QUALITY CULTURE: A BEHAVIORAL INSPIRED WAY OF QUALITY IN SLOVAK SMALL AND MEDIUM ENTERPRISES*

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Abstract. Corporate quality culture is perceived as a set of shared opinions, attitudes, ideas, interests and expectations in both the formal and informal relationships in quality management. An employee profile within the quality culture comprises three basic components: cognitive, affective and behavioral. The paper analyses the individual components of the employee profile within the Slovak small and medium enterprises and their impact on building a quality culture. The representativeness of the sample, based on the selected criteria (enterprise size and gender of respondents), was confirmed by Chi-square test. The research results were processed by the statistical programme IBM SPSS 19, using the methods of testing statistical hypotheses (Binomial test, Chi-square, Friedman, Wilcoxon, and Spearman tests), as well as the methods of descriptive statistics and data visualization. The paper's main contribution is the analysis of individual components of the employee profile and finding out their impact on building and maintaining a quality culture in the enterprise. The research results showed a strong dependence between the individual components of the employee profile.

Keywords: quality culture; employee profile; behavior; SMEs; quality management.


JEL Classifications: D83, D91, M14

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1. Introduction

Achieving excellence leads to a corporate quality culture (Srinivasan & Kurey, 2014). Implementing a quality culture is a suitable alternative to normative approaches to quality management. It prioritizes fundamental changes, leaves room for creativity, and offers space to create new ways of achieving process quality (Loke et al. 2012). The concept of quality culture is very attractive to many entrepreneurs because it gives a human form to the ideas of employees associated with concepts such as control, assurance, and processes. Quality is usually associated with several values and may be understood as a subculture of the proper corporate culture. There is no generally accepted definition of a corporate quality culture. Brennan and Shah (2000) emphasize three dimensions generally agreed upon among scientists: "Culture includes values, attitudes and behaviors." Since attitudes and behaviors are based on values (Sundrum, 2004), it is essential to see quality values as a basis of quality culture.

Investigating the behavior of employees in the field of quality is important. A better understanding of employees' thinking and decision-making is essential because employees often make decisions inconsistent with a norm or an agreed rule. The analysis of the individual components of employee profile among Slovak small and medium enterprises (SMEs) enabled authors to pursue the main objective, defined as determining the level of quality culture and proposing simple recommendations for SMEs in Slovakia concerning implementing quality culture using the three main components of the employee profile.

2. Theoretical background

In the changing global scenario, making an enterprise more economically vibrant through quality assurance is a resilient concept and approach as the enterprise is emerging as an avenue for improvement, innovation and employment generation. Quality, the degree of excellence or superiority, is a combination of attributes, properties or characteristics that give each commodity value in terms of its intended use. That can be obtained by introducing a quality management culture within all the actors in the production and marketing or value chain (Hitka et al., 2022). One of the most critical priorities of the SMEs shall be to support the innovation processes through modern technologies, knowledge and information transfer to the owners, managers and employees (Svagzdiene et al., 2020). Therefore, a well-trained, flexible young workforce is necessary (Kapsdorferová et al., 2020).

Quality culture is an image of the employee approach to quality in the enterprise, expressed by the vision of quality, quality values and permanent support of continuous quality improvement by the corporate management (Wu, 2014; Harvet & Stensaker, 2008). A quality culture expresses what quality means for an enterprise, how quality goals are defined, how everyone in the enterprise participates in their fulfilment, how the group and individual performance is measured, and how those who have contributed to achieving quality goals are rewarded (Araújo et al., 2019). Corporate quality culture should be understood as a system of shared opinions, attitudes, ideas, interests and expectations in both the formal and informal relationships in the field of quality. Quality culture accompanies and influences human activity from the concept (stimulus) through the decision-making process, the implementation of decisions to learning from the impacts of implemented decisions and the subsequent (direct/indirect, conscious/unconscious) formation of a quality culture (Cronemyr et al., 2017).

Introducing a quality culture in the enterprise requires a gradual change in human thinking and behavior. Employees have to want, know and be able to. It is crucial to support people for changes or to force them to want to. Everyone can be involved in quality, but changing people's attitudes requires strong personalities. It is necessary to give people strong and lasting support and motivation from the management of the enterprise (Krot & Lewicka, 2020; Straková et al. 2021; Šimberová et al. 2021). Introducing a quality culture into the enterprise brings new habits, beliefs and feelings of employees (Mendez, 2018). This 3-dimensional learning process (performance, emotions and habits) creates talented and satisfied employees.
Mendez (2018) lists three fundamental pillars of quality culture. The first pillar is a personal focus on quality, by which people improve themselves, the effort to create helpful habits in life, learn, teach people in our surroundings, the ability to turn information into knowledge in specific actions, proactivity, the ability to plan and manage activities over time, skills to maintain balance in life and thus achieve high individual performance. The second pillar is to build trust and mutual cooperation. Trust and open communication are the basis for quickly identifying real problems and their causes and for improvement (Wu, 2014). Immediate reactions and effective transfer of critical information within the group define the nature of the content of the second pillar. The third pillar presents solutions to problems across the enterprise, thus, a higher degree of teamwork. According to Mendez (2018), habits leading to quality can be characterized by three parts. The first is the trigger or so-called stimulus that has an activating meaning. The stimulus can be information, skill, or knowledge. The next part is the routine, automatic action. It is a behavioral aspect. And the last part is the reward, a kind of joy.

A strong correlation can arise between achieving quality in the enterprise and employee behavior; therefore, improving quality becomes an important factor in creating a corporate quality culture. Based on the research analysis of various authors (Pan et al., 2019; Avey et al., 2018; Mendez, 2018; Benčíková et al., 2019), three essential components of employee profiles have been defined within the framework of quality culture. The cognitive component refers to the employee's knowledge about his work in relation to quality in the enterprise, the affective component expresses the employee's relationship to himself and his self-esteem, and the behavioral component states the tendency to behave in a manner relevant to knowledge and self-evaluation: "I know, I have a feeling about it, I tried". The interplay of all three components leads the enterprise to a quality culture (Baird et al., 2011).

The cognitive component is focused on what the employee can do, knows, is aware of and how he can handle this knowledge and information. Cognitive functions include, for example, memory, speech, speed of thinking, aptitude to understand information, ability to assess and solve problems, planning, organizing, and self-control (Bandura, 2001). Cognitive reactions of employees concern their ways of disseminating information (Srinivasan & Kurey, 2014). The employee must know the corporate values, which are part of the documentation system of the enterprise.

The affective component represents employees' attitudes and feelings towards colleagues or a situation. It focuses on what the employee is willing to accept and tolerate, what he desires, is interested in, likes, prefers, etc. (Cristofaro, 2020). When this component is developed, the employee is satisfied with his work and is willing to take responsibility.

Behavioral component presents a tendency to act in the way the attitudes direct us (Park et al., 2014). The behavioral component builds on the employee's knowledge and self-evaluation, including self-presentation and self-monitoring. The essential element that affects the behavioral component is the overall personal belief in one's ability to deal with difficulties and challenges in the workplace. Behavioral reactions of employees relate to a mental desire to perform activities (behavioral intentions) and obvious and directly observable actions (actual behavior) (Srinivasan & Kurey, 2014). These are specific ways of solving problems, taking responsibility, and sharing best practices with colleagues. The behavioral component of the employee profile includes habit, routine, and automatic activity.

In connection with the profile of a quality employee, it is necessary to develop all its components, such as education and quality culture, interpersonal relationships, ability to cooperate, perception of social environmental factors, attitudes, ability to adapt, work performance, behavior, etc. Meaningful creation and use of human potential are prerequisites for building and developing a robust corporate quality culture (Vargas-Hernández et al.,
2017). The fact that quality is supported in the enterprise is visible in the behavior and activities of employees, which is a manifestation of the quality culture.

3. Material and methods

The research was conducted in 2022. The study aimed to determine the level of three components of the employee profile in quality management and the relationship between them. The survey was executed by the interrogative method as a questionnaire. The identification consisted of questions about enterprises and their employees who participated in the survey. The size of the enterprise was based on the number of employees (micro-enterprise 1-9 employees, small enterprise 10-49 employees, medium enterprise 50-249 employees), the gender of respondents, how long they worked in the enterprise and their job position (owner, strategic manager, tactical manager, operational manager, administrative employee, and production employee). The technical part consisted of 36 statements describing individual components of the employee profile in the Slovak SMEs in quality management and building of quality culture (12 statements for each component). The statements were not arranged by components. The wording of the statements is shown in Tab. 4, 5 and 6. The respondents expressed the degree of their agreement with the statements using the Likert scale and had a choice: 1 - I can't express myself, 2 - strongly disagree, 3 - disagree, 4 - agree and 5 - strongly agree. Methods of testing statistical hypotheses (Chi-square, Friedman test, Wilcoxon test, correlation analysis), methods of descriptive statistics and data visualization (average, frequency tables) were used to evaluate the research results.

Based on theoretical background and empirical studies devoted to the researched issue (Benčíková et al., 2019; Araújo et al., 2019; Avey, 2018; Cristofaro, 2020; Cronemyr et al., 2017; Kotter & Cohen, 2002; Mendez, 2018; Pan et al., 2019; Srinivasan & Kurey, 2014), the following hypotheses were formulated:

H1: the development of the cognitive and affective components influences the development of the behavioral component of the employee profile in the area of quality culture.

H2: the strongest component of the profile of Slovak employees in quality culture is the cognitive component.

H3: the weakest component of the profile of Slovak employees in the area of quality culture is the behavioral component.

We tested the sample's representativeness, according to the selected characteristics - gender and size of the enterprise, by the Chi-square test. The Chi-square test statistics is defined by the sum of the amplified differences between the observed (O) and expected (E) frequencies, divided by the expected frequencies (E). (Kaščáková & Nedelová, 2010):

\[ \chi^2 = \sum_{i=1}^{N} \frac{(O_i - E_i)^2}{E_i} \]  

Pearson's Chi-square goodness of fit test is based on a frequency table and tests the statistical hypothesis that the frequencies in the individual categories are equal to the expected (theoretical) frequencies (Kaščáková & Nedelová, 2010).

The statistical program SPSS version 25 was used to evaluate the survey. A significance level of 0.10 was used to test the hypotheses. Hypothesis H1 was verified by the test of the significance of the Pearson correlation coefficient. Friedman test and Wilcoxon test were used to test hypotheses H2 and H3.

4. Results and discussion

326 respondents participated in the research examining the components of the employee profile in quality management and building quality culture in Slovak SMEs. Three components of the employee profile (cognitive,
affective and behavioral) in the area of quality culture were the objects of the research. The SMEs employees in Slovakia were the subjects. 179 men and 147 women were included in the study. Most respondents (38%) are business owners; 34% work in administration, 17% in production, 8% as strategic managers and 3% as tactical managers. The employees working in the enterprise for more than 1 and less than 5 years (39%) represented the majority of our sample and were followed by those who have worked in the enterprise for more than 10 years (29%), more than 5 and less than 10 years (18%), and less than 1 year (14%). The research sample consisted of 5% of employees from medium enterprises, 10% from small enterprises and 85% from micro-enterprises.

The representativeness of the sample, according to selected characteristics - the size of the enterprise (which is determined by the number of employees) and the gender of the respondents, was tested by the Chi-square test at the significance level of 0.1. In both cases, the representativeness was confirmed (p-value_{size of enterprise} = 0.789, p-value_{gender} = 0.968).

The test of the significance of the Pearson's correlation coefficient was used in the research to determine the dependence between the individual components of the profile of SME employees in Slovakia in the area of building quality culture. The statements in the individual components of the employee profile were aggregated using the mean values. A strong direct linear correlation was found between the degree the SME employees agreed with statements related to the affective (A) and behavioral (B) components (r_{AB} = 0.744) in the field of quality culture. If the employee's attitude towards quality is positive (meaning that he wants), it will positively affect the quality of his work because he tends to adapt to quality standards. If an employee sees that others act following quality standards, it also motivates his positive attitude towards quality. This means that when an employee becomes aware of his values and attitudes (which should align with the corporate values), he takes responsibility in practice, solves problems and shares practices with colleagues. Research conducted in companies in eight countries (Wu & Zhang, 2010) has also confirmed that a quality culture becomes more acceptable when integrated into employee value systems. Employees discover quality problems and solve them innovatively.

Similarly, for the affective (A) and cognitive (K) components, there is a solid direct linear correlation between the degree of agreement of SME employees (r_{AK} = 0.853). This means that if the level of one of the compared components of the employee profile in the area of quality culture increases, the other component will also increase. The research results confirmed that by educating employees about quality, the enterprise can achieve a higher interest in quality and positively change their attitudes towards quality. At the same time, if employees have a positive attitude towards quality, their interest in education in this area also grows. Wu (2014) also claims that the corporate values and choice of the appropriate strategy for their dissemination among employees influence the employee attitudes towards quality, impacting the implementation of quality culture.

There was also a strong direct linear correlation between the degree of employee agreement (r_{BK} = 0.762) between the statements in the area of quality management concerning the behavioral (B) and cognitive (K) components. If an employee is substantially informed about quality management in the enterprise and can work with this knowledge, he can apply it in practice for the benefit of the enterprise. If employees improve the quality of the enterprise with their ideas, this leads to learning and awareness of the benefits of implementing quality management with other employees. Similar results were obtained in the exploratory research by Loke et al. (2012), who conducted research in Malaysian manufacturing plants. They argue that effective analysis of information and choosing the right strategy for its dissemination among employees impacts their creative problem-solving and decision-making.

At the same time, we found out that the affective (A) and cognitive (K) components strongly influence the behavioral (B) component (r_{BA,K} = 0.786). This means that the development of the affective and cognitive components of the employee profile strongly influences the development of his behavioral component. Based on these findings, hypothesis H_1 is valid. The results of the research indicate that if the enterprise takes the right steps...
in informing and educating employees in the field of quality, motivates them to be open to stakeholders' requirements and willing to improve processes, the enterprise will achieve favorable change in employee behavior towards quality and thus ensure the creation of quality culture. Also, according to Wu (2014), the knowledge and strategies that employees use, their attitudes, emotions, motivation and desire impact the quality of their performance in the area of quality. Implementing a quality culture is systemic work. If something from the chain fails, building a quality culture will cause a problem. Similarly, if we focus on developing only one component, it can cause failure in the adoption of a quality culture.

Based on evaluating the level of responses to statements in each of the three components of the employee profile (Tab. 1), it can be stated that the cognitive component is the strongest, followed by the affective and the behavioral component. This means that employees have enough knowledge and information about quality management in the enterprise, motivation, and will, and their attitudes in this area are weaker. Their work in connection with quality management is the weakest. Based on the results, the work of employees, i.e., how quality is manifested in their behavior, proved to be quite insufficient. Wu and Zhang (2010) achieved similar results in their exploratory research conducted in companies in eight countries (Austria, Finland, Germany, Italy, Japan, Korea, Sweden and the USA).

<table>
<thead>
<tr>
<th>Component</th>
<th>Mean</th>
<th>Frequency</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean cognitive component</td>
<td>4.22</td>
<td>326</td>
<td>0.40294</td>
</tr>
<tr>
<td>Mean affective component</td>
<td>3.99</td>
<td>326</td>
<td>0.43315</td>
</tr>
<tr>
<td>Mean behavioral component</td>
<td>3.88</td>
<td>326</td>
<td>0.41726</td>
</tr>
</tbody>
</table>

The Friedman and Wilcoxon test also confirmed this order of importance of individual components. Using the Friedman test, it was confirmed that the employees did not express the same degree of agreement with the statements in the individual components of the profile (p-value = 0.0). Using the Wilcoxon signed-rank test, it was concluded that there was a statistically significant difference (p-value = 0.0) when the degree of agreement with the statements related to cognitive and affective components were compared. The highest degree of agreement was expressed by employees of SMEs in Slovakia with the statements concerning the cognitive component of the profile (mean affective - mean cognitive = 6.491, p-value = 0.00 and mean behavioral – mean affective, Z = -2.740, p-value = 0.007). Z value is based on positive ranks. Based on these findings, we can confirm the validity of hypothesis H2 and hypothesis H3.

In each component of the employee profile, the answers to 12 statements from the area of quality management in the enterprise were evaluated. Friedman test in all three components of the employee profile confirmed that the statements are not equally important for respondents concerning their degree of agreement (p-value in all three components was 0.000). By application of the Wilcoxon signed-rank test (Tab. 2, 3, 4), the order of statements was determined, and how they are not equally significant. The statements focused on the cognitive component and examined whether the employees of SMEs in Slovakia know and have information about quality management in the enterprise.

The highest agreement of employees was assigned to the statement that they know what they are responsible for in the enterprise (Tab. 2). Employees also agree with the statements that they know the customers and are aware of their contribution to meeting customer needs. They agree the least with the statement that they have enough information regarding quality improvement in the enterprise. It was interesting to find out that, on the one hand, employees claim to know their responsibilities, but on the other, they are not aware of their roles and competencies regarding quality culture. Employees expressed an equally low agreement with the statement that the enterprise has established ethical principles and values that employees must know. Employees shall be educated and informed to incorporate quality improvement into their daily work (Zelnik et al., 2012). There shall
be open communication at all levels (Paipa-Galeano, 2020). At the same time, it was concluded that SMEs in Slovakia either have not established their ethical values and standards sufficiently or, even if they have them, they do not make employees aware of them. When implementing a quality culture, it is essential to have basic ethical principles and values related to quality so that employees know how to behave in certain situations (Snyder, Ingelsson, Backstorm, 2018). It is about establishing a convincing common vision of the required behavior, promoting employee involvement and consolidation, conducting training to maintain open and honest communication, supporting a confident climate, and incorporating ethics into the working environment (Bandura, 2001; Bartol & Srivastava, 2002).

### Table 2. Wilcoxon signed rank test – Cognitive component of employee profile

<table>
<thead>
<tr>
<th></th>
<th>C7–C6</th>
<th>C11–C7</th>
<th>C8–C11</th>
<th>C12–C8</th>
<th>C1–C12</th>
<th>C9–C1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testing statistics</td>
<td>-4.205b</td>
<td>-0.521b</td>
<td>0.000c</td>
<td>-2.787b</td>
<td>-0.570d</td>
<td>-1.808b</td>
</tr>
<tr>
<td>p-value</td>
<td>0.004</td>
<td>0.607</td>
<td>1.000</td>
<td>0.004</td>
<td>0.571</td>
<td>0.071</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>C3–C9</th>
<th>C2–C3</th>
<th>C5–C2</th>
<th>C10–C5</th>
<th>C4–C10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testing statistics</td>
<td>-0.835b</td>
<td>-1.716b</td>
<td>-1.892b</td>
<td>-0.049d</td>
<td>-4.733b</td>
</tr>
<tr>
<td>p-value</td>
<td>0.404</td>
<td>0.087</td>
<td>0.070</td>
<td>0.962</td>
<td>0.000</td>
</tr>
</tbody>
</table>

**Statements:**
- C1 - Employees know the corporate goals set for continuous improvement.
- C2 - Employees know that part of evaluating the fulfillment of the set goals is the evaluation of quality.
- C3 - Employees are regularly informed about new information concerning their work.
- C4 - Employees are sufficiently informed about the quality improvements in the company.
- C5 - Employees know their roles, competencies and responsibilities regarding quality management.
- C6 - Employees know their responsibilities.
- C7 - Employees know well who are the customers of the company.
- C8 - Employees know their contribution to satisfy the needs of the company's customers.
- C9 - Employees understand the connection between their work and the fulfillment of quality goals.
- C10 - The company has clearly defined ethical principles and values that employees must know.
- C11 - Employees know documents related to the performance of their work.
- C12 - The employee has information about customers' opinions regarding the quality of the process for which he is responsible.

**Legend:**
- a. Wilcoxon Signed Rank Test
- b. Based on positive ranks.
- c. The sum of negative ranks equals the sum of positive ranks.
- d. Based on negative ranks.

**Source:** own processing

Regarding the statements related to the affective component, we examined what the employees are willing, want, accept, and tolerate in quality management.

The analysis of the statements concerning the affective area (Tab. 3) showed that employees most agree that the enterprise supports them in expressing their opinion about the quality of the products and processes. They also strongly agree that the enterprise considers customer requirements when setting quality goals, and employees want to know how they help with their work to achieve quality goals in the enterprise.

The lowest degree of agreement was noted with the statement that they participate in making their development plan. It is essential to have the know-how to set up a development plan for the employees, from which it is possible not only to plan appropriate education and training but also the job classification and, thus, the responsibilities and competencies of the employee (Srinivasan and Kurey, 2014). SMEs in Slovakia must support the affective component of the employee profile, which will lead to more efficient communication between employees and affect their performance (Cristofaro, 2020; Avey et al., 2018).
Table 3. Wilcoxon signed rank test – Affective component of employee profile

<table>
<thead>
<tr>
<th></th>
<th>A6–A9</th>
<th>A5–A6</th>
<th>A8–A5</th>
<th>A12–A8</th>
<th>A4–A12</th>
<th>A11–A4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testing statistics</td>
<td>-2.403b</td>
<td>-0.810c</td>
<td>-3.466c</td>
<td>-1.612c</td>
<td>-0.583c</td>
<td>-0.425b</td>
</tr>
<tr>
<td>p-value</td>
<td>0.017</td>
<td>0.417</td>
<td>0.001</td>
<td>0.109</td>
<td>0.561</td>
<td>0.680</td>
</tr>
<tr>
<td></td>
<td>A3–A11</td>
<td>A10–A3</td>
<td>A2–A10</td>
<td>A1–A2</td>
<td>A7–A1</td>
<td></td>
</tr>
<tr>
<td>Testing statistics</td>
<td>-3.047c</td>
<td>-0.345c</td>
<td>-2.873b</td>
<td>-2.162c</td>
<td>-3.301c</td>
<td></td>
</tr>
<tr>
<td>p-value</td>
<td>0.001</td>
<td>0.730</td>
<td>0.005</td>
<td>0.032</td>
<td>0.001</td>
<td></td>
</tr>
</tbody>
</table>

Statements:
A1 – Company strives to incorporate the learning organisation concept into its main activities.
A2 – The company strives to prevent risks and related problems.
A3 - The company strives to involve suppliers in continuous improvement actively.
A4 - Management is concerned that employees have the necessary information to perform their work.
A5 - The company considers the customer's requirements when setting quality objectives.
A6 - Employees are interested in their contribution to achieving quality goals in the company.
A7 - Employees create their development plan.
A8 - The company's management treats employees fairly and with respect.
A9 - Employees are encouraged to express their opinions on quality in the company.
A10 - The company supports employees to nominate colleagues for awards for their work.
A11 - Employees are motivated by remuneration to perform their work with quality.
A12 - Employees positively welcome changes in their work.

Legend:
a. Wilcoxon Signed Rank Test
b. Based on negative ranks.
c. Based on positive ranks.

Source: own processing

Statements about the behavioral component of the employee profile were aimed at what employees do, can do, how they adapt to changes, or how they share the best practice in quality management (Tab. 4). Employees express the highest degree of agreement with the statement that their participation enables them to improve the enterprise processes. At the same time, they expressed a high degree of agreement, saying they could eliminate the problem through a correct procedure.

On the other hand, employees least agree with the statement that they use different tools and methods to solve problems in their work. Even though the employees do not have clearly defined procedures for solving problems, when a problem arises, they can eliminate it because they have enough knowledge and experience. This is also confirmed by the results of the research of Kumar and Sharma (2016), who found out that if the employee accepts quality among his enterprise values, he is more committed to solving problems promptly.

It was interesting to verify that, on the one hand, the enterprise does not have clearly defined ethical principles and values. However, on the other hand, employees still try to apply ethical principles and values in their work. It is crucial for the customer, as well as other stakeholders, to trust the employees of the enterprise.

It is also vital that employees in the enterprise trust each other. It is necessary to realize that morality and credibility are essential in promoting cooperation and improvement (Cassar, 2014). When employees are willing to invest their energy in progress, it directly impacts building a strong quality culture (Park et al., 2014).
The research results confirmed the need to build a quality culture to ensure the sustainability of quality in the enterprise. Employees have satisfactory knowledge, information and abilities; however, there is still a wide gap in how they achieve quality objectives caused by an insufficient understanding of the social aspects of work. It is essential to interconnect all three components of the employee profile to build a quality culture.

The ability of the enterprise to adapt to changes has a direct effect on how successful it is in the market (Hitka et al., 2022). Although there is not one single predictor of long-term success, the everyday behavior that affects decision-making may be an appropriate indicator for the future of an enterprise (Benčíková et al., 2019; Mihalčová et al. 2021). Businesses with a strong quality culture spend $ 350 million less per year on removing non-conformities than businesses with a weak quality culture (Srinivasan & Kurey, 2014). The definition of quality culture includes proactive approach, quality information flows, accepted values, development of commitment, support of immediate decision-making and acceptance of initiatives, support of risk acceptance and customer orientation (Cristofaro, 2020; Nenadál et al., 2018; Dobrovič et al. 2016; Paipa-Galeano,2020; Avey et al., 2018; Snyder, Ingelsson, Backstorm, 2018; Koraus et al. 2021). The building of a quality culture requires a lot of adaptation. In an environment where customers' tolerance to quality problems is declining, employees who accept quality as their core value are a significant competitive advantage ((Srinivasan & Kurey, 2014). Therefore, for the quality culture to meet the corporate goals of increasing people satisfaction and business performance while remaining sustainable, we need to examine very carefully how we do things and ask ourselves why and what we do (Nenadál et al., 2018; Brecka & Koraus, 2016). It is important to create such a work environment in which employees not only follow standards, guidelines, and procedures but see and listen to others, take quality measures, solve problems, take responsibility, share best practices, talk about quality and feel the quality around them.

### Table 4. Wilcoxon signed rank test – Behavioral component of employee profile

<table>
<thead>
<tr>
<th>B7-B12</th>
<th>B11-B7</th>
<th>B9-B11</th>
<th>B10-B9</th>
<th>B4-B10</th>
<th>B6-B4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testing statistics</td>
<td>-2.512b</td>
<td>-3.369c</td>
<td>-1.818b</td>
<td>-2.993c</td>
<td>-2.254c</td>
</tr>
<tr>
<td>p-value</td>
<td>0.011</td>
<td>0.001</td>
<td>0.070</td>
<td>0.004</td>
<td>0.023</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B5-B6</th>
<th>B8-B5</th>
<th>B3-B8</th>
<th>B2-B3</th>
<th>B1-B2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Testing statistics</td>
<td>-1.846b</td>
<td>-1.179c</td>
<td>-3.301b</td>
<td>-5.546c</td>
</tr>
<tr>
<td>p-value</td>
<td>0.061</td>
<td>0.237</td>
<td>0.001</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Statements:
B1 – The company I work in applies the basic principles of quality management.
B2 - Employees use various tools and techniques to solve problems in their work.
B3 - Employees use the conclusions from the internal audit to improve their work.
B4 - The company solves problems as soon as they arise.
B5 - The company adapts to innovation trends and changes.
B6 - The company actively uses new tools and methods.
B7 - If a problem arises during work performance, employees can choose the correct procedure to eliminate it.
B8 - Performance standards in the company are set optimally.
B9 - Employees can use the knowledge and information gained in the training to improve their work.
B10 - The company uses its employees' talent and work experience to improve processes.
B11 – Employees apply ethical principles and values of the company in their work.
B12 - Employees can improve processes in the company through their work.

Legend:
a. Wilcoxon Signed Rank Test  
b. Based on negative ranks.  
c. Based on positive ranks.

Source: own processing
Conclusions

Quality culture is based on employees who create quality in the enterprise by their behavior. By examining the behavioral component of the employee profile, we found that employees most agree with the statement that they can improve the enterprise's processes by their work. The basic principle of achieving and maintaining quality is the continuous improvement of processes and, thus increasing their performance and employee performance. In the affective component, employees must agree that they are promoted to express their opinion about quality in the enterprise. If the processes in the enterprise do not improve, it is necessary to look for new information solutions, develop employees, emphasize the importance of improvement, and lead employees to changes. The enterprise needs to develop its employees to move them up to a higher level. In examining the cognitive component, employees expressed the greatest agreement with the statement that they know their responsibilities related to their work performance. The enterprise should provide the employees with the correct information (about customers, their responsibilities, benefits of their work), educate them in the direction of quality, and motivate them appropriately (express their opinion, solve problems independently, and accept changes) because only then employees will show interest in adhering to set standards and achieve quality properly. Based on the research results, we confirm that the cognitive component of the employee profile proves to be the strongest one and is followed by the affective and the behavioral components. Suppose an enterprise wants to introduce a quality culture. In that case, its employees must know (know the values of the enterprise) want (be engaged, have a positive attitude to quality) and act (behave so that they improve processes, products, themselves). The way to improve the quality culture leads through strengthening the connection between the values and the set goals of the quality of the enterprise in terms of how to implement and practice the values. Properly implemented quality culture takes into account the specifics of the enterprise and helps to find and understand its path to the sustainable success of the enterprise.

References


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