TRUST AS THE BASIS OF COOPERATION AND COMMUNICATION AMONG EMPLOYEES. THE REFERENCES TO WORK IN THE CONDITIONS OF THE SARS-COV-2 CORONAVIRUS PANDEMIC

Zaufanie podstawą współpracy i komunikacji wśród pracowników. Odniesienia do pracy w warunkach pandemii koronawirusa SARS-CoV-2

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Abstract

The article presents selected results of research with the use of decision trees on the importance of trust for the cooperation and communication of employees of the KGHM Polska Miedź S.A. Group Entities. Thanks to the method of classification trees, it turned out to be possible to show the potential of trust to reduce the negative (for organizations and individuals) consequences resulting from unfavourable circumstances One of such circumstances was consider to be the need to change the form of work from traditional (stationery) to remote work resulting from the SARS-COV-2 threat. Previous studies on trust and cooperation have been referred to the need to act in a new situation. The aspects noted indicate that regardless of the circumstances, cooperation within individual organizations and its effectiveness may increase with growing trust. Trust becomes a factor that definitely facilitates the flow of information – and the flow of information can affect the processes of knowledge sharing. Communication based on trust and cooperation also influences the formation of social ties. It should also be noted that there is a reverse situation – social trust built on trust and cooperation affect the quality of communication. However examining these relationships in such a large and diverse organization as the KGHM Polska Miedź S.A. requires additional research.

Keywords: trust, cooperation, distributed work, internal communication, organizational culture.

Streszczenie

W artykule przedstawiono wybrane wyniki badań z wykorzystaniem drzew decyzyjnych, dotyczące znaczenia zaufania dla współpracy i komunikacji pracowników podmiotów Grupy Kapitałowej KGHM Polska Miedź S.A. Dzięki metodzie drzew klasyfikacyjnych możliwe okazało się pokazanie potencjału zaufania dla ograniczenia negatywnych (dla organizacji i jednostek) konsekwencji będących skutkiem niesprzyjających okoliczności. Za jedną z takich okoliczności uznano konieczność zmiany formy pracy z tradycyjnej (stacjonarnej) na pracę zdalną wynikającą z zagrożenia SARS-COV-2. Przeprowadzone wcześniej badania dotyczące zaufania i współpracy odniesiono do konieczności działania w nowej sytuacji. Dostrzeżone aspekty wskazują, że niezależnie od okoliczności współpraca w ramach poszczególnych organizacji i jej efektywność może wzrastać wraz z pogłębiającym się zaufaniem. Zaufanie staje się czynnikiem, który zdecydowanie ułatwia przepływ informacji – zaś przepływ informacji może mieć wpływ na procesy dzielenia się wiedzą. Komunikowanie oparte na zaufaniu i współpracy wpływa również na kształtowanie więzi społecznych. Należy również zauważyć, że istnieje sytuacja odwrotna – więzi społeczne budowane na zaufaniu i współpracy wpływają na jakość komunikacji. Rozpoznanie tych zależności w tak liczebnej i różnorodnej organizacji jak Grupa Kapitałowa KGHM Polska Miedź S.A. wymaga jednak dodatkowych badań.

Słowa kluczowe: zaufanie, współpraca, praca rozproszona, komunikacja wewnętrzna, kultura organizacyjna.

Introduction

The aim of the study was to learn how the requirement of trust corresponds to the requirement of cooperation in entities of a large capital group, which determine the limitation of negative (for organizations and individuals) consequences resulting from unfavourable circumstances. The research was conducted before the pandemic, but it is reflected in extraordinary conditions – such as the pandemic, because the development of communication competences, trust, skills of the nature of social relations, allow the entire teams to function more effectively. The presented results refer to the study of factors determining the level of trust among employees. Trust is an indispensable intangible asset of a company, influencing communication, learning, and relationship marketing. Role of trust also have occurred the key one in the situation of introducing remote work during the SARS-CoV-2 coronavirus pandemic in 2020.[1] At the same time, the perceived references to remote working are only an inspiration to undertake analogous research in a situation of forced external circumstances.

Trust is an indispensable intangible asset of the company, influencing communication, learning, and relationship marketing. Turbulence in the organization regarding mergers, employee reductions, and changing business models are important factors that arouse distrust and affect its level. The economic and technological challenges of the modern economy force trust to be built quickly, e.g. in preliminary relations between a superior and a subordinate (Zieliński, 2012). In collecting empirical data, a survey questionnaire addressed to employees of selected entities of the KGHM Polska Miedź

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[1] *Elastyczność specjalistów i menedżerów w dobie zmiany, The flexibility of specialists and managers in the time of change.* www.antal.pl [Access: 05.05.2021].

S.A. Group was used as a research tool. The data from the survey does not provide information on the level of trust, but declarations of the sense of trust and its relation to cooperation and communication. The aim of the survey was to check how the sense of trust translates into the requirement for trust as a foundation for cooperation in the organisation. The findings were related to the consequences resulting from unfavourable circumstances caused by the coronavirus pandemic in 2020. The method of decision trees was used to analyse the problem. The first part of the article reviews the literature on trust and collaboration. The second part presents the essence of decision trees. The third part presents selected elements of the analysis. Moreover, the role of trust in the face of changes forced by the pandemic was discussed, and the directions of further research were presented.

Trust is the basis of organizational dialogue

The literature on the subject points to problems with the conceptualization and the unambiguous definition of the concept of trust (Bugdol, 2007). There are many sources and types of trust, which significantly affects the problems in adopting a commonly accepted definition. The interdisciplinary nature of research on trust is confirmed by the analysis of works from various disciplines of social sciences: psychology, pedagogy, economics, sociology, and management. Trust allows you to shape cooperation both within the organization, as well as a form of cooperation between enterprises (Mellewight et al., 2007). It is believed that trust is a key factor in contemporary organizations and market realities, and is placed next to innovation and knowledge as the foundation of the modern economy. Trust remains an element that is difficult to measure and difficult to evaluate (Hejduk, Grudzewski, Sankowska, Wańtuchowicz, 2009). In terms of psychological science trust is defined as "total entrustment to someone, faith in someone, trust" (Sobol, 2002). In terms of sociological science, trust is analyzed from the point of view of interpersonal relations and importance for society. Trust is "a bet made on uncertain future actions of other people, consisting of two elements, i.e. beliefs and their expresions in practice" (Sztompka, 2007).

In his considerations, Max Weber divided social actions into purposeful-rational, value-rational, affective, and traditional – recognizing that only in the case of rational actions we can speak of trust (Setlak, 2015). Of all dimensions of organizational culture, trust is particularly difficult to grasp and hard to define. There are many definitions of trust in the literature – selected definitions are presented in Table 1.

Table 1
Selected trust definitions

Author	Definition
Hosmer (1995)	Trust is the dependence of a person, group, or company on a voluntarily accepted obligation to another person, group, or company – to recognize and protect the rights and interests of those involved in a joint venture and economic exchange.
Fukuyama (1997)	Trust is a mechanism based on the assumption that other members of a given community are characterized by honest and cooperative behaviour based on the professed norms.
Zaheer, McEvily, Perrone (1998)	Trust is the expectation that the partner can be relief on to fulfil its commitments in a predictable manner and to act with integrity in the face of various opportunities.
Giddens (2002)	Trust is a trust that balances out ignorance, or lack of information, reliance on people or abstract systems.
Lippert, Swiercz (2005)	Trust is the readiness of an individual to entrust a technology based on expectations regarding its predictability, credibility, and usefulness, and shaped by a person's individual predispositions to trust the technology.
Yamagishi (2012)	Trust has to do with believing in the competence of the other person and ensuring that joint planning is kept secret.
Paliszkiewicz (2013)	Trust is the belief that the other party will not act against us, will act in a way that is beneficial for us, will be credible, will behave in a predictable manner and in accordance with generally accepted standards.
van Zeeland-van der Holst, Henseler (2018)	A key variable mediating between characteristic trust and output variables. It is understood as commitment and loyalty.

Source: Own study based on: Hosmer, 1995; Fukuyama, 1997; Zaheer, McEvily, Perrone, 1998; Giddens, 2002; Lippert, Swiercz, 2005; Yamagishi, 2011; Paliszkiewicz, 2013; van Zeeland-van der Holst, Henseler, 2018.

Difficulties in formulating a universal definition of trust result from the interdisciplinary nature of the issue. Initially, the authors focused mainly on the psychological aspects. Currently, the psychological aspect does not play such a significant role anymore and the tendency to describe the phenomenon using elements such as social capital or organizational resource is more visible. Among the behaviours enabling the formation of trust are: honesty, reliability, loyalty, defining expectations, taking responsibility, keeping commitments and trusting those who deserve it (Małysa-Kaleta, 2015). For the purposes of these considerations, the definition proposed by Joanna Paliszkiewicz (2013) was adopted. i.e. "Trust is the belief that the other party will not act against

us, will act in a way that is beneficial to us, will be credible, will behave in a predictable way and in accordance with generally accepted norms."

Without a minimum level of confidence, the market mechanisms are disrupted. Companies with a high level of trust function more efficiently, which translates into the achieved results (Grudzewski, Hejduk, Sankowska, Wańtuchowicz, 2009). It is argued in the available literature that trust is sometimes perceived as an important element and source of social capital. The role of trust in the economy is already well-established in economic literature both at the macroeconomic and microeconomic level[2] (Knack, Keefer, 1997; Algan, Kauhe, 2010). Among the values that define the set of principles and standards of business conduct, Hewlett–Packard made trust and respect for people a fundamental value.[3] The Smartmatic company has developed a declaration of eight basic values, among which honesty is understood, as respect and trust in interpersonal relationship (Flamholtz, Randle, 2018). A high level of trust is shaped in organizations where the communication process is effective – the lack of communication at an appropriate level may be a source of conflicts (Grudzewski et al., 2009). On the one hand, organizational culture based on trust can increase the effectiveness of the organization's activities, and at the same time allow departing from control in favour of cooperation, independence of the organization's team members, sharing knowledge with everyone in the team, and creating independence (Krawczyk-Bryłka, 2012). Such a phenomenon and the process of managing it received the name of empowerment.[4]

Data available in the literature (Karl, 2000) show that trust among members of the organization is low. Another study (Morris, 1995) found that as many as 56% of employees who did not hold managerial positions (the study covered 57 service and manufacturing companies) indicated a lack of an adequate level of trust as a problem in their organizations. The role of trust is a fundamental element of the sharing economy (Martin, Upham, Budd, 2015; Heo, 2016; Ert, Fleischer, Magen, 2016). Perreira, analysing the behavioural aspects of trust, indicates that people are satisfied with the work they do when they experience support from colleagues, and when the work environment has a positive impact on the atmosphere in the company (by: Jureczka, 2018).

Research by Whitener, Brodt, Korsgaard & Werner (1998) showed that trust is related to cooperation, work efficiency, and quality of communication in organizations. The communication process is the basis for shaping and developing cooperation and

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[2] At the macroeconomic level, these are, for example, the relationship between trust and economic growth, and at the microeconomic level: financial decision making in the stock market.

[3] HP Corporate Objectives and Shared Values, www.hp.com/hpinfo/abouthp/corpobj.html.

[4] In the annual rankings of the most attractive workplaces, the Great Place to Work Institute is guided by the following principle: "employees trust the company's management, are proud of their joint achievements, and at the same time cooperative in an atmosphere of camaraderie". http://www.greatplacetowork.pl/publikacje-i-wydarzenia/593-lista-najlepszych-miejsc-pracy-polska-2012-ogloszona [Access: 30.12.2018].

building trust. Communication is the main precursor of trust, communication carried out at the right time supports trust by resolving conflict situations, or developing a uniform perception (Żądło, 2014). In the document, effectiveness begins with internal communication. The report for managers, based on the employee survey, discusses the impact of internal communication on the functioning of the organization - the authors of the report discuss the key factors that are the basis for building the company's effectiveness and include: partner communication, managers' responsibility for the efficient flow of information and the use of on-line tools.[5] The literature also indicates that the key element of leadership is strategic planning, communication, business culture. The authors emphasize that the organizational structure should facilitate personal interactions, should instill trust between people in the organization and encourage the free exchange of knowledge. The key elements of the organizational structure are processes, procedures, performance management system, and communication (Theriou, Maditinos, Theriou, 2011). The empirical results of the research indicate that, thanks to trust, cooperation becomes possible (Wasiluk, 2018), but the results of research on the impact of trust in initiating and developing cooperation (Kobylińska, 2017) do not clearly indicate what impact the level of cooperation has on the level of trust (Lumineau, 2017). Other studies indicate, however, that mutual trust in business relationships promotes cooperation (Gilbert, Behnam, 2013). Trust can create a permanent competitive advantage in organizations, especially those based on knowledge (Paliszkiewicz, 2013; 2019).

Methodology of own empirical research

The research covered entities of the KGHM Polska Miedź S.A. Group. Capital Group KGHM Polska Miedź S.A. includes domestic and foreign entities (Canada, Chile). Consolidates financial statements include 73 subsidiaries, but the audit covers entities associated in the Polska Miedź Employer's Association. KGHM Polska Miedź S.A. with its seat in Lubin, is a leader in the mining industry – copper, precious metals, rhenium, molybdenum, salt. KGHM has direct shares and stocks in 18 commercial companies. The entire KGHM Capital Group consists of approximately 30 companies. KGHM Subsidiaries operate both in the mining industry, as well as in the medical or tourist industries.Quantitative research was carried out in April and May 2018 among middle-level employees and managers.

The questionnaires used in the research were prepared in a paper version and in an electronic version using the questionnaire tool.[6] The disadvantage of the electronic tool used is the fact that entering individual tabs – could slow down or discourage you from

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[5] *Efektywność zaczyna się od komunikacji wewnętrznej. Raport dla menedżerów na podstawie badania pracowników* [The effectiveness starts from inner communication. Report for managers basis on research of the employees] (2017). https://emplo.pl/.
[6] https://www.google.com/intl/pl/drive/.

completing the survey. At the same time, the tool informed the respondent about the lack of answer to the question, which at the same time prevented the transition to the next section of the questionnaire. The paper and electronic questionnaires were identical. The questionnaire contained 65 statements within 40 detailed fields/thematic groups. The respondents rated them on a scale: from 1 – *I strongly disagree*, to 7 – *I strongly agree*. The source of the determination of individual variables were the literature studies presented above.

In addition to question directly connected to trust and collaboration, the questionnaire includes questions about conversations and processes that affect the ability of transmiting knowledge. The most important determinants of trust identified on the basis of the analysis of the literature allowing for the inclusion in the questionnaire of questions concerning: formalization in concern, centralisation of decision making, social interaction in concern, environment of concern, management of knowledge, innovations. The questionnaire was developed on the basis of literature analysis, available questionnaires and research questions used in other studies and using existing measurement tools.

A total of 252 fully completed questionnaires were obtained. Data collected in this way were statistically analysed using the Statistica program. Characteristics of people filling in the questionnaires conducted according to education, gender, position, age. The statistic of gender in that group shows Figure 1.
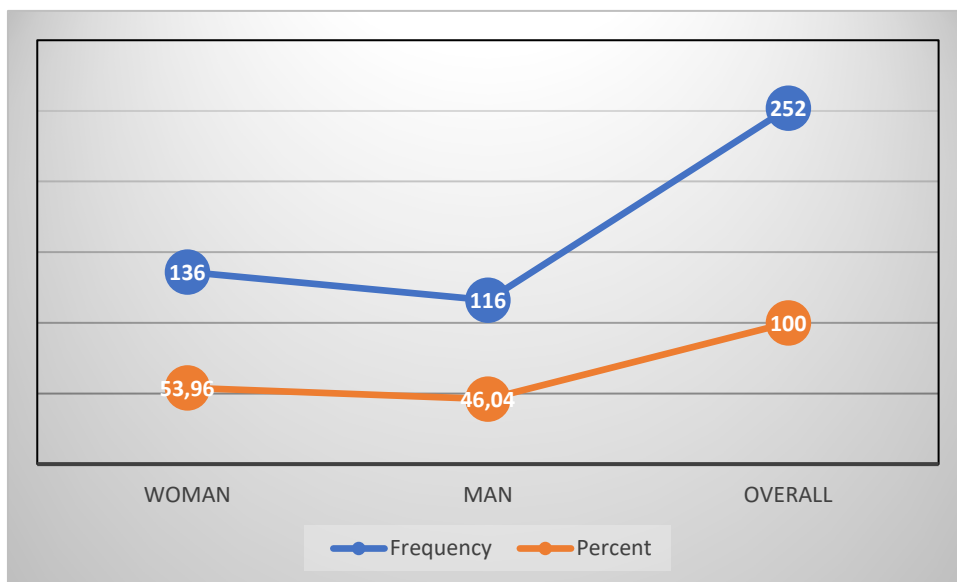

Figure 1
The gender in research group (N = 252).
Resource: own research.

In research group majority – 53.96% – were women. In 2020 in Capital Group 34 116 people were employed, but in copartnership KGHM Miedź S.A. – 18531. The analysis of education is presented in Figure 2.
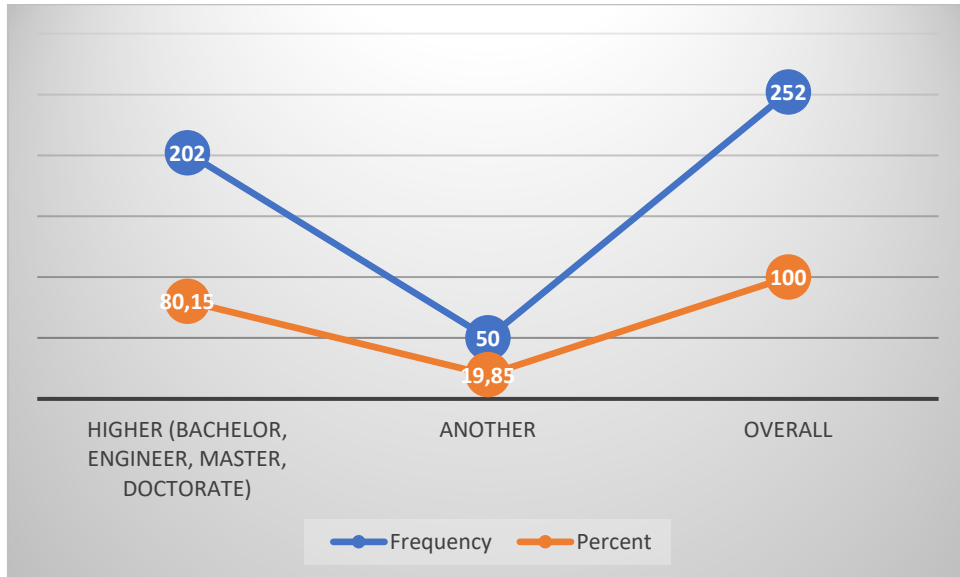
Figure 2
The education in research group (N = 252).
Resource: own research.

Over the 80% responders have a university degree. The group KGHM Polska Miedź S.A, due to its international scope of operations, cultural differences, and industry specificity, enables the employees to improve their competences by participating in trainings and other development activities, with appropriate linguistic, managerial, interpersonal, and trainings connected to process management. Capital group allow improvement of qualifications and change of the structure of education of the employees, by continuing of endowment of higher and postgraduate studies. Then the positions of responders were analyzed (Figure 3).

The age in research group is presented in Figure 4.
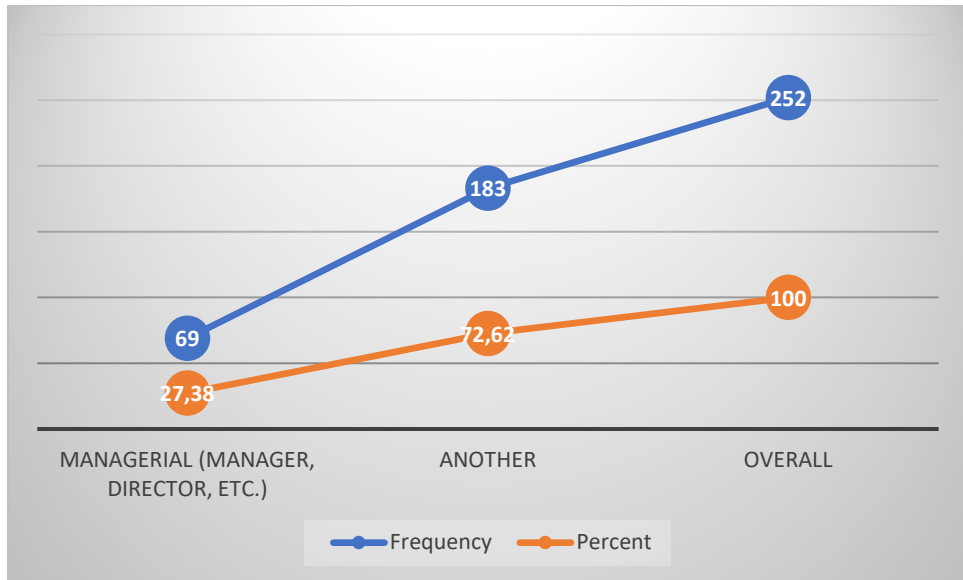
Figure 3
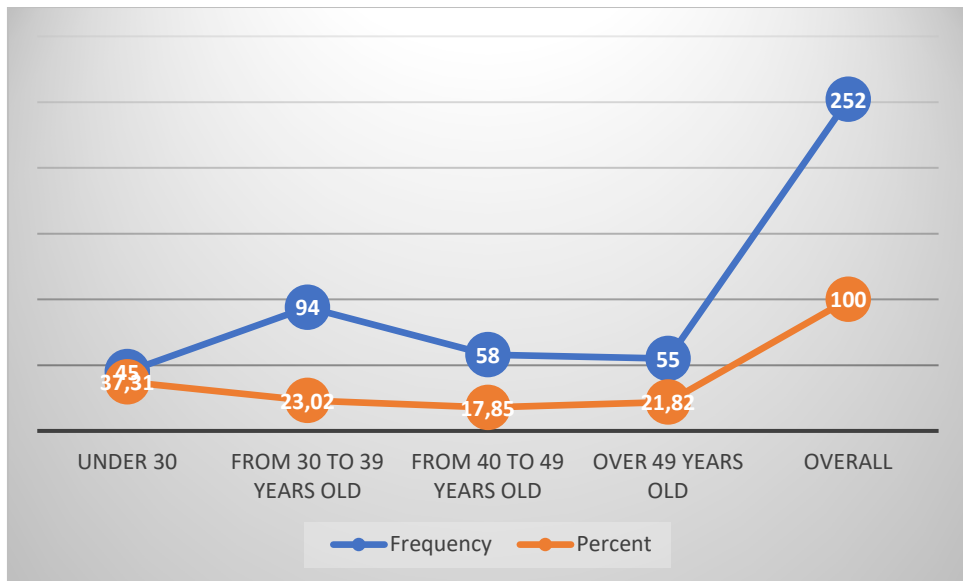*The position in research group (N = 252).*
Resource: own research.

Figure 4
The age of research group (N = 252).
Resource: own research

Data analysis was performed using the decision tree method. It was popularized by Leo Breiman, Jerome Friedman, R.A. Olhsen, and Charles J. Stone. These researchers developed the CART program (Classification and Regression Trees) and published

a book analysing model building using this tool (Breiman, 1998). Decision trees are a graphical representation of knowledge and a method of supporting the decision-making process, therefore they are often used for data analysis.

The CART algorithm is a non-parametric algorithm that creates binary trees. Classification tree models enable both the construction of models for solving regression problems (where the dependent variable is a quantitative feature), and classification problems.[7] The basis division of decision trees is the division into: 1) binary trees – where only two edges emerge from each inner node; 2) non-binary trees – where more than two edges may come out of a node.

The main advantages of decision trees mentioned in the literature include, among others:

- transparency and simplicity,
- the ability to present any complex concepts,
- efficiency of use,
- ease in the process of interpretation and the fact that they do not require data normalization, creating blind variables, or removing empty values,
- the possibility of presenting any data,
- trees are able to handle both numerical data and nominal, and hence categorical variables (Wierzbicki, 2018).

The limitation of this method is a complicated system of mapping dependencies and tree sizes limited by the size of the presentation space, e.g. a publication page. The decision tree (classification tree) is an acyclic directed graph in which each node, being a leaf, is assigned a class designation, and each branch – a decision rule, i.e. a condition referring to the values of variables in the input set and informing in which case the given branch should be followed (Kozak, Juszczuk, 2016; Migut, 2018). Binary trees are the most effective decision trees, therefore they are among the most used (Boryczka, Kozak, 2014).

Trust in one's own team was assumed as the dependent variable. The CART (Classification & Regression Trees) algorithm was used to generate trees, which uses an exhaustive network search for all possible one-dimensional divisions.[8] The following metric variables were assumed as predictors: gender, age, education, position, and organizational variables: the sense of trust, cooperation and interpersonal relations in the team. The selection of predictors was guided by the thematic convergence of the assessed statements. First, a model describing a predefined set of data classes was built, which was then used to classify the data.

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[7] Statistics manual. [in:] StatSoft, Inc., 2005, STATISTICA (data analysis software system), version 7.1. www.statsoft.com

[8] https://www.statsoft.pl/textbook/stathome_stat.html?https%3A%2F%2Fwww.statsoft.pl%2Ftextbook%2Fstclatre.html

Trust – cooperation – communication. The results of empirical research

The first issue was the possibility of counting on co-workers when the employee needs them and determining the level of trust in his/her immediate supervisor and the help of the supervisor (see Figure 5).
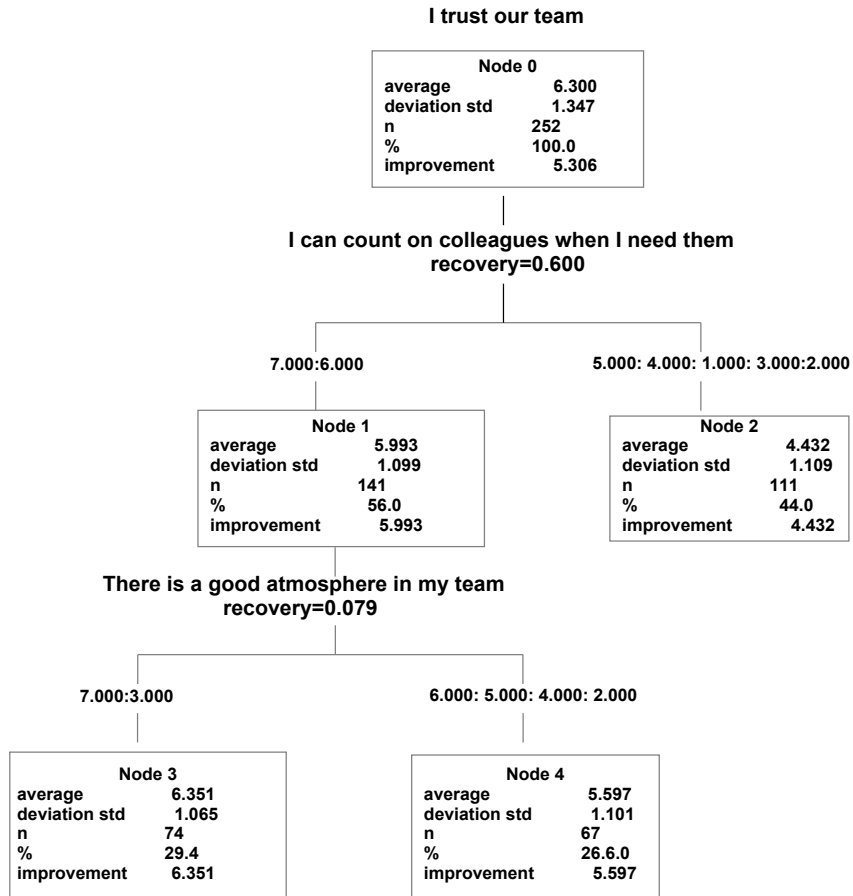
I trust our team

Node 0	
average	6.300
deviation std	1.347
n	252
%	100.0
improvement	5.306

I can count on colleagues when I need them
recovery=0.600

7.000:6.000

Node 1	
average	5.993
deviation std	1.099
n	141
%	56.0
improvement	5.993

5.000: 4.000: 1.000: 3.000:2.000

Node 2	
average	4.432
deviation std	1.109
n	111
%	44.0
improvement	4.432

There is a good atmosphere in my team
recovery=0.079

7.000:3.000

Node 3	
average	6.351
deviation std	1.065
n	74
%	29.4
improvement	6.351

6.000: 5.000: 4.000: 2.000

Node 4	
average	5.597
deviation std	1.101
n	67
%	26.6.0
improvement	5.597

Figure 5
Decision tree scheme – trust, cooperation, atmosphere
Resource: own research.

The mean value and standard deviation of confidence in one's own team are: 5.306; 1.347. The first classification criterion was selected by the algorithm concerning the possibility of counting on colleagues in a situation when an employee needs them. The answers to this question divide the group of respondents into two subgroups. The first group (node 1) of 141 (56.0%) people – these were the respondents who answered that they can definitely count on colleagues when they need them (5.993; 1.099). The level of trust in this group is higher than in the group of all respondents. An interesting case

is the second group (node 2) represented by 111 (44.0%) people who responded moderately positively, ambivalently, or negatively. Confidence in one's own team is clearly lower (4.432; 1.109). This is an interesting result, which shows that trust in one's own team is not homogenous and is differentiated by the type of answers to the questions about the possibility of counting on colleagues if needed. The results presented in node 0, as well as in node 1 and 2 also show the difference in the general trust in one's own team (node 0), and counting on colleagues when needed. You can trust your own team in a situation where you cannot count on individual colleagues (with grades 1, 2 and 3).

People who can definitely count on colleagues when they need them are differentiated by the question about a good atmosphere in the team. The first group is made of 74 (29.4%) respondents who fully agree that there is a good atmosphere in the team (7), or a weakly opposing opinion (3), for whom trust in their own team is at the highest level (6.351; 1.065). In the group of 67 (26.6%) respondents assessing the atmosphere in the team as negative (2 and 3) and ambivalent (4), and weakly positive (5), trust towards their own team takes the level (5.597; 1.001). The comparison of the results of node 1 and nodes 3 and 4 shows, that some respondents declaring that they can count on colleagues when they need them (node 1) are assessed negatively (node 3 and 4).

What draws attention in the presented tree is that the algorithm omitted metric variables in the tree creation process. This may mean, that these variables have no influence on the formation of trust in the team. Trust in one's immediate supervisor, help from the superior and his trust are also irrelevant for the level of trust.

The analysis was extended to include issues related to the freedom to decide (see Figure 6).

The first group is created of 67 (26.6%) respondents, who fully agree that they have a lot of freedom in making decisions about the functioning of the organization. The feeling of freedom when deciding what is happening at work is directly related to the sense of trust in the relationship between the superior and the subordinate, and the provision of the necessary resources. At KGHM Polska Miedź S.A. advanced knowledge sharing tools are in place. Each employee can, through the company's internal network, familiarize oneself with the applicable normative acts and basic documents of the company. The essential is also the use of management by objectives, a large number of organized training. The factors positively influencing the discussed research area may be feedback from superiors on the results of work and analysis of failures, in order to eliminate errors in the future. Facilitating employees' access to corporate knowledge, combined with creativity and cooperation, indicate the role of trust in the surveyed organizations. Ultimately, it may lead to easier coordination of group activities, and strengthens social ties within the enterprise.
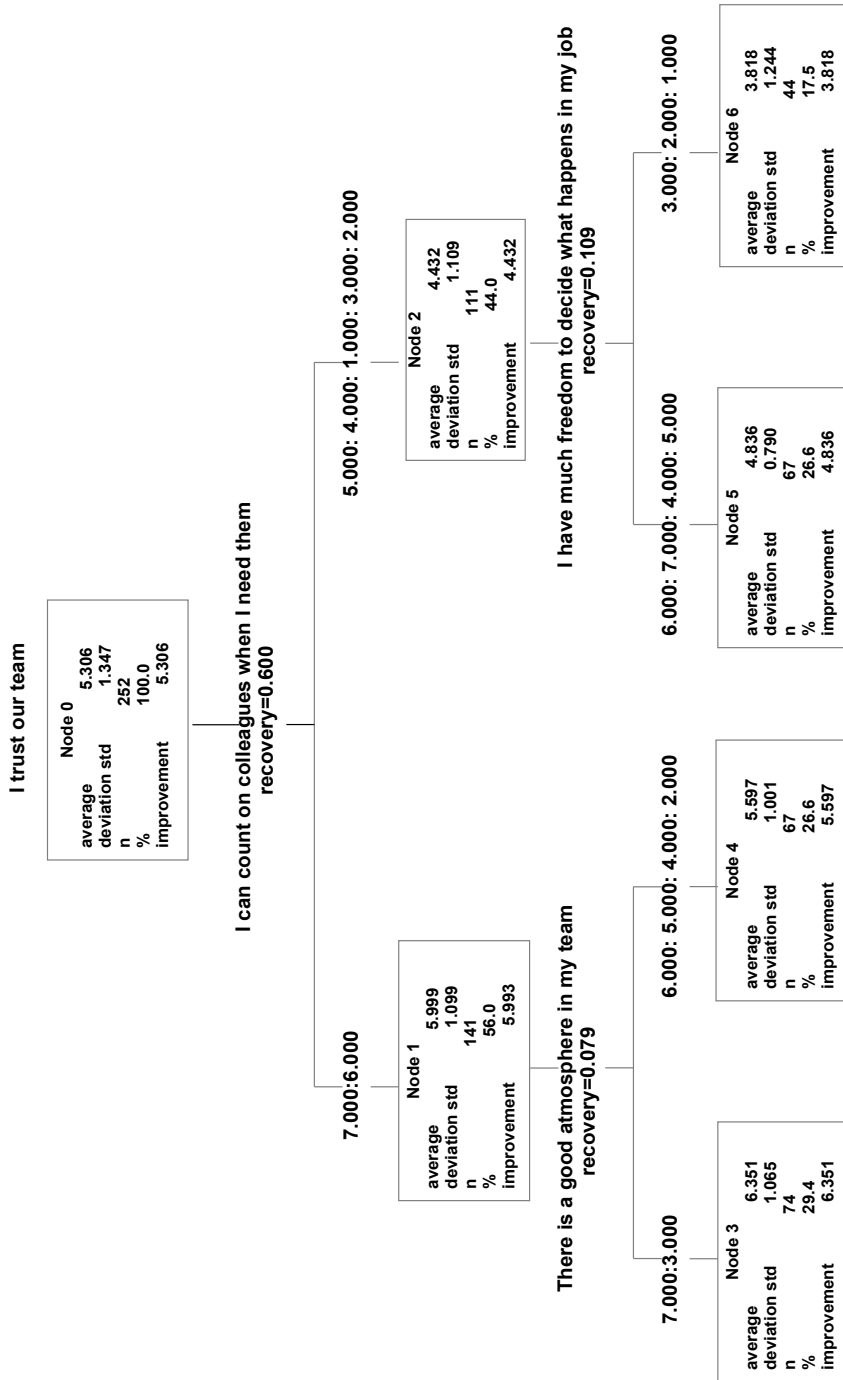
I trust our team

Node 0

average	5.306
deviation std	1.347
n	252
%	100.0
improvement	5.306

I can count on colleagues when I need them
recovery=0.600

7.000:6.000

Node 1

average	5.999
deviation std	1.099
n	141
%	56.0
improvement	5.993

5.000: 4.000: 1.000: 3.000: 2.000

Node 2

average	4.432
deviation std	1.109
n	111
%	44.0
improvement	4.432

There is a good atmosphere in my team
recovery=0.079

7.000:3.000

Node 3

average	6.351
deviation std	1.065
n	74
%	29.4
improvement	6.351

6.000: 5.000: 4.000: 2.000

Node 4

average	5.597
deviation std	1.001
n	67
%	26.6
improvement	5.597

I have much freedom to decide what happens in my job
recovery=0.109

6.000: 7.000: 4.000: 5.000

Node 5

average	4.836
deviation std	0.790
n	67
%	26.6
improvement	4.836

3.000: 2.000: 1.000

Node 6

average	3.818
deviation std	1.244
n	44
%	17.5
improvement	3.818

Figure 6
Decision tree scheme – trust, cooperation, atmosphere, flexibility.
Source: own research.

In the next step, the influence of age and education on the level of trust was analysed (see Figure 7).
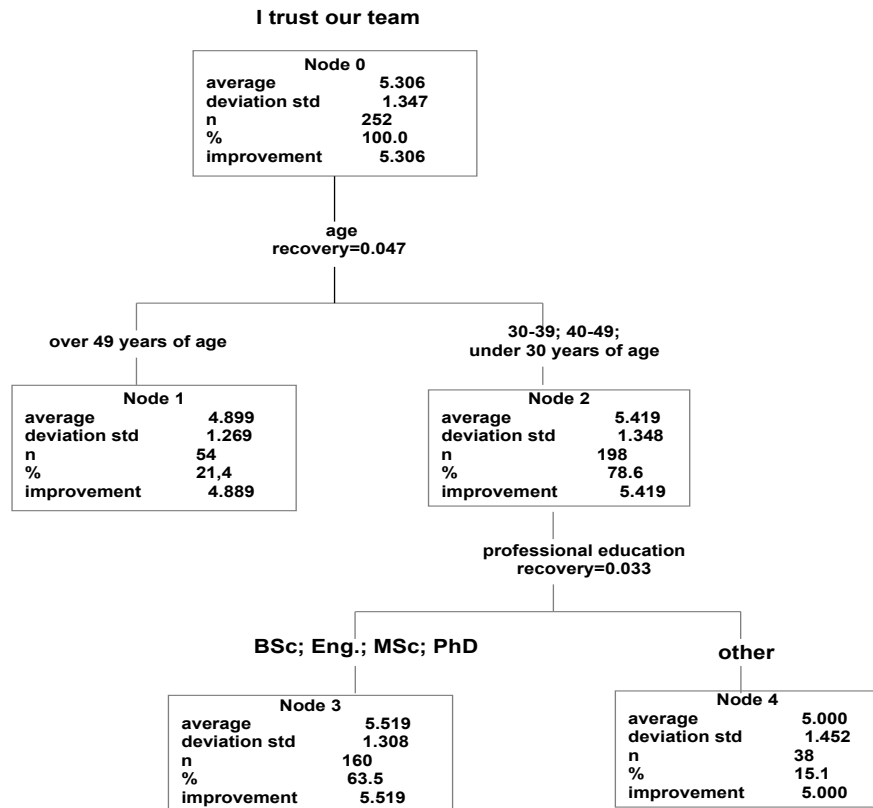
I trust our team

Node 0	
average	5.306
deviation std	1.347
n	252
%	100.0
improvement	5.306

age
recovery=0.047

over 49 years of age

Node 1	
average	4.899
deviation std	1.269
n	54
%	21,4
improvement	4.889

**30-39; 40-49;
under 30 years of age**

Node 2	
average	5.419
deviation std	1.348
n	198
%	78.6
improvement	5.419

professional education
recovery=0.033

BSc; Eng.; MSc; PhD

Node 3	
average	5.519
deviation std	1.308
n	160
%	63.5
improvement	5.519

other

Node 4	
average	5.000
deviation std	1.452
n	38
%	15.1
improvement	5.000

Figure 7
Decision tree scheme – trust, age, eduction.
Source: own research.

The structure of the generated tree related to the age showed that the first group (node 1) with a population of 54 (21.4%) was made of people over 49 years of age (5.993; 1.099). The confidence level in this group is lower than in the age group up to 49 years of age (node 2). However, the results of the age group up to 49 years of age (node 2) represented by 198 people (78.6%) seem to be more interesting. Trust in one's own team is clearly higher (5.419; 1.348). The result in the age group under 49 is higher in the area of trust in the team, which is quite an interesting conclusion of the study.

The dominant position of the employee in the current labour market makes it easier to change the employer. This may indicate that the surveyed companies adapt to the expectations of employees of the age group up to 49, proposing a valuable offer in key areas such as: training, career paths, social activity. The Integrated Report of the Capital Group (2019) indicates that important elements of the personnel policy are improving the qualifications and changing the education structure of the company's employees

through funding for higher and postgraduate studies; ensuring the fulfilment of the requirements specified in the regulations, through the participation of employees in periodic health and safety training and examinations entitling to take up positions in which specialist activities are performed in underground mining plants and other positions in the company; increasing employee competences by organizing training and development trainings, with particular emphasis on managerial skills, interpersonal competences and training on process management. It may also indicate that the employers from the Capital Group deemed it important to invest in human capital. This translates directly into the commitment and loyalty of employees. The climate of trust can also bring tangible financial benefits to the organization (Krawczyk-Bryłka, 2012). An unquestionable advantage in building a climate of trust is the financial position of the Capital Group's entities, which enables financing both training and social projects. Trust affects both job satisfaction and the perception of the employer and the team. It is important that in the age group under 49 people with higher education show a higher level of trust than people without higher education.

Another analysis concerns the relationship between trust and information (see Figure 8).

In the decision tree under discussion, the first classification criterion selected by the algorithm was the question about colleagues in a situation where an employee needs information. The answers to this question divide the group of respondents into two subgroups. The first group (node 1) of 178 (70.60%) people – are respondents who answered that they can definitely count on colleagues when they need them (5.993; 1.099). The second group (node 2) was represented by 74 (29.4%) people who responded moderately positively, ambivalently, or negatively. The result shows that the climate of trust translates into the level of cooperation of employees in the field of knowledge exchange. The exchange of information between employees can become the basis for many positive processes, which in turn can translate into the effectiveness of the organization. The values guided by the Company include, among others: team work, sharing knowledge and experience, respect for the views of others and openness to new perspectives, using the talents of employees and respect for multiculturalism – these are the elements necessary to shape an organizational culture based on trust and cooperation. Communication allows to articulate the expectations and needs of each party, thus take into account the knowledge needs. Trust management is not only a matter of selecting organizational techniques and tools, but is based on the cultural philosophy of management and is an important components of organizational culture. Cognitively interesting could be conducting analogical research in units of the same Capital Group in several years. Conduction of comparative research in short time may misshape the results. The questionnaires allowed to see the general process of each relations of trust, so the important element would be the conduction of qualitative research. In the literature of the subject it is indicated that in according to the theory of resources suitable relationships

in concern are the strategic research of each unit. Also in the relationships between or-
ganisations the condition of positive cooperation is mutual trust (Svensson, 2004). As
Morgan indicates trust and engagement are essential elements of creation of relation-
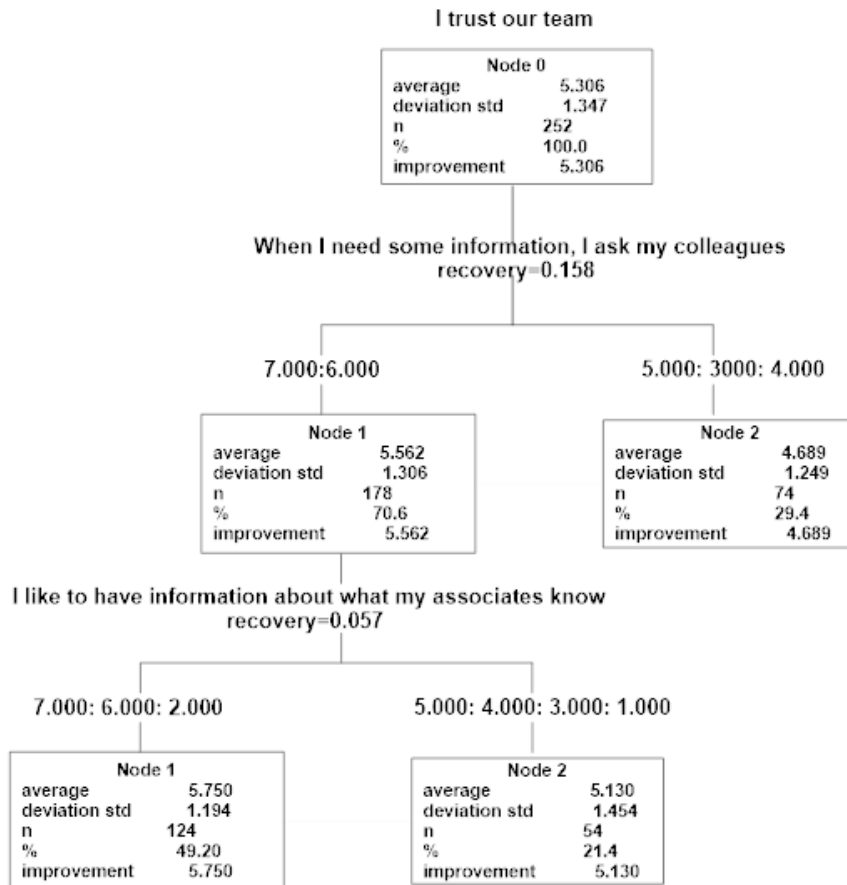ships between organisations (Morgan & Hunt, 1994).

Figure 8
Decision tree diagram – trust information.
Source: own research.

Trust and cooperation among employees during remote work

In times of social unrest, such as pandemic, trust becomes a priority for the proper func-
tioning of the organization, dissemination of key information within the organization,
and maintaining confidentiality. Trust becomes a key element linking cooperation
within the organization and includes the relationship between employees and expecta-
tions towards colleagues. The research carried out and discussed above allow managers

to determine to what extent the organizational culture built on trust can support the implementation of tasks also during remote work. The conclusions in this regard are predictions and are based on the research discussed earlier. Modern technology has provided the tools necessary for remote work, which, in the era of a pandemic, has allowed many organizations to limit the negative consequences resulting from the SARS-COV-19 threat. In the literature for situations changing the reality of the economic environment, the term VUCA was adopted, which is an acronym of the words: variability, uncertainty, complexity and ambiguity. An example of the VUCA situation is the SARS – COVID virus – the effect of the pandemic is the phenomenon of a rapid development of a situation unfavorable not only for the economic environment, but also for the complexity of developing phenomena. An important element of VUCA's situation is the ambiguity resulting from the pandemic – resulting from the lack of knowledge about the further impact of the pandemic on the economic reality. The ability to react quickly to emerging risks is an essential competence of managers during VUCA. In addition, in the world of VUCA, the key is the ability to adapt to unexpected events, dialogue with stakeholders, developing in the network, creating collective intelligence. For organizations, VUCA is a practical procedure for raising awareness and readiness (Krawczyńska-Zaucha, 2019). Companies that have already used remote work to a different extent have a significant advantage.

In the report Flexibility of specialists and managers in the time of change, during the epidemic indicates that in Poland 54% specialists and managers work fully online, 25% work in hybrid manner, that is in the office in the set time. According to the discussed research remote work fosters recognition in terms of engagement in duties, and that aspects was positively evaluated by the majority of responders – very well by 43% and well by 40% of responders. Roman Zabłocki Business Unit Director, Antal analysing the results of the research emphasizes that

> dominant role of online work increases the level of monitoring the activities of whole teams and also allow to increase the trust. (…) Flexible approach towards the time of fulfilling duties in the system of evaluation of the results even increases effectiveness of activities. Less control and more freedom of activities aids engagement. However, that solutions for sure is easier to incorporate for a short time and among the employees with long practice[10].

Also, individual entities of the KGHM capital group have implemented remote work in order to minimize the risk related to the spread of the virus. Working remotely may cause problems in team communication, which may result in a lack of knowledge about the progress of the work performed. On the other hand, remote work is fostered

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[9] In the literature, for situations changing the reality of the economic environment, e.g. a pandemic, the term VUCA was adopted, which is an acronym for the worlds: volatility, uncertainty, complexity and ambiguity.

[10] www.antal.pl [Access: 05.05.2021]

by the trust of superiors towards employees in terms of commitment to the duties performed. Trust in remote work is defined in the literature as the belief that individual members of an organization are acting in good faith, in accordance with findings that are expressed both explicitly and implicitly (Cummings, Bromiley, 1996). Quantitative research carried out by the Jagiellonian University as part of the "Organizations at the crossroads. Organizational dilemmas during a pandemic"[11] study indicates that communication in organizations focused on tasks, but at the same time forced autonomy in the implementation of tasks, and thus a far-reaching trust in independent task performance. Remote work efficiency is favoured by the so-called agile work methodologies that take into account the realities in which we work.

In the area of information flow inside the company, it has become necessary to conduct two-way communication, i.e. enabling employees to ask questions and express opinions. The intensified communication activities were based on the conclusions of the conversations conducted by employees of internal communication and HR departments, both with managers of all levels and employees[12]. In addition, the role of HR departments as effective business support has been verified by the forced change or modification of strategic plans due to the pandemic environment – the creation and then implementation of the sanitary regime became of key importance. The essence of the introduced changes was to ensure maximum safety for employees, and on the other hand, the continuity of business processes. The current situation gives individual entities the opportunity to implement innovative strategies for the use of space also in a hybrid model combining work in a traditional office, flexible office (a term commonly used in relation to rented offices) and remote work. Building cooperation based on trust creates conditions for building social capital, which can be a source of innovation, sustainable development, or competitiveness.

Conclusions

The organizational culture of KGHM and its subsidiaries based on teamwork, knowledge sharing, trust and communication – allowed the organization to efficiently adapt to remote work. The quality of work in such a diversified organization requires not only defining and respecting the established rules of communication, but most of all showing their sources. The organization's employees indicated that the problem was the lack of contact with colleagues, and thus the lack of social contacts and isolation. This indicates the key role of interpersonal relations in the functioning of the employee in the

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[11] Organizations at a crossroads. Organizational dilemmas during a pandemic. Jagiellonian University Krakow. Online conference: 05.11.2020.

[12] As the Edelman Trust Barometer indicates, 63% of employees trust the communication carried out by companies. Source: https://www.edelman.com/research/covid-19-brand-trust-report [Access: 08.12.2020].

organization. The organization's task was to communicate the progress in ongoing tasks and support and help in developing a sense of belonging and security through relationships with superiors using the existing communication platforms, i.e. the Intranet portal, newsletter, and press published in the Company.

Classification trees make it possible to study the issue of trust in an enterprise in a special way, because, based on regression models, they give the researcher in an interactive mode an immediate answer to detailed questions during work on a research project. The presented research results can be a stimulus for managers' interest in creating conditions that support mutual trust and an indication for shaping a culture of trust and cooperation based on communication. An additional advantage of the decision trees method is the spread of generating the model, and their graphic presentation is an interesting visualization of the relationship. The transparency and accuracy of this method means that it can also be used in solving business problems. The conducted analyses open up an interesting research perspective on the line: trust – cooperation – communication. The social capital of individual organizations is shaped to a large extent by the organizational culture. There is no possibility of effective cooperation in organizations where there is no trust.

The obtained results can be used by the managers in the process of shaping the assumptions of culture of organization based on trust, and as the result of improvement of communication, sharing information, and knowledge. These analysis allow more precise cognition, describing and connection to each other phenomena on the edge of these areas: trust, communication, management of knowledge, effectiveness of functioning of concern. That activity in research areas aid suitable organizational climate and also skillful implementing of informative technologies. In further research on this issue, it is advisable to use mixed methods that integrate qualitative and quantitative research. Due to the individual nature of trust, research projects in narrative and biographical terms would also be justified.

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