

Informal Relationships, Digital Competences and Agility in Organizations

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Abstract: Building interpersonal relationships in organizations plays a very important role and directly affects long-term cooperation with partners. Informal and partnership relations have a particular impact on the agility of the organization, i.e., the ability to immediately respond to changes occurring in the business environment. The aim of this article is to assess the impact of interpersonal relations on the organizational structure and the level of use of digital competencies. According to the literature on the subject, agility in the organization and digital competences contribute to the effective creation and transfer of knowledge. The benefits of implementing an agile structure in an organization also include better management of changing priorities, open cooperation and communication, and greater awareness of the current situation in the organization. The article uses the results of original initial research conducted as part of an inter-university research project entitled "Interorganizational Relations in the Socio-Economic Economy". The research covered relationships in the organization in five areas. The research among the students enrolled in the Master of Business Administration postgraduate program at the Lublin University of Technology was carried out using a quantitative method using a developed survey questionnaire. The analysis of the results confirmed the influence of partnership and informal relations on the agility of the organization and the high level of digital competences implemented. A flexible approach to building relationships enhances the creation of a networked organization. Informal relationships in the organization allow for the building of a team that is more resistant to crisis situations as well as changes in customer needs and sectoral turbulence of the economy. An important aspect of agility is also the high level of using digital competences, which influences the ability to create and transfer knowledge.

Keywords: Interpersonal Relations, Relationships, Agile Structure, Agile Organization, Digital Competences.

1. Introduction

Relationships within organizations serve as the cornerstone for efficient and effective functioning and development. These relationships, as noted by Klimas (2013), encompass both formal and informal aspects, including social and interpersonal connections. The significance of informal relationships is steadily increasing and directly correlates with the agility of an organization—its ability to promptly adapt to changes in the business landscape. Partnership and interaction emerge as pivotal components of cooperation, exerting a direct influence on the organizational structure.

In today's dynamic business landscape, the concept of agility has become paramount for modern organizations in response to the rapid emergence of uncontrollable changes, largely driven by global digitalization. This underscores the imperative of leveraging digital competencies to ensure the accuracy and comprehensiveness of data, as well as facilitate effective communication (Kocot & Kwasek, 2022).

The aim of the work is to examine whether there is a correlation between the type of interpersonal relationships in the organization and the level of use of digital competences of its members, as well as the agility of the organization itself. To achieve this goal, the results of a survey conducted among a group of middle-level managers participating in MBA postgraduate studies will be discussed.

2. Review of the Literature

The role of agility in organizational activities started to be discussed and documented in the 1980s and 1990s by such authors as H. Takeuchi, I. Nonaka, P. T. Kidd, S. L. Goldman, & R. N. Nagel, with increasing scholarly interest in the following decade. Joiner and Josephs (2007) not only focused on defining agile leadership but also mentioned an agile organization, describing it as capable of anticipating and responding to rapidly changing operational conditions. Rafi et al. (2022) and Atkinson et al. (2022) have underscored the significance of this capacity to respond to turbulent environments as the essence of agility. Additionally, these authors emphasize the multifaceted nature of agility, noting its various dimensions.

El Nsour (2021) draws attention to several dimensions of agility, including enterprise, employees, supply chain, customers, and services. Similarly, Silva and Oliveira (2023), in their work discussing research conducted in Brazil,

identify the dominant dimensions of agility in local companies representing Industry 4.0 as leadership, business, markets, strategy, and process.

Devie et al. (2023) contend that an agile organization will focus on its internal culture to support agility, as well as on customers and competitors. However, these authors also observe a research gap regarding the relationship between organizational effectiveness and internal and external changes occurring within the organization.

According to Bernstein (2007), capital is a distinct economic category denoting accumulated resources utilized for implementing and advancing business activities, characterized by the potential for value growth. Regardless of organizational specificity, the human factor holds a pivotal position in organizational structure. Honjo et al. (2022) highlight that enterprises grounded in human capital find it easier to access foreign funds due to being perceived as entities with enhanced creditworthiness. Hasan and Uddin (2022) argue that companies should prioritize retaining talented employees crucial to organizational operations by offering suitable motivational and financial incentives.

Employee relations, along with their interactions with external entities, are frequently viewed as organizational capital (Zhang et al., 2022; Drewniak et al., 2020). Sukarno et al. (2019) regard relational capital as a fundamental component of intellectual capital. Additionally, Ozgun et al. (2022) and Al-Omoush et al. (2020) highlight its favorable impact on organizational agility and enterprise performance.

Interorganizational relationships represent a vital activity for organizations, undertaken to streamline business operations and enhance their competitive positioning in the market (Bańkowski & Rzepka, 2024). The definition of relationships presented in this study was obtained through a literature review undertaken by the author. Another significant aspect concerning intra-organizational relationships is the collaboration between leaders and subordinates. Gren and Ralph (2022) and Reunamäki and Fey (2022) emphasize the necessity of fostering a willingness among individuals to share leadership responsibilities in order to cultivate agile leadership. They also acknowledge that traditional managerial approaches within team settings may impede the implementation of agility within organizations. Das et al. (2023) stress that leaders who prioritize reevaluation and problem examination enhance agility and foster a supportive work environment by demonstrating care for employees' needs and sentiments.

Tyagi et al. (2022) and Trzeciak & Banasik (2022) consider the organization responsible for implementing solutions that determine the effectiveness and commitment of members within agile project teams. A relatively new research avenue explores the impact of familial ties among employees on organizational functioning. Existing literature does not offer a definitive answer regarding how such relationships influence company operations. Ramirez-Solis et al. (2022) discovered, based on research conducted among a cohort of small and medium-sized enterprises in Mexico, that surveyed companies benefit from interactions between managers and the business environment, viewing them as sources of new products and services.

Probst, Raub, and Romhardt (2004) define knowledge as the accumulation of knowledge and skills utilized by individuals to resolve problems. However, while various analyses affirm the fundamental significance of relationships with stakeholders and the business environment for the processes of acquisition, learning, decision-making, and problem-solving in enterprises (AlQuershi et al., 2021; Dar, 2019), the influence of capital on knowledge sharing within these relationships remains a research gap in the literature (Aisyah et al., 2019). As highlighted by Rzepka and Sabat (2022), the efficacy of knowledge utilization is contingent upon employees' receptiveness to external contacts and willingness to embrace innovation.

The problem of the relationship between an organization's agility and its innovativeness is relatively well represented in the literature on the subject. Agility should be understood as the organization's ability to survive in a turbulent environment (Głowacz, 2022), while innovation is defined as the enterprise's ability to create and implement new solutions (Stefaniuk, 2019). Most researchers (e.g., Sjödin et al., 2020; Alamsjah, 2022) represent the view that the impact of agile behavior in organizations on their innovation is positive. However, there are items in the literature that contradict this theory. Annosi et al. (2021), based on research on changes implemented in a large telecommunications company, draw the unexpected conclusion that increasing agility has a negative impact on the ability of local employees to generate new solutions.

The agility of an organization is impacted by a multitude of elements, among which are database management and information technology proficiency (also known as digital competencies). As per the Ministry of Digitization of Poland's definition, digital competencies comprise an integrated amalgamation of knowledge, abilities, and attitudes that are indispensable for efficient operation in a society where digital technologies are integral to

living, learning, and working. Digital capabilities exert both direct and indirect influences on the development of business flexibility and agility, particularly in the context of interactions with external partners (Saputra et al., 2023; Gonçalves et al., 2022).

Wang et al. (2022) have even advocated for the adoption of more advanced technologies, such as artificial intelligence, highlighting their potential to enhance organizational innovation by fostering a greater sense of innovation among management staff. Conversely, Khalil et al. (2023) underscore the significance of large database analysis as a factor positively impacting organizational efficiency, marketing, and organizational innovations. Khalil and Winkler (2023) have proposed a model elucidating how rapid resource acquisition and deployment, experimentation with alternatives, and the emergence of self-organizing business teams contribute to agility.

These activities often intersect with cloud computing, which is viewed as a competitor to the traditional functioning of IT departments within organizations. Deng et al. argue that organizations achieve agility through outsourcing, with IT solutions playing a pivotal role (2021).

Based on the literature review conducted above, the authors of this work conclude that there is a research gap regarding the interdependence between the type of interpersonal relationship and the level of use of digital competences in an organization. The few works in which researchers refer, but not directly, to this issue include the study by Madhavaram et al. (2023), in which the subject of interest is, however, the broader understanding of intellectual capital and its impact on the use of employees' knowledge and abilities for digital development. The text published by Ritala et al. (2021) seems to be slightly more consistent with the topic proposed in this article discussing the beneficial impact of relational capital on the scale of the use of digital technologies. Similarly to the case of digital competences, there is a noticeable need to enrich research in the area of the impact of informal relationships in an organization on its agility.

3. Research Methodology

The authors conducted research as part of the project titled "Interorganizational Relationships in the Socio-Economic Economy," implemented in collaboration between the Lublin University of Technology and the University of Warsaw from October 1, 2023, to September 30, 2024. The research aimed to delve into the essence of interorganizational relationships across five key areas: defining relationships, factors driving and impeding relationships, control over relationships, the role of leadership in establishing relationships, and analyzing the structure and competencies of organizations.

The initial stage of the research project involved conducting pilot studies from December 2023 to January 2024. The primary objective was to gather insights into the functioning of interorganizational relationships within various facets of organizational activities. The research sample comprised middle-level managers who were students of postgraduate studies, specifically the Master of Business Administration program at the Lublin University of Technology.

The study utilized the Paper and Pencil Interview (PAPI) technique, with 47 respondents participating from both the public and private sectors of the economy. An original survey questionnaire, comprising 15 closed questions and information, served as the research tool. Respondents' answers were assessed using a combination of single- and multiple-choice questions, along with a five-point Likert scale for enhanced precision in measurement.

Table 1: Division of Respondents by sex, position held, and type and duration of organization's existence (% of Respondents)

Sex	
Female	38.3%
Male	61.7%
Managerial Position Held	
5 years or less	19.6%
6-10 years	17.4%
11-15 years	23.8%
16 years or more	11.0%
No	28.2%

Type of Organization	
Private	51.1%
Public	42.5%
Other	6.4%
Duration of company's existence	
0-1 year	0.0%
2-5 years	7.1%
6-10 years	7.1%
11 years or more	85.8%

Source: Own study based on research

The analysis of the respondents shows that the respondents were mainly men who had held a managerial position for an average of 11–15 years in an organization that had been operating for at least 11 years. It is worth noting that 51.1% of respondents are members of Generation Y (millennials), whose view is dominant in the presented results. For the purposes of this article, the authors formulated two research hypotheses. Their verification will help achieve the research goal, which is to determine the types of relationships that have a positive impact on the degree of use of digital competencies and agility in the organization.

H1: Informal relationships influence the degree of use of digital competences in the organization.

H2: An organization that is characterized by informal relationships is more likely to have an agile structure.

To verify the above hypotheses, the Mann-Whitney test was used, which allows to identify differences between two populations in the context of a specific variable. The hypothesis will be confirmed when the significance level does not exceed p-value of 5%. When interpreting the results regarding the agile structure, the “I don't know” answer option was treated as the respondent's feeling that the structure in his organization is not agile but cannot be called non-agile.

4. Results

The fragment of research presented below focused on the interaction between the form of relationships existing in the organization, the agility of its structure, and the degree of use of digital competencies. For the purposes of analysis, the forms of relationships were consolidated into two population groups. The authors examined respondents' answers to identify informal, partnership, formal, and bureaucratic business relations.

Table 2: The form of the relationship, the degree of use of digital competencies, and the agile structure in the surveyed organizations

	Informal relationships and partnerships	Formal and bureaucratic relationships
The Degree of use of Digital Competencies		
Very Tall	13.8%	5.6%
Tall	41.4%	27.8%
Mediocre	41.4%	55.6%
Short	3.4%	11.1%
Very Low	0.0%	0.0%
Agile Structure in the Organization		
No	13.8%	27.8%
I Don't Know	27.6%	55.6%
Yes	58.6%	16.7%
Form of Relationship		
Formal Relations	27.7%	
Informal Relationships	27.7%	
Partnerships	34.0%	
bureaucratic relationships	10.6%	

Source: Own study based on research

In organizations where the surveyed respondents are employed, all four forms of relationships are identified. Partnership relationships were identified by 34.0% of respondents, while both informal and formal relationships received the same percentage of responses - 27.7%. Bureaucratic relationships were identified by 10.6% of respondents.

Digital competencies have a positive impact on the knowledge creation process within the organization. Respondents from work environments characterized by informal and partnership relationships rated the use of digital competencies in their organization at a medium or high level (41.4% each). In contrast, among respondents working in formal and bureaucratic conditions, 55.6% assessed the level of digital competence utilization in their organization as average. A very high level of digital competence utilization was indicated by 13.8% of respondents from informal and partnership teams, while this figure was 5.6% for respondents in formal and bureaucratic relationships.

Regarding the existence of an agile structure in the organization, differences were identified in the occurrence of agility among enterprises employing the surveyed respondents. Respondents from organizations characterized by informal and partnership relationships most commonly described the structure of their organization as agile (58.6%). In contrast, only 16.7% of respondents from the group with formal and bureaucratic relationships identified an agile structure. Moreover, 55.6% of respondents from this group were unable to identify their organization's structure as agile.

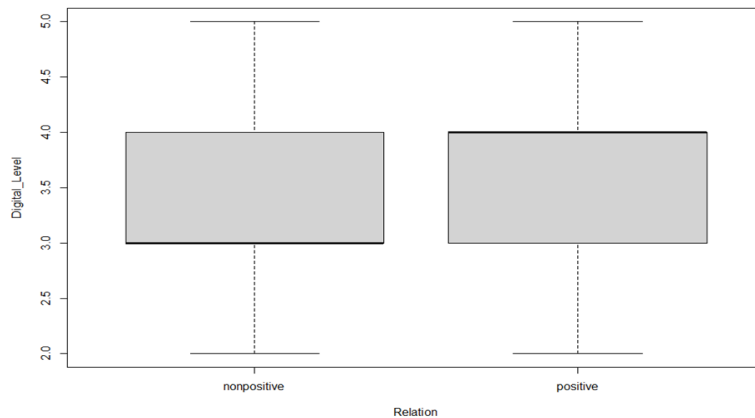


Figure 1:

Source: Own study based on research

The comparison of the degree of use of digital competencies in the studied populations using the Mann-Whitney test resulted in a p-value of 0.0545. This indicates that the level of digitization in both groups is statistically equivalent. Therefore, it suggests that informal relationships do not significantly increase the degree of use of digital competencies.

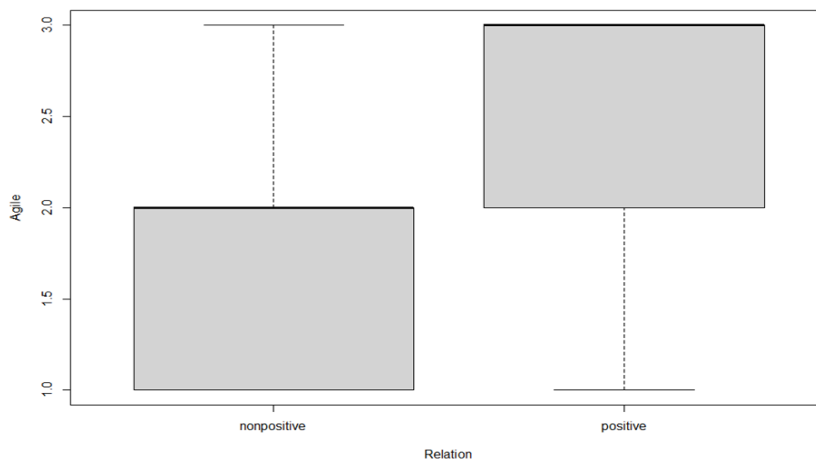


Figure 2:

Source: Own study based on research

The comparison of the presence of an agile structure in the organizations of the surveyed groups of respondents using the Mann-Whitney test yielded a p-value of 0.0051. This result confirms that informal relationships are associated with a more frequent occurrence of an agile structure within the organization.

5. Conclusions and Future Study

Based on the answers received from surveyed people managing various organizations, it was found that these entities usually use the digital competences of their employees to a large extent. At the same time, the statistical tool used in the study did not confirm that in organizations where informal interpersonal relationships dominate, this process is characterized by greater intensity, which means that the first hypothesis (H1) was not positively verified. The obtained results remain in some opposition to what can be read in the works of Madhavaram et al. (2023) and Ritala et al. (2021). In the first case it is concluded that elements of intellectual capital such as commitment, trust and intensity of relationships have a positive impact on software development and innovative capabilities in IT companies, and in the second one, the authors believe that they have at least partially confirmed the truth of the thesis that relational capital supports employees' achievement of goals related to the implementation of the organization's digital strategy.

The second hypothesis (H2), which linked the existence of informal relationships in the group of people employed in the organization with its agility, was confirmed. The conclusions drawn from the analysis remain largely consistent with what was obtained in this respect by other researchers whose publications were cited earlier. This applies in particular to works such as Sukarno et al. (2019), Ozgun et al. (2022) or Al-Omouh et al. (2020). Moreover, the results discussed above correspond to the conclusions of those authors who, focusing on the problem of leadership and its impact on organizational flexibility, quite strongly emphasize in this context the need for openness and departure from more traditional models (Rzepka & Sabat, 2022; Gren & Ralph, 2022; Reunamäki & Fey, 2022)

Analysis of the impact of relationships within the organization on various aspects of its functioning, including the growth and use of digital competences and agility, should be continued. However, examining personal relationships that constitute an intangible asset of every organization may pose some difficulties. In particular, it seems that there is a need to include in the arsenal of cognitive measures these tools that will enable more direct and reliable measurement. As Arszułowicz (2019) notes, this measurement may have a different nature and, therefore, could provide various information of a static or dynamic nature. Attempts are already being made to quantify what is difficult to measure in every organization, and the list of indicators that are potentially usable for the study relational capital is still growing (the set of selected ones is discussed, for example, by Vashishtha (2022)). The scope of knowledge about the possibilities of measuring digital competences is also expanding (e.g. Canina & Orero-Blat, 2021; Tomczyk, 2023) as well as agility (e.g. Yauch, 2011; Lacerda, 2020). This opens new perspectives for a better understanding of how human relationships and the capital based on them affect the knowledge sharing process, because, as Aisyah et al. (2019) writes, currently this phenomenon is still not fully recognized, and it is important both from the point of view of introducing and using digital technologies and organizational flexibility.

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