational social capital as organizational networks, trust, norms, shared goals, and collaboration among organization members. Many researchers point at organizational advantages of internal social capital, which include, among others, the creation of a climate of cooperation, more effective collective activities, affective organizational commitment and better organizational performance (Pastoriza et al., 2013; Andrews, 2010; Lindstrand et al., 2011). The development of strong and tightly knit links based on a common understanding and trust among company members lead the company to develop dynamic capabilities for transforming and exploiting knowledge acquired externally, which fosters innovation based on new product development (Ortiz et al., 2021). Organizational social capital has a positive impact on the creation of an innovative climate in enterprises (Bylok et al., 2019). It improves efficiency of enterprises (Strużyna, Bratnicki, 2001; Dyduch, 2003) as well as the CRM philosophy (Grzanka, 2008). The development of social capital in an enterprise manifests itself through an increase in the level of potential of its dimensions, including an increase in the level of trust in interpersonal contacts, establishing closer contacts with colleagues or developing new skills and competences by employees (Wyrwa, 2014). Within organizations, social capital can reduce transaction costs, facilitate the information flow between employee teams and departments and the creation and accumulation of knowledge (Lin, 2001). Therefore, internal social capital can become an asset that encourages employees to find, use and combine their skills, knowledge and experience in a productive way (Linuesa-Langreo et al., 2018).

Intra-organizational capital includes relations within work teams and inter-group relations connecting members of different teams. It can also be called “group social capital”. Oh et al. (2004, p. 861) define group social capital as *the configuration of a group’s members’ social relations within the social structure of the group itself, as well as in the broader social structure of the organization to which the group belongs, through which necessary resources or the group can be accessed*. Due to the internal and external dimensions of employee relations in a work group, we can talk about intra-group and inter-group social capital. This division is based on the concept of R.D. Putman (2000) who proposed recognizing social capital according to the prevailing types of bonds, inclusive social capital (bonding) and exclusive social capital (bridging). In the first case, social capital is based on personal bonds connecting members of the employee team. In the second case, social capital is based on subject-related ties constituting the basis of social networks built across work teams.

Well-developed intra-group social capital offers many benefits. It builds cooperation, identification with the group’s goals, loyalty to the group and communication within the team (Łopaciuk-Gonczaryk, 2008). Strong bonds created in the group reduce the likelihood of opportunism, reduce transaction costs and provide employees with mutual emotional support, especially important for employee effectiveness in moments of crisis (Oh et al., 2004). Social capital enables team members to take joint actions with coherent goals thanks to trust and common recognition (Wang et al., 2021). It induces reciprocity among employees and creates benefits that go beyond tangible, largely financial benefits (Parzefall, Kuppelwieser, 2012).

The intra-group social capital of an organization is therefore not only a resultant of the amount of knowledge and resources individually contributed to the group’s company by its members, but also reflects social relations and cohesion within the team.

### 3. Methods

Studies on intra-group social capital in enterprises are relatively rare in Poland. The author wants to fill the research gap by examining the social determinants of this form of social capital. He formulated the research goal, which was to seek answers to three research questions: *What is the level of intra-group social capital in innovation industry companies?; To what extent do the attributes of intra-group social capital affect organizational processes?; What effect do these attributes have on economic efficiency and enterprise development indicators?*

The survey method was used in the study. A standardized questionnaire was the research tool. The CATI (Computer Assisted Telephone Interview) survey was used to question employees of innovative companies. Spearman’s rank correlation coefficient was used to analyze the answers. The study was nationwide. The survey frame included innovative

companies employing over 50 persons. Based on the random selection method, a research sample was constructed consisting of 575 employees employed in enterprises from innovative industries: pharmacy (25.2%), energy (23.3%), automotive (26.4%) and IT (25%). The employees performed white-collar work (97.2%) and blue-collar work (2.8%). They represented various seniority groups: 4-8 years (10.3%), 9-13 years (23.8%), 14-18 years (33.7) and 19+ years (32.2%). As a result of random drawing, the survey was conducted on a representative sample according to the following parameters:  $\alpha$  error 4%, confidence interval 95%.

## Results

One of the main objectives of the study was to determine the extent of occurrence of intra-group capital attributes, the so-called “bonding”. This type of social capital builds group solidarity and promotes knowledge sharing (Adler, Kwon, 2002). Table 1 presents the results of research on the occurrence of intra-group social capital in enterprises. The level of intra-group capital in innovative industry enterprises is high. The analysis of intra-group capital attributes shows that the strongest of them is the *Good atmosphere/team spirit*, followed by *Good relations between team members* and the *Strong influence of social norms (mutuality, loyalty)*. The weakest attribute is the *Frequency of employees’ interactions with supervisors* and the *Employees’ identification with the team*. Most of the ratings of intra-group capital attributes were independent of the team size, except for *Strong influence of social norms (mutuality, loyalty)*, which attribute was rated highest in small teams (7-14) and lowest in large teams (25+) (Spearman’s rank correlation coefficient  $r_s = 0.198$ ,  $p = 0.018$ ).

**Table 1.**  
*Percent ratings of intra-group capital attributes*

Attribute	Rating				
	1	2	3	4	5
(INSC1) Good relations between team members	0	2.8	12	52.3	32.9
(INSC2) Frequency of employees’ interactions with supervisors	0	2.8	20.3	49.6	27.3
(INSC3) Strong influence of social norms (mutuality, loyalty)	0	5.4	15	41.4	38.3
(INSC4) Good atmosphere / team spirit	0	5.4	12.3	38.3	44
(INSC5) Employees’ identification with the team	0	8.2	15	42.1	34.8
Generalized indicator of social capital	0	4,92	14,92	44,74	35,42

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 study.

Intra-group social capital largely influences intra-group processes. Processes supporting the creation of innovations are important in innovative industry enterprises (Table 2). Among the internal processes in employee teams, the *Sharing of knowledge with colleagues* and *Communication within the team* were rated the highest (77.1% in the both cases). *Mutual*

*assistance within the team* is also important for the respondents (75.8%). The lowest ratings were given to the *Increase in the team's innovation* (30.6% of low and medium) and to the *Competition between team members* (30.4%).

**Table 2**  
*Percent ratings of intra-group processes*

Process	Rating				
	1	2	3	4	5
(IAGP1) – Sharing of knowledge with colleagues	0	5.4	17.6	55.5	21.6
(IAGP2) – Mutual assistance within the team	0	7.8	16.3	53.9	21.9
(IAGP3) – Communication within the team	0	5.4	17.6	55.5	21.6
(IAGP4) – Level of employee satisfaction	0	2.6	25.6	35.7	36.2
(IAGP5)– Reducing opportunism in the team	1.4	2.8	25.9	33.9	36
(IAGP6) – Speed of performing tasks requiring team cooperation	0	6.8	20.3	41.7	31.1
(IAGP7) – Quality of performing tasks requiring team cooperation	0	3.9	24	41	31.1
(IAGP8) – Increase in the team's innovation	0	5.2	25.4	34.6	24.8
(IAGP9) – Competition between team members	0	9.0	21.4	26.8	42.8

Scale: 1 – very low, 2 – low, 3 – medium, 4 – high, 5 – very high.

Source: Author's own study.

Social capital influences various organizational processes that support the achievement of organizational goals. From the perspective of research assumptions, it is important to examine the relationship between organizational social capital and intra-group processes (Table 3). The Spearman's rank correlation coefficient analysis was used to diagnose these relations. In the case of group processes, the strongest correlation was between the "*Employees' identification with the team*" attribute and the processes: *Quality of performing tasks requiring team cooperation*, *Reducing opportunism in the team* and *Sharing of knowledge with colleagues*. A slightly weaker correlation was between the *Good relations between team member* attribute and the processes: *Sharing of knowledge with colleagues* and *Quality of performing tasks requiring team cooperation*. The attribute of *Frequency of employees' interactions with supervisors* is positively correlated primarily with the processes of *Speed of performing tasks requiring team cooperation* and *Reducing opportunism in the team*. In the case of the attribute of *Strong influence of social norms (mutuality, loyalty)*, the correlation was strongest with the processes of *Reducing opportunism in the team* and *Speed of performing tasks requiring team cooperation*. Next, the attribute of *Good atmosphere/team spirit* affects the processes of *Reducing opportunism in the team*, *Communication within the team* and *Level of employee satisfaction*.

To sum up, intra-group social capital has a significant impact on group processes, in particular *Quality of performance of tasks in cooperation with employees of other teams and company departments*, *Sharing of knowledge with colleagues* and *Reducing opportunism in the team*.

**Table 3.**

*Spearman's rank correlation coefficients between inter-group capital attributes and intra-group processes*

	IAGP1	IAGP2	IAGP3	IAGP4	IAGP5	IAGP6	IAGP7	IAGP8	IAGP9
<b>INSC1</b>	0,312 0,000	0,151 0,046	0,174 0,019	0,146 0,050	0,141 0,056	0,144 0,053	0,183 0,015	0,149	0,143 0,054
<b>INSC2</b>	0,139 0,059	0,139 0,059	0,145 0,052	0,167 0,023	0,187 0,016	0,327 0,000	0,148 0,049		0,131 0,067
<b>INSC3</b>	0,187 0,016	0,141 0,056	0,173 0,020	0,182 0,019	0,343 0,000	0,298 0,000	0,297 0,000	0,167 0,023	0,158 0,034
<b>INSC4</b>	0,179 0,016	0,168 0,022	0,292 0,000	0,173 0,023	0,324 0,000	0,174 0,019	0,109753 0,008438	0,149 0,048	0,137 0,061
<b>INSC5</b>	0,189 0,013	0,175 0,018	0,177 0,026	0,170 0,021	0,294 0,000	0,150 0,047	0,346 0,000	0,178 0,016	0,183 0,015

Source: Author's own elaboration.

Inter-group processes have a significant impact on the degree to which the organization's goals are achieved (Table 4). Among them, the highest scores were given to *Information flow between employee teams and departments* (37.1% of high and very high ratings), *Flow and creation of knowledge thanks to cooperation between employees of different teams* (34.8%) and *Cooperation between employee teams and departments in the company* (33, 4%). However, the lowest ratings were given to *Development of innovations in cooperation with other teams* (33.9% low and very low) and the *Speed of performing tasks requiring cooperation with employees of other teams and company departments* (27.1%).

Thus, inter-group processes are rated lower than intra-group processes. This indicates the existence of significant organizational barriers, in particular in the development of innovations, because cooperation between teams and the flow of knowledge between them are necessary when creating new solutions and improving existing ones.

**Table 4.**

*Percent ratings of inter-group processes*

Process	Rating				
	1	2	3	4	5
(IRGP1) – Information flow between employee teams and departments	0	23.1	39.8	31.7	5.4
(IRGP2) – Development of innovations in cooperation with other teams	0.9	33	36.2	29.4	0.5
(IRP3) – Flow and creation of knowledge thanks to cooperation between employees of different teams	0.5	33.2	31.5	34.3	0.5
(IRGP4) – Cooperation between employee teams and departments in the company	2.6	13	51	27	6.4
(IRGP5) – Speed of performing tasks requiring cooperation with employees of other teams and company departments	2.8	24.3	44.7	26.8	1.4
(IRGP6) – Quality of performance of tasks in cooperation with employees of other teams and company departments	2.8	13.6	52.7	27	4

Scale: 1 – very low, 2 – low, 3 – medium, 4 – high, 5 – very high.

Source: Author's own study.

In addition to identifying the relationship between intra-group social capital and group processes, one of the research goals was to determine the degree of impact of bonding social capital on the course of inter-group processes conducive to the achievement of organizational



goals (Table 5). Research shows that the attribute of *Strong influence of social norms (mutuality, loyalty)* affects the largest number of inter-group processes, including primarily the *Information flow between employee teams and departments* and the *Cooperation between employee teams and departments in the company*. Also, the attribute of *Good atmosphere/team spirit*, affects most of the examined inter-group processes, primarily the *Information flow between employee teams and departments* and the *Development of innovations in cooperation with other teams*. Similarly, the *Employees' identification with the team* attribute affects a significant number of inter-group processes, but the strength of the impact varies. The strongest impact was observed in the case of the *Information flow between employee teams and departments* and the *Development of innovations in cooperation with other teams*. Next, the *Good relations between team members* attribute affects primarily the *Information flow between employee teams and departments* and the *Mutual assistance within the team*. On the other hand, the *Frequency of employees' interactions with supervisors* primarily affects the *Cooperation between employee teams and departments in the company* and the *Quality of performance of tasks in cooperation with employees of other teams and company departments*.

**Table 5 .**

*Correlation between intra-group capital attributes and inter-group processes*

	<b>IRGP 1</b>	<b>IRGP 2</b>	<b>IRGP G3</b>	<b>IRGP G4</b>	<b>IRGP G5</b>	<b>IRGP 6</b>
<b>INSC 1</b>	0,132 p=0,066	0,153 p=0,050				
<b>INSC 2</b>		0,150 0,047		0,171 p=0,022	0,122 p=0,079	0,148 p=0,050
<b>INSC 3</b>	0,128 p=0,070	0,137 p=0,061		0,281 p=0,000	0,154 p=0,051	0,121 p=0,080
<b>INSC 4</b>	0,133 p=0,065		0,113 p=0,072	0,130 p=0,068	0,112 p=0,075	0,124 p=0,074
<b>INSC 5</b>	0,144 p=0,053	0,139 p=0,059		0,113 p=0,072	0,128 p=0,069	0,123 p=0,075

Source: Author's own elaboration.

From the perspective of the research questions, it is important to analyze the impact of intra-group social capital attributes on economic efficiency and enterprise development indicators. The results presented in Table 6 show that the economic efficiency of enterprises is at an average level. The highest ratings were given to the *Increase in the company's revenues vs. the previous year* (52.3% of high and very high ratings), the *Increase in the market value* (52.3%) and the *Increase in the company's productivity* (50.6%). The *Increase in the value of equity capital vs. the previous year* was rated relatively low (26.2% low and very low), the *Increase in the value of the company's assets* (24.2%) and the *Achievement of a net profit* (23.5%).

Next, Table 7 presents the assessment of enterprise growth indicators over the last year. Among the analyzed indicators, the highest ratings were given to the *Growth of R&D activities* (54.5% very high and high), *Introduction of new products* (51.8%), *Acquisition of new sales markets* (51.3%) and the *Emergence of new investments* (50.8%). The most negative ratings

were recorded in the case of the *Implementation of new technologies* (26.7% low and very low), *Increase in product sales* (26.2%) and *Intensification of market activities* (26.1%).

**Table 6.**  
*Percent ratings of enterprise economic efficiency*

Specification	Rating				
	1	2	3	4	5
EF1 – Increase in the company's revenues compared to the previous year	0	23,1	39,8	31,7	5,4
EF2 – Increase in the market value	0,9	33	36,2	29,4	0,5
EF3 – Increase in the company's productivity	0,5	33,2	31,5	34,3	0,5
EF4 – Increase in the value of equity capital vs. the previous year	2,6	13	51	27	6,4
EF5 – Increase in the value of the company's assets	2,8	24,3	44,7	26,8	1,4
EF6 – Achievement of a net profit	2,8	13,6	52,7	27	4

Scale: 1 – very low, 2 – low, 3 – medium, 4 – high, 5 – very high.

Source: Author's own study.

**Table 7.**  
*Percent ratings of enterprise growth*

Specification	Rating				
	1	2	3	4	5
EG1 – Introduction of new products	1,2	24,2	22,8	25	26,8
EG2 – Emergence of new investments	0,7	20,2	28,3	25,2	25,6
EG3 – Implementation of new technologies	1,7	25	24,2	26,3	22,8
EG4 – Increase in product sales	1,7	24,5	26,1	25,4	22,3
EG5 – Increase in enterprise resources	0,9	24,5	25,6	24,2	24,9
EG6 – Growth of customer portfolios"	1,2	23,8	25,2	25,7	24
EG7 – Increased employee innovation	0,9	21,7	25,7	27,7	24
EG8 – Intensification of market activities	0,9	25,2	24,9	27	22,1
EG9 – Increasing the company's competitiveness on the local market	0,7	25,2	28,7	22,6	22,8
EG10 – Acquisition of new sales markets	1	22,8	24,9	27,8	23,5
EG11 – Growth of R&D activities	1,4	21,9	22,3	30,3	24,2

Scale: 1 – very low, 2 – low, 3 – medium, 4 – high, 5 – very high.

Source: Author's own study.

It seems interesting to examine the relations between intra-group social capital and the economic situation of enterprises. For this purpose, the relations between the bonding capital attributes and the economic efficiency of enterprises and their development indicators were analyzed. As can be seen from Table 8, the strongest impact on the economic efficiency of the surveyed enterprises, in particular, the *Increase in the company's revenues vs. the previous year* and the *Increase in the market value* was exerted by the *Strong influence of social norms (mutuality, loyalty)* attribute. Also important for the *Increase in the company's productivity* is the *Good atmosphere/team spirit*, which significantly influences the *Increase in the company's revenues vs. the previous year*, the *Achievement of a net profit* and the *Increase in the market value*. Moreover, the attribute of *Good relations between team members* has a significant impact on the *Increase in the value of the company's assets* and *Increase in the market value*.

A broader picture of the importance of social capital attributes on the development of an enterprise is presented by the analysis of the relations between its attributes and development indicators (table 9). The strongest impact was observed in the case of the attribute of *Frequency of employees' interactions with supervisors*, which significantly influences the *Increase in product sales* and the *Intensification of market activities*. Next, the company's development indicators are influenced by the attribute of *Employees' identification with the team* – in particular, on the *Implementation of new technologies* and the *Intensification of market activities* – and by the *Strong influence of social norms (mutuality, loyalty)* – on the *Growth of R&D activities* and the *Emergence of new investments*.

To sum up, internal social capital affects primarily the *Increase in the market value*, *Increase in the value of the company's assets*, *Achievement of a net profit*, *Intensification of market activities*, *Implementation of new technologies* and the *Increase in product sales*. Therefore, enterprises should pay more attention to creating favorable conditions for development.

**Table 8.**

*Spearman's rank correlation coefficient between intra-group social capital attributes and economic efficiency*

	EE1	EE2	EE3	EE4	EES5	EE6	EE7
<b>INSC 1</b>	0,153 p=0,044		0,318 p=0,000	0,299 p=0,000			0,144 p=0,053
<b>INSC 2</b>	0,133 p=0,065	0,172 p=0,020	0,291 p=0,001			0,135 p=0,063	
<b>INSC 3</b>	0,181 p=0,051	0,135 p=0,063	0,121 p=0,080	0,309 p=0,000	0,394 p=0,000		0,153 p=0,044
<b>INSC 4</b>	0,284 p=0,000			0,283 p=0,000	0,291 p=0,000	0,141 p=0,056	0,150 p=0,047
<b>INSC 5</b>	0,162 p=0,028	0,149 p=0,048	0,171 p=0,021	0,153 p=0,044	0,141 p=0,056	0,161 p=0,027	

Source: Author's own elaboration.

**Table 9.**

*Correlation between intra-group capital attributes and enterprise development indicators*

	EG2	EG 3	EG 4	EG 5	EG 6	EG8	EG10	EG11
<b>INSC 1</b>							0,137 p=0,061	
<b>INSC 2</b>		0,123 p=0,072	0,290 p=0,000	0,132 p=0,068	0,159 p=0,035	0,276 p=0,001		0,137 p=0,061
<b>INSC 3</b>	0,252 p=0,002				0,147 p=0,50	0,169 p=0,021		0,303 p=0,000
<b>INSC 4</b>	0,153 p=0,048					0,159 p=0,035	0,131 p=0,067	
<b>INSC 5</b>		0,291 p=0,000			0,144 p=0,053	0,257 p=0,001		

Source: Author's own elaboration.

## Discussion and summary

From the point of view of research on social factors of enterprise development, this study allowed to identify the attributes of intra-group social capital in enterprises in the innovative industry and determine their impact on intra-organizational processes. The analysis of the results of empirical research shows that the general level of intra-group social capital is high in the studied enterprises in the innovative industry. Its strongest attribute is the *Good atmosphere/team spirit*, followed by the *Good relations between team members* and the *Strong influence of social norms (mutuality, loyalty)*. They create favorable conditions for employees to undertake innovative activities. Social capital attributes were rated highest in the case of small teams (7-14) and lowest in the case of large teams (25+).

One of the benefits of intra-group social capital is the strengthening of intra-organizational processes. This applies primarily to intra-group processes. Research shows that intra-group social capital affects primarily the *Sharing of knowledge with colleagues*. Also, research by Hu and Randel (2014) shows that social capital promotes knowledge sharing by providing tacit and explicit knowledge, knowledge exchange and innovation in the team. Moreover, it influences communication and mutual assistance within the team.

Intra-group capital also strengthens inter-group processes, in particular the *Information flow between employee teams and departments*, the *Flow and creation of knowledge thanks to cooperation between employees of different teams* and the *Cooperation between employee teams and departments in the company*. The author's research shows that three attributes of intra-group social capital have the greatest impact on these processes: the *Employees' identification with the team*, the *Good relations between team members* and the *Strong influence of social norms (mutuality, loyalty)*. Therefore, in order to improve organizational processes, managers should place emphasis on creating conditions for the growth of relations and their frequency between employees of different work teams.

The position of the company on the market depends, among others, on the increase in economic efficiency and the increase in the company's development indicators, among others on the *Growth of R&D activities*, the *Introduction of new products*, the *Increase in the team's innovation*, the *Acquisition of new sales markets* and the *Emergence of new investments*. Research by Liu, Ghauri and Sinkovics (2010) shows that social capital has a positive impact on the growth of the company's market position thanks to the dissemination of knowledge between the company's internal entities. Analyzing the impact of intra-group social capital attributes on economic efficiency and enterprise development indicators, it was shown that the *Strong influence of social norms (mutuality, loyalty)*, the *Good atmosphere/team spirit* and the *Good relations between team members* are important factors in its growth, in particular in the case of the *Achievement of a net profit* and the *Increase in the market value*. Similarly, in the analysis of enterprise development indicators, the strongest impact was observed in the

case of the attributes: *Frequency of employees' interactions with supervisors, Employees' identification with the team and Strong influence of social norms (mutuality, loyalty)*.

The research results confirmed the influence of intra-group social capital on both intra-organizational processes and the development of enterprises, therefore it seems important to strengthen social capital by company managers.

The author of the article would like to point out the limitations in the use of research results on intra-group social capital in enterprises resulting from the quantitative research method used. The presented research results were intended to outline the complex issue of intra-group social capital in organizations and become a starting point for broader research on its function in contemporary enterprises.

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