STRUCTURAL EQUATION MODELING BASED ON THE RELATIONSHIP OF ELEMENTS OF THE SYSTEM MODEL OF BUSINESS PERFORMANCE CONNECTED TO THE QUALITY OF LIFE IN SMALL AND MEDIUM ENTERPRISES FROM THE ASPECT OF LEADERSHIP

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ABSTRACT
The productivity and quality of life and work in SMEs affect all employees equally. Thus, the proper distribution of employee time in the production process or provision of services in SMEs yields good firm productivity. Serbia finds itself within such a so-called “transition”, there are many layoffs in all spheres of society, including SMEs, and this directly leads to deterioration of the quality of the workforce and the quality of employees’ lives. Dissatisfaction is great; those who manage to keep their jobs fear for their personal income, which is not a large sum and which is often late. Internal and external motivation is low. Those who are unemployed or who were discharged fear whether they will find a job. The brain drain to other countries, in all types of professions, is great. This leads to a direct impact on the development and performance of the currently active SMEs in Serbia, which should be the backbone of economic development. Business performance measures the real impact of SMEs. Therefore, it is necessary to identify as soon as possible concrete measures to improve the living and working conditions of employees, including in SMEs, which means that they should look for possible models to improve business performance and the quality of life for those employed in SMEs. Structural equation modelling based on the connection of the elements of the systematic model of business performance as related to the quality of life in small and medium-sized enterprises in terms of leadership emerged from the research that has been partially addressed in the doctoral dissertation of the first author in collaboration with the Centre for the quality of study at the Faculty of Engineering, University of Kragujevac. Research demonstrates one approach to the problem of business performance related to the quality of life in small and medium-sized enterprises to quantify and thus monitor and predict possible solutions...

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JEL Classification: C21, D22, J81

INTRODUCTION

Work productivity is the most important indicator of the efficiency and performance of SMEs. In order to increase work productivity, two preconditions are required: maximum commitment of employees to improving their work and the introduction of scientific methods.²

A huge role in enhancing the performance of SMEs is played by the system of training and retraining of employees. The techno-economic conditions of the 21st century have such an effect that SMEs have to have or employ highly skilled leaders and employees. In Serbia, there are certain limitations that affect the positioning of the SME market, and these are the skills and qualifications of employees who have long been working in these companies, and new young and skilled personnel are not employed. The stability of SMEs is an important aspect which affects the efficiency of leaders and employees. Satisfied and motivated management and staff directly affects the business performance of SMEs. Quickly taking and responding to appropriate business decisions on the part of business leaders is important, because it affects the implementation of business changes occurring under the influence of the environment on SMEs. Flexibility on the part of leaders and employees in adapting to these changes affects the business performance of SMEs.

Without intense radicalization of the quality of life of current and future employees in SMEs, we cannot talk about their progress and better business performance. Given the present situation in the field of SMEs, it's difficult to say if we could win against the global competition, regardless of how hard we try. It is therefore necessary that we as a people change, to work on personal

performance, to improve the effectiveness of the company, and therefore the state.³

In small and medium-sized businesses the investment is not respectively small and medium, which means that small and medium investment is in relation to the capacity and number of employees. In SMEs, it is essential to apply knowledge and constantly increase product knowledge through the use of modern technical and technological achievements. Leaders and all employees are required to work in a dedicated, competent, and conscientious manner to achieve higher productivity of SMEs. In the modern economy, profit is not the main goal. It is the result of well thought out and guided operations. The interest of customers and consumers, as well as the benefit of the community are always in first place.⁴ Small and medium-sized enterprises come and go in large numbers, because they cannot all prevail in an era of the anti-competitive market. Only those SMEs driven by employee knowledge and productivity can survive.

An unfavorable legal framework and limited access to credit affect SMEs to the extent that they don’t invest in their employees or in future business. Lack of business skills and poor access to market information affect poor leadership skills in SMEs. All of these leads to the low profitability of SMEs, which directly affects the low impact of SMEs on the gross national income.

National economic incentives in the context of improving safety and working conditions therein, directly affect the improvement of the business performance of SMEs.⁵ The state can also affect SMEs and their performance, if incentives for investment and modernization are given in the field of protection and safety and safer techniques and work technology.⁶

³ Momčilović, O., (2015): Razvoj liderskih vještina za učinkovito upravljanje promjenama u malim i srednjim poduzećima, Doktorska disertacija, Fakultet inženjerskih nauka, Univerzitet u Kragujevcu, Kragujevac
BUSINESS CHANGE AND LEADER SMES

Deviation from a given state indicates changes. Change is not only a necessity of life, it is life. Changes affect SMEs, just as they do people. They can be positive and look to the future and take chances, or negative where they destroy and cause a company to move backwards. What yesterday was good, today is not and vice versa. The changes from yesterday perhaps bring good today, but tomorrow may yield negative results for the SME. The leader must always carefully assess changes to be successful in their SME. To be a better leader is to change, and to be a perfect leader means to be constantly altered. Rather than bringing only problems, on the contrary, for a business they mean the prolongment of the life of the company. It is not enough for leaders to have experience in the workings of an SME to follow changes, they must have the gift of observation and the skill of using attained experience to acquire new experience. In business life, leaders are faced with a variety of options in addressing problems created by change. Changes occur in companies as a response to changes in environment and company strategy, and since a company's strategy changes under environmental influence, it turns out that environment is the most important factor in company changes. The alternatives that a leader should well assess in every situation are: whether to modify, alter, or reject change. Leaders take responsibility for the fate and survival of SMEs. From a static and stereotypical approach to management, leadership transforms into a flexible management model. The focus of management has transferred from manager to leader, with a function for action.

By reducing the penalty for failure when generating a bad idea, the number of new ideas is increased. Thus, the number of new ideas increases if the quantity of new ideas is encouraged, especially if they are to be implemented or if they are deemed as a sure failure and quickly swept to the side. The openness of an SME to new ideas increases if ideas are based on shared values and the vision

7 http://alvintoffler.net/?fa=galleryquotes (22.03.2015.)
of the SME. We can conclude that this is the indisputable task and responsibility of leaders in an SME.\textsuperscript{11}

Successful implementation of changes in the SME can be made in eight stages. The first four stages are for defrosting the status quo. Stages 5-7 acquaint us with the new practice, and the last phase is the rooting of the change in the corporate culture of an SME. It is a mistake to skip the first four stages. Before proceeding from one stage to another, it is important that the previous stage is one hundred percent complete:\textsuperscript{12}

1. Establish a sense of urgency;
2. Create a ruling coalition;
3. Develop a vision and strategy;
4. Communicate the envisioned changes;
5. Train associates for broad action;
6. Generation of short-term wins;
7. Consolidate gains and produce further changes; and
8. Anchor the new approach in the culture.

Changes in an SME are the job of leaders, and not managers, and from 70 to 90\% are a part of leadership, and only from 10 to 30\% are a part of management. The factors that are essential for the success of changes are clear vision, a unique and decisive team that implements changes, the education of participants, and communication with all those who at various levels should implement changes or whose resistance can thwart them. All radical changes require excellent leadership.\textsuperscript{13} It is not your job to become a leader, your job is to become a complete and true you – to direct all your skills, values, and energy to realizing the vision that you have accepted.\textsuperscript{14} A key factor in the development of SMEs is the ability of their management. A leader obtains basic estimates and future forecasts to be used by SMEs through collection and processing of information and data gathered from the environment. These forecasts may not be 100\% reliable, because to find out the future of SMEs, we must know a lot

\textsuperscript{12} Ibid
more about the objectives, measures, and activities of the same. The picture of the future developmental environment of the SME confirms: 

- Changes – which should be made to ensure the continuity of the competitive position, 
- Opportunities – which present themselves for the SME with the occurrence of changes in the environment, and 
- Dangers and limitations – which for the SME result from estimated changes in the environment.

The quality of the development of an SME is expressed through its market position. No matter how well designed the organizational chart, SMEs will not function effectively if the mechanisms that are to connect, harmonize and direct all the so-called parts towards realizing the set goals and assignments are not in place.

Learning is a process in which knowledge is created. So, organizational learning can be considered a process of organizational knowledge. Knowledge is static and learning is a dynamic category. Organizational learning is a process through which organizations acquire, manipulate, and use knowledge. The essential characteristics of a learning organization are: systematic problem solving, acceptance of new approaches, learning from experience, and learning from the experiences of competition and rapid transfer of knowledge throughout the organization. A learning organization is the an organization that is able to create, acquire, and perform the transfer of knowledge and modify its behavior in a way that reflects new knowledge. SMEs that are continuously improving, perfecting and quickly creating the skills necessary for the future may be defined as organizations or SMEs that learn, Learning Organizations or Learning SMEs. SMEs and leaders must cooperate with other companies and more

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easily adapt to the external environment, as this will improve their performance and enhance organizational capacity. The vision of the leaders is the driving force of the SME, it is important for the choice of strategy and profit. Based on the vision that is defined, it is necessary to set up a business action plan, i.e., the real activities that need to be made within certain time dynamics. SMEs need to learn to use the information gathered from the environment, and for this reason its leaders need to “seek the truth regardless of where it comes from and at what it costs.”

The employees of an SME should rely on their own knowledge and assessment, as well as that of their colleagues, to properly decide what to do in certain situations (related to the tasks they perform). In our SMEs, this is still done in an unsatisfactory (outmoded) manner, not developing Learning SMEs, and undermining the SME itself. Thus, it happens that: important information or ideas do not reach those who need to make decisions about them, employees do not have enough time to learn and grow, and unhealthy internal competition appears within the SME itself. From leaders, it is expected that they use their special skills and characteristics to succeed in managing the knowledge of the SME, and in that manner set the demands of turbulent times in order. For Serbia to move forward in the EU accession process, we need radical organizational changes in all areas, including in SMEs. Because changes create and motivate a leader, his/her role in SMEs in the Serbian economy is indispensable and indisputable. It is very important that the leader and staff workers of SMEs have a positive attitude towards changes in relation to the macro-environment and innovation. A leader must implement the strategic and operational decisions as quickly as possible, and employed workers must meanwhile support the vision and mission which has been set forth. The quality of the systematic and timely monitoring of changes in the environment of SMEs is very important for leaders and for SMEs. The integrity of information regarding changes in SMEs should be timely. For the production or service program of an SME, the introduction of new products or services in its offering is of importance. To introduce a new product or service into SMEs, leaders need to deal with: researching the possibility of such an introduction and the flexibility of such new products and services, the speed of

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change of inefficient technologies and business practices, and innovation and
agility in the pursuit of business…21

TEAMWORK AND THE LEADER OF THE SME

Teamwork is a modern approach to understanding different personality problems
by engaging experts in various fields.22 There is no secret recipe or magic
formula for someone to become an effective leader or member of some team
overnight. It is a process that is based on business: trial and error, success, and
failure. Constant learning and application affects the expansion of leadership and
teamwork.23 Recognizing the power of the team, compensating for its
weaknesses – this is the first step in achieving and understanding of leadership
and teams in SMEs.24 The leaders in SMEs establish goals, while teamwork
implies the adoption and sharing of these goals as a joint venture. Leaders who
practice participatory governance often prefer to confirm objectives in
cooperation with their team. Using data from team members, leaders decide on
the objectives of SMEs in full compliance with the other employees. The success
of SMEs requires top leaders (coaches) and an excellent team (a team of
players). Teamwork is the result of a team working effectively. The success
factors of an SME rely upon its teamwork.25

For an SME to be effective, their owners should be part of the team. Teamwork
and leadership are integral elements of the success of an SME. Valuable
feedback from leaders and team members help managers and owners of SMEs
to make correct and timely business decisions.26 To the extent that a leader is a
good and effective one, it is also important how his/her employees view him/her.
An important indicator of the personal success of a leader and team is their
combined success. To be a successful member of the team, the leader of an

21 Momčilović, O., (2015): Razvoj liderških vještina za učinkovito upravljanje promjenama u malim i
srednjim poduzećima, Doktorska disertacija, Fakultet inženjerskih nauka, Univerzitet u Kragujevcu,
Kragujevac
22 http://sr.wikipedia.org/sr/Тимски_рад (02.02.2015.)
York
(16.03.2015.)
26 http://smallbusiness.chron.com/teamwork-vs-leadership-23315.html (20.03.2015.)
SME should: know all their employees and their qualities, clearly articulate goals and assess how they can achieve the goals and plan changes in the goals, so that the SME can achieve good business success.

When a leader is team-oriented, he/she must clearly communicate his/her ideas/answers and compare and collaborate for the benefit of the SME in accordance with the ideas of all other members of the team. Team members should aid other members, while at the same time they must be prepared to receive constructive criticism. A leader must try to improve employee morale, to find ways to encourage all employees to work with maximum efficiency. To achieve success in SMEs, strong teamwork is extremely important, creating and maintaining a moral climate, and for all this the leader is in charge. Each team has its own dynamics and team spirit, which must be cohesive and functional.

A successful leader of an SME team has different personality traits and characteristics that encourage team members to follow. SMEs should allow an equal chance to all employees to be leaders in some capacity, and to that extent: express a problem to be solved, improve customer service, and suggest ideas to increase sales.

Communication is one of the elements that the team and leaders of the SME should effectively build. The communication between leaders and employees needs to be clear. Organizational skills should help the leader of the team in planning the objectives and strategies of SMEs. Trust between the leader and members of the team must exist. A confident leader builds authority in the team. Through respect for the team members and employees of the SME, the leader empowers and encourages their ideas about the decisions they make. The leader must ensure that all employees receive the same fair treatment with respect to rewards and punishment. The leader who has developed his/her own integrity likewise acquires the trust of the members of the team. Effective decision making and proper business communication helps a leader to manage changes in an SME and thereby wins over the trust of employees.

To improve the function of employees on the job, a leader needs to focus on entrusting delegation of business tasks. The leader should help employees to understand their business goals and objectives as effectively as possible. To

achieve the sympathy of employees in the case of potential business conflicts, it is very important for the leader of an SME that he/she possess the capability and skill of negotiation (thereby solving problems in the interest of all employees).²⁸

Managing virtual teams in SMEs is now a major challenge. Trust between team members and leaders, the determination of appropriate technology and work tasks, and the establishment of appropriate tools for exchange of information must exist in such teams. Virtual teams go beyond the limitations of the existing teams. These teams require employees who have extensive knowledge in working with modern communication technologies.²⁹

Collaboration between employees with each other and the leader in the implementation of their tasks and in strategic decision-making is very important for the functioning and development of SMEs. The leader should encourage and appreciate teamwork at all levels in the hierarchy of the SME. For teamwork in an SME to be effective and efficient, all employees need to be prepared. Satisfaction in their work tasks encourages teamwork between employed workers and leaders of SMEs. Mutual trust and respect for each team member has an influence on the motivation and performance of SMEs.

QUALITY OF BUSINESS PROCESSES AND THE LEADER OF AN SME

The symbiosis of leadership and quality represents the catalyst of the success of an SME and is a basic prerequisite for its development, survival, and progression. Total quality management (hereinafter TQM)³⁰ in SMEs creates a positive organizational culture and mood. By measuring each dependency in the manufacturing or service process, the quality of these processes are continuously improved, all in the aim of creating a positive customer value and customer service of an SME. Implementation and execution of TQM can enormously improve the organizational performance of SMEs. The main primacy for successful implementation of TQM is fulfilled by the leadership. The leaders are the ones who should be determined and prepared to efficiently and

²⁸ http://smallbusiness.chron.com/10-effective-qualities-team-leader-23281.html (20.03.2015.)
³⁰ Charantimath, Poomima. M., (2011): Total quality management, Dorling Kindersley, India
effectively manage the changes that are a consequence of the dynamic environment of SMEs, through proper use of their ideas, knowledge, and skills. Strengthening competitiveness through quality becomes a strategic choice in terms of the intense globalization of the market, through the confrontation of supply and demand and market freedom of choice and decision.\textsuperscript{31}

In the stable environment of SMEs, the role of leadership acts in a programmed manner, with strict adherence to specialization and lines of authority and responsibility. In an environment based on specific skills and knowledge of leadership preferences and in an environment where SMEs are rapidly changing, the role of leadership is more complex and is based on the specific skills and knowledge of leadership preferences and capabilities and on minor specializations and formalities, as well as the constant processing of all parts of the organization. The need to meet consumer demand, as well as to adequately respond to competitive moves, requires the application of TQM concepts without which in business organizations, including SMEs, there is no success.\textsuperscript{32}

The role of the leader in quality is different at different hierarchical levels, from company to company, and is associated with a system of communication. The essential role of leaders in SMEs in terms of quality are:\textsuperscript{33}

- The leader should identify the existing state and predict the future state of the SME (diagnose the situation), apply the strategy,…
- The leader needs to increase the technological level of SMEs, to lead and adjust the organizational structure …
- The leader should effectively carry out his/her visions, ideas, standpoints, and the opinions of his/her colleagues, and should possess a certain knowledge and skill in gaining the attention of his/her co-workers and employees.

Implementation of and establishing a process of ongoing improvement of quality, together with the application of various techniques of leadership, is the basis for improving the productivity of businesses and creating a competitive advantage

on both the domestic and the international market, primarily due to the market and the technological flexibility of SMEs.\textsuperscript{34}

- Shape a vision and strategy to implement quality in the best possible way,
- Carry out psychological preparation and planning activities for introducing the quality system and application concepts,
- Implement quality with the help of social actors who need to be motivated to accept a new way of working.

The leaders in SMEs need to commit themselves to quality to be able to effectively manage business activities. Leaders should adapt their styles to certain stages of the implementation of quality. The changes in the environment affect the SME and the behavior of leaders towards employees. The behavior of leaders towards quality performs a key role in the work process of an SME.\textsuperscript{35} In an SME, leaders need to develop qualities and develop and implement system management in such a way that they:

- Develop organizational and hierarchical structure in accordance with the defined work tasks,
- Develop management of the company to meet customer needs,
- Precisely define which employee is responsible for what in all organizational units and levels of the company,
- Build a modern information system that makes management more effective and efficient.

Through teamwork, leaders need to constantly improve process management in SMEs. By combining activities and functions, a business process is formed in which the system management becomes the business system of the SME. Consumer demand for quality is built into this system. Leaders should devote most of their working time to quality, providing support to employees, showing them the job, training them, and giving them some guidance and instructions. Leaders are committed to their employees in the intellectual and physical sense,

to accept the complex tasks of implementation of total quality, and all due to the belief that quality is the catalyst in the further development of an SME.\textsuperscript{36}

The head of an SME should be socially responsible and this is achieved through flexibility (speed of adjustment) in the requirements of consumer products and services for SMEs. The quality of products or services, as well as the promotion of quality compared to the competition very much affects the functioning of an SME. The competition, maturity of the business processes, business excellence and the safety of products or services equally affect both the employees and the consumers of an SME. Common interest and familiarity with suppliers is very important for SMEs.\textsuperscript{37}

THEORETICAL SYSTEM MODEL OF BUSINESS PERFORMANCE RELATED TO QUALITY OF LIFE IN SMALL AND MEDIUM-SIZED ENTERPRISES – ASPECT OF LEADERSHIP

Based on previous theoretical presentations, a system model has been formed (Fig. 1). The starting hypothesis has been defined which states: $H_0$: The business changes in the environment of SMEs along with teamwork and quality business processes significantly affect the business performance related to the quality of life in SMEs.

Figure 1. System model


\textsuperscript{37} Momčilović, O., (2015): Razvoj liderskih vještina za učinkovito upravljanje promjenama u malim i srednjim poduzećima, Doktorska disertacija, Fakultet inženjerskih nauka, Univerzitet u Kragujevcu, Kragujevac
Each of the elements of the System model has its own set of questions/perceptual importance, namely:

1. noted the importance of the System business model changes (Abbr. Eng. BCH) consists of the following set of questions:

1) Q.1.1 – It is very important to business agility.
2) Q.1.2 – It is very important to business innovation.
3) Q.1.3 – It is very important that information concerning changes in the SMEs is timely.
4) Q.1.4 – It is very important that information concerning changes in the SMEs is complete.
5) Q.1.5 – It is very important that the leader has a positive attitude towards change.
6) Q.1.6 – It is very important that employees have a positive attitude towards change.
7) Q.1.7 – It is very important that the changes in the environment be systematically monitored.
8) Q.1.8 – It is very important that SMEs know their own competitive position.
9) Q.1.9 – It is very important that the monitoring of changes in the environment be of high quality.

2. noted is the importance of the System Model Teamwork (Abbr. Eng. TE), which consists of the following set of questions:

1) Q.2.1 – It is very important that teamwork has results.
2) Q.2.2 – Teamwork should be respected.
3) Q.2.3 – It is very important that teamwork is effective.
4) Q.2.4 – It is very important that there is mutual respect between team members.
5) Q.2.5 – It is very important that the leader encourages teamwork.
6) Q.2.6 – It is very important that employees cooperate well with each other.

3. noted is the importance of the System quality model processes (Abbr. Eng. QBP) which consist of the following questions:

1) Q.3.1 – The security of products/services is very important.
2) Q.3.2 – Stimulation of the innovative activity of SMEs is very important.
3) Q.3.3 – It is very important that the SME possesses the express aspiration for betterment of business results.

4) Q.3.4 – Consumer satisfaction with the existing products/services of an SME is very important.

5) Q.3.5 – The quality of the promotion of SMEs in relation to the competition is very significant.

6) Q.3.6 – Stimulating research activities in SMEs is very important.

4. noted are the importance of the System Model P Business performance related to quality of life in SMEs (Abbr. Eng. BPQL_SME), which consists of the following set of questions:

1. Q.4.1 – Environmental protection is very important for the SME.
2. Q.4.2 – Energy efficiency is very important for the SME.
3. Q.4.3 – Safety and health at work are very important for the SME.
4. Q.4.4 – Business performance related to the quality of life on the job is very important for the SME.
5. Q.4.5 – Information and communications support is very important for the SME.
6. Q.4.6 – The total operating performance related to the quality of life is very important for the SME.

Attitudes (answers) to the offered statements (questions) are defined on a scale from 1 to 5, where the answers are:

1. Strongly disagree,
2. Partially, disagree,
3. Neither disagree nor agree,
4. Partly agree, and
5. Strongly agree.

The E / m questionnaire was drawn up by Google and the questionnaire was delivered to more than 200 e-mail addresses in the Republic of Serbia. For the analysis and structural equation modeling, the software package IBM SPSS 24, IBM SPSS AMOS 24, and SAS JMP 12 was used.
EMPIRICAL RESEARCH

In the period from August 1 to October 1, 2016, 140 completed e / m questionnaires were collected. There were 96 male subjects and 44 female subjects. Of these, 39 were male subjects and 44 were female. Of these, 39 subjects had finished high school (secondary) education, and 101 subjects had finished college or university education. The chronological age of 58 of the respondents was 18 to 38 years and 84 subjects were over 38 years of age. Based on years spent in the workforce, there were 83 subjects who had 20 years of service and 57 subjects with over 20 years of service.

For the correlation and regression analysis for the proposed system model properties, the properties of the four analyzed variables are considered, with four observed characteristics:

- The dependent variable is the observed marker for business performance related to quality of life in SMEs.
- In the independent variables, the following characteristics were observed: business change, teamwork, and quality of business processes.

The interpretation of the Pearson correlation:

- In (Table 1) is shown the Descriptive Statistics of the observed markers: factor scores, standard deviation, and the number of observations (cases/subjects).

Table 1. Descriptive Statistics for the observed factors: Business performances associated with quality of life in SMEs, Business changes, Teamwork, Quality of the business process

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business performances associated with quality of life in SMEs</td>
<td>4.2250</td>
<td>.75041</td>
<td>140</td>
</tr>
<tr>
<td>Business changes</td>
<td>4.2393</td>
<td>.65555</td>
<td>140</td>
</tr>
<tr>
<td>Teamwork</td>
<td>4.2586</td>
<td>.78639</td>
<td>140</td>
</tr>
<tr>
<td>Quality of the business process</td>
<td>4.1943</td>
<td>.68738</td>
<td>140</td>
</tr>
</tbody>
</table>

In (Table 2) are given the Correlations for the observed characteristics.

38 Momčilović, O., (2015): Razvoj leaderskih vještina za učinkovito upravljanje promjenama u malim i srednjim poduzećima, Doktorska disertacija, Fakultet inženjerskih nauka, Univerzitet u Kragujevcu, Kragujevac
The number of cases in the sample $N = 140$ is accurate and there is no missing information. The causal direction between the independent variables Business changes and the dependent variable of the observed importance of Business performance are positively related to the quality of life in an SME, which means that between the two variables there is positive correlation. The strength of the correlation is $r = 0.767$, and it is strong for the observed importance of Business changes and Business performance as they are related to the quality of life in an SME. We can conclude a strong positive connection between variables, i.e., to conclude that the stronger the observed factor of Business change, the larger is the observed factor of Business performance connected to the quality of life in an SME.

The number of cases in the sample $N = 140$ is accurate and there is no missing data. The causal direction between the independent variables of the observed factor Teamwork and the dependent variable Business performance are positively related to the quality of life in an SME, which means that between the two variables there is positive correlation. The strength of the correlation is $r = 0.734$, and it is medium strong for the observed factor Teamwork and Business performance connected to quality of life in SMEs. We can assert a medium strong positive connection between the variables, i.e., to conclude that the larger the observed factor of Teamwork, the larger is the observed factor Business performance connected with the quality of life in SMEs.

The number of cases in the sample $N = 140$ is accurate and there is no missing data. The causal direction between the independent variables of the observed factor Quality of business processes and the dependent variable of the observed factor Business performance connected to the quality of life in SMEs is positive, which means that between the two variables there is positive correlation. The strength of the correlation is $r = 0.795$, and it is strong for the observed factor Quality of business processes and Business performance connected to the quality of life in SMEs. We can assert a strong positive connection between the variables, i.e., we can conclude that the larger the observed factor of Quality of business processes, the larger is the observed factor of Business performance connected to the quality of life in SMEs.

The number of cases in the sample $N = 140$ is accurate and there is no missing data. The causal direction between the independent variable Business changes and the observed factor Teamwork is positive, which means that between the two variables there is positive correlation. The strength of the correlation is $r = 0.757$, and it strong for the observed factor Business changes and Teamwork. We
can assert a strong positive connection between the variables, i.e., we can conclude that the larger the observed factor for Business changes, the larger is the observed factor Teamwork.

- The number of cases in the sample \( N = 140 \) is accurate and there is no missing information. The causal direction between the independent variable of the observed factor of Business change and the observed factor Quality business processes is positive, which means that between the two variables there is positive correlation. The strength of the correlation is \( r = 0.823 \), and it is strong for the observed factor Business changes and Quality of business processes. We can assert that there is a strong positive connection between the variables, i.e., we can conclude that the larger the observed factor Business changes, the larger is the observed factor business processes.

- The number of cases in the sample \( N = 140 \) is accurate and there is no missing data. The causal direction between the between the two variables Teamwork and the observed factor Quality of business performance is positive, i.e., there is positive correlation between the two variables. The strength of the correlation is \( r = 0.824 \) and it is strong for the observed factor of Teamwork and Quality of business processes. We can assert a strong positive connection between the variables, i.e., we can conclude that the larger the observed factor of Teamwork, the larger the observed factor of Quality business processes.

Table 2. Correlations for the observed factors: Business performance of an SME connected with quality of life, Business changes, Teamwork, and Quality of the business processes
The (Table 3) model summary calculates the Coefficient of determination (R Square) $r^2 = 0.68$, which shows the percentage of the variance of the dependent variable that is explained by the model; and the Multiple correlation coefficient (R) $r = 0.825$ shows the strength of the connection between the variables. This means that 68.00% of the variability of the dependent variable of the observed factor of Business performance connected with quality of life in SMEs can explain the effect of the independent variables of the observed factors: Business changes, Teamwork, and Quality of the business processes. Here the variables are strongly correlated/related, and with quite good results:

**Table 3. Model Summary for the observed factors: Business performance connected with quality of life in SMEs, Business changes, Teamwork and Quality of business processes**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.825a</td>
<td>.680</td>
<td>.673</td>
<td>.42908</td>
<td>.680</td>
<td>96.382</td>
<td>3</td>
<td>136</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), The quality of business processes, Business changes, Teamwork  
b. Dependent Variable: Business performance-related quality of life in SMEs

To evaluate statistical significance, we observe (Table 4) ANOVA. Here the results of the null hypothesis test are that $r^2$ in the population is equal to 0. The statistical significance was (Sig. = 0.000), which means that $r < 0.0005$. The starting null hypothesis $H_0$ establishes that: Changes in the business environment of SMEs, together with teamwork and quality business processes, affect the business performance connected with the quality of life in SMEs.

**Table 4. ANOVA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>53.235</td>
<td>3</td>
<td>17.745</td>
<td>96.382</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>25.039</td>
<td>136</td>
<td>.184</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>78.274</td>
<td>139</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: Business performance-related quality of life in SMEs  
b. Predictors: (Constant), The Quality of business processes, Business changes, Teamwork

From the (Table 5) Coefficients we determine which of the independent variables in the model contributed to the prediction of the dependent variable. We can refer to column Beta under the Standardized Coefficients (by absolute value, disregarding the negative signs). In this case, the largest beta coefficient is
0.399, which is the value of the observed factor of Quality of business processes, which means that the independent variable individually contributes most to explain the dependent variable of the observed factor of Business performance connected with quality of life in SMEs. In the column labeled Sig., we can see how much the variable in the equation is (value Sig. <0.05.) In this case, in addition to the variable Teamwork, which barely contributes 0.053, the remaining two variables both give an equally important contribution to the equation.

**Table 5. Coefficients**

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td>.202</td>
<td>.243</td>
<td>.829</td>
<td>.409</td>
<td>.303</td>
</tr>
<tr>
<td>Business changes</td>
<td>.353</td>
<td>.101</td>
<td>.309</td>
<td>3.501</td>
<td>.001</td>
</tr>
<tr>
<td>Teamwork</td>
<td>.164</td>
<td>.084</td>
<td>.172</td>
<td>1.949</td>
<td>.053</td>
</tr>
<tr>
<td>The quality of business processes</td>
<td>.436</td>
<td>.111</td>
<td>.399</td>
<td>3.930</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Business performance-related quality of life in SMEs

To assemble the regression equation, Unstandardized Coefficients are used in column (B) in (Table 5). The equation is:

\[ y = 0.353 \cdot X_1 + 0.164 \cdot X_2 + 0.436 \cdot X_3 + 0.202 \]

or

**Business performance connected to the quality of life in an SME — is equal to**

\[ 0.353 \cdot \text{Business changes} + 0.164 \cdot \text{Teamwork} + 0.436 \cdot \text{Quality business processes} + 0.202 \]

In (Figs. 2, 3) are shown Unstandardized and Standardized Estimates of the Structural model. These estimates were obtained through modeling using the software package IBM SPSS Statistics AMOS 24. The estimates fully agree with the set budget and the formed equation.
Structural equation modeling ...

Oliver Momcilovic, Gordana Nikolic

Pictures 2-3: Non-standardized and standardized value models.

In Table 6 are given the estimates for evaluating the model and most of them indicate that we can accept the model.

Table 6. Model Fit Summary

<table>
<thead>
<tr>
<th>Model Fit Summary</th>
<th>CMIN</th>
<th>DF</th>
<th>P</th>
<th>CMIN/DF</th>
<th>NFI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default model</td>
<td>.000</td>
<td>0</td>
<td>/</td>
<td>/</td>
<td>1.00</td>
<td>1.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Saturated model</td>
<td>.000</td>
<td>0</td>
<td>/</td>
<td>/</td>
<td>1.00</td>
<td>1.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Independence model</td>
<td>482.150</td>
<td>6</td>
<td>.000</td>
<td>80.358</td>
<td>.000</td>
<td>.000</td>
<td>.756</td>
</tr>
</tbody>
</table>

The observed factor of Teamwork can be eliminated from further analysis and again worked into the Model summary. In this way, we obtain a newly set System model and a new constructive hypothesis which states, H01: Business changes in the environment of SMEs with quality business processes significantly affect the business performance related to the quality of life in SMEs.

In the (Table 7) Model Summary is calculated the coefficient of determination (R Square) \( r^2 = 0.671 \), which indicates how much the percentage of variance of the dependent variables can be explained by the model and the Coefficient of multiple correlation (R) \( r = 0.819 \), which is the strength of connection between the variables. This means that the 67.10% variability of the dependent variable of the observed factor Business performance related to the quality of life in an SME can explain the effect of the independent variables of the observed factors of Business performance connected to the quality of life in an SME: Business changes and Quality of the business process. Here the variables highly correlate – are connected, and that is an entirely good result.
Table 7. Model Summary\(^a\) for the observed factors: Business performance connected to quality of life in SMEs, Business changes and Quality of the business process

<table>
<thead>
<tr>
<th>Model</th>
<th>R (^2)</th>
<th>Adjusted R (^2)</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.819(^a)</td>
<td>.671</td>
<td>.666</td>
<td>.43344</td>
<td>.671</td>
<td>139.818</td>
<td>2.137</td>
<td>.000</td>
</tr>
</tbody>
</table>

\(^a\) Predictors: (Constant), The quality of business processes, Business changes
\(^b\) Dependent Variable: Business performance-related quality of life in SMEs

To evaluate statistical performance, we refer to (Table 8) ANOVA. The result of the null hypothesis test is \(r^2\) and the population is equal to 0. The statistical significance is (Sig. = 0.000), which really means that \(r < 0.0005\). Confirmed is the new derived hypothesis \(H_0\): Business changes in the environment of an SME with high quality business processes has a significant effect on the business performance connected with quality of life in SMEs.

Table 8. ANOVA\(^a\)

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Regression</td>
<td>52.535</td>
<td>2</td>
<td>26.268</td>
<td>139.818</td>
<td>.000(^b)</td>
</tr>
<tr>
<td>Residual</td>
<td>25.738</td>
<td>137</td>
<td>.188</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>78.274</td>
<td>139</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Dependent Variable: Business performance-related quality of life in SMEs
\(^b\) Predictors: (Constant), The quality of business processes, Business changes

The Coefficients from (Table 9) determine which of the independent variables in the model contributed to the prediction of the dependent variable. We look at column Beta under Standardized Coefficients (in absolute value, disregarding the negative signs). In this case, the greatest beta coefficient is 0.506, which is the value of the perceived importance of the Quality of business processes, which means that the independent variable individually contributes most to explain the dependent variable of the observed factor of Business performance related to the quality of life in SMEs. In the column labeled Sig., we can observe the amount of contribution of the variable in the equation (value Sig. < 0.05.) In this case, all the variables provide a particularly significant contribution to the equation.
Table 9. Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
</tr>
<tr>
<td>(Constant)</td>
<td>.206</td>
<td>.246</td>
<td>.840</td>
</tr>
<tr>
<td>Business changes</td>
<td>.401</td>
<td>.099</td>
<td>.351</td>
</tr>
<tr>
<td>The quality of business processes</td>
<td>.553</td>
<td>.094</td>
<td>.506</td>
</tr>
</tbody>
</table>

Dependent Variable: Business performance-related quality of life in SMEs

For the preparation of the regression equation, Unstandardized Coefficients are used in column (B) in (Table 9). The equation is:

\[ y = 0.401 \cdot X_1 + 0.553 \cdot X_3 + 0.206 \]

or

\[ \text{Business performance connected to quality of life in SMEs} = 0.401 \cdot \text{Business changes} + 0.553 \cdot \text{Quality of business processes} + 0.206 \]

In the case of high interdependence of the independent variable, so-called multicollinearity appears, wherein the score of the regression coefficients can be very unstable and inaccurate. Therefore, attention should be paid to the indicators of multicollinearity of the independent variables: the level of Tolerance and the Variance Inflation Factor – VIF. The values of the tolerance level range are at an interval of 0 to 1, with the most preferable being close to 1. In this case, the tolerance level is from 0.322 for both factors. A growth factor variance ranging from 1 to 10 is preferably close to 1. In this case, VIF is from 3.103 for both factors. We can conclude that the measures of collinearity for all independent variables indicate that there may be a slight problem of collinearity, but because of this we cannot accept a new constructive hypothesis: H01: Business changes in the environment of SMEs with quality business processes have a significant effect upon the business performance related to quality of life in SMEs.

In (Table 4) is given a Normal P-P Plot of the Regression Standardized Residual in which are shown the values of the Expected Cum Prob and the Observed Cum Prob and we can see that there are minor deviations from the norm; the values follow a line from the lower left to the upper right corner of the diagram.
Table 4. Normal P-P Plot of Regression Standardized Residual for the dependent variable of the observed factor Business performance connected to quality of life in SMEs

In (Fig. 5) is shown the Normal P-P Plot of the Regression Standardized Residual (Scatterplot) that shows the values of the Regression Standardized Residuals and the Regression Standardized Predicted Values. Here it is necessary that the results are grouped around the value 0, in a rectangular form. For us this is a case in point, although there are a couple of minor variations that do not affect further research.

Figure 5. Normal P-P Plot of Regression Standardized Residuals for the dependent variable of the observed factor Business performance connected to the quality of life in SMEs.
In (Figures 6 and 7) are shown the Unstandardized and Standardized Estimates of the Structured model. These values are obtained through modelling in the software IBM Statistics SPSS AMOS 24. The values show complete agreement with the previously stated scores and equation formulation.

Figures 6.-7. Unstandardized and Standardized values of the new model

In (Table 10) are given the estimations for the calculation of the new model, and most of them indicate that we can accept the model, i.e., the difference resulting from the elimination of the observed factor Teamwork did not notably improve the model.

Table 10. Model Fit Summary

<table>
<thead>
<tr>
<th>Model Fit Summary</th>
<th>CMIN</th>
<th>DF</th>
<th>P</th>
<th>CMIN/DF</th>
<th>NFI</th>
<th>CFI</th>
<th>RMSEA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default model</td>
<td>.000</td>
<td>0</td>
<td>/</td>
<td>/</td>
<td>1,000</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>Saturated model</td>
<td>.000</td>
<td>0</td>
<td>/</td>
<td>/</td>
<td>1,000</td>
<td>1,000</td>
<td></td>
</tr>
<tr>
<td>Independence model</td>
<td>312.035</td>
<td>3</td>
<td>.000</td>
<td>80.358</td>
<td>.000</td>
<td>.000</td>
<td>.861</td>
</tr>
</tbody>
</table>
CONCLUSION

Business changes should be accepted as a necessary tool that is something that is constant and natural for SMEs and all employees to succeed in improving business performance. It is very important that the leader of the SME have high aspirations to improve: business performance, originality of products or services and ways of doing business. Also, stimulating innovation and research activities is very important for all employees, leaders, and SMEs in general. Distribution of employees to appropriate jobs affects their satisfaction. Through successful management of business processes, a leader influences the consideration of the needs of the customer for products or services of the SME. Leaders need to make sure to explain to owners and employees the necessity of monitoring knowledge and skills. For this reason, they need to be educated and to constantly acquire new knowledge and skills. It is the case with us that employees cannot understand the management style of their leaders because the dynamics of change in thinking and work are not integrated. Therefore, it is necessary to take the right attitude about the dynamics of change. Through cooperative teamwork, leaders and employees can attain the goals of the SME. Hence, the concept of governance is becoming a special task of management to reach a leading position and the benefit that such provides. Leaders must be able to rationally lead and inspire their employees to become involved in the management process in SMEs. Improving the quality of business processes is becoming an imperative of the modern market and global channels. We can conclude the productivity and profitability of significant elements for the functioning of modern SMEs. Through constant participation and monitoring of developments of competition in the market, a leader influences the commitment of the timing and direction of the positioning SMEs. The performance of the SME is affected by: the growth of fixed assets, the taxation system, as well as sources of funding. Also, we can say that the number of employees and their incomes have an important role and influence on the development of the business performance of SMEs. The safety and health of employees, environmental protection, and energy efficiency on the part of the SME affect the overall business performance related to quality of life and the work of all employees. Based on the set of theoretical considerations, the system model, and the results of this study, it is possible to develop and evaluate new system models connected to the development of business performance as it relates to quality of life in SMEs. The educated recommendation is that for the assessment of the model, the method of modelling structured equations should be used, because it is very useful for analyzing similar scientific disciplines.
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