

## DEVELOPING A MODEL FOR IMPROVING BUSINESS AND COMPETITIVENESS OF DOMESTIC ENTERPRISES

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**Competitiveness of domestic enterprises on the international market is practically non-existent. The majority of small and medium-sized enterprises (SMEs) face difficulties when it comes to obtaining and maintaining a competitive position on the market. Globalization and business within the domain of the fourth industrial revolution - Industry 4.0, bring challenges for SMEs. Without an adequate quality management system, without the application of ICT and the lack of modern manufacturing equipment, enterprises can't compete on the international market. In this paper managers of domestic enterprises and customers of various products are surveyed. The two separate surveys included the analysis of quality management, product quality, human resource management, marketing strategy, promotional activities, customer satisfaction, perceived quality and brand development. The goal was to define the relations between the measured factors in order to develop a model for improving business and competitiveness of domestic enterprises in Serbia. The model provides significant insight on how could enterprises enhance their businesses and achieve a competitive position on the international market. Additionally, this present paper provides a solid basis for future research in this domain.**

**Keywords:** SMEs; Quality management; Marketing management; Customer satisfaction; Competitiveness.

### INTRODUCTION

The widespread of information-communication technologies (ICT) dramatically contributed to the globalization process (Biorl, 2012). Globalization affects small and medium-sized enterprises (SMEs) as they become competitors to big corporations. The globalization of markets opens up economies where there is an enhanced trade of goods through increased interconnectedness of various markets, (Oladimeji, Ebodaghe, & Shobayo, 2017). This interconnectedness further improves cross border business relationships between enterprises. The changes on the global economic scene put a strain on SMEs as they face challenges when aiming towards a competitive position on the international markets. Due to the globalization of markets, SMEs face more intense

competition, which makes it difficult for them to obtain and maintain a competitive position on the market. Besides globalization, the fourth industrial revolution - Industry 4.0 additionally affects the globalized markets as the manufacturing process is moving from industrial electronics to industrial informatics, (Popkova, Ragulina, & Bogoviz, 2019). The modern business environment requires the application of ICT in order to "survive" on the market. New technologies emerge which positively affect the manufacturing process, but negatively affect enterprises who can't adapt to these new technologies and who don't implement and apply them. Some of these technologies are radio-frequency identification (RFID); wireless sensor networks; cloud-computing; 3D manufacturing; cyber-physical systems; cyber security; advanced

robotics and other (Bakator, Đorđević, Čočkalović, Nikolić, & Vorkapić, 2018).

Furthermore, the competitiveness of domestic enterprises in Serbia, and the competitiveness of Serbia overall, struggles in the conditions of the fourth industrial revolution and the globalization of markets. One of the main reasons of low competitive ability on the international market is old manufacturing equipment in most of the industries. The average age of manufacturing equipment is close to 30 years, (Arsić, 2016; Kovachević, 2014). In addition, the lack of modern management tools and techniques contribute to the non-existent competitive ability of the Serbian economy, (Vukotic, Milivojevic, & Zakic, 2018). It is evident that there is a need for business and competitiveness improvement of domestic enterprises.

In this paper two surveys were conducted. The first survey obtained information on the opinions of managers of domestic enterprises regarding quality, product innovation, human resource management, and marketing strategy. The second survey analyzed the opinions of customers/users of various products on the domestic market. The opinions included factors such as customer satisfaction, promotional activities, brand development, and perceived product quality. The main goal of the research is to develop a model for improving business and competitiveness of domestic enterprises. The model is based on the relations analyzed through the survey results. In addition, a theoretical background is given as a basis for the development of the model.

The paper is consisted of five main sections (excluding the *Introduction* and *Conclusion* sections). The first section provides a theoretical background on globalization, Industry 4.0, and competitiveness. In addition, quality and customer satisfaction are reviewed and their role in achieving competitiveness. The second and third sections present the conducted survey results. The fourth section includes the developed model for improving business and competitiveness of domestic enterprises. The fifth section provides suggestions and guidelines for improving business and competitiveness of domestic enterprises. After these sections, conclusions are drawn, the limitations of the study are addressed, and future research is recommended.

## THEORETICAL BACKGROUND

### Globalization, Industry 4.0 and competitiveness of Serbia

Globalization can be observed as a more broad concept than “open market”. It includes the homogenization of consumers, the expansion of purchasing, the homogenization of various standard implementations and applications, and economic decisions are made in relation to macro-economic trends rather than on a micro-level, (Bešić, & Đorđević, 2014). As noted previously, globalization interconnects economies, which further implies that when there are positive outcomes in one economy, there is a big chance that other economies will benefit, too. However, negative economic development of one country can negatively affect other economies as well, (Ritzer, & Dean, 2019). When it comes to Serbia and the concept of globalization, only 60.000 people have the potential to create value in sectors where knowledge, skills and expertise are the main “tools” and means of creating value, (Carrano, 2019). It is evident that Serbia and the majority of domestic enterprises have to address infrastructural issues in manufacturing and other domains of conducting business in order to become more competitive on the international market.

In addition to the pressure of globalization, the fourth industrial revolution - Industry 4.0 also brings challenges for enterprises who are not willing or not able to implement modern technologies. Namely, conducting business within the framework of Industry 4.0 heavily relies on the implementation and application of information and communication technologies (ICT). Consumers are seeking information about products and brands on the Internet, thus enterprises have to apply ICT in their everyday business activities, (Ostojić, 2018). Further, Industry 4.0 implicates the use of modern technologies such as smart data centers, cyber-physical systems, vertical integration of manufacturing systems and other, to create and deliver value, (Stock, & Seliger, 2016). Summarized, Industry 4.0 is characterized by the full digitization and full automation of manufacturing processes, and other business processes as well, (Roblek, Meško, & Krapež, 2016). Based on this, it is evident why Serbian enterprises can't achieve a competitive position on the market. As previously mentioned, the lack of modern manufacturing equipment, and the lack of modern management tools and techniques makes

the business conducting process obsolete on the international market. Therefore, improvements in this domain is a necessity rather than a choice if domestic enterprises plan to compete on globalized markets, (Bešić, & Bešić, 2018). These competitiveness parameters are more prevalent on a micro-level, while macro-level indicators are objectively given in the yearly reports on competitiveness by the World Economic Forum. In Table 1., the competitiveness ranks for Serbia and several other countries are presented.

Table 1: Ranks of competitiveness in 2019

Country	Rank (out of 141)
Serbia	72
Croatia	63
Slovenia	35
North Macedonia	82
Bosnia and Hercegovina	92
Montenegro	73
Romania	51
Hungary	47
Austria	21
Albania	81
Germany	7
France	15
United Kingdom	9

Source: World Economic Forum (WEF), 2019

In Table 1., it can be seen that from the neighboring countries and countries in the region, Slovenia has a much better competitiveness rank compared to Serbia. Croatia, too has a better rank, while North Macedonia, Bosnia and Hercegovina, Montenegro, and Albania have lower ranks. Austria, Germany, France and the UK, all have high rankings on the competitiveness list and this is somewhat expected as these countries are more developed compared to Serbia.

Furthermore, in Table 2. the ranks of Serbia in 2019, regarding specific competitiveness indicators are presented.

Based on the data in Table 2., it can be seen that the lowest ranked competitiveness indicators are the institutions (75<sup>th</sup>), ICT (77<sup>th</sup>), healthcare (76<sup>th</sup>), product market (73<sup>rd</sup>), financial system (82<sup>nd</sup>) and market size (74<sup>th</sup>). The highest ranks of competitiveness indicators are infrastructure (51<sup>st</sup>), skills (55<sup>th</sup>), job market (54<sup>th</sup>), and business dynamics (54<sup>th</sup>). Overall, Serbia has potential when it comes to international competitiveness. However, restructuring is needed in the

manufacturing industry and new technologies have to be introduced in order to improve the business process, and to increase the overall value of conducting business.

Table 2: Ranks of competitiveness indicators in 2019

Indicator	Rank (out of 141)
I1 - Institutions	75
I2 - Infrastructure	51
I3 - ICT	77
I4 - Macroeconomic stability	64
I5 - Healthcare	76
I6 - Skills	55
I7 - Product market	73
I8 - Job market	54
I9 - Financial system	82
I10 - Market size	74
I11 - Business dynamics	54
I12 - Innovation ability	59

Source: World Economic Forum (WEF), 2019

### The importance of quality and customer satisfaction in achieving competitiveness

The globalization of markets lead to the development of global competition. In this global competition, the consumers and customers intensify their demands and are putting pressure on enterprises to continuously improve product and service quality and sell those products and services at a competitive price (Anđelković-Pešić, Janković-Milić, & Stanković, 2012). The implementation of quality management systems are important for achieving and maintaining a competitive position on the market, (Yee, & Eze, 2012). Quality perceived by customers is crucial in the development of loyalty and customer satisfaction. Customer satisfaction is instrumental for profitability and overall business performance, (Suchánek, Richter, & Králová, 2014). Now, based on these findings the question *How does product quality and overall business quality translate to achieving competitiveness?* can be answered. Implementing and applying quality management systems, reduces manufacturing costs, and results in higher quality products. Higher quality products are more likely to attract customers and there is a significant potential for positive information distribution through word-of-mouth. In addition, due to lower manufacturing costs, higher quality products can be sold for competitive prices. Customers get higher value for lower prices

compared to products from competitors. Therefore, it can be argued that quality is a key influencing factor on business performance and competitiveness. This is further investigated in this present paper.

Furthermore, customer satisfaction is an important component in the process of developing loyalty and long-term predictability of future purchasing decisions of customers. This is achieved with higher customer retention, thus the chain of value for achieving customer satisfaction, (Williams, & Naumann, 2011). Customer loyalty can be viewed as the willingness of customers to conduct future purchases in a similar manner (same store, same product, same brand etc.), (Khan, 2012). The importance of customer satisfaction lies in its “power” to retain customers, as retaining existing customers is far less expensive compared to attaining new customers, (Chi, & Gursoy, 2009). The changes that are brought on by the globalization of markets, also affected consumers and customers as well. The rapid distribution of information about products, and the vast number of product reviews which are present online, have the potential to shift consumers’ and customers’ purchasing decisions to other options on the market. Evidently, it can be assumed that customer satisfaction is result that integrates best business practices, including high quality products. Other factors surely have a role in increasing customer satisfaction, and these factors are analyzed in this research.

## RESEARCH ON MANAGERS’ OPINIONS ON QUALITY AND COMPETITIVENESS

In a conducted research on opinions of managers of domestic micro, small and medium-sized enterprises regarding quality and competitiveness, a total of 132 managers were surveyed. The survey included questions regarding factors improving competitiveness (FIC) and business performance (FIBP), as well as product quality (PQ), human resource management (HRM), sales and pricing strategy (SPS), quality management systems (QMS), marketing communication and strategy (MCS), and customer relationships (CR). The research was conducted in Serbia, and it included managers of domestic enterprises. The obtained data was used as a basis for developing a model for improving business and competitiveness of domestic enterprises. The main goal of this survey was to gain insight into potential influential relationships between factors that further affect the

business performance and competitiveness of domestic enterprises. Serbia, as a transitional economy, faces challenges on the international market. As mentioned previously these challenges are the result of changes due to the globalization of markets, and the fourth industrial revolution - Industry 4.0, which affects manufacturing industries and other industries as well.

The correlation analysis showed a strong and positive correlation between the observed factors and business performance and competitiveness (referred to as market performance within the survey). More precisely with market performance (MP) the group of factors of improving competitiveness (FIC) is positively correlated with 0.103; the group of factors of improving business (FIB) is correlated with 0.113. These two groups of factors have the lowest correlation coefficients regarding market performance (MP). The other factors have significantly higher positive correlation values where product quality (PQ) has 0.249; human resource management (HRM) has 0.360; sales and pricing strategy (SPS) has 0.609; quality management systems (QMS) has 0.155, marketing communication and strategy (MCS) has 0.404, and customer relationships (CR) have a correlation coefficient of 0.352. Further, when it comes to correlation of the same factors with business performance (BP) the results also indicate a strong and positive correlation between the measured constructs.

The correlation value between the group of factors of improving competitiveness (FIC) and business performance (BP) is 0.555; factors improving business (FIB) with business performance (BP) has the correlation value of 0.356. Similarly to the market performance (MP) correlation values, here too are other values higher. More precisely, business performance (BP) is positively correlated with product quality (PQ) with a correlation value of 0.398; human resource management (HRM) with 0.485; sales and pricing strategy (SPS) 0.477; quality management systems (QMS) has 0.183; marketing communication and strategy (MCS); marketing communication and strategy (MCS) 0.350; and customer relationships (CR) 0.534.

It is important to add that the group of factors of improving competitiveness (FIC) includes the continuous improvement of employee knowledge; business quality standardization; the application of modern management methods and techniques; the

application of modern equipment and technology; and developing strategic partnerships.

Similarly, the group of factors of improving business performance (FIB) includes the development and application of information and communication technologies; the application of quality management systems; the application of integrated management systems; the application of statistical tools and techniques for improving quality; and the application of benchmarking.

Furthermore, the results of the regression analysis indicate a positive relationship between the measured variables. Two regression analyses were conducted. In the first regression, market performance (MP) was viewed as a dependent variable, and for the second regression business performance (BP) was taken as a dependent variable. The independent variables for each regression were product quality (PQ), human resource management (HRM), sales and pricing strategies (SPS), quality management systems (QMS), marketing communication and strategy (MCS), and customer relationships (CR). For the first regression the  $R^2$  value is 0.513, and for the second regression the  $R^2$  value is 0.463. In both cases it can be assumed that the mentioned variables have a positive relationship with the dependent variables (MP, BP). These results are sufficient for developing a model for improving business and competitiveness of domestic enterprises. In addition to these findings, a research on customers' opinions on quality and satisfaction was conducted.

## RESEARCH ON CUSTOMERS' OPINIONS ON QUALITY AND SATISFACTION

Another research was conducted which included customers of various products on the territory of Serbia. A total of 432 customers were surveyed. The survey included questions regarding factors which affect customer satisfaction (CS). The measured factors were perceived product quality (PPQ); brand loyalty (BL); brand relationship quality (BRQ); brand trust (BT); brand credibility (BCR); and promotional activities (PA). The research was conducted in Serbia. The obtained data from the participants was used to enhance the model for improving business and competitiveness of domestic enterprises. The main goal of this research was to determine additional factors which indirectly affect business performance. More precisely, customer satisfaction, as mentioned

previously, presents an adequate indicator of product quality. The additional data provides significant insight into the relationships between the measured factors which further contribute to an adequate model development. Certainly, analyzing the managers' opinions credible, but adding a different perspective to the model further increases the significance of the model as it integrates both sets of obtained results. In Serbia, the majority of domestic enterprises can't compete on the international market. Achieving competitiveness on an enterprise level is difficult, achieving national competitiveness is theoretically impossible without an adequate infrastructure in the majority of industries. Globalization and Industry 4.0 brought a tremendous amount of changes which mold the global market and which further affects the competitiveness of domestic enterprises. The pressure of globalization is even bigger on transition economies and enterprises who conduct business in such economies.

The correlation analysis indicated strong positive relationships between the measured constructs. More precisely a strong positive correlation was observed between customer satisfaction (CS) and perceived product quality (PPQ) with a correlation value of 0.636; with brand loyalty (BL) 0.672; with brand relationship quality (BRQ) 0.581; with brand trust (BT) 0.703; with brand credibility (BCR) 0.595; and with promotional activities (PA) 0.671. These positive correlation values don't necessarily indicate causations. However, given the theoretical background it is safe to assume that there are influential relationships between these variables. Therefore, these results provide an adequate basis for defining the relationships between the elements which are integrated within the model for improving business and competitiveness.

Furthermore, in order to further examine the relationship between the observed variables, a regression analysis was conducted. Within the regression analysis, customer satisfaction (CS) was viewed as a dependent variable, while perceived product quality (PPQ), brand loyalty (BL) and promotional activities were taken as independent variables. The  $R^2$  value of 0.678 indicates that there is a strong positive relationship between the observed variables. Therefore, the regression results and the correlation analysis results can be used for developing the model for improving business and competitiveness of domestic enterprises.

Based on the results of the regression analysis and the correlation analysis it can be argued that customer satisfaction as a complex outcome of various business activities, is affected by perceived product quality (PPQ), brand loyalty (BL); brand relationship quality (BRQ); brand trust (BT); brand credibility (BCR); and promotional activities (PA). The model for improving business and competitiveness integrates these results as well the results from investigating the managers of domestic enterprises.

### MODEL FOR IMPROVING BUSINESS AND COMPETITIVENESS

Based on the research of managers' opinions on quality and competitiveness, and the research of customers' opinions on quality and satisfaction a theoretical model for improving business and competitiveness of domestic enterprises. The main principle on which the model operates is the PDCA cycle, where with each cycle an improvement is conducted within certain business activities. The model functions on continuous improvement of business activities with the goal to improve the out which is business performance and competitiveness.

The model integrates elements which are researched and certain relations between these elements are defined through correlation and regression analysis. The model integrates the interconnected elements including the correction process and the information gathering process. Based on the gathered and analyzed information a correction or modification of a business process or activity is conducted. The four main components of the model are customer satisfaction improvement, product quality improvement, marketing strategy improvement and improvement of human resource management. The model is depicted on Figure 1.

The depicted model for improving business and competitiveness of domestic enterprises includes the main measured factors in the two separate conducted researches. As mentioned previously these main elements are customer satisfaction (CS), product quality (PQ), human resource management (HRM), marketing communication and strategy (MCS), and other factors which are present in the groups of factors for improving business (FIB) and competitiveness (FIC). The main elements are labelled numerically (1...9). Additional details on the main elements of the model are given in Table 3.

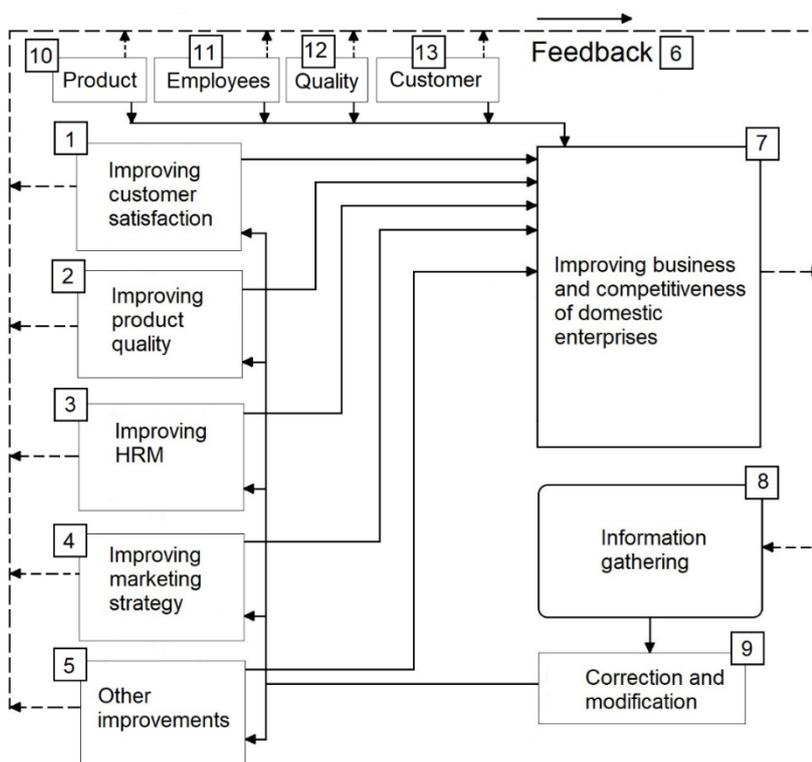


Figure 1: Model for improving business and competitiveness of domestic enterprises

*Table 3: Details on the main elements of the model*

Label /number	Description
1	Improving customer satisfaction: This element includes customer relationship management (CRM); brand development; analyzing customer needs and wishes; and public relations.
2	Improving product quality: Includes the application of statistical tools; standardization of business quality; the application of quality management systems; and thriving towards the TQM concept.
3	Improving human resource management: This element of the model includes the consideration of employee suggestions; knowledge improvement; intellectual capital; developing a motivational working environment for the employees.
4	Improving marketing strategy: Includes developing an effective marketing plan; effective allocation of marketing resources; effective pricing strategy; and effective promotional activity development.
5	Other improvements: Includes some the integrated parts of the two groups of factors for improving business and competitiveness. These integrated parts are the application of modern management methods and techniques; the application of modern equipment and technology; developing strategic partnerships; the application of information and communication technologies; and the application of benchmarking.
6	Feedback: This is the main “gear” the improvement process. Information is gathered from all the model’s elements, and based on this information, necessary modifications and improvements of certain business activities and processes are conducted.
7	Improving business and competitiveness of domestic enterprises: This is the goal of the model. It is the result of the integration of business activities and processes of the other elements.
8	Information gathering: All the information from the feedback loop is stored and analyzed in this element.
9	Correction and modification: Based on the gathered and analyzed information, corrections and modification are conducted within the main elements (customer satisfaction, perceived quality, human resource management, marketing strategy, and other business activities).
10	Product: Refers to the products and services which are offered to consumers and customers.
11	Employees: Employees have a crucial role when it comes to improving business activities and processes. Employees are the carriers of change.
12	Quality: Refers to objective and perceived quality of products and services. Quality has one of the strongest influence on business and competitiveness improvement.
13	Customer: Achieving customer satisfaction is an imperative for improving business performance and competitiveness.

Based on the depicted model, it is evident that the feedback and the information gathering process are the key components of the improvement process. The main elements include the crucial business activities and processes, however the improvement depends on the feedback information based on which the certain improvements are achieved. The depicted relations between the main elements and the main goal of the model are partly based on literature review in the domain of quality management, human resource management, and marketing management. However, the main source of assumptions of the relations are the research of

managers and customers. Namely, the correlation analysis and regression analysis results provide an adequate insight into the potential effects of the measured factors in business and competitiveness improvement.

#### **SUGGESTIONS AND GUIDELINES FOR IMPROVING COMPETITIVENESS**

The literature review and the obtained results from the research conducted on managers’ and customers’ opinions, allowed for certain guidelines for improvement of business performance and

competitiveness to be suggested. The model was developed with the goal to provide an overview of how domestic enterprises could improve their business and competitiveness. Within the model it is evident that the main improvement points of business and competitiveness are quality, customer satisfaction, marketing communication and strategy and human resource management.

Based on the previous findings in this domain, and the research results the following guidelines for improving business and competitiveness of domestic enterprises are proposed:

- Focus on customer relationships. Enterprises have to conduct effective customer relationship management techniques in order to potentially increase customer satisfaction which may further lead to better competitive ability on the market.
- Brand development. In order to develop loyalty with the customer, enterprises have to develop effective brand development strategies and realize adequate business activities in the domain of brand development with the main goal to improve customer satisfaction.
- Perceived product quality should be thoroughly analyzed and if there are big misalignments with objective product quality, then corrections and modifications must be conducted in order to gain control of how quality is affecting customer satisfaction.
- Depending on the type of the product, enterprises should focus on providing high level of personalization when it comes to their products on the market. This way a stronger relationship can be achieved with the customer. This approach indicates focus on individual customers rather than the whole market.
- Business quality and every aspect of should be standardized in order to provide consistent levels of product quality. This further invites the implementation and application of quality management systems - ISO 9001.
- When implementing the ISO 9001 standard, enterprises should focus on organic quality improvement where the certification is just a byproduct and not the main goal of quality improvement.
- Continuous improvement is an imperative for long-term success on globalized markets. This includes the continuous improvement of products and services, as well as the continuous improvement of business activities and

processes. Where, necessary, dramatic changes should be conducted.

- Every employee should be involved in the changes which affect product and overall business quality.
- Achieving competitiveness without innovating and distributing new products on the market is practically impossible. Therefore, enterprises should effectively invest into new product development and in new innovation development. In order for these innovations to be effective customer feedback must be analyzed and taken into consideration. In addition, this involves the application of intellectual capital which requires effective intellectual capital allocation.
- New and attractive products don't won't increase business and market performance if they are not accompanied with effectively designed pricing strategies. Enterprises have to consider the competition and the purchase power of consumers.
- When it comes to the employees, enterprises have to develop a motivating work environment. Management has to take into consideration employee burn-out and to improve working conditions as necessary.
- As mentioned previously, intellectual capital allocation has a crucial part in developing new products and innovations. Therefore, enterprises have to develop an adequate infrastructure for intellectual capital storage, distribution and creation.
- Employee knowledge and skills should be periodically improved. This way there is a bigger potential for spontaneous innovations from employees.

Besides these guidelines domestic enterprises have to adopt and apply modern management techniques and tools. Additionally, in order to be competitive in the fourth industrial revolution and in the era of globalized markets, enterprises have to implement and apply modern information and communication technologies. Summarized, domestic enterprises have to focus on quality, modern equipment, the application of ICT and innovation. These suggestions and guidelines are from the enterprises' viewpoint. However, the country, more precisely the government of Serbia has to establish a motivating business environment for small and medium-sized enterprises in order to become more competitive. The government could alleviate monopoly of certain big companies in

order to give SMEs more “breathing” room. In addition, reduced taxes, and incentive programs could motivate potential entrepreneurs to start their own business.

## CONCLUSION

In the modern business environment, domestic enterprises struggle to obtain and maintain a competitive position on the domestic market, while the majority of enterprises are “handicapped” when it comes to the international market and achieving a strong competitive position. Overall, domestic enterprises can’t compete with enterprises from the European Union. The main reasons for this is old manufacturing equipment, the lack of ICT application, the lack of modern management tools and techniques application, and demotivating economic environment. In addition, the lack of ISO 9001 certificates, or any other form of quality management is one of the main issues that domestic enterprises have to solve.

In this research the opinions of managers of domestic enterprise and the opinions of customers of various products, were analyzed. The main goal of the research was developing a model for improving business and competitiveness of domestic enterprises in Serbia. The main focus of the research was quality and customer satisfaction. Based on the results a model for improving business and competitiveness was developed. The model integrated the measured factors and it depicts the relations between the defined elements of the model. This way an adequate insight is provided on what these factors additionally include and how do they affect business performance and competitiveness.

It can be concluded that quality management systems, perceived quality, and customer satisfaction affect business performance and market performance - competitiveness. Beside these factors, it was also found that product innovation, marketing communication and strategy, brand development, and human resource management all affect the outcome of business activities. More precisely, it was found that these factors are in a positive relationship with business performance and competitiveness.

The main limitation of this study is that the developed model is based on data obtained from managers and customers from Serbia. This implies that the developed model is only suitable or better

say, it is “aimed” at the Serbian business and market environment. Now, the research is accompanied with a theoretical background. In this theoretical background a comprehensive and thorough literature review was conducted. This literature review implies that the obtained results on the territory of Serbia could be useful in similar economic and business environments.

For future research it is recommended to analyze these factors in other countries may it be neighboring countries or developed countries such Germany, France, Switzerland, Austria or other. The obtained results from these future studies can be compared to the results in this present paper. This current research significantly contributes to the existing body of literature and provides a solid basis for future analysis of relationships in the domain of quality management, customer satisfaction, marketing management, business performance and competitiveness.

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## REFERENCES

- Anđelković-Pešić, M., Janković-Milić, V., & Stanković, J. (2012). Significance of business quality management for increasing competitiveness of Serbian economy. *Serbian Journal of Management*, 7(1), 149-170.
- Aršić, M. (2016). Dugoročne posledice ekonomskog sloma privrede Srbije tokom 90-ih godina 20-og veka. *Ekonomске ideje i praksa*, 22, 25-41.
- Bakator, M., Đorđević, D., Coćkalo, D., Nikolić, M., & Vorkapić, M. (2018). Lean startups with industry 4.0 technologies: Overcoming the challenges of youth entrepreneurship in Serbia. *Journal of Engineering Management and Competitiveness (JEMC)*, 8(2), 89-101. UDC: 005.96(497.11) 005(497.11)
- Bešić, C., i Đorđević, D. (2014). *Menadžment znanja*. Fakultet tehničkih nauka: Čačak. ISBN: 978-86-7776-162-2. str. 26.
- Bešić, S., & Bešić, C. (2018). Creating the model for the implementation of marketing attributes which determine domestic enterprises competitiveness. *Journal of Engineering Management and Competitiveness - JEMC*, 8(2), 102-112. UDC: 005(497.11) 339.13(497.11)
- Birol, Ö. H. (2012). Globalization in historical perspective. *International Journal of Business and Social Science*, 3(8), 92-98.

- Carrano, B. (2019). *Serbia between souverainism and globalization 4.0*. Serbian monitor.com. Available at: <https://www.serbianmonitor.com/en/serbia-between-souverainism-and-globalization-4-0/> (Accessed on 16.08.2019.)
- Chi, C. G., & Gursoy, D. (2009). Employee satisfaction, customer satisfaction, and financial performance: An empirical examination. *International Journal of Hospitality Management*, 28(2), 245–253. doi:10.1016/j.ijhm.2008.08.003
- Khan, I. (2012). Impact of customer satisfaction and retention on customer loyalty. *International Journal of Scientific & Technology Research*, 1(2), 106-110.
- Kovačević, M. (2014). *Uzroci deindustrijalizacije i ograničenja za reindustrijalizaciju. U knjizi Deindustrijalizacija u Srbiji - Mogućnosti revitalizacije industrijskog sektora* (str. 11-44) Beograd: Institut ekonomskih nauka.
- Oladimeji, M. S., Ebodaghe, A. T., & Shobayo, P. B. (2017). Effect of globalization on small and medium enterprises (SMEs) performance in Nigeria. *International Journal of Entrepreneurial Knowledge*, 5(2), 56-65.
- Ostojić, T. (2018). *BIZIT 2018: Industrija 4.0 – digitalna revolucija poslovanja*, PC Press, oktobar 2018. Available at: [www.pcpres.rs](http://www.pcpres.rs). (Accessed on 19.08.2019.)
- Popkova, E. G., Ragulina, Y. V., & Bogoviz, A. V. (2019). *Industry 4.0: Industrial Revolution of the 21st Century*. Springer International Publishing: Berlin, Germany.
- Ritzer, G., & Dean, P. (2019). *Globalization - The Essentials*. John Wiley & Sons: Hoboken, New Jersey. ISBN: 9781119315001. str. 100.
- Roblek, V., Meško, M., & Krapež, A. (2016). A Complex View of Industry 4.0. *SAGE Open*, 6(2), 215824401665398. doi:10.1177/2158244016653987
- Stock, T., & Seliger, G. (2016). Opportunities of Sustainable Manufacturing in Industry 4.0. *Procedia CIRP*, 40, 536–541. doi:10.1016/j.procir.2016.01.129
- Suchánek, P., Richter, J., & Králová, M. (2014). Customer satisfaction, product quality and performance of companies. *Review of Economic Perspectives*, 14(4), 329-344. doi: 10.1515/revecp-2015-0003.
- Vukotic, S., Milivojevic, T., & Zakic, N. (2018). Theory, Practice and Characteristics of Management in Serbia. *International Journal of Advances in Management and Economics*, 2(2), 63-75.
- Williams, P., & Naumann, E. (2011). Customer satisfaction and business performance: a firm-level analysis. *Journal of Services Marketing*, 25(1), 20–32. doi:10.1108/088760411111107032
- World Economic Forum (WEF). *The Global Competitiveness Report 2019*. Available at: <http://reports.weforum.org/global-competitiveness-report-2019/> (Accessed on 16.10.2019.)
- Yee, K. P., & Eze, U. C. (2012). The influence of quality, marketing, and knowledge capabilities in business competitiveness. *International Journal of Innovation and Learning*, 11(3), 288. doi:10.1504/ijil.2012.046067

## RAZVOJ MODELA ZA UNAPREĐENJE POSLOVANJA I KONKURENTNOSTI DOMAĆIH PREDUZEĆA

Konkurentnost domaćih preduzeća na međunarodnom tržištu praktično ne postoji. Većina malih i srednjih preduzeća (MSP) suočavaju se sa poteškoćama kada je u pitanju postizanje i održavanje konkurentne pozicije na tržištu. Globalizacija i poslovanje u okvirima četvrte industrijske revolucije - Industrije 4.0, donosi izazove za MSP. Bez adekvatnog sistema menadžmenta kvalitetom, bez primene IKT i nedostatak savremenih mašina i opreme u proizvodnji, preduzeća ne mogu da se takmiče na međunarodnom tržištu. U ovom radu anketirani su rukovodioci domaćih preduzeća i korisnici različitih proizvoda. Dve posebne ankete obuhvatale su analizu upravljanja kvalitetom, kvalitet proizvoda, upravljanje ljudskim resursima, marketing strategiju, promocione aktivnosti, zadovoljstvo korisnika, opaženi kvalitet proizvoda i razvoj brenda proizvoda. Cilj istraživanja je definisanje relacija između merenih faktora kako bi se uspostavio model za unapređenje poslovanja i konkurentnosti domaćih preduzeća u Srbiji. Model pruža značajan uvid u načine na koje preduzeća mogu da unaprede poslovanje i postignu konkurentnu poziciju na međunarodnom tržištu. Dodatno, ovaj rad pruža jaku osnovu za buduća istraživanja u ovom domenu.

**Ključne reči:** MSP; Upravljanje kvalitetom; Upravljanje marketingom; Zadovoljstvo korisnika; Konkurentnost.