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INFLUENCE OF INTRA-ORGANIZATIONAL TRUST ON ORGANIZATIONAL OUTCOMES

Nowadays, trust is perceived as one of the key factors that can build an organization's competitive advantage, increase the efficiency of its functioning and ability to develop. It can be expected that shaping trust in an organisation will lead to improvements in various aspects of its functioning, especially effectiveness. This issue has not yet been the object of comprehensive scientific research. Hence, this study tackles the issue of the impact of trust on an organization's outcomes. At the same time, two basic categories of trust are distinguished: global (attitudinal/affective) trust (regarding the belief that people in general are trustworthy) and specific (situational/cognitive) trust (modified by an individual's experience). In the latter category, we may distinguish between vertical trust (concerning superior-subordinate relations) and lateral trust (concerning relations between co-workers). The relation between the level of trust and organizational outcomes is examined for each of these categories of trust. The research covers organisations functioning in Poland and is based on a questionnaire.

Keywords: *trust, organization, organizational outcomes*

1. Introduction

Views on the role and importance of trust in the economy and the organization have evolved with the development of economic thought and the theory of management, from the marginalization of its importance in the process of market exchange (the classical and neo-classical ideals of a market, with perfect information and pure competition

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between independent and faceless traders, do not involve trust as a central concept, since the competitive market is supposed to counteract any deception [6]), to perceiving the benefits and recognition of trust as *an organizational resource* [24], and *a good or commodity with real economic value, which increases efficiency* ([75] after [6]). Today, trust is considered to be one of the key factors determining the effectiveness of an organization [7, 29, 42], shaping opportunities for its development and improvement [7] being a source of competitive advantage [64, 2, 53] and aspiring to the role of being a strategic resource of an organization ([10] after [28]). At the same time, trust is treated both as an explanatory variable and explained variable. For example, Fukuyama [13] distinguishes between trust as an explanandum (i.e., what is being explained) and trust as explanans (i.e., the explanation) ([13] after [12]). Research has considered both the sources of trust [8] and its outcomes. In particular, a number of articles concern, e.g., the role of trust in learning processes and innovation [17, 33, 34, 36, 69], the importance of trust in the implementation and functioning of different methods of management support [3, 4, 7, 12, 28], the impact of trust on the organizational commitment of employees [38] and the assessment of the impact of trust on an organization's outcomes [47, 49]. It can be expected that shaping trust based management in an organisation will lead to improvements in various aspects of its functioning, especially in its effectiveness. This issue has not yet been an object of comprehensive scientific research. According to Zanini and Migueles *trust is a factor in need of greater understanding, and the examination of its relationship to organizational performance opens a wide field for future research* [72]. This research gap, as identified by Zanini and Migueles, encourages further explorations of this area. Hence, the main scientific goal of this study will be to identify the impact of intra-organizational trust on the outcomes of an organization's operations. At the same time, two basic categories of trust can be distinguished: global (attitudinal/affective) trust (regarding the general belief that people are trustworthy) and specific (situational/cognitive) trust (modified by an individual's experience, the conviction that other units within a certain network of social dependencies, e.g., an organization – are trustworthy). In the second category, we may distinguish between vertical trust (concerning superior-subordinate relations) and lateral trust (concerning relations between co-workers). The relation between the level of trust and an organization's outcomes is examined for each of these categories of trust. There is also a discussion on whether there are links between the level of trust shown by subordinates to superiors, and by superiors to subordinates. Moreover, the authors examine whether there exists a relation between the level of trust between co-workers and the level of trust between superiors and subordinates. It seems that these additional insights could be useful in shaping management solutions after trust in the organization. The research covers organisations functioning in Poland.

2. Theoretical background and research hypotheses

2.1. The definition of trust

Trust is a basic component of social, economic and political life. In general terms, it is understood as a social bond (*vinculum societatis*) [36]. As a multi-dimensional construct, it is not easily categorized, although the literature provides a variety of attempts to define it. A review of the definition of trust can be found, among other places, in [6, 28, 69]. In this article, only the most important points of the concept of trust will be pointed out.

Mayer, Davis and Schoorman define trust as *willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor and control that other party* [39], Sztompka [27] treats trust as a special type of resource, which enables making certain types of assumption concerning the future regarding the uncertain actions of other people [62]. The economic approach mainly stresses the calculating nature of trust (assessment of credibility) and the related risk [50].

Trust can be defined from a general perspective, as well as in reference to the world of organizations, and the latter context will be the subject of this research. The main field will be intra-organizational trust (the aspects of which include trust towards superiors/managers, trust towards subordinates and trust towards co-workers) and according to this approach, trust is understood as *the positive expectations individuals have about the intent and behaviours of multiple organizational members based on organizational roles, relationships, experiences, and interdependencies* [57].

2.2. Dimensions and sources of trust

The literature provides many classifications and varieties of trust (see [34, p. 19]). They most commonly distinguish types of trust into two aspects: firstly generalized trust, with regard to the characteristics and underlying values that build trust between individuals in general, and secondly, trust addressed to specific entities. In the late 70s, Driscoll [18] and Scott [56] divided trust into two subconstructs: a global (attitudinal/affective) component understood as *the belief that people are usually trustworthy* [28], or *willingness to take action, based on an a priori expectation that the majority of people and institutions will act in a manner beneficial for us* [58] and a specific (situational/cognitive) component (modified by an individual's experience) based on the conviction that, *different unit(s) connected within a certain network of social dependencies or a social group are trustworthy* [28]. They found that only the specific component predicted organizational outcomes [8].

In an organization, the specific form of trust can be further categorized into lateral (between co-workers) and vertical (between subordinates and superiors, bilaterally)

trust [21, 6]. The majority of research explains *how those higher in the hierarchy influence those lower in the hierarchy* rather than the other way round. Moreover, in relation to each of the components of internal trust mentioned above, one can talk about trustworthiness (credibility, reliability and the resulting conviction that employees/superiors are trustworthy) and trustingness (reliance, inclination to trust), understood as *demonstrating openness to cooperation, a tendency to trust the other side* [54]. However, the tendency to give trust should be a consequence of credibility.

Employees' trust in superiors can be defined as *a psychological state involving positive expectations about the leader's intentions or behaviours with respect to oneself in situations entailing risk* [25] or *positive expectations that managers will behave in a competent, beneficial, and just manner/way towards them* [26], which result from *internal organizational rules, routines, and procedures or by observing the behaviours of managers* [19, 31]. Such trust will be expressed, among other ways, by the freedom to express one's own judgments and opinions, even those conflicting with the vision of superiors, the willingness to present one's own ideas, and honesty in dealing with superiors. The conviction that superiors are trustworthy may be based on features or relations: ([15] after [28]). Trust based on features refers to the character of the leader, to the characteristics that determine his/her credibility. However, the perception of employees is more important than objective characteristics (properties). Trust based on relations is an element of a contract between parties, which specifies the rights and responsibilities of each individual in mutual interactions (of a contractual nature) [28].

The issue of trust shown by superiors (managers) to employees (subordinates) is relatively rarely discussed in the literature. From Taylor's classical view of management systems, *one might even deduce the belief that the superior-subordinate relation is presumed to be distrustful. In this paper, trust in employees will be defined as the belief of managers that employees will take actions that are beneficial or at least consistent with the interests of the organization and the superior. This gives the possibility of implementing less rigorous methods of control, because trust is supposed to fulfil functions that in traditional systems are performed by control, such as ensuring the performance of tasks as intended, correcting irregularities by providing feedback on the course of processes, reducing the perceived risk to an acceptable level, shaping the behaviour of (...) employees to become more predictable* [28].

Trust between employees can be defined as positive expectations about co-workers' intentions or behaviours with respect to each other in situations entailing risk, or the *willingness of a person to be vulnerable to the actions of fellow co-workers whose behaviour and actions that person cannot control* [64]. This kind of trust will be expressed, among other ways, by willingness to share ideas and knowledge, care and empathy, great openness and honesty in interpersonal relations. Similarly to trust in managers, trust in subordinates or co-workers may be after features or relations. It should be noted that, in contrast to relations between superiors and subordinates, horizontal relations are characterized by little or no power imbalance, as they refer to employees who occupy

similar or equivalent positions in an organization, or have similar power and authority in an organization.

According to Tan and Lin [64] and Taştan and Davoudi [65], the concept of trust in leaders has been widely studied, together with its potential antecedents and consequences in organizations. Trust in employees and trust directed toward horizontal relations that involve co-workers has been studied as well, although less frequently [64]. However, these components of intra-organizational trust have never been discussed together simultaneously in the context of the results of an organization's functioning.

2.3. Intra-organizational trust and organizational outcomes

A lot of recent studies conducted on trust have supported the theory that trust between members of a company lubricates many organizational processes ([5] after [45]), and can contribute significantly to increasing the efficiency of various tasks within an organization [16]. Trust creates the basis for new types of social relationships [32, 36]. According to Zanini and Migueles, trust has a positive effect on leader-follower relations, the process of knowledge transfer, employee commitment, higher levels of spontaneous cooperative behaviour, but this does not necessarily mean that *a high level of trust (...) motivates better performance or even that companies with a low level of trust will have low organizational performance* [72]. However, Zimmiewicz believes that a lack of trust increases the costs of doing business. The authors of [73] found that lower trust leads to reduced speed and quality and higher costs. As a result, trust affects the competitiveness of an organization and can become a source of competitive advantage [2, 29].

The literature concerning the notion of generalized trust confirms the thesis that there is a strong correlation between the level of generalized trust and economic growth. According to Fukuyama, generalized trust creates social capital, the value of which depends on well-being, i.e., the economic performance of a society and its ability to compete ([22] after [48]). The level of trust in an organization is, on the one hand, a derivative of the general level of trust characteristic for a given society, whose members are also members of that specific organization and, on the other hand, is shaped by the behaviour of employees in that organization, according to existing standards, rules, codes of conduct or applicable procedures. If employees of an organization exhibit a high level of generalized trust, this should be conducive to high levels of other aspects of trust within the organization and this in turn should lead to better results and development understood in broad terms. It can therefore be postulated that:

H1. The level of generalized trust exhibited by an organization's employees is positively related to the results of its functioning.

According to the traditional Taylorian approach to management, *trust between managers and employees was not seen as being important for the efficiency [authors' note or development] of the organization*. As a result, employees tend to raise defences against the actions of others (both managers and co-workers) *and tend to exercise restraint in taking action or responsibility outside the explicit rules* [1]. Currently, more diverse and flexible organizations are moving away from rigid hierarchical structures to flatter, organic structures (which positively affects the level of intra-organizational trust) [37], and this is connected with changing expectations about behaviour and the competences of managers and subordinates. Managers and employees are required to *trust each other as colleagues with different roles, but not with different goals* [44]. *Managers and workers must trust that they are both making decisions based on shared goals and in line with the corporate strategy* [1]. Interpersonal trust is considered as an important mechanism to stimulate the satisfaction and commitment of organization members and enhance the effectiveness of an organization [59].

Research shows that a high level of trust in leaders increases the performance of subordinates and the quality of an organization's outputs [65]. *Employees who view their supervisors as trustworthy perform better, engage in citizenship behaviour more frequently, and refrain from counterproductive behaviour more often than employees who view their supervisors as less trustworthy* ([11] after [72]). Moreover, they are more motivated, more focused on achieving individual and organizational goals and willing to perform activities promoting the well-being of the organization [65]. Gao, Janssen and Shi [25] argue that employees who trust their leaders are likely to express their opinions and ideas about workplace issues, the actions of others or necessary changes. Low trust in their leaders may lead them to the conviction that expressing their concerns and critical suggestions about work affairs is too risky. Therefore, they might behave opportunistically and avoid engaging in risky matters that could destroy the existing status quo. Theoretically, a belief in the trustworthiness of superiors should lead to a higher willingness to trust them and greater involvement of the employee in the organization's affairs. Assuming that this involvement translates into organization members becoming individually more efficient, and this in turn leads to greater efficiency in the organization as a whole and, at the same time, that a person in a favourable environment is able to achieve a higher level of development and greater individual efficiency, it can be postulated that:

H2. The level of subordinates' trust in superiors is positively related to the performance of the organization.

H2a. An increase in the employees' belief in the trustworthiness of superiors is accompanied by an increase in employees' trustingness.

The problem of trust always arises when one of the parties faces the risk that certain expectations placed on the other party are not realized. In a superior-subordinate relation,

the superior seems to be the dominant side, because of the position occupied in the structure, power and ability to decide about the employee's fate (e.g., opportunities for promotion, salary increases, distribution of tasks and resources). However, they are also exposed to the risk of employees failing to carry out the tasks assigned to them in an appropriate manner or by the expected date. Their own credibility (negatively assessed competences in the field of employee management), the efficiency of the team they manage, or even the ability of the entire organization to achieve its goals is at stake. Therefore, a low level of trust between superiors and subordinates leads to the necessity of constantly monitoring and controlling the behaviour of employees and the implementation of the tasks assigned to them. This in turn translates into the inefficient use of resources and the need to put in more effort to achieve the appropriate level of cooperation. It can therefore be assumed that when trust is placed in subordinates leaner forms of control are possible, e.g., selective control, control at critical points for the success of the undertaking, or self-control. It seems that the tendency of the superior to trust will result from the credibility of the employees. However, earlier experience (keeping deadlines for completing tasks, implementing them with the appropriate care) are more important than the broadly understood competences (knowledge and skills) of employees. In this context, it can be postulated that:

H3. The level of superiors' trust in subordinates is positively related to the results of an organization.

H3a. An increase in the superiors' belief in the trustworthiness of employees is accompanied by an increase in superiors' trustfulness.

Mutual trust is the basis for cooperation between employees (a factor that strengthens employees' commitment to achieving organizational goals), positively affects *the quality of group communication, ability to cooperate and solve problems, demonstrated commitment, willingness to share knowledge, which translates into teamwork effectiveness* [68] and productivity, as well as pro-social behaviour and entrepreneurship, openness in communication, absorption of the knowledge of others, and at the same time employees *not wasting time and effort in trying to protect themselves and focusing their energy on deriving performance* ([41] after [64]). Trust in co-workers permits one to engage in enterprising behaviour, in turn *a lack of trust causes people to stop believing in the sense of teamwork, becoming antisocial* [47] and *promotes secrecy among employees* ([52] after [35]). Therefore, one can formulate the following hypothesis analogous to the previous ones:

H4. The level of trust between co-workers is positively related to the performance of the organization.

It is also debatable whether the trust shown by superiors to subordinates and by subordinates to superiors (managers) must be mutual. It seems that the higher the level

of trust placed by superiors (managers) in employees and the related freedom (e.g., of setting goals and ways to implement them) in the work process should result in reciprocity. The sense of responsibility towards superiors in the context of the tasks entrusted and values shared by the parties of a relationship (openness, innovation, development) can give confidence that services and employees' engagement will be reciprocated (e.g., in the form of remuneration, the allocation of interesting tasks) in the unspecified future. Zapata et al. propose that seeing employees as having high levels of benevolence and integrity engenders feelings of obligation and trust from their direct superior (who is seen as trustworthy), as well as increasing the likelihood that these superiors will adhere to the rules of interpersonal and informational justice [73]. According to Whitenor et al., certain types of organizations are more likely to generate such trustworthy behaviour in managers, which, in turn, affects the extent to which managers are trusted by employees. This includes organizations that are: decentralized, less formal, less hierarchical, and focus on effectiveness; incorporate the principles of procedural justice into performance appraisal and reward systems ([70] after [31]).

The reverse relation is not so obvious. The fact that employees trust their superiors does not necessarily result in reciprocal trust from managers, whose willingness to show employees trust will result from employees' trustworthiness and not the fact that they trust their superior. However, in the long run, any situation in which superiors regularly do not show trust to subordinates will create a climate of distrust, which will probably have a negative impact on the trust originally placed in the superiors. It also seems that, in this case, there are such types of organizations (centralized, formal, hierarchical, performing repetitive, simple tasks and focused on effectiveness at all costs), which foster the creation of a low level of mutual trust. Wintrobe and Breton argue that there is a potential conflict between vertical trust and horizontal trust. They argue that when employees do not trust their managers, they band together to take collective action ([71] after [64]). Nothing unifies like a common enemy. However, trust between co-workers based on their distrust of superiors does not seem to favour the development of an organization or improve its results in the long run, but rather fosters short-sighted actions related to the protection of the status quo. Considering the above, it will be postulated that:

H5. Trust in subordinates is positively related to trust in managers (superiors).

H6. Lateral trust is positively related to vertical trust.

In relation to all of the components of trust within an organization, it is expected that trust has a positive impact on organizational outcomes. Therefore, it is important to specify how to measure the results of an organization. No universal measure has been developed that would suit any organization in all circumstances, and the process of assessing an organization's operations is now the subject of broad academic dispute [46]. Historically, financial measures were most often used for this purpose, but the changing conditions in which modern organizations operate and changes in the values perceived

as being crucial for their development have given rise to the necessity of accepting other measures illustrating, among other things, the effectiveness of an organization or its subsystems, the market position of an organization, its innovativeness and the level of technological advancement, modernity of products or even diversification of production. In the literature concerning trust, it is emphasized that trust affects the costs, speed and quality of an organization's activities, or noted that it directly *shapes the organization's results through seven critical dimensions: efficiency, dexterity, quality, innovation, quality of working life, productivity, profitability* ([58] after [43]). In this paper, only measures that relate to the entire organization were taken into account for the assessment of an organization's performance (i.e., the focus was not on the quality of the professional life of employees). Sink's [58] proposal for assessing an organization's outcomes has been slightly modified and supplemented (including the dimensions regarding the competitive position of an organization in the market or internal processes). Therefore, a multi-criteria approach was applied and parameters related to quality, customers, internal processes, an organization's innovativeness, market share, competitiveness, economic situation and management efficiency were chosen for assessment, as well as a synthetic indicator built on the basis of these criteria.

3. Research methodology

3.1. Purpose and methods of the study

The main aim of the study is to examine the impact of defined dimensions of intra-organizational trust on organizational outcomes. The general research model in the context of the hypotheses presented above is presented in Fig. 1.

3.2. Data gathering process and characteristics of the research sample

The study was conducted using a questionnaire which was intended to be appropriate for any organization regardless of size, activity profile or affiliation to a branch of the economy. The employees of the organizations surveyed (each respondent represented a different organization) were asked to complete the survey regardless of the position that they held. However, they were asked to disclose their position (higher, middle or lower level employee or an executive position). The research was carried out in the period of October–November 2017. In order to obtain the largest possible sample at the lowest possible cost, a database prepared for the purposes of other research, collected by the authors, was used (a sample of 1960 medium and large organizations among entities operating in Poland and registered in the REGON system by the Central

Statistical Office). Due to the size of these organizations,, the sample was supplemented with small organizations. For this purpose, snowball sampling was used. As a result of these actions, 143 correctly completed surveys were obtained. The characteristics of the research sample are presented in Table 1.

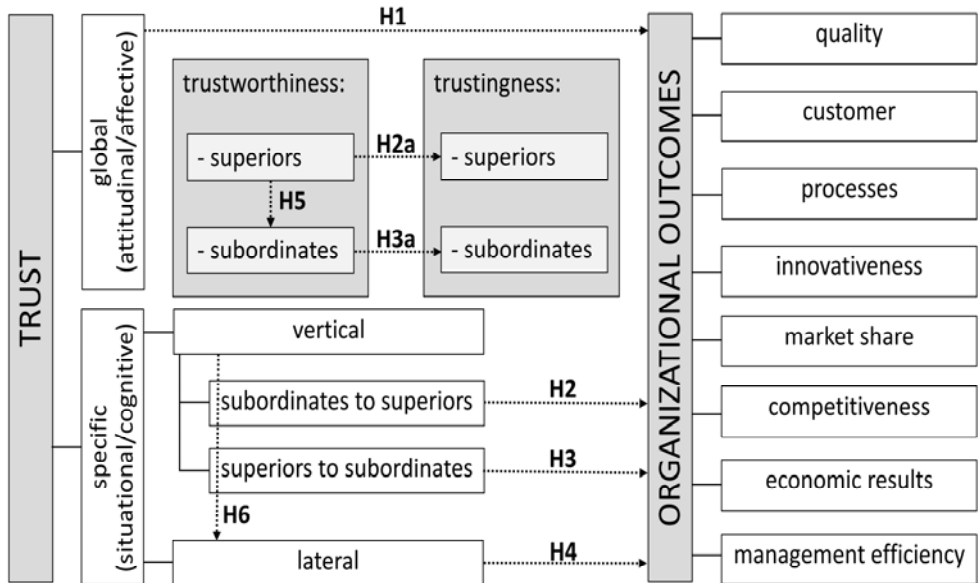


Fig. 1. The general research model

Table 1. The profile of respondents

Respondents		Frequency	Percent	Percentage of valid
Size of the organization	up to 9 employees	14	9.8	10.1
	10–49 employees	31	21.7	22.3
	50–249 employees	55	38.5	39.6
	above 249 employees	39	27.3	28.1
	total	139	97.2	100.0
	no data	4	2.8	
	total	143	100.0	
Employee’s place in the organizational structure	senior management position	50	35.0	36.5
	mid or lower-level managerial position	41	28.7	29.9
	not in a managerial position	46	32.2	33.6
	total	137	95.8	100.0
	no data	6	4.2	
	total	143	100.0	

3.3. The questionnaire. Description of results

In order to examine the relation between the types of trust and organizational outcomes, the following key variables were defined: generalized trust, trust in superiors (identified with the tendency to trust superiors), trust in subordinates (willingness of superiors to trust employees), trustworthiness of superiors (the belief that superiors are trustworthy), credibility of subordinates (confidence that employees are trustworthy – trustworthiness), trust in co-workers, as well as variables referring to organizational outcomes in areas such as: quality, customer care, processes, innovation, market share, competitiveness, economic situation and management efficiency. In the process of constructing the research questionnaire and constructing scales for particular variables, assessments of the components of trust were constructed based on papers [28, 49], among others. When constructing scales for measuring an organization's outcomes, efforts were made to define particular questions in a simple, understandable and general way, so that any employee could provide the most appropriate answer without the help of an interviewer. The characteristics of the variables, together with the results of the analysis of the reliability of the measurement scales α , are presented in Table 2. The values of Cronbach's α coefficient indicate a high internal consistency and reliability in the measurement of particular variables.

Table 2. Description of the variables along with the results of the reliability analysis of scales

Variable	Items in the questionnaire corresponding to a given variable	α
Generalized trust	<ol style="list-style-type: none"> 1. There can never be too much caution when dealing with people (reversed). 2. One should not trust other people, unless one gets to know them well. (reversed). 3. Most people will lie if they can get something out of it. (reversed). 4. Employees will be dishonest when the opportunity arises to gain something (reversed). 5. Nowadays, one can only count on oneself (reversed). 	0.818
Trust in superiors	<ol style="list-style-type: none"> 1. Employees freely express their opinions and ideas. 2. Employees are not afraid to express opinions which are contrary to the management's vision. 3. Employees willingly share their ideas with superiors. 4. Employees are free to talk about their difficulties with their superiors and know that they will be heard. 5. Superiors are trusted by employees. 	0.881
Trust in subordinates	<ol style="list-style-type: none"> 1. Employees have a high degree of independence in carrying out the tasks assigned to them in accordance with their competences and powers. 2. Managers give employees the freedom to make decisions when carrying out their tasks. 3. Managers have confidence that employees will appropriately perform the tasks entrusted to them. 	0.776

Table 2. Description of the variables along with the results of the reliability analysis of scales

Variable	Items in the questionnaire corresponding to a given variable	α
Trustworthiness of superiors	<ol style="list-style-type: none"> 1. Superiors are sufficiently prudent. 2. Superiors operate without hidden intentions and have clearly defined intentions. 3. Superiors are honest with employees and have friendly intentions. 4. Superiors keep their promises. 	0.881
Trustworthiness of employees	<ol style="list-style-type: none"> 1. Employees keep their promises. 2. Employees are honest with their superiors and have friendly intentions. 3. Employees are sufficiently prudent. 4. Employees operate without hidden intentions and have clearly defined intentions. 5. Employees can be dishonest when the opportunity arises to gain something (reversed). 	0.835
Trust between co-workers (lateral trust)	<ol style="list-style-type: none"> 1. Employees are willing to share their ideas with co-workers. 2. Employees are free to discuss their difficulties with co-workers and know that they will be heard. 3. Employees are honest with co-workers and have friendly intentions. 4. The fair play rule applies to the performance of duties and relations by co-workers. 	0.886
Quality	<ol style="list-style-type: none"> 1. The quality of products/services in our organization is high. 2. The quality of products/services in our organization is constantly increasing. 	0.732
Clients	<ol style="list-style-type: none"> 1. We have a permanent group of loyal customers. 2. We manage to win new clients every year. 	0.599
Processes	<ol style="list-style-type: none"> 1. All of the processes in our organization run without any major disturbances. 2. The processes in our organization are being constantly improved. 	0.745
Innovativeness	<ol style="list-style-type: none"> 3. The company's level of innovativeness is higher than that of the most important competitor. 	–
Market share	<ol style="list-style-type: none"> 1. The position of the company on the market is strong. 2. The company is constantly increasing its market share. 	0.653
Competitiveness	<ol style="list-style-type: none"> 1. The level of our competitiveness is constantly rising. 2. Our company is growing faster than the competition. 3. Our company is more successful than the competition. 	0.817
Economic situation	<ol style="list-style-type: none"> 1. The economic situation of the company is good. 2. The economic situation of the company is improving. 	0.760
Management efficiency	<ol style="list-style-type: none"> 1. The company's management is efficient. 2. Strategic goals are implemented. 	0.837

4. Results

In order to test the hypotheses H1–H4 describing the relation between individual components of intra-organizational trust and organizational outcomes, analysis was carried out using Pearson's correlation coefficient, r . The results are presented in Table 3.

The analyses show no significant relation between the level of generalized trust and organizational outcomes. However, the level of trust shown by subordinates to superiors, the level of trust shown by superiors to subordinates and the level of trust between co-workers have a highly significant positive association with an organization's outcomes. As a result, it should be stated that there are no grounds to accept hypothesis H1. However, hypotheses H2, H3 and H4 should be accepted. Studies also assume that the parameters describing an organization's outcomes are dependent variables and, in conclusion, it can be assumed (based on an analysis of the literature) that the higher the levels of the individual components of trust within an organization (with the exception of generalized trust), the more positive these outcomes.

Table 3. Relation between the components of trust and the individual components of organizational outcomes

Trust	Quality	Clients	Processes	Innovativeness	Market share	Competitiveness	Economic situation	Management efficiency
Generalized	$r(142)$ = 0.100 $p = 0.237$	$r(142)$ = 0.103 $p = 0.224$	$r(143)$ = -0.087 $p = 0.303$	$r(141)$ = 0.001 $p = 0.989$	$r(142)$ = 0.122 $p = 0.148$	$r(142)$ = 0.077 $p = 0.362$	$r(142)$ = -0.021 $p = 0.807$	$r(143)$ = 0.014 $p = 0.869$
In superiors	$r(142)$ = 0.365 ^a $p < 0.001$	$r(142)$ = 0.318 ^a $p < 0.001$	$r(143)$ = -0.410 ^a $p < 0.001$	$r(141)$ = 0.345 ^a $p < 0.001$	$r(143)$ = 0.333 ^a $p < 0.001$	$r(142)$ = 0.403 ^a $p < 0.001$	$r(142)$ = 0.238 ^a $p = 0.004$	$r(143)$ = 0.429 ^a $p < 0.001$
Trust in subordinates	$r(142)$ = 0.480 ^a $p < 0.001$	$r(142)$ = 0.420 ^a $p < 0.001$	$r(143)$ = -0.536 ^a $p < 0.001$	$r(141)$ = 0.378 ^a $p < 0.001$	$r(143)$ = 0.361 ^a $p < 0.001$	$r(142)$ = 0.462 ^a $p < 0.001$	$r(142)$ = 0.319 ^a $p = 0.004$	$r(143)$ = 0.425 ^a $p < 0.001$
Trust between co-workers	$r(142)$ = 0.384 ^a $p < 0.001$	$r(142)$ = 0.350 ^a $p < 0.001$	$r(143)$ = 0.454 ^a $p < 0.001$	$r(141)$ = 0.282 ^a $p = 0.001$	$r(142)$ = 0.287 ^a $p = 0.001$	$r(142)$ = 0.370 ^a $p < 0.001$	$r(142)$ = 0.222 ^a $p = 0.008$	$r(143)$ = 0.372 ^a $p < 0.001$

^aPearson's correlation coefficient is significant at the 1% level (two-sided).

In addition, analysis was carried out using Pearson's correlation coefficient to test hypotheses H2a and H3a. The results of these analyses showed a strong relation between employees' assessment of the trustworthiness of superiors and their willingness to trust superiors ($r(143) = 0.488$, $p < 0.001$), as well as a strong relation between superiors' assessment of subordinates' trustworthiness and their willingness to trust subordinates ($r(143) = 0.560$, $p < 0.001$). Hypotheses H 2a and H 3a should therefore be accepted.

In the next step, the mutual relations between the individual dimensions of trust were examined (hypotheses H5 and H6). At the same time, an additional variable, vertical trust, was created as the average of two variables: trust in superiors and trust in subordinates. Analysis of Pearson's correlation of correlation between each pair of the surveyed dimensions of trust revealed statistically significant relations between them (which indicates that hypotheses H5 and H6 should be accepted, see Table 4).

Table 4. Relations between individual components of trust

Components of trust	In superiors	In subordinates	Between co-workers (lateral trust)	Vertical trust
Generalized	$r(143) = 0.289^b$ $p < 0.001$	$r(143) = 0.197^a$ $p = 0.018$	$r(143) = 0.406^b$ $p < 0.001$	$r(143) = 0.216^b$ $p = 0.009$
In superiors		$r(143) = 0.759^b$ $p < 0.001$	$r(143) = 0.833^b$ $p < 0.001$	–
In subordinates			$r(143) = 0.658^b$ $p < 0.001$	–
Between co-workers (lateral trust)				$r(143) = 0.740^b$ $p < 0.001$

^aPearson's correlation coefficient is significant at the 5% level (two-sided).

^bPearson's correlation coefficient is significant at the 1% level (two-sided).

After this, steps were taken to identify which components of trust (trust shown by superiors to subordinates, by subordinates to superiors, trust between co-workers) are associated with an organization's outcomes and which exerts the greatest impact. Regression analysis was performed, in which the trust shown by superiors to subordinates, by subordinates to superiors, trust between co-workers and generalized trust were independent variables, while the components of an organization's outcomes and their sum, included in the form of a synthetic index (organizational outcomes), were dependent variables. Since the analysis of pairwise correlations revealed strong associations (Table 4), it was decided to perform stepwise regression. On the basis of this regression analysis, the relation between outcomes and the individual types of trust was defined. The results of this regression analysis in relation to the individual components of an organization's outcomes are presented in Table 5.

The regression analysis performed using the stepwise method indicated two important predictors of the results of an organization's functioning considered using a synthetic approach: trust shown by superiors to subordinates and trust shown by subordinates to superiors, which are essentially the parameters of the vertical dimension of intra-organizational trust. The values of the standardized coefficients are $\beta = 0.329$, $p = 0.002$ for the trust shown by superiors to subordinates, and $\beta = 0.303$, $p = 0.004$ for the trust shown by subordinates to superiors.

On this basis, it can be stated that as superiors' trust in subordinates increases, the results of the organization improve. Both relations are quite strong, but the relation between the variable trust in subordinates and the variable organizational outcomes is stronger. The regression equation can be written in the following way: $Y_{\text{organizational outcomes}} = 1.61 + 0.29X_{\text{trust in subordinates}} + 0.26X_{\text{trust in superiors}}$. This model seems to fit the data well ($F(2,140) = 37.86$, $p < 0.01$) and explains $R^2 = 35.1\%$ of the dependent variable (organizational outcomes).

Table 5. Results of regression analysis for the individual components of an organization's outcomes based on components of trust.

Organizational outcomes	Significance test for the model	Predictors	Per-cent	Regression function
Quality	$F(2.139) = 23.61$ $p < 0.01$	trust in superiors $\beta = 0.302, p = 0.008$ trust in subordinates $\beta = 0.234, p = 0.040$	25.4	$Y_{\text{quality}} = 2.36 + 0.26X_1 + 0.21X_2$
Customers	$F(1.140) = 30.11$ $p < 0.01$	trust in superiors $\beta = 0.421, p < 0.001$	17.7	$Y_{\text{customers}} = 2.69 + 0.4X_1$
Processes	$F(2.139) = 31.93$ $p < 0.01$	trust in superiors $\beta = 0.353, p = 0.001$ trust in subordinates $\beta = 0.243, p = 0.026$	31.3	$Y_{\text{processes}} = 1.09 + 0.41X_1 + 0.29X_2$
Innovation	$F(1.140) = 26.1$ $p < 0.01$	trust in subordinates $\beta = 0.4, p < 0.001$	15.8	$Y_{\text{innovation}} = 0.59X_2$
Market share	$F(1.140) = 20.55$ $p < 0.01$	trust in superiors $\beta = 0.36, p < 0.001$	12.8	$Y_{\text{market_share}} = 2.06 + 0.42X_1$
Competitiveness	$F(2.139) = 21.07$ $p < 0.01$	trust in superiors $\beta = 0.284, p = 0.014$ trust in subordinates $\beta = 0.229, p = 0.047$	23.3	$Y_{\text{competitiveness}} = 1.09 + 0.32X_1 + 0.27X_2$
Economic situation	$F(1.140) = 19.2$ $p < 0.01$	trust in subordinates $\beta = 0.347, p < 0.001$	12.1	$Y_{\text{economic situation}} = 2.04 + 0.49X_2$
Management efficiency	$F(1.140) = 43.24$ $p < 0.01$	trust in subordinates $\beta = 0.484, p < 0.001$	23.5	$Y_{\text{management efficiency}} = 1.53 + 0.6X_2$

X_1 – trust in superiors, X_2 – trust in subordinates, Percent – % explanation of the dependent variable.

5. Discussion

Intra-organizational trust is considered to be key to an organization's success. As already mentioned, it affects the quality, speed, costs, internal processes and innovativeness of an organization (determining its competitiveness on the market), thus also affecting an organization's outcomes understood in broad terms. The results of our research have mostly confirmed this, although they are not consistent in every case with the expectations and hypotheses initially postulated.

Contrary to expectations, although similarly to the research of Driscoll [18] and Scott [56], no confirmation of a positive relation between generalized trust and organizational outcomes was obtained. Generalized trust *affects decisions regarding trust in others, also in the context of the organization* [30] and – according to the research presented – is strongly positively correlated with trust in superiors and co-workers and

slightly less with trust in subordinates (Table 4). However, its level is not correlated with the parameters describing an organization's outcomes. Therefore, in the context of an organization's operations, the more important dimension of trust is the one that is born and shaped in mutual, everyday relations and, in a sense, is the result of the mutual learning of one another's behaviour.

The results obtained should be assessed with care. On the one hand, Polish society is widely recognized as a society with a low level of generalized trust, and this assessment has been stable over time [30]. This research has confirmed that the level of generalized trust within organizations is statistically significantly lower than the level of the other dimensions of trust (the Student t -test for dependent samples showed that the average assessment of the level of generalized trust by members of the surveyed organizations is statistically significantly lower than the average assessment of the level of trust between co-workers ($t(142) = -11.91; p < 0.001$), average assessment of the level of trust of superiors in subordinates ($t(142) = -10.13; p < 0.001$) and the average assessment of the level of employees' trust in superiors ($t(142) = -9.74; p < 0.001$). In the context of the research results obtained, the relatively low level of generalized trust shared by employees of an organization does not affect the organization's outcomes, which can be considered as positive in this situation. Those components of trust that develop on the basis of personal relations between members of an organization and are formed in mutual interactions (detailed trust) are much more important for organizational outcomes than the general tendency to trust others or a lack thereof. On the other hand, such a situation (the existence of detailed trust with no generalized trust) is considered to be dysfunctional at the level of a society (see [28]). According to Uslaner, *detailed trust makes a person's immediate environment better, but it does not make a better life for society as a whole* ([67] after [28]). Adaptation of this statement to the context of an organization may lead us to assume that a higher level of detailed (horizontal and vertical) trust should lead to better results at the level of individuals (e.g., individuals' job satisfaction, unit efficiency, greater innovation and creativity by employees) and thus improve an organization's performance, while a higher level of generalized trust (reflecting the culture of trust within an organization) translates directly into the effectiveness of the entire organization. This is all the more important because of the fact that generalized trust shows greater stability over time, while specific trust can change rapidly as local circumstances change. Unfortunately, this study failed to find an association between generalized trust and the parameters describing an organization's outcomes.

The literature indicates that *employees' level of trust in superiors has long been deemed an important key to successful organizational dynamics and performance* [66]. This research has shown that the trust shown by superiors to subordinates and trust in co-workers at the same management level also have a significant impact on the parameters describing organizational outcomes. The results obtained in the regression analysis revealed that, from the point of view of impact on an organization's outcomes, only the vertical dimension of trust is important, while its components (trust in superiors and

trust in subordinates) play different roles in explaining the individual components of an organization's outcomes. From the point of view of the ability to acquire new customers, maintain their loyalty and increase market share, trust in superiors was the only significant predictor. Therefore, the ability to create a proper climate of trust by superiors stands behind the market success of an organization. Moreover, relations within an organization, being the result of targeted managerial actions aimed at building trust, are reflected in the process of creating value for the client (though indirectly). Trust in subordinates (i.e., trust that employees perform their tasks at a level that is optimal according to their competence) was found to be the only significant predictor of three outcomes: the economic situation of an organization, its management efficiency and innovativeness (understood as the ability to innovate and outperform competitors). In the case of the quality of products and services, as well as competitiveness, both dimensions of vertical trust – trust in superiors and trust in subordinates – proved to be important. Overall, the relation between the variable trust in superiors and the variables describing an organization's outcomes is stronger. Generalized trust was not included in any of the models. Although, as already demonstrated by the correlation analysis, generalized trust is positively associated with the other components of trust, it does not directly translate into an organization attaining better results. Neither is it associated with trust in co-workers, which is surprising. According to Chami and Fullenkamp [9], the reason why trust between co-workers is an important factor influencing the effectiveness of an organization's operations is the fact that specialization is today crucial for growth. In today's organizations, especially those which are large and highly developed, *one employee's output depends on receiving high quality inputs from an expanding circle of other employees*, so they must rely on other people to perform certain tasks. According to Tam and Lim [64], trust in co-workers plays an intermediate, rather than direct, role in shaping an organization's performance.

It is important to underline that the results obtained indicate that, in almost all cases, a minority of the variability in the dependent variable is explained by trust, i.e., trust affects the parameters of an organization's outcomes but other (not tested) factors when taken together, are overall more important in their formation. The dependent variable, i.e., the results of an organization's operations, should be identified as a complex phenomenon (i.e., they are influenced by many factors, including, inter alia, trust within an organization). In this context, the results obtained should be considered satisfactory. Hence, it can be expected that all the dimensions of trust build an organization's ability to develop in some way, although they rather play *more of a moderating than a direct role in organizational performance* ([15] after [72]).

6. Conclusion

This article has focused on the notion of intra-organizational trust, omitting other dimensions of trust, such as trust between organizations, or the trust of stakeholders

(e.g., clients, but also investors) in an organization. With one exception, the results obtained are unsurprising. The study indicates a significant, strong positive relation between the level of trust shown by superiors in subordinates, trust shown by subordinates to superiors and trust between co-workers with all the parameters of organizational outcomes. However, this relation was not confirmed in the case of generalized trust. Because generalized trust in some ways is a manifestation of organizational culture (a reflection of a culture of trust [63] existing in an organization), these results raise doubt as to whether the shaping of a culture of trust is as important for an organization's effectiveness as postulated in the literature. According to Czajkowska [14], the main goal of creating a culture of trust in an organization is precisely to improve the organization's efficiency. However, generalized trust is strongly, positively correlated with both the horizontal (trust to co-workers) and vertical (trust within superior-subordinate relationships) dimensions of trust. Hence, it can be concluded that building a culture of trust should translate into an increase in trust between equals and within the relations between superiors and subordinates. In addition, as can be concluded from the results of our research, trust affects the parameters describing an organization's outcomes indirectly rather than directly. The components of trust considered explain only a little over one third of the variability in the synthetically expressed outcomes achieved by an organization. Therefore, *in order for trust to become operative, it must become a part of the culture of a firm. A firm must actively value trust among its employees and treat employees differently based on their individual trustworthiness* [9]. Research by Jiang and Probst [31] showed that the results achieved by employees are affected not only by trust based on individual interpersonal relations, but also by the culture of trust.

According to Cahmi and Fullenkamp [9] *it is in every corporation's interest to consider developing a culture of trust as a way of improving performance but the adoption of a management style based on trust involves inherent costs in establishing a context in which some prior and fundamental elements involved in building trust-based relationships are created and maintained* [72]. It requires specific investments for trust to emerge and be maintained within an organization, i.e., investments in maintaining relatively stable conditions of employment and career prospects, clarity in corporate communication, fairness in organizational procedures and standards, the establishment of standards for behaviour and punishment, organizational transparency, concern for employees and skills in managing intangible assets. Building a culture of trust within an organization seems to be an important challenge for managers, especially since it is usually a long lasting process. By transposing the factors shaping the culture of trust to the level of an organization (see [61]), two of the main groups of factors should be indicated, and remain the focus of managers: structural factors (i.e., normative stability – a system of rules transparently indicating the ways to achieve intended goals, an organization's stability and transparency, indication of procedural frameworks, observance of the rules of fair play, elimination of rumours, determination of responsibility and authority at all management levels and their consistent enforcement) and subjective

conditions (i.e., personality traits and capital resources). Sztompka also indicates a third group of factors shaping the culture of trust – historical conditions resulting from prior experiences and are, in some way, encoded in the current culture of an organization, which may constitute both a barrier to, as well as a catalyst for, building a culture of trust, due to the fact that an organization's culture is usually characterized by a specific degree of inertia. However, this group of conditions cannot be moulded in the process of shaping a culture of trust, as historical factors already belong to the past [58].

However, it is important to underline that this research has some limitations. The hypotheses were tested on the basis of only one research sample and only in one business context. In order to obtain the largest possible sample at the lowest possible cost, snowball sampling was used, which obviously has some limitations, e.g., it is impossible to determine the sampling error and this sometimes means that it is impossible to make inferences about a population based on the sample obtained. Hence, further verification of the conclusions presented in this paper is needed. However, the results obtained seem to be a solid first step in the analysis of the role of trust in shaping an organization's outcomes and establishing directions for further research. This research also causes new questions to arise (e.g., whether the frequency of relationships or scope of cooperation with others in the performance of official duties affects the level of trust, or what is the impact of the type of trust on an organization's outcomes).

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