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ORGANIZATIONAL CULTURE AS A LEVER OF SUCCESSFUL QUALITY MANAGEMENT

Abstract

The implementation of a quality management system represents a strategic change in every organization, regardless of its activity, size, market, production program, financial strength, number of employees. Organizational culture has a significant role in that process. Moreover, the success of the quality management system depends largely on its congruence with the organizational culture, that is, the quality culture development. The aim of this paper is to show how managers observe and evaluate the level of quality culture development in the organization. In accordance with the defined goal, research was conducted in the company Šinvoz, Zrenjanin from November to December 2022 with specially designed questionnaire. The company's main activity is the overhaul of railway vehicles and components, as well as the maintenance, repair, and modernization of railway vehicles. The company management participated in the research that showed that quality culture is unevenly developed in the organization. Managers believe that certain segments of the quality culture are highly developed, but others are at a low level. Based on their evaluations, quality system management can be improved, that is, measures and activities that will result in quality system improvement in the organization can be undertaken. The key value of the paper lies in the fact that overall quality should be improved in order to remain competitive in the long run.

Key words: *organizational culture, quality culture, organizational behavior, motivation, TQM*

JEL classification: *L20, M54*

ОРГАНИЗАЦИОНА КУЛТУРА КАО ПОЛУГА УСПЕШНОГ УПРАВЉАЊА КВАЛИТЕТОМ

Апстракт

Имплементација система за менаџмент квалитетом представља стратешку промену у свакој организацији, без обзира на њену делатност, величину, тржиште, производни програм, финансијску снагу, број запослених. Успешност система за управљање квалитетом у значајној мери зависи од тога колико је у складу са организационом културом, односно колико подстиче развој културе квалитета. Циљ овог рада је да сагледа у којој мери орга-

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низациона култура утиче на систем квалитета из менаџерске перспективе. У истраживању које је спроведено применом упитника у периоду од новембра до децембра 2022. године учествовало је предузеће Шинвоз, Зрењанин чија је основна делатност ремонт железничких возила и компоненти, као и услуге одржавања, поправки и модернизације железничких возила. Резултати спроведеног истраживања у којем је учествовало руководство овог предузећа показали су да менаџери сматрају да је квалитет као вредност дубоко укорењена у организациону културу предузећа, али да постоји простор за унапређења у систему мерења квалитета. Кључна вредност рада је у томе што указује на чињеницу да се целокупни квалитет неке организације мора стално унапређивати да би се задржала конкурентска предност у дугом року.

Кључне речи: организациона култура, култура квалитета, организационо понашање, мотивација, ТQM

Introduction

Quality is the basis of every organization in the digital age. Key quality indicators have been transformed in the digital age due to modern information technologies, social networks, review portals, real-time data availability, greater data processing and visualization capabilities (Schiavone et al., 2022). In such conditions, there is a stronger need for organizations to implement Total Quality Management (TQM). The implementation of TQM is a strategic change in every organization, regardless of its activity, size, market, production program, financial strength, number of employees (Dahlgaard et al., 2019). Also, the transition from the conventional management model to TQM is a huge challenge for the organization associated with the changes in the organizational culture (quality culture development). Organizational culture has a strong influence on successful TQM implementation (Angle, 2019; Hafar et al., 2022; Patyal et al., 2020). On the other hand, there is a pronounced feedback effect of TQM on organizational culture and quality culture development. Therefore, a mutual interaction, that is, an "exchange" of influence exists between quality culture and TQM - TQM cannot exist without quality culture, and quality culture cannot be developed without TQM principles (Noronha, 2002; Sinha et al., 2016). In other words, if the organizational culture is ignored and TQM implementation is forced, the expected results will not be achieved. Likewise, if the organizational culture changes in the direction of quality culture development, the principles of TQM must be implemented during this process.

The aim of this paper is to indicate the role and importance of organizational culture in the process of building and nurturing a quality culture and quality management system in the organization. The paper is structured as follows. The first part of the paper is a theoretical background and is focused on the role and importance of organizational culture in quality management. The second part of the paper is dedicated to the conducted research: methodology, research questions, results, and discussion of results. Finally, in the conclusion, the key limitations of the conducted research are specified and suggestions for future research are given.

Literature review: The role and significance of organizational culture for Total Quality Management

Organizational culture is a pattern of common basic assumptions adopted by a group of employees, which have worked well enough and were established as a way to perceive, think, and feel (Schein, 1985). It is a set of values, heroes, rites, rituals, and ways of communication between employees (Deal & Kennedy, 2000). Many authors have emphasized the importance of organizational culture, i.e. quality culture, on TQM implementation. Hilderbrandt et al. (1991) believe that the existing basic assumptions in the organization are the primary condition for a successful TQM implementation. Westbrook and Utley (1995) point out that an organization that wants to implement TQM as a guiding business principle should create a culture that supports this change. Based on their research, they confirmed the hypothesis that TQM implementation will be more successful if the culture supports employee effort and respects customer needs. Lewis (1998) concludes that a generally accepted view in theory and practice is that culture change or at least culture awareness is a necessary prerequisite for excellence and quality. Dellana and Hausser (1999) investigated the relationship between organizational culture and TQM. In their research, they used a questionnaire compiled according to the criteria of the Malcolm Baldrige National Quality Award. Questionnaires were sent to members of the American Society for Quality. Based on the research results, the authors established a type of organizational culture that supports the TQM implementation to the greatest extent and concluded that adhocracy and the so-called group culture are most favourable to the implementation of TQM. The adhocracy culture is characterized by creativity, willingness to take risks, and creative leadership, while the group culture is characterized by teamwork, participation, and mentoring leadership. Some authors even emphasize the importance and role of organizational culture to such an extent that they claim that an organization can achieve the desired results only based on quality culture development, without the formal implementation of TQM (Swaffin-Smith et al., 2002).

Ghobadian and Gallear (2001) conducted a thorough empirical study involving 31 organizations that had implemented TQM. Based on that study, they concluded that there is a wide range of applied solutions in practice. Statistics show that the number of planned TQM initiatives varies significantly in the sample - from 6 to 35. The implementation plans included an average of 17 initiatives. So, on average, an organization plans to introduce TQM on the basis of 17 undertaken initiatives, the most common being employee training programs, formation of quality improvement teams, the definition of vision, mission, quality policy, etc. The largest number of these initiatives can be classified in the "management processes" and "employee orientation" categories, as well as in the "communication and measurements" group. Based on such observations, the authors concluded that organizations first strive to increase their "internal" competence in order to successfully implement internal changes, and only in the later stages of TQM direct their focus towards consumers. This is understandable because in the first stages, the initiatives have the task of encouraging quality culture development, that is, of preparing the organization for major changes that are necessary for the complete and successful TQM implementation.

Rahman and Bullock (2002) investigated factors affecting a successful TQM implementation in an organization. They divided these factors into two groups: (1) soft

and (2) hard. The first group is dominated by the human factor (employee commitment, teamwork, training, interpersonal relations), and the second group includes factors related to the application of modern technologies, methodological tools and techniques. Based on this constellation of factors, the authors' research confirmed the hypothesis that "soft" factors influence the acceptance and use of the "hard" core, as well as determine organizational performance. Since "soft" factors directly reflect organizational culture, that is, the quality culture, it can be concluded that their role in the TQM implementation process is extremely significant.

When implementing TQM, companies most often apply one of the following approaches (Ljubojević and Dejanović, 2017):

- Introduction of certain elements in the organization (The TQM Element Approach);
- Building a quality system according to expert recommendations (The Guru Approach);
- Fulfilling quality prize criteria (The Prize Criteria Approach);
- Development of personal implementation model (The Company Model Approach).

The implementation of certain TQM elements is an approach mainly used by organizations in the early 1980s. This approach usually includes the application of certain TQM methods and techniques in business (e.g forming a quality committee in the organization, using more advanced statistics during quality control, introducing new measurement methods, etc.). This approach had modest results because TQM implies a fundamental change in organizational culture and the construction of a comprehensive quality management system. However, due to this partial approach, organizations have expanded their knowledge of quality, gained valuable experience, and begun to perceive quality differently. This encouraged quality culture development in certain organizations and created the conditions for profound changes necessary for a full TQM implementation in the organization.

Along with a global affirmation of the TQM approach, organizations have increasingly tried to build a quality management system according to quality expert recommendations. In this sense, organizations have two options: (1) the organization itself builds a quality management system by adhering to the theoretical principles and procedures for introducing TQM, without hiring consultants; (2) the organization uses the services of specialized consultants. Regardless of which option the organization chooses, this model for TQM implementation increases the chances for success but does not guarantee it. Experts' help and support are welcome, in some cases even necessary, but they cannot "lead" the organization and achieve the desired goal alone. They can help in that process, but management and employees have the main role. The members of the organization should gradually develop a quality culture, change the way of thinking, habits, and behavior in order to finally reach the goal - the successful TQM implementation.

Some managers believe that winning prestigious quality awards leads to top quality. Namely, the organization has to build a quality system in order to meet the defined criteria, and winning a prestigious quality award is the best confirmation that the system works. This approach might seem simple and logical at first. However, a deeper analysis

reveals its weaknesses and requires answers to the following questions: Are the defined award criteria applicable in every organization? Are they identical to the criteria required by the market? Can the award create an illusion about the achieved quality level in the organization? In addition, there are more than 120 quality awards in the world, and there are significant differences in criteria. The organization should choose its role model, that is, the award it aims for. In doing so, it must consider whether the defined award criteria are in accordance with the key features of the organizational culture. If they "clash" with the organizational culture, there will be a strong backlash against meeting these criteria. Essentially, TQM implementation should be the main organizational goal. The award is a consequence of that, i.e. a recognition for the achieved quality level.

An organization can abandon any templates and develop its own quality management model. This approach requires that the organization itself designs the quality system, determines the goals, and the way to achieve them. It is the most difficult path, but if the organization overcomes all the obstacles, it will have a very stable, functional, and reliable quality management system.

The success of the quality management system greatly depends on whether it is in alignment with the organizational culture, that is, to which extent it encourages quality culture development (Hilman et al., 2020). It must be emphasized that all employees should actively participate in building a quality system ("We are all in this"). In this way, they will accept certain norms because they jointly defined and adopted them. In that case, they will not perceive changes and new rules as imposed, that is, as a form of coercion. Therefore, there will be no significant resistance to organizational changes, and quality culture development will be promoted. In addition, it is extremely important that all employees receive timely and verified information related to quality system development. When problems are not addressed and "successes" is falsely glorified, an illusion that will not survive contact with reality is created. This is followed by mistrust, disappointment, and giving up on goals. Therefore, communication channels must be open, and communication must be two-way, open, and honest (Jurčević, 2022).

Organizational obstacles to the quality culture development

There are various obstacles to quality culture development in organizations. Each organization is specific, so it is very difficult to list all the obstacles that hinder quality culture development. However, John Kelly (1997) grouped these obstacles into five categories:

- Short-term goals;
- The insecurity felt by employees;
- Inadequate job description;
- Inadequate management;
- Lack of long-term commitment to quality improvement.

In modern conditions, most organizations are almost exclusively focused on short-term goals such as monthly sales results, monthly cost reduction, quarterly financial results, etc. Managers boast about short-term successes to convince owners that the company is successful and, based on that, secure bonuses and new management contracts. Such

short-term goals are not conducive to quality culture development. Namely, improving organizational culture is a slow and long-term process. It implies a vision and strategic decisions aimed at raising the quality level of customer (client) services. Unfortunately, it is often imperative for organizations to quickly return invested capital. There is a lack of patience, and it is impossible to achieve top quality without patience.

Many companies disregard the importance of employees and treat them as an easily replaceable factor in the production or service process. Many employees work harder and more intensively, and even give up certain benefits in order to keep their job at any cost. However, in the long term, this kind of environment creates an atmosphere of insecurity, pronounced stress, anxiety, interpersonal relationships are contaminated with insecurity and fear, which is not a good practice for achieving top quality and business excellence. In such conditions, long-term employees do not reach their full potential, because most of them realize over time that their increased engagement did not reduce the risk of job loss. Besides, more work does not necessarily mean better work. On the contrary, pushing beyond the limits of endurance will, as a rule, have a negative impact on the delivered quality. In addition, employees who are afraid of losing their jobs try to make their commitment visible, that is, show superiors their efforts and contributions. Individuals sometimes overdo it by aggressively self-promoting and imposing themselves on superiors, often to the detriment of other colleagues and teams. These situations can have a negative impact. Value for customers (clients) is not created only when managers are watching, i.e. monitoring their employees and measuring their contributions. Likewise, employees obsessed with the fear of job loss do not share knowledge (because they want to become irreplaceable), which inhibits the spread of knowledge and harms the organization. Finally, it should be emphasized that employees' fear of job loss diminishes their creativity because they are afraid that the possible failure of their new ideas could be the reason for their dismissal. Lack of creativity and initiatives that encourage change will, as a rule, have a negative effect on organizational change and adaptation to internal and external challenges.

Research shows that an inappropriate work design can have very negative consequences on employee engagement, enthusiasm, and satisfaction, and thus indirectly on the work quality (Lukić Nikolić, 2021). Work design includes an explanation of essential job requirements, a description of employee tasks and activities. From a psychological point of view, well-thought-out work includes interesting work tasks, a wide degree of autonomy and a significant degree of interaction with other employees, defined responsibilities, a reasonable workload, and tolerable emotional pressures (Faeq et al., 2022). In such conditions, work-related stress is relatively low and employees are more satisfied because they can express their creative potential and clearly recognize the purpose and benefit of their work (Mali et al., 2022). However, in many companies, there is a completely different atmosphere. Certain jobs are defined narrowly, as a series of repetitive and boring work duties in order to increase efficiency. In such conditions, it is very difficult to improve quality. Faced with poor results, many managers confuse cause and consequence. Instead of "fixing" work design, they try to "fix" employees by organizing additional training, insisting that they improve their skills, and even threatening to reduce their salary if they do not improve their results. In such a situation, technology and organization, not psychology, take precedence when defining jobs. This is characteristic of bureaucratic organizational cultures with a pronounced hierarchy

that is prone to conformity, tradition, stability, and predictability. In these types of organizational cultures, inadequate work design is deeply rooted and constantly renewed, as each generation of managers unconsciously imitates these models. To avoid a vicious cycle of this bad practice, well-designed work should start from the top. Managers who see the value of well-designed work are likely to create it for others. It should also be emphasized that in some cases, employees achieve results below expectations because the working conditions are bad, that is, because of the poor workplace design.

The impact of bad management on the organizational culture and the achieved quality in the organization should not be additionally explained. It is obvious that the most responsible managers in the company have a key role in affirming the quality culture. In this sense, a simple rule can be formulated: bad management - bad quality. Of course, the reverse is also true. Leaders who are ready to support quality culture development by personal example and show their commitment to superior quality in practice will build an organization that delivers high-quality service consistently.

Many organizations have started to implement TQM in their business or adapt their quality management system to ISO 9001 standards with great enthusiasm. These efforts have often been accompanied by too high expectations. For example, some companies thought that TQM would solve all their business problems quickly and easily. They were disappointed when they did not achieve the desired short-term results, which led to project termination. Consistency and continuity are necessary for the success of the quality improvement process, and more tangible results are achieved in the long term. Organizations that are not ready to make a long-term commitment to quality improvement cannot expect the benefits of quality culture and TQM (Coelho et al., 2022).

Methodology and Research Questions

The aim of the research is to examine whether the organizational culture of the company Šinvoz, Zrenjanin has elements of TQM. The key research questions (RQ) used in the paper are:

RQ 1: To what extent, according to managers, has an organizational culture that supports quality management been developed?

RQ 2: To what extent, from a managerial perspective, has an organizational culture that encourages employees to improve and nurture high quality been developed?

The research was conducted in the company Šinvoz, Zrenjanin, which was founded in 1887 and privatized in 2003. The main activity of the company is the overhaul of railway vehicles and components, as well as the maintenance, repair, and modernization of railway vehicles. The company's managers participated in the research. The research was conducted at the end of 2022 using a specially designed printed questionnaire.

The questionnaire consisted of two groups of questions. In the first part, the questionnaire contained three profile questions. Based on them, it is possible to determine the basic characteristics of the respondents - gender, age, and managerial level. The second group of questions consisted of statements in the form of a five-point Likert scale. Answers showed the level of agreement with the statements (1 - I completely disagree, 5 - I completely agree). The first group of statements related to the quality system and its implementation in the values and goals of the company. The second group of statements

referred to employees and their attitude towards quality and included working conditions, motivation, degree of autonomy, and interpersonal relations.

Twenty-one managers of the company Šinvoz, Zrenjanin participated in the research. Basic data about the sample are presented in Table 1.

Table 1: Basic information about managers that participated in the research

Answers	Number	%
Gender		
Male	15	71.43
Female	6	28.57
Age of respondents		
Less than 30	6	28.57
Between 30 and 50	9	42.86
More than 50	6	28.57
Managerial level		
Operational	6	28.57
Middle	10	47.62
Top	5	23.81

Source: The authors' research

The sample is dominated by men (71%), while women make up 29% of the participants. The age structure shows that the largest number of managers, 48%, are aged 30 to 50, while 29% are managers under 30 and over 50. This age structure of the managers that participated in the research shows that there is a balance between youth and experience in the company Šinvoz. This is significant because young managers (up to 30 years of age) bring new ideas, knowledge, enthusiasm, energy, and inclination to new technologies. Managers who belong to the middle age category (from age 30 to 50) are in the best managerial years because they have both energy and experience. Older managers (over 50) are also valuable to the company because they have gained wisdom and maturity during their long careers, which can be especially important in times of crisis. Most respondents included in the research belong to the middle management level (48%). This managerial level (middle management) has a very important role to connect strategic and operational functions in the company. In addition, 6 operational managers (28%) and 5 top managers (24%) participated in this research. This structure of respondents indicates that all managerial structures are represented among the surveyed managers. This is important because different views and opinions are gained. The most responsible management perceives quality "from a greater distance" than middle and operational management levels. They use a different "diopter" that allows them to see the bigger picture, but with less detail. On the other hand, middle and especially operational managers look at quality narrowly but in more detail.

Research results and Discussion

Table 2 shows the managers' answers to the statements regarding quality and its implementation in organizational culture and organizational behavior. The results are segmented into three groups: agree, neutral attitude, and disagree.

Table 2: Answers from managers regarding the quality orientation of the company

	Statements	Answers	N	%	M
1	The company management is committed to the improvement of quality and shows how much it cares about the successful functioning of the quality system by personal example.	Disagree	2	9.52	3.86
		Neutral attitude	6	28.57	
		Agree	13	61.91	
2	Quality is one of the company's key values.	Disagree	1	4.76	4.19
		Neutral attitude	2	9.52	
		Agree	18	85.71	
3	The company understands and respects customer demands.	Disagree	1	4.76	4.00
		Neutral attitude	7	33.33	
		Agree	9	61.91	
4	The company has reliable business partners and builds long-term cooperation with them in order to raise the overall quality.	Disagree	2	9.52	3.62
		Neutral attitude	7	33.33	
		Agree	12	57.14	
5	The company has a reliable quality control system and undertakes corrective actions to improve quality as soon as there are deviations from the set norms and goals.	Disagree	5	23.81	3.38
		Neutral attitude	3	14.29	
		Agree	13	61.90	

N – Number of respondents, % - Percentage of respondents, M – arithmetic mean
Source: the authors' research

The first statement required that managers evaluate their commitment to quality improvement, that is, their role in quality culture development. The results showed that the majority of managers believe that the management is committed to improving quality and shows how much they care about the successful functioning of the quality system by personal example. Only two managers disagree with this statement. There is also a certain number of managers, 28.57%, who remained neutral. The mean score of all responses to this statement is 3.86, which is a fairly high degree of agreement with the statement.

The second statement related to the company value system: "Quality is one of the company's key values." The managers that participated in this research largely agreed with this statement, which is understandable considering that management has officially put quality as the most important core value. As many as 85.71% of managers agree with this statement, while only 4.76% of managers disagree. There is also a certain number of managers who remained neutral (9.52%). The mean score of all responses to this statement is 4.19. Based on these results, it can be concluded that managers in the company believe that quality is deeply

rooted as a core value in the company's organizational culture. In other words, according to managers, the quality culture is at a high level according to this criterion.

The degree of agreement with the statement "The company understands and respects customer demands" was intended to reveal managers' attitudes toward the company's customer focus. Focusing on customer requirements is a very important principle of total quality management and a prerequisite for the quality culture development in the company. According to the majority of managers, the company Šinvoz is highly focused on understanding and fulfilling customer requirements. The largest number of managers, 61.91%, agree that the company understands and respects customer demands. Only one manager disagrees with the statement, while one-third of managers remained neutral. The mean score of all responses to this statement is 4.00. These results show that managers believe that this important feature of the quality culture is present in the company.

The largest number of managers (57.14%) believe that the company has reliable business partners and builds long-term cooperation with them in order to raise the overall quality. A small number of managers, 9.52%, do not agree with the above statement, while one-third of managers remained neutral. The mean score of all responses to this statement is 3.62.

The results showed that the majority of managers, 61.90%, agree with the statement that the company has a reliable quality control system and undertakes corrective actions as soon as there are deviations from the set norms. There are 23.81% of managers who disagree with the statement, as well as 14.29% of managers who have adopted a neutral position. The mean score of all responses to this statement is 3.38. This shows that according to the surveyed managers, the quality control system in the company is not fully developed and there remains room for further development and better implementation.

The functioning of any organization is largely determined by employee behavior (Lukić Nikolić, 2021). Therefore, in order to determine to which extent an organizational culture supports and nurtures quality culture, managers were asked whether they agree with the statements regarding employees. The obtained results are presented in Table 3. The results are segmented into three groups: agree, neutral attitude, and disagree.

Table 3: Answers from managers regarding employees

	Statements	Answers	N	%	M
1	Interpersonal relations in the company are harmonious.	Disagree	1	4.76	3.71
		Neutral attitude	6	28.57	
		Agree	14	66.67	
2	Employees have adequate working conditions.	Disagree	6	28.57	3.00
		Neutral attitude	9	42.86	
		Agree	6	28.57	
3	Employees have sufficient authority and autonomy to make decisions at their workplace.	Disagree	2	9.52	3.57
		Neutral attitude	9	42.86	
		Agree	10	47.62	
4	Employees are sufficiently motivated to achieve top quality.	Disagree	5	23.81	3.05
		Neutral attitude	7	33.33	
		Agree	9	42.86	

N – Number of respondents, % - Percentage of respondents, M – arithmetic mean
Source: the authors' research

The results show that 66.67% of managers believe that interpersonal relations in the company are harmonious. Only one manager believes that interpersonal relations are not harmonious, while 28.57% of them remained neutral. The mean score of all responses to this statement is 3.71. Pleasant and positive interpersonal relationships are important for the quality development in an organization (Markos & Sridevi, 2010). According to the interviewed managers in the company Šinvoz, this condition is fulfilled to a great extent.

The next statement "Employees have adequate working conditions" caused divided reactions from respondents. 28.57% of managers agree with this statement and 28.57% of them disagree with the statement, while the largest number of managers, 42.86%, remained neutral. The mean score of all responses to this statement is 3.00. This indicates that the working conditions are average, which is not a good basis for achieving top quality. If employees do not have the appropriate equipment and tools for work, it is not realistic to expect them to achieve a high level of quality.

The largest number of managers, 47.62%, believe that employees have enough authority and autonomy to make decisions at their workplace. A small number of managers, only 9.52%, do not agree with the statement, while as many as 42.86% of managers remained neutral. However, it is necessary to be careful when interpreting these responses. It is true that a significant number of managers agreed with the statement. But, a large number of managers had a reserved attitude toward this statement. That is why the mean score for this statement is not high and amounts to 3.57. This shows that there is no consensus among managers on this issue. A total of 42.86% of managers strongly agree with the statement that employees are sufficiently motivated to achieve top quality, while 23.81% disagree. One-third of managers remained neutral. The mean score of all responses to this statement is 3.05. It is obvious that the surveyed managers are aware that employee motivation is not at a high level.

Discussion on the degree of quality culture development in the company Šinvoz, Zrenjanin

The quality management system was implemented in the company with the aim of achieving benefits such as increasing income, reducing costs, higher level of customer satisfaction, gaining competitive advantages, improving organizational image, etc. If these goals are achieved, it can be concluded that the quality management system is effective and has justified expectations. However, if the goals set for the quality management system are only partially achieved or are not achieved, then disappointment occurs and enthusiasm for quality improvement in the company decreases.

Managers were asked to what extent the company has significant and visible benefits from the quality management system. The results showed that almost 30% of the surveyed managers believed that the company had great benefits from the quality management system. However, over 40% of managers admitted that they expected more. Latent dissatisfaction with the functioning of the quality management system and the achieved results "simmers" among these managers. The cause of this dissatisfaction can be: (1) unrealistically high expectations from the quality system and excessive optimism when setting goals; (2) incomplete or inadequate quality system implementation; (3) poor quality

system management. In addition, it should be pointed out that about 14% of the respondents stated that they "do not know" whether the company has significant and visible benefits from the quality management system. These honest answers show that the company does not have an effective system of reporting on the achieved results or that such information is not distributed in the right way. Finally, a smaller part of the surveyed managers is extremely disappointed with the functioning of the quality management system and believes that the benefits are barely visible (about 5%) or that there are no benefits at all (about 9%).

As part of the questionnaire, the surveyed managers had the opportunity to evaluate the level of the company's customer (client) service quality. Less than 5% of the surveyed managers believe that the company Šinvoz delivers the highest level of quality (world-class). However, almost half of them (about 48%) rated the quality level as "very high". A third of respondents think that the quality level is "average", and about 14% think that it is "low". None of the surveyed managers circled the answer "very low-quality level". The mean score of the level of the company's service quality was 3.43. This score indicates that Šinvoz still has a lot of room for quality improvement.

At the end of the questionnaire, the managers were given the opportunity to evaluate the best and the weakest segment in the quality management system at Šinvoz. They were offered nine answers: (1) Leadership; (2) Customer focus; (3) Continuous improvements; (4) Employee participation; (5) Process approach; (6) Systemic approach; (7) Fact-Based Decision Making; (8) Establishing and developing relationships with stakeholders; (9) Quality measurement system. Based on the respondents' opinions, the system approach was rated as the best segment (about 19%). The segments "Organization's ability to establish and develop relationships with stakeholders" and "Quality measurement system" also received high marks. However, the weakest "link" in the quality system is the lack of leadership (about 24%), as well as insufficient employee participation (about 19%).

Table 4 shows the overall picture of the quality culture development in the company Šinvoz, according to the results shown in Tables 2 and 3.

Table 4: Summary of quality culture development level

Statements	M	Quality culture development level		
		Low level (≤ 3.00)	Average level (3.01 – 3.50)	High level (>3.50)
The company management is committed to the improvement of quality and shows how much it cares about the successful functioning of the quality system by personal example.	3.86			
Quality is one of the company's key values.	4.19			
The company understands and respects customer demands.	4.00			
The company has reliable business partners and builds long-term cooperation with them in order to raise the overall quality.	3.62			

Statement	Score			
The company has a reliable quality control system and undertakes corrective actions to improve quality as soon as there are deviations from the set norms and goals.	3.38		▓	
Interpersonal relations in the company are harmonious.	3.71			▓
Employees have adequate working conditions.	3.00	▓		
Employees have sufficient authority and autonomy to make decisions at their workplace.	3.57			▓
Employees are sufficiently motivated to achieve top quality.	3.05		▓	

Source: the authors' research

The lowest mean score of 3.00 refers to the statement that employees are provided with adequate working conditions. The statement that the employees are sufficiently motivated to achieve top quality is rated rather low (3.04). The highest mean score (4.19) refers to the statement that quality is one of the company's key values. The statement that the company understands and respects customers is also rated highly, as the mean score for this statement is 4.00.

The mean score of all managers' ratings was calculated based on a total of 10 questions. Six mean scores are higher than 3.50, which indicates a high level of quality culture development. Only two mean scores are in the range of 3.01 to 3.50 (the average level of quality culture development, which are marked with yellow boxes in Table 4). Only one mean score is "red" and signals a low level of quality culture development (although this grade is very close to the threshold value). If all the answers, that is, the views of the surveyed managers, were expressed with one mean score, that score would be 3.60. This leads to the conclusion that the majority of surveyed managers generally believe that the level of quality culture development is quite high.

Conclusion

In the digital age, it is essential for organizations to maintain a high level of quality. Clients are becoming more demanding and better informed, which imposes the need for excellent organizational quality. One of the significant factors affecting quality is organizational culture. As a set of behaviors, norms, values, and attitudes of employees in an organization, organizational culture greatly influences the way quality is perceived, built, improved, nurtured, and maintained. In order to build and maintain a high level of organizational quality, it is necessary to change and adapt the organizational culture and employee behavior.

In this paper, research was conducted with the aim to analyze how managers perceive and evaluate the level of quality culture development. The research was carried out in the company Šinvoz, Zrenjanin, whose main activity is the overhaul of railway vehicles and components, as well as the maintenance, repair and modernization of railway vehicles. The results showed that managers believe the quality culture is

rather unevenly developed in the organization. According to certain criteria, managers believe that the quality culture is at a high level. However, there are also segments of a quality culture that are not sufficiently developed. Namely, the managers believe that a major change in the organizational culture towards a culture of quality and a change in organizational behavior, i.e. the behaviour of employees who represent a significant link in the development of all business processes and activities, is necessary. Managers believe that there is plenty of room for improving working conditions, encouraging employee motivation, empowering employees, and encouraging employee autonomy in work. The obtained results imply that there is significant room for improving the quality culture and the entire TQM system in this company through organizational culture change.

The conducted research has certain limitations arising from the size and structure of the sample. Namely, the research included only one company and its management, which is why the obtained results cannot be generalized, especially considering the company's specific activity. Also, the research was conducted using closed-ended questions to which respondents answered, without detailed discussion and explanation. Due to the mentioned limitations, recommendations for future research on this topic would be to include a larger number of respondents and a larger number of organizations. It is recommendable to complement the data collection techniques with interviews during which more precise and complete information would be obtained. In addition to the above, future research on this topic could analyze the implications of the fifth industrial revolution, robotics, artificial intelligence on the manufacturing process automation, and the general quality level.

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