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SOCIAL CAPITAL RESOURCES, ORGANISATIONAL TRUST AND SOCIAL NETWORKS AND THEIR MEDIATING ROLE IN THE DEVELOPMENT OF ENTERPRISES

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Purpose: The presented article focuses on illustrating the role of social capital components in the development of enterprises. The purpose of the article is to identify the relationships between the components of social capital and indicators of economic efficiency and development of enterprises.

Research methods: The research was carried out using the survey method, employing the CAWI technique. The survey frame was innovative industry enterprises employing more than 50 people. Based on the random selection method, a research sample was constructed consisting of 575 individuals employed in enterprises in innovative industries, i.e. pharmacy, energy, automotive and IT.

Main findings: As a result of the research, the scope of the components of social capital, i.e. its resources, social networks and organisational trust, was identified. According to the respondents, social capital resources and organisational trust are the most important. In addition to this, the results of the research confirmed the impact of social capital components on both the development of enterprises and their economic efficiency, thus it seems important for company managers to strengthen social capital.

Research limitations: The obtained research results in relation to their quantitative nature (surveys) constitute the basis for limited findings.

Practical implications: The research results indicate the important role of social capital components in the process of the development of enterprises in the market.

Social implications: Drawing attention to the importance of social capital in enterprises in innovative industries

Originality/value: In a cognitive sense, the research results show the relationship between the components of social capital and the economic efficiency and the development of enterprises.

Keywords: social capital, organisational trust, social networks, enterprise.

Category of the paper: Research article.

1. Introduction

In modern Business organisations, looking for opportunities to increase competitive potential on the market, increasingly pay attention to the need to develop interpersonal cooperation skills within employee groups and organisations in order to achieve common goals. This skill depends on the extent to which an organisation recognises and shares a set of social norms and values. Sharing them is the basis for building social capital that exists in relationships between people (Okoli, Oh, 2007). Social capital is understood in many ways, firstly as the resources that an individual has as a result of participation in diverse social networks, secondly, it is generally identified with the trust of people and institutions in each other and thirdly, capital can be talked about when social relations are governed by norms of reciprocity and fairness.

In general, social capital can be defined as the aggregate of social relations, connections, shared values and mutual trust that enable individuals and social groups to cooperate and achieve goals. In other words, they are the ability of human individuals to interact and cooperate within social groups, organisations, social institutions of various types to achieve common goals. The concepts of social capital in organisations were developed by many researchers (Leana, Van Buren, 1999; Coleman,1998; Nahapiet, Ghoshal, 1998; Lin, 2001; Adler, Kwon 2002).

An important structural component of social capital is social networks, which can be defined as a social network as an arrangement of nodes or actors (both people and organisations) connected by social relations or a special type of nodes (Granovetter, 1978). A network consists of a set of actors or nodes that are connected by ties of a certain type (e.g. friendship). The pattern of ties derives from the structure of the network and the nodes occupy positions within this structure (Borgatti, Halgin, 2011). In an organisation, a social network can provide valuable resources that enterprises need to acquire, including material resources and knowledge, advice and emotional support (Arregle et al., 2015). The social network is a key mechanism for collecting resources, information and assets (Peng et al., 2022).

For a social network to function efficiently, the trust of its participants is necessary. Trust can be defined as the willingness of an actor (i.e., the trustee) to become susceptible to the influence of another actor (i.e., the trustee). By taking this risk, the trustee assumes that the trustee will act in a way that promotes the trustee's well-being, even though the trustee's actions are beyond the trustee's control (Schilke et al., 2021). Trust plays an important role in an organisation. Research clearly indicates a relationship between high levels of employee trust and positive organisational-level variables such as improved job performance (Brown et al., 2015), job satisfaction (Yang, 2014), and employee engagement (Buckley, 2011).

In this article, the author analyses how social capital resources, organisational social networks and organisational trust relate to several key organisational factors associated with the development of enterprises in the innovative sector. The purpose of the article is to identify

the relationships between the components of social capital and indicators of economic efficiency and development of enterprises.

The author poses two research questions:

- Q1: To what extent are there social capital resources, organisational trust and social networks in enterprises in the innovative industry?
- Q2: What statistical relationships exist between the social capital resources, organisational trust and social networks and enterprise development indicators?

The research findings will contribute to the growing body of literature on social capital. They will also provide practical insights for managers on how to develop social capital resources, organisational trust and networks, upholding the values of authenticity, transparency and engagement.

2. Social capital in organisation – theoretical background

The analysis of numerous studies on organisational social capital indicates that it is difficult to formulate a clear definition of this concept. Some authors focus on its social function. For example, Coleman (1990), social capital refers to the social function of an organisation, such as trust, norms and networks, which can improve the effectiveness of society as well as the organisation by facilitating the coordinated action. Social capital increases when relationships between individuals face change, making it easier to act. In other words, social capital is the value generated by social relations used for personal, community, public and organisational benefits. Lean and van Buren (1999, p. 538), emphasise social relations in their definition. According to them, the social capital of an organisation can be defined as a resource reflecting the nature of social relations in the organisation. The nature of the relations is embodied by the level of orientation of the employees towards taking joint action and achieving common goals, and mutual trust. Other researchers view social capital in the context of resources. Inkpen and Tsang (2005, p. 151), put the emphasis on the resources of the organisation in the definition. According to them, social capital is "an aggregate of resources available and derived from the network of relations for an individual or an organisation. Members of an organisation can benefit from resources from the organisation's network of relations without necessarily participating in its development".

Due to the possibility of operationalisation, a resource theory was chosen for further research, according to which social capital is the social resources inherent in social structures and connections, in which individuals share a consensus on social norms and cultural values (Lu, Peng, 2019). Social capital as an organisational resource is based on social ties that connect employees and create the atmosphere of cooperation necessary for the effective implementation of collective goals by employees and the organisation. It refers to both the potential tangible

and intangible resources that an individual can acquire through their social connections in the organisation. (Spottswood, Wohn, 2020).

An employee most often acquires organisational resources by participating in social networks. In an organisation, a social network is a set of nodes and ties representing a relationship. Nodes define the spatial structure of the network (Yunyun, Gang, 2015). They may be created by people, social positions or other actors, including collective actors (Skolik, Kukowska, 2017). The specific content of the relationships occurring between nodes is diverse, and may include strategic alliances, cooperation, information flow (communication), friendship or camaraderie in the workplace, goods and services (workflow) and influence (advice) (Brass et al., 2004). Social networks in an organisation can be divided into a personal network, based on personal, often informal contacts, and an organisational network based on subject-related ties, which refers to the work team, the entrepreneurial team, etc. (Omri, Boujelben, 2015). To sum up, social networks in an organisation may have different structures, and their efficiency largely depends on the connections and channels of information and knowledge flow between network participants.

The key purpose of social networks is to transmit knowledge and useful information through interpersonal ties and social contacts (Zhou et al., 2007). Social networks facilitate "social relations" that can influence formal business relations (Tang, 2011). The basic assumption of network theory is that personal ties and connections play the role of an "infomediator" in facilitating the exchange of the most valuable information (Do et al., 2023).

Social networks have multiple functions in an organisation. They can positively influence employees' task performance. Hosseini et al. (2019), when investigating the impact of social network dimensions on employees' professional performance, found that participating in social networks had a positive and significant impact on improving performance (professional innovation and reducing burnout). Research by Mäntymäki and Riemer (2016), shows that participating in networks can help employees to solve problems, discuss ideas and work, manage tasks and have informal talks. Olfat et al. (2019), on the other hand, found a positive impact of networks on job satisfaction.

Social networks are beneficial for knowledge sharing and innovation. According to a research by Wu et al. (2021), participation in social networks is positively correlated with innovation, agility and efficiency. Qi and Chau (2018), found that social networks influence organisational learning and that knowledge management activities mediate the connections between them. In turn, Xiong and Sun (2023), based on research results, found that social networks within and between teams have a significant impact on exploratory innovation performance.

Organisational trust is an important complement to social networks, it means resources and benefits resulting from a specific location in trust networks (Sztompka, 2007). It is a multidimensional concept and is therefore defined in a number of ways in the literature. According to Ramos et al. (2022), it is a set of interdependent beliefs about ethical standards, trustworthiness in communication, the economic strength of the organisation and its ability to reward employee performance, both financially and professionally. In contrast, Yucel (2006, p. 4), defines it as "expectation of individuals, groups, or organizations from groups or organizations with which they are in mutual interaction that they will make ethical decisions and will develop behaviors that are based on ethical principles". Thus, organisational trust is the belief of an individual or group as a whole that an individual or organisation will make a good faith effort, acting in accordance with its commitment to provide the best results, regardless of where it operates (Utomo et al., 2023).

From an analysis of the various approaches to organisational trust, it becomes apparent that it is a multi-level construct that derives from interactions at the colleague, team, organisational and inter-organisational levels. Its most important elements are the values of trustworthiness, benevolence and honesty. Tam and Lim (2009), when studying trust in an organisation, divided it into trust in colleagues (horizontal trust) and employees to superiors (vertical trust). In the first case, the researchers defined vertical trust as "an employee's willingness to be vulnerable to the actions of the organization, whose behavior and actions he or she cannot control" (p. 46). This trust is a variable in the relationship between superior and subordinate, it works reciprocally and includes both the subordinate's trust in his or her superior and vice versa (Özyilmaz, 2010). In contrast, trust in colleagues is defined as "the willingness of a person to be vulnerable to the actions of fellow coworkers whose behavior and actions that person cannot control" (Tan, Lim, 2009, p. 46). Horizontal trust is a useful factor for identifying employees with the organisation, for improving communication, for increasing job satisfaction and for building relationships between employees and organisations. It strengthens employee loyalty to the organisation (Hebo et al., 2022).

Institutional trust in organisations is the least frequently researched. The literature on trust has primarily focused on the study of how people trust others. While we can conceptualise institutional trust as a type of trust that relies on external factors, such as disciplinary or preventive mechanisms, to reduce the complexity of social interactions (Sabetzadeh, Chen, 2023). The institutional trust in an organisation can be understood as employees trust in the organisation. Maguire and Phillips (2008, p. 372), define trust as "an individual's expectation that some organised system will operate predictably and with good will. Employees' trust in the organisation is based on both trust in competence, which refers to expectations of skills, and trust in good will, which refers to expectations of honesty and harmless behaviour (Weibel et al., 2016).

To sum up, social capital brings many benefits to an enterprise. From the organisation's perspective, it can be used to build cooperation based on trust, faster information flow and the creation of knowledge and creativity, which results in a reduction in costs related to the coordination and control of employees. Social capital also benefits employees in terms of building a connection with the enterprise as an institution and with employees, and improving the psychological sense of being needed by others.

3. Methods and Sample

The purpose of the research is to identify the relationships between the components of social capital and indicators of economic efficiency and development of enterprises. The article compares the results of research on the components of social capital from 2017, 2019 and 2022. The study focuses primarily on the results of the research from 2022. The survey method was used in the research. The standardised survey questionnaire was used as the research tool. To survey employees of enterprises in innovative industries, a CATI (Computer Assisted Telephone Interview) technique was used. The survey was nationwide. The survey frame was innovative industry enterprises employing more than 50 people. Based on the random selection method, a research sample was constructed consisting of 575 individuals employed in enterprises in innovative industries, i.e. pharmacy (25.2%), energy (23.3%), automotive (26.4%) and IT (25%). The surveyed employees were white-collar (97.2%) and blue-collar (2.8%) workers, with work experience of 4-8 years (10.3%), 9-13 years (23.8%), 14-18 years (33.7) and 19 or more years (32.2%). Due to random sampling, the survey was performed on a representative sample using the following parameters: margin of error α 4%, confidence interval: 95%. The Kendall rank correlation coefficient was used to analyse the questions posed.

4. Results

The article compares the results of research on the components of social capital from 2017, 2019 and 2022. The level of social capital in an enterprise depends to a large extent on the extent to which its resources are present among employees. Based on Theiss (2005) classification, the dimensions of social capital – structural, regulatory, cognitive and behavioural – were distinguished within which their resources were identified, including cooperation, solidarity, participation, loyalty and values. Table 1 presents the results of research on social capital resources. The average rating of social capital resources in enterprises of the innovative sector was $\overline{x} = 4.02$, SD = 0.887 and was higher than previously conducted research in 2016 ($\overline{x} = 3.40$, , SD = 0.887) and in 2019 ($\overline{x} = 3.14$, SD = 0.887).

Values are a resource included in the regulatory dimension of social capital. They are important because, when shared by members of the work team, they strengthen cooperation. The surveyed respondents rated this resource the highest, indicating that most employees respect norms and values ($\overline{x} = 4.05$, SD = 0.867) and respect property rights ($\overline{x} = 4.02$, SD = 0.887). Another resource included in this dimension of social capital is solidarity, based on informal social norms. Solidarity increases employees' confidence in taking risks in innovative activities. The surveyed respondents rated ethicality in relations with other

employees ($\overline{x} = 4.15$, SD = 0.901) and solidarity with other colleagues as the highest ($\overline{x} = 4.01$, SD = 0.849).

Another resource is cooperation, which is a behavioural component of social capital. The respondents rated highest the sharing of information, knowledge and learning one from the other ($\bar{x} = 4.19$, SD = 0.814), employees' creativity in solving problems at work ($\bar{x} = 4.11$, $\sigma = 0.850$) and having cooperation skills ($\bar{x} = 4.06$, SD = 0.891).

Loyalty is a component of the cognitive dimension of social capital. It manifests itself in being loyal to the company and colleagues. The surveyed respondents rated highest the willingness to help other employees ($\overline{x} = 4.11$, SD = 0.821) and the kindness and friendliness of employees towards each other ($\overline{x} = 4.06$, SD = 0.895).

Among the resources of the structural dimension of social capital is participation, which includes, on the one hand, employees' membership in informal groups, mutual informal contacts in the workplace and taking part in team-building events and, on the other hand, trade union membership. Among the attributes of this resource, participation in team-building events $(\bar{x} = 4.11, \text{ SD} = 0.927)$ and participation in informal groups based on cooperation ($\bar{x} = 4.05$, SD = 0.921) were rated the highest.

Table 1.

Specification	2017 N = 149			2019 2022 I = 179 N = 576		
-	x	SD	x	SD	x	SD
SCC Cooperation resource	3.54	0,880	3,19	1,377	4,03	0,885
SCS Solidarity resource	3,28	0,987	3,05	1,306	4,08	0,891
SCP Participation resource	3,29	1,242	3.22	1,370	3,84	0,930
SCL Loyalty resource	3,27	0,902	3,10	1,342	4,05	0,963
SCV Value resource	3,38	0,868	3,14	1,358	4,09	0,911
Generalised social capital resources	3,40	1.001	3,14	1,349	4,02	0,915

Social capital resources in enterprises in innovative industries

*Scale of between 1 and 5.

Source: self-analysis.

A component of social capital is trust, understood as the belief that a partner will take our interests into account in the course of an exchange, when we have previously taken their interests into account in the course of our actions. In the surveys of employees of enterprises in innovative industries, the level of trust in colleagues, managers and organisations was identified (Table 2). The analysis of the 2022 survey results shows that the generalised level of trust in enterprises in innovative industries reached $\overline{x} = 4.03$ on a scale of 1 to 5, where 1 meant very low trust and 5 meant very high trust, and was significantly higher than the results of the 2019 survey of large enterprises and the 2017 survey of small, medium and large enterprises.

The analysis of the 2022 survey results shows that employees place more trust in managers $(\overline{x} = 4.07)$ than in colleagues $(\overline{x} = 4.05)$. Employees have relatively the least trust in the enterprises they work in $(\overline{x} = 3.99)$. The detailed analysis of the attributes of the different types of trust helps to build a picture of organisational trust in enterprises in innovative industries.

Among the horizontal trust attributes, employees' belief that if they needed a replacement they could find someone to help them was rated highest ($\bar{x} = 4.19$, SD = 0.802). This was followed highly by the willingness to share ideas and information with other colleagues ($\bar{x} = 4.17$, SD = 0.827), the belief that if they share their work problems with other employees they are sure to get constructive advice ($\bar{x} = 4.14$, SD = 0.820), confidence in receiving help from my work colleagues ($\bar{x} = 4.13$, SD = 0.869) and being able to talk openly about what I don't like or how something should be changed ($\bar{x} = 4.10$, SD = 0.802).

Among the attributes of vertical trust, the belief that managers keep their promises $(\overline{x} = 4.11, \text{SD} = 0.834)$ and fairly appraise employees $(\overline{x} = 4.11, \text{SD} = 0.867)$ was rated the highest. Other highly rated attributes were loyalty to one's manager $(\overline{x} = 4.10, \text{SD} = 0.880)$, the belief that in case of problems related to work, one can safely talk to one's superior $(\overline{x} = 4.08, \text{SD} = 0.853)$ and the belief that superiors play primarily the role of advisors and partners $(\overline{x} = 4.08, \text{SD} = 0.874)$.

The most important attributes of institutional trust are the belief that the company wants employees to know why certain decisions are made ($\bar{x} = 4.17$, SD = 0.919) and the certainty that if something bad happens in the company, most employees would try to find a way to solve this problem ($\bar{x} = 4.10$, SD = 0.934). Moreover, its level is influenced by the belief that the company cares about the interests of employees ($\bar{x} = 4.05$, SD = 0.848), avoids gossip and does not participate in unfair criticism of other people ($\bar{x} = 4.05$, SD = 0.929) and certainty that if something really bad is happening in the company, employees will be informed about it ($\bar{x} = 4.04$, SD = 0.859).

Table 2.

Specification	20 N=	17 149		2019 2022 N=179 N=576		-
_	x	SD	x	SD	x	SD
HT Horizonal trust	3,40	0,980	3,15	1,327	4.05	0,836
VT Vertical trust	3,60	0,881	3,21	1,325	4,07	0,873
IT Institutional trust	3,76	0,928	3,18	3,331	3,99	0,884
Generalised organization trust	3,61	0,911	3,19	1,342	4,03	0,849

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Scale of between 1 and 5.

Source: Author's own elaboration.

Social networks are an essential component of organisations. Lin (2001) embedded them in social relations that improve performance. In order to identify the extent to which social networks exist in the surveyed enterprises, the indicators were constructed based on the frequency of mutual formal and informal relations between employees and between managers and employees and the closeness between employees and employees and the immediate manager (Table 3). The generalised networking indicator for the surveyed enterprises was $\overline{x} = 3.52$ on a scale of 1 to 5 (where 1 means none and 5 means high frequency or closeness of connections).

The detailed analysis of network indicators in the surveyed enterprises indicates differences in the degree of occurrence of employee networks and networks of employees and managers. Indicators of the frequency of relations between employees forming the employee network, i.e. frequency of the employee's contacts with other employees with whom the employee cooperated in the last year ($\overline{x} = 3.76$, SD = 0.817), frequency of the employee's contacts with other employees in professional matters ($\overline{x} = 3.58$, SD = 0.948) and frequency of the employee's contacts with other employees after work, e.g. going out to a restaurant or a pub together $(\overline{x} = 3.22, \text{SD} = 0.106)$ achieved a higher value than the indicators of the frequency of relations in networks consisting of employees and a manager, i.e. frequency of relations with a direct manager to whom one can turn seeking help or advice in professional matters ($\overline{x} = 3.38$, SD = 0.867) and frequency of relations with the direct manager after work (going out together for an informal lunch, dinner or to the pub) ($\overline{x} = 3.12$, SD = 0.995). There were also differences in the closeness of connections indicator. The indicator of closeness of connections between employees from the same team ($\bar{x} = 3.94$, SD = 0.867) was significantly higher than the indicator of closeness of employees from different teams ($\overline{x} = 3.19$, SD = 0.828). Surprisingly, the indicator for the closeness of employees' relations with their immediate manager ($\overline{x} = 3.68$, SD = 0.875) was lower than the indicator of the closeness of connections with other managers $(\overline{x} = 3.83, \text{SD} = 0.892).$

Table 3.

Specification		17 149	2022 N = 576	
	x	SD	x	SD
FRE1 Frequency of employee relations	3.22	1,410	3.52	0,892
CCE1 Closeness of connections between employees	2.45	1,250	3.56	0,983
Total	3,03	1,320	3.54	0,022
FRM1 Frequency of employee relations with the manager	3.26	1,275	3.25	0,922
CCM1 Closeness of connections between employees and the	2.54	1,380	3.75	0,889
manager				
Total	2.89	1,374	3.50	
Generalised networking indicator	3,06	1,390	3.52	0,961

Social network indicators in enterprises in innovative industries

Scale of between 1 and 5.

Source: Author's own elaboration.

From the perspective of research questions, the analysis of indicators of economic efficiency and enterprise development is important. The results presented in Table 4 indicate that the economic efficiency of enterprises is at an average level. The highest ratings were given to the enterprise's increase in revenues compared to the previous year, the increase in market value, the increase in productivity and the positive financial result achieved in the enterprise. The increase in the value of equity and the increase in the value of our enterprise's assets were rated relatively low compared to the previous year.

Similarly, the rating of the indicators for enterprise development is at an average level. The emergence of new investments, the introduction of new products and the innovation of employees were rated highest. In contrast, the lowest ratings were given to the implementation of new technologies and increased product sales.

Table 4.

Rating of the economic efficiency (EE) of enterprises

Specification	x	SD
EE1. In the last year the enterprise achieved a positive financial result	3.52	1.124
EE2. In the last year, the enterprise's revenues increased compared to the	3.53	1.092
previous year		
EE3. In the last year the enterprise saw an increase in the value of equity	3.43	1.111
compared to the previous year		
EE4. In the last year, the value of our enterprise's assets increased compared	3.46	1.097
to the previous year		
EE5. In the last year, the value of our enterprise's market value increased	3.50	1.097
compared to the previous year		
EE6. In recent years, the enterprise has been generating an increasing net	3.49	1.085
profit		
EE7. In recent years, productivity in the enterprise has been increasing	3.49	1.107
Total	3.49	1.198

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

Source: author's own elaboration.

Table 5.

Rating of the indicators for enterprise development (ED)

Specification	x	SD
ED1 New products have been introduced	3.52	1.159
ED2 New investments have emerged	3.55	1.097
ED3 New technologies have been implemented	3.43	1.143
ED4 Product sales have increased	3.41	1.133
ED5 Enterprise's resources have increased	3.47	1.136
ED6 Customer portfolio has increased	3.48	1.131
ED7 Employee innovation has increased	3.52	1.103
ED8 Intensification of activities in the markets has increased	3.35	1.112
Total	3.47	1.126

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

Source: author's own elaboration.

In the next research step, the relationship between social capital resources and the economic efficiency of enterprises and their development indicators was analysed. The analysis of Table 6 shows that the strongest impact on the economic efficiency of the surveyed enterprises was exerted by the cooperation resource, in particular on positive financial results (EE1), increase in revenues (EE2) and increase in productivity (EE7). The participation resource is also important for the increase in economic efficiency, in particular it influences the increase in productivity (EE7), the increase in the equity value (EE3) and the increase in market value (EE5). In addition to this, the resource of loyalty is also important, influencing the increase in revenues (EE2), the increase in asset value (EE4) and the increase in market value (EE5).

A broader picture of the importance of social capital resources in enterprise development is provided by the analysis of its relationship with development indicators. The strongest impact was observed for the cooperation resource, which influences most of the development indicators, with the strongest impact on the increase in product sales (WR4), the increase in enterprise's resources (WR6) and the implementation of new technologies (WZ3).

Subsequently, the value resources have an impact on the indicators of enterprise development, in particular the increase in product sales (WR4), the implementation of new technologies (WR3) and the increase in enterprise's resources (WR5). In turn, the participation resources have the strongest impact on the increase in sales (WR4), the implementation of new technologies (WR3) and the increase in intensification of activities (WR8). In contrast, a weaker impact was observed for solidarity and loyalty resources.

In conclusion, social capital resources have an impact on both economic efficiency and enterprise development. With the strongest impact on the increase in the value of the enterprise, a positive financial result, an increase in product sales, the emergence of new investments and the introduction of new products. Thus, enterprises should pay more attention to creating a favourable environment for the development of social capital.

Table 6.

		-	-		
	SCC	SCS	SCP	SCL	SCV
EE1	0,172*	0,157*	0,029	0,032	0,184*
EE2	0,183*	0,029	0,015	0,174*	0,007
EE3	0,045	0,039	0,178*	0,020	0,029
EE4	0,044	0,035	0,039	0,163*	0,042
EE5	0,154*	0,165*	0,165*	0,164*	0,068**
EE6	0,027	0,034	0,053**	0,028	0,018
EE7	0,172*	0,029	0,180*	0,051**	0,037
ED1	0,006	0,156*	0,042	0,032	0,023
ED2	0,166*	0,156*	0,045	0,173*	0,163*
ED3	0,181*	0,161*	0,180*	0,029	0,181*
ED4	0,208*	0,169*	0,196*	0,049	0,201*
ED5	0,156*	0,034	0,159*	0,014	0,180*
ED6	0,181*	0,030	0,049	0,050	0,052**
ED7	0,162*	0,020	0,015	0,048	0,172*
ED8	0,157*	0,028	0,171*	0,025	0,045

Kendall rank correlation coefficient between social capital resources (SC) and economic efficiency indicators (EE) and enterprise development indicators (ED)

* p < 0,01, ** p < 0,05.

Source: own research.

It seems interesting to research the relationship between organisational trust and indicators of economic efficiency and enterprise development. The analysis of Table 7 shows that vertical trust (VT) has the greatest impact on economic efficiency, in particular the increase in equity value (EE3), a higher net profit (EE6) and the increase in productivity (EE7). In contrast, horizontal trust (HT) has the greatest impact on positive financial result (EE1), the increase in productivity (EE7) and the increase in market value (EE5). However, in the case of institutional

trust (IT), a relationship was noted with the achievement of a positive financial result (EE1) and an increase in equity value (EE3).

Slightly different results were obtained in the analysis of the relationship between organisational trust and enterprise development indicators. The most numerous relationships were observed in the case of horizontal trust. The strongest positive correlations were identified between horizontal trust (HT) and enterprise development indicators (ED), i.e. the introduction of new products (ED1), the emergence of new investments (ED2) and the increase in product sales (ED4). In turn, vertical trust has the greatest impact on the introduction of new products sales (ED4), the emergence of new investments (ED2) and the increase in product (ED1), the emergence of new investments (ED2) and the increase in product sales (ED4). The institutional trust has the least impact on enterprise development indicators. Its strongest impact was identified on increasing the enterprise's resources (ED5) and implementing new technologies (ED3).

To sum up, organisational trust primarily has an impact on the positive financial result, the increase in productivity, the emergence of new investments, the increase in product sales and the introduction of new products. Thus, enterprises should pay more attention to creating a favourable environment for the development of organisational trust.

Table 7.

Kendall rank correlation coefficient between horizontal trust (HT), vertical trust (VT) and
institutional trust (IT) and economic efficiency indicators (EE) and enterprise development
indicators (ED)

	HT	VT	IH
EE1	0,233*	0,057**	0,230*
EE2	0,190*	0,189*	0,048
EE3	0,061	0,193*	0,215*
EE4	0,079**	0,185*	0,057**
EE5	0,190*	0,185*	0,078**
EE6	0,183*	0,196*	0,048**
EE7	0,208*	0,191*	0,053**
ED1	0,232*	0,226*	0,241*
ED2	0,222*	0,223*	0,188*
ED3	0,191*	0,079**	0,260*
ED4	0,222*	0,223*	0,186*
ED5	0,191*	0,055	0,260*
ED6	0,183*	0,219*	0,049
ED7	0,208*	0,203*	0,071**
ED8	0,078**	0,098**	0,056

* p < 0,01, ** p < 0,05.

Source: own research.

The analysis of the Kendall rank correlation coefficient results between social network indicators and economic efficiency indicators and enterprise development indicators indicates the existence of various degrees of dependency between the variables (Table 8). The network indicator of the frequency of relations between employees (FRE) has the strongest positive impact on the increase in the value of the enterprise's assets (EE4), the increase in market value (EE5) and the achievement of increasing net profits (EE6), the introduction of new products

(ED1) and the increase in the enterprise's resources (ED5). In contrast, the frequency of relations between employees and the direct manager (ERM) is most strongly influenced by higher net profit (EE6), the implementation of new technologies (ED3) and the increase in enterprise's resources (ED5) and the increase in intensification of market activities (ED8).

The analysis of relationships between the closeness of connections between employees (CCE) and indicators of economic efficiency and enterprise development shows that there is a relationship only with positive financial result (EE1). However, the network indicator of the closeness of connections between employees and managers (CCM) is primarily strongly related to the positive financial result (EE1), the increase in the enterprise's revenues compared to the previous year (EE2), the increase in the equity value compared to the previous year (EE3) and the increase in the value of assets compared to the previous year (EE4).

Thus, the frequency of relations between employees significantly influences the economic efficiency, while the frequency of relations between employees and the manager influences the development of enterprises. The situation is different when it comes to the impact of closeness of connections on the economic efficiency and the development of the enterprise. The closeness of connections to the manager mainly affects the economic efficiency, and to a lesser extent the development of enterprises. In contrast, weak connections were identified between the closeness of connections between employees and the economic efficiency and the development of enterprises.

Table 8.

	FRE	CCE	FRM	CCM
EE1	0,056**	0,079**	0,191*	0,296*
EE2	0,038	0,027	0,065**	0,294*
EE3	0,020	0,045	0,068**	0,282*
EE4	0,241*	0,049	0,047	0,270*
EE5	0,251*	0,017	0,043	0,036
EE6	0,335*	0,190*	0,021	0,164*
EE7	0,032	0,016	0,021	0,031
ED1	0,304*	0,043	0,036	0,031
ED2	0,043	0,022	0,013	0,048
ED3	0,027	0,303*	0,045	0,197*
ED4	0,016	0,051	0,027	0,018
ED5	0,306*	0,309*	0,038	0,197*
ED6	0,012	0,047	0,042	0,051
ED7	0,046	0,032	0,013	0,056
ED8	0,028	0,295*	0,034	0,005

Kendall rank correlation coefficient between the frequency of relations (FR) and the closeness of connections (CC) and economic efficiency indicators (EE) and enterprise development indicators (ED)

* p < 0,01, ** p < 0,05.

Source: own research.

Discussion and summary

Social capital is an important factor in enhancing the innovativeness of enterprises, as it enables the effective use of the potential of employees and managers to create knowledge and new innovations. Social capital has a significant impact on innovativeness based on cooperation (Al-Omoush et al., 2022). In particular, it is important in enterprises in innovative industries. This research shows the scope of the components of social capital, i.e. its resources, organisational trust and social networks. The analysis of the empirical results shows that the generalised level of social capital resources is high in the surveyed enterprises in the innovation industry. Its strongest resource is its values in particular respect for norms, protection of property rights and solidarity manifested in ethical relations with other employees and solidarity with colleagues. These create a favourable environment for employees to take innovative action.

One of the important elements of social capital are networks that have a significantly positive impact on the innovation efficiency of the enterprise (Xuqian et al., 2024). The research found that organisational networks made up of employees themselves were characterised by a relatively high frequency of relations between employees resulting from frequent professional contacts in the workplace. Employees entered into informal relations with other employees relatively less often. However, networks composed of employees and managers were based on formal relations between employees and managers, with frequent contacts with managers to whom help or advice can be sought and a relatively high degree of closeness of connections between employees and the manager.

Knowledge about the nature of social networks can help managers stimulate pro-innovative actions of employees, which will increase the enterprise's competitiveness in the market. Therefore, they should focus more attention on learning their structure of functioning, which will allow them to optimally use their potential to act for the benefit of the organisation.

A component of social capital related to its resources is trust. It has an impact on the extent to which tangible and intangible resources can be accessed and used. The aggregated trust can lead to increasing mobilisation, activity, innovation (Sztompka, 2010). In the surveyed enterprises, the highest level of trust was recorded in the case of vertical trust, in particular its attributes, i.e. the belief that managers keep their promises and evaluate employees fairly, managers acting as advisors and intellectual partners towards subordinates and the conviction that if an employee had problems with anything related to work, they could safely talk to their superior about it. Horizontal trust, i.e. in employees, was significantly lower, with the highest ratings given to the employee's conviction that if they needed a replacement, they were confident they could find someone to help them, the sharing of ideas and information with other colleagues, employees keeping their promises and the employee's conviction that if they shared their work problems with other employees they would get constructive advice. The level of institutional trust was rated lowest. When analysing the importance of organisational trust for the functioning of enterprises, it should be noted that it creates a favourable environment for cooperation both between employees and between the manager and employees.

An enterprise's position on the market depends, among other things, on the increase in economic efficiency and enterprise development indicators, such as the introduction of new products, the innovativeness of employees, the acquisition of new markets, the emergence of new investments. Research by Liu, Ghauri, Sinkovics (2010) shows that social capital positively influences the increase in a company's position in the market through the dissemination of knowledge between internal company actors.

The analysis of the Kendall rank correlation coefficient between elements of social capital and indicators of economic efficiency and enterprise development concluded that social capital resources and organisational trust have a greater impact on enterprise development than on economic efficiency of enterprises. When analysing the impact of social capital resources on enterprise development, it was shown that the value resource and the solidarity resource are important factors in its growth. In the case of organisational trust, on the other hand, horizontal and vertical trust were shown to have a significant impact on the development of the enterprise. In turn, institutional trust has the strongest impact on economic efficiency. The obtained research results confirmed the impact of social capital elements on both the development of enterprises and their economic efficiency, thus it seems important for company managers to strengthen social capital.

The author of the article would like to point out the limitations of using the results of research on social capital in enterprises resulting from the quantitative research method used. The presented research results were intended to outline the complex issue of social capital and constitute a starting point for broader research on its function in modern enterprises.

References

- Adler, P.S., Kwon, S. (2002). Social Capital: Prospects for a New Concept. Academy of Management Review, Vol. 27, No. 1, 4-40. doi.org/10.2307/4134367
- Al-Omoush, K.S., Ribeiro-Navarrete, S., Lassala, C., Skare, M. (2022). Networking and knowledge creation: Social capital and collaborative innovation in responding to the COVID-19 crisis. *Journal of Innovation & Knowledge*, Vol. 7, No. 2, 100181. doi.org/10.1016/j.jik.2022.100181
- 3. Arregle, J.L., Batjargal, B., Hitt, M.A., Webb, J.W., Miller, T., Tsui, A.S. (2015). Family ties in entrepreneurs' social networks and new venture growth. *Entrepreneurship Theory and Practice*, *Vol. 39, No. 2*, 313-344. doi.org/10.1111/etap.12044

- Borgatti, S.P., Halgin, D.S. (2011). On Network Theory. *Organization Science*, Vol. 22, No. 5, 1168-1181. doi.org/10.2139/ssrn.2260993
- Brass, D.J., Galaskiewicz, J., Greve, H.R., Tsai, W.P. (2004). Taking stock of networks and organizations: A multilevel perspective. *The Academy of Management Journal*, *Vol. 47*, 795-817. doi.org/10.2307/20159624
- Brown, S., Gray, D., McHardy, J., Taylor, K. (2015). Employee trust and workplace performance. *Journal of Economic Behavior & Organization, Vol. 16, No. 4*, 361-378. doi.org/10.1016/j.jebo.2015.05.001
- Buckley, F. (2011). Trust and engagement in a downsizing context: the impact on human resource managers. In: R.H. Searle, D. Skinner (Eds.), *Trust and Human Resource Management* (pp. 309-329). London: Edward Elgar.
- 8. Chen, Y.S.K. (2010). Trust in organizations: maintaining and repair. *Advances in Psychological Science*, *Vol. 18, No. 4*, 664-670.
- 9. Coleman, J.S. (1988). Social capital in the creation of human capital. *The American Journal* of Sociology, Supplement: Organizations and Institutions: Sociological and Economic Approaches to the Analysis of Social Structure, Vol. 94, S95-S120.
- 10. Granovetter, M. (1978). Threshold Modes of Collective Behavior. *The American Journal* of Sociology, Vol. 83, No. 6, 1420-1443. doi.org/10.1086/226707
- Hebo, J., Guangsen, L., Xuexiao, L., Alam, F., Hossain, M.B., Dunay, A. (2023). *The Influence of Corporate Social Responsibility on Employee Loyalty: The Mediating Impact of Person-Organization Fit and Employee Trust.* January, doi.org//10.2139/ssrn.4514595.
- Hosseini, F., Batmani, M.A., Vakili, Y., Naghechi, M. (2020). Explaining the Role of Dimensions of Using Social Media on Employee Performance with Emphasis on the Role of Social Capital (Case Study: Kermanshah Private Banks). *Journal of Sustainable Human Resource Management*, Vol. 2, No. 3, 26-7. 10.22080/SHRM.2020.2978
- Inkpen, A.C., Tsang, E.W.L. (2005). Social Capital, Networks, and Knowledge Transfer. Academy of Management Review, Vol. 30, No. 1, 146-165. doi.org/10.5465/AMR.2005. 15281445
- Kukowska, K., Skolik, S. (2017). Social Relations Networks of Tourism Microenterprises Operating on the Rural Areas. Case Study of Building Social Capital. In: I. Košičiarová, Z. Kádeková (Eds.), *International Scientifis Conference Managerial Trends in the Development of Enterprises in Globalization Era* (pp. 385-391). Nitra: Nitra Slovak University of Agriculture in Nitra.
- 15. Leana, C.R., van Buren, H.J. (1999). Organizational social capital and employment practices. *The Academy of Management Review, Vol. 24, No. 3,* 538-555. doi.org/10.2307/259141
- 16. Lin, N. (2001). Social capital. A theory of social structure and Action. Structural Analysis in the Social Science. Cambridge: Cambridge University Press.

- 17. Lu, N., Peng, C. (2019). Community-based structural social capital and depressive symptoms of older urban Chinese adults: The mediating role of cognitive social capital. *Archives of Gerontology and Geriatrics, Vol.* 82, 74-80. doi.org//10.1016/j.archger. 2019.01.014
- Maguire, S., Phillips, N. (2008). 'Citibankers' at Citigroup: a Study of The Loss of Institutional Trust After a Merger. *Journal of Management Studies*, *Vol. 45, No. 2*, 372-401. doi.org/10.1111/j.1467-6486.2007.00760.x
- Mäntymäki, M., Riemer, K. (2016). Enterprise social networking: a knowledge management perspective. *International Journal of Information Management, Vol. 36, No. 6*, 1042-1052. doi.org// 10.1016/j.ijinfomgt.2016.06.009
- 20. Nahapiet, J., Ghostal, S. (1998). Social capital, intellectual capital and the organizational Advantage. *The Academy of Management Review*, Vol. 23, No. 2, 242-269. doi.org/10.2307/259373
- Okoli, C., Oh, W. (2007). Investigating recognition-based performance in an open content community: A social capital perspective. *Information & Management, Vol. 44, No. 3*, 240-252. doi.org/10.1016/j.im.2006.12.007
- 22. Olfat, M., Tabarsa, G.A., Ahmadi, S., Shokouhyar, S. (2019). Disclosing the bright side of SNs in the workplace: a comparison between ESNs and public SNs in benefiting the organizations. *Journal of Enterprise Information Management, Vol. 32, No. 3*, 390-412. doi.org/10.1108/DTS-11-2023-0099
- 23. Omri, A., Boujelbene, Y. (2015). Entrepreneurial team: How human and social capital influence entrepreneurial opportunity identification and mobilization of external resources. *Journal of Entrepreneurship, Management and Innovation, Vol. 11, No. 3*, 25-42. doi.org//10.7341/20151132
- 24. Özyilmaz, Y.D.A. (2010). Vertical trust in organizations: a review of empirical studies over the last decade. *Journal of Social Sciences Institute, Vol. 7, No. 13*, 1-28.
- 25. Peng, H., Li, B., Liu, Y. (2022). How social network influences the growth of entrepreneurial enterprises: Perspective on organizational and personal network. *Sage Open, Vol. 12, No. 2*, 21582440221108178. doi.org/10.1177/215824402211081
- 26. Qi, C., Chau, P.Y.K. (2018). Will enterprise social networking systems promote knowledge management and organizational learning? An empirical study. *Journal of Organizational Computing & Electronic Commerce, Vol. 28, No. 1*, 31-57. doi.org/10.1080/ 10919392.2018.1407081
- 27. Ramos, J.R., Ferreira, M.C., Martins, L.F. (2022). Person-Organization Fit and Turnover Intentions: Organizational Trust as a Moderator. *Psico-USF*, Vol. 26, No. 4, 707-771. doi: 10.1590/1413-82712021260409

- 28. Sabetzadeh, F., Chen, Y. (2023). An investigation of the impact of interpersonal and institutional trust on knowledge sharing in companies: Invisible hands for knowledge sharing. VINE Journal of Information and Knowledge Management Systems. doi.org/10.1108/VJIKMS-06-2022-0206
- 29. Schilke, O., Reimann, M., Cook, K.S. (2021). Trust in social relations. *Annual Review of Sociology, Vol. 47, No. 1*, 239-259. doi.org/10.1146/annurev-soc-082120-082850
- 30. Spottswood, E.L., Wohn, D.Y. (2020). Online social capital: recent trends in research. *Current Opinion in Psychology, Vol. 36*, 147-152. doi.org/10.1016/j.copsyc.2020.07.031
- 31. Sztomka, P. (2007). Zaufanie. Fundament społeczeństwa. Kraków: Znak.
- 32. Sztompka, P. (2010). Socjologia zmian społecznych. Kraków: Znak.
- 33. Tan, H.H., Lim, A.K. (2009). Trust in coworkers and trust in organizations. *The Journal of Psychology, Vol. 143, No. 1*, 45-66. doi.org/10.3200/JRLP.143.1.45-66
- 34. Tang, Y.K. (2011). The Influence of networking on the internationalization of SMEs: Evidence from internationalized Chinese firms. *International Small Business Journal*, *Vol. 29, No. 4*, 374-398.
- 35. Utomo, H.J.N., Irwantoro, I., Wasesa, S., Purwati, T., Sembiring, R., Purwanto, A. (2023). Investigating the role of innovative work behavior, organizational trust, perceived organizational support: an empirical study on SMEs performance. *Journal of Law and Sustainable Development*, *Vol. 11, No.* 2, e417-e417. doi.org/10.55908/sdgs.v11i2.417
- 36. Weibel, A., Den Hartog, D.N., Gillespie, N., Searle, R., Six F., Skinner, D. (2016). How do controls impact employee trust in the employer? *Human Resource Management*, Vol. 55, No. 3, 437-462. doi.org/10.1002/hrm.21733
- 37. Wu, C., Zhang, Y., Huang, S., Yuan, Q. (2021). Does enterprise social media usage make the employee more productive? A meta-analysis. *Telematics and Informatics, Vol. 60, No.* 2, 101578. doi.org/10.1016/j.tele.2021.101578
- 38. Xiong, J., Sun, D. (2023). What role does enterprise social network play? A study on enterprise social network use, knowledge acquisition and innovation performance. *Journal* of Enterprise Information Management, Vol. 36, No. 1, pp. 151-171. doi.org/10.1108/JEIM-04-2021-0168
- 39. Xuqian, W., Hui, W., Wei, Z. (2024). Will customer change affect enterprise innovation efficiency? A study from the perspective of social networks. *Heliyon, Vol. 10, No. 3*. doi.org/10.1016/j.heliyon.2024.e24848
- 40. Yang, Y.-F. (2014). Studies of transformational leadership: evaluating two alternative models of trust and satisfaction. *Psychological Reports, Vol. 114, No. 3*, 740-757. doi.org//10.2466/01.04.PR0.114k27w2
- 41. Yucel, P.Z. (2006). Organizational trust and its relationship with job satisfaction, and a research. Master's Thesis. Istanbul: Istanbul University.

- 42. Yunyun, Y., Gang, X. (2015). Efficient identification of node importance in social networks. *Information Processing & Management, Vol. 52, No. 5,* 911-922. doi:10.1016/j.ipm.2016.04.001
- 43. Zhou, L., Wu, W. P., Luo, X. (2007). Internationalization and the performance of bornglobal SMEs: the mediating role of social networks. *Journal of International Business Studies*, *Vol. 38*, 673-690. doi.org/10.1016/j.ibusrev.2024.102292