THE INFLUENCE OF DETERMINATION OF THE REQUIRED COMPETENCIES ON THE BUSINESS PERFORMANCE OF SMALL AND MEDIUM ENTERPRISES

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Abstract

Purpose - Small and medium enterprises (SMEs) are very important from a social and economic point of view. They account for two-thirds of jobs in the private sector and are responsible for more than half of the total added value attained by companies in the EU. Competency management consists of three phases: determining the required competencies; determining current competencies and the competency gap; and undertaking activities to ensure and develop the necessary competencies. The required competencies determine the key activities and behaviors required in each key area of work. They represent the basis for the quality performance of other phases of competency management. The primary aim of this research is to determine whether and to what extent determining the required human resources competencies influence the business performance of small and medium enterprises.

Methodology - The empirical research was conducted on 234 SMEs in the Federation of Bosnia and Herzegovina (FB&H) in January 2021. The percentage of processed SMEs reflects the real situation according to statistical data on the number of SMEs in the FB&H. An original questionnaire was created for the survey. Data collected by the conducted empirical research were analyzed using graphic representations; descriptive statistics; structural analysis; Kolmogorov-Smirnov test; Mann-Whitney U test; Kruskal-Wallis test; correlation analysis; factor analysis; and hierarchical multiple regression models.

Findings - The research results showed the correlation between the studied variables and the influence of determining the required human resources competencies on the business performance of SMEs. The paper includes a comparison with similar research and recommendations for future research.

Contribution - Given that very little research in this area is available in the literature, and that research has not been conducted in this way so far, the contributions of the paper are reflected in several achievements that have made a significant departure from other research on this issue. The same or similar research has not been conducted in Bosnia and Herzegovina so far. The subject of research has been set in a new and original way linking the determining the required human resources competencies and business performance of SMEs through the development of a theoretical model of the relationship between defined variables. An original theoretical and empirical model has been formed, the purpose of which is to determine the impact, direction, and intensity of the links between the first phase of human resources competency management and the business performance of SMEs. A model for measuring business performance has been developed using a balanced scorecard model that includes four perspectives (financial, customer, internal business processes, and learning and growth). Empirical verification of the defined model expanded and deepened the insight into the paradigm of modern business, the first phase of human resources competency management, and its development and affirmation in the field of management and business success.

Keywords: balanced scorecard; business performance; competencies; human resources management; small and medium enterprises

INTRODUCTION

Eisenberg, Goodall and Trethewey (2009, 292) stated that researches show that companies that treat people as their most important asset are also the most profitable. According to Bahtijarević-Šiber (2014, 6), human resources (HR) are the total knowledge, skills, abilities, talents, creativity, motivation, and loyalty that an organization or society has at its disposal. Numerous authors point out that human resources are a source of competitive advantage in both large enterprises and small and medium enterprises (SMEs). Due to the uniqueness and specificity of SMEs, it can be said that human resources as a source of competitive advantage are even more important for SMEs, despite the scarcer resources. It is one way for them to stand out from the competition because HR cannot be copied. HR is unique because people cannot be separated from their knowledge, skills, or values in the way they can be separated from their financial and physical assets.

It is a resource that tends to be rare; a resource that is valuable, imperfectly imitable, and hardly substitutable and as such should be managed well and very carefully. As a result, the policies and practices of HRM, especially the ones associated with innovation and organizational performance, can make a difference and are determinant to the growth of the role of HRM in organization management (Machado and Davim 2020, 23-24). According to Dessler (2015, 30), HRM is the process of hiring, training, evaluating, and rewarding employees, with care for labor relations, the health and safety of workers, and issues of fairness. Christiansen and Chandan (2017, 21) defined it as an administrative function in organizations designed to maximize employee performance through the planning, organizing, and coordinating of activities such as hiring, firing, performance management, and training.

According to Burke and Cooper (2008, XVII), effective HRM practices increase firm performance because employees work both harder (because of greater job involvement, more peer pressure for results, and for economic gains based on high performance) and smarter (because they can use their knowledge and skills acquired through training and development in the jobs themselves in getting the work done). Pablos and Lytras (2008, 49) also stated that effective HRM will generate a higher capacity to attract and hold employees who are qualified and motivated for good performance, and also the benefits from having adequate and qualified employees are numerous. Some examples are higher profitability, less rotation, higher product quality, lower costs in manufacturing and a faster acceptance and implementation of the organizational strategy.

Today, when companies are looking for a competitive advantage, one of the new ways to transform human resources management is competency based human resource management.

1. THEORETICAL BACKGROUND

McClelland was one of the first to make the case that behavioral competencies, rather than intelligence, were what differentiated successful people from their less successful peers in the workplace. He defined competency as a personal characteristic, motive, behavior, skill, or knowledge that is proven to drive superior job performance. He also argued that traditional academic criteria, such as grades in school or academic aptitude,

simply did not predict later success in the workplace (Weiss and Kolberg 2003, 21). Bahtijarević-Šiber (2014, 124) defined competencies as a complex combination and integration of individual skills, knowledge, abilities, motives, and personality traits that result in forms of work and business behavior necessary to achieve job performance, business and organizational strategies and goals. Competency is a cluster of related knowledge, attitudes, skills, and other personal characteristics that affects a major part of one's job; that correlates with performance on the job; that can be measured against well-accepted standards; and that can be improved via training and development (Project Management Institute 2001, 82).

Comparing the traditional HRM and competency-based HRM it can be concluded that the work analysis and job descriptions form the foundation of traditional HRM. Traditional HRM is focused on the number of people and employee costs mistakenly assuming that the job and performance in the future will be the same as in the past. A competency-based approach is more appropriate than a traditional one and is focused on talents, business success, and past or future business performance. Unlike jobs and work activities that are constantly changing, competencies are permanent and employees who possess certain competencies adapt to new work tasks and jobs (Klepić 2021, 49). There are numerous benefits for a company that uses competency-based HRM. According to Dubois and Rothwell (2004, 34-35), those are: enhancing competitive advantage, developing better quality products and services, increasing productivity, positioning the organization for future growth, facilitating culture change and transformation, assisting with large-scale organizational change, fostering positive outcomes with customers or suppliers, increasing financial performance, etc. In his paper, Otoo (2020) examined the mediating role of employee competencies in the association between HRM practices and the organizational effectiveness of the pharmaceutical industry. Knapik, Fernandes, and Sales (2020) analyzed such issues in the implantation and subsequent revisions of a competency management model in their work. In his article, Zupančič (2020) highlighted the importance of investments in competencies. The authors Shet, Patiland, and Chandawarkar (2019) in their paper were exploring the relationship between competency-based performance management and organizational effectiveness. The authors Evianisa, Sukmawati, and Slamet (2021) in their study aimed to identify the competency of human resources and management best practices related to advancing employee performance.

Each organization needs to develop its own competency model. Therefore, one unique model that is valid for all cannot be found in the literature. Medina and Medina (2015, 286) presented three-step competency management model and Gaeta, Marzano, Miranda and Sandkuhl (2017, 408) developed a six-step competency management model. Based on the existing competency management models, a modified model is presented as the most suitable, which consists of 3 phases (Klepić 2021, 57): (1) Determining the required competencies; (2) Determining current competencies and determining the competency gap between the required and current competencies; and (3) Undertaking activities to ensure and develop the necessary competencies.

The first phase of the competency management model refers to determining the required competencies. The first step in the model of Saks and Haccoun (2016, 122) is to establish standards for performance which will be important in the needs analysis, during training,

and in evaluating the effectiveness of training. This enables a comparison of each employee's performance level against the standard in order to identify discrepancies and the need for training. Competency identification (Dubois and Rothwell, 2004, 28-32) is a means of clarifying key requirements for a job category or department and should be completed only after the dimensions of the work are identified. The required competencies determine the key activities and behaviors required in each key area of work. They represent the basis for the quality performance of other phases in the process of competency management. The two major outcomes of job analysis are a complete and detailed job description and a list of job specifications. One of the ways to identify competencies is to identify the most successful employees who are called "exemplars". Rothwell (2012, 46) stated that competency models may be of two kinds. One describes the characteristics of a person who meets the minimum requirements. The second kind of competency model is tied to productivity improvement and competitive advantage. Griffiths and Washington (2015, 12) stated that interviews and focus groups with high performers are the centerpiece of most modeling processes. Interviews are conducted with exemplars to identify the knowledge, skills, and abilities they possess that set them apart. Competency identification must be an outgrowth of the organization's earlier work to identify its desired strategic results, the relationship of those results to business success, and the connection between worker results and organizational success. The result of this first phase is the identification of the necessary competencies, then the determination of the structure of competencies and the determination of the required level or degree of competencies.

The purpose of the paper authored by Martin, Elg, Gremyr, and Wallo (2021) was to introduce a competence-based terminology for describing general competencies of quality management work in organizations and creating a competence framework in order to understand what is needed to be a quality management practitioner. Elizondo Sandoval et al. (2018, 92) in their scientific paper graphically presented intervention methodology for the implementation of the profile of managerial competencies for SMEs, and through the phases, presented the measurement of optimal performance, then defined the desired performance and determined the gap. The article of authors Karwehl and Kauffeld (2021) provided an overview of established and new ways of competence management, with a focus on the HR Analytics approach. Goldman and Scott (2016) investigated in their study the competency models used by organizations to assess the strategic thinking ability of their leaders, managers, and other employees.

The Balanced Scorecard (BSC) is a methodology that identifies and formalizes the main drivers of the business and provides a quick view of the corporation's strategic health (Nair 2004, 5). Schmeisser, Clausen, and Lukowsky (2008, 16) defined the BSC as an integral management system that enables the simultaneous and balanced use of monetary and non-monetary indices and indicators, which application provides the management with a comprehensive management and control system. The objectives and measures view the organizational performance from four perspectives: financial, customer, internal business processes, and learning and growth. These perspectives provide the framework for the BSC (Kaplan and Norton 1996, 8).

2. METHODOLOGY OF RESEARCH

1.1. Setting hypotheses

Taking into account the defined problem, the subject of research, and the set objectives, an original research model was used. In the research model, human resources competency management consists of three groups of activities and the business success of SMEs consists of four dimensions that represent four perspectives for observing business performance. For this paper and the research on the connection between determining the required human resources competencies and the business performance of SMEs, one main hypothesis and four auxiliary hypotheses were defined according to the research model.

H - 1: "Determining the required human resources competencies positively influences the business performance of SMEs."

AH – 1: "Determining the required human resources competencies positively influences the business performance from the financial perspective of SMEs."

AH – 2: "Determining the required human resources competencies positively influences business performance from the customer perspective of SMEs."

AH – 3: "Determining the required human resources competencies positively influences business performance from the internal business processes perspective of SMEs."

AH – 4: "Determining the required human resources competencies positively influences business performance from the learning and growth perspective of SMEs."

1.2. The scope of the research, methods of collecting and processing data model

Data collected by the conducted empirical research were analyzed using: graphic representations; descriptive statistics; structural analysis; Kolmogorov-Smirnov test; Mann-Whitney U test; Kruskal-Wallis test; correlation analysis; factor analysis; and hierarchical multiple regression models.

In order to test the hypotheses, a survey questionnaire was used as a research instrument in which closed questions with an offered limited number of answers were asked, of which for most questions intensity answers with a Likert scale from 1 to 5 were offered. The Likert scale was fully used for the second and third parts of the questionnaire. In the first part of the questionnaire, which refers to basic information on the researched companies (e.g. legal form of the company), closed single-answer multiple choice questions were used. The questionnaire was completed by heads or employees of HR departments and senior managers, taking into account the situation before the appearance of the virus Covid - 19. The questionnaire consists of three parts. The first part refers to basic information on the researched companies, the second part to the first phase of competency management in the researched companies, and the third part to the business success of the researched companies. The survey questionnaire was submitted to 234 SMEs in the Federation of Bosnia and Herzegovina (FB&H). The percentage of processed SMEs reflects the real situation according to statistical data on the number of SMEs in the FB&H. The number of employees was taken as the criterion for the size of the company because only that criterion is identical in all laws for measuring the size

of the company within B&H and it is identical to the recommendations of the European Union. The research was conducted in January 2021.

2.   **RESEARCH RESULTS AND DISCUSSION**

2.1. Descriptive research results

Empirical research covers 234 companies in the FB&H, of which 67.55% are small companies with 10 to 49 employees, and 32.05% are medium-sized companies with 50 to 249 employees. The largest share of companies is from Canton Sarajevo (30.77%), Tuzla Canton (21.37%) and West Herzegovina Canton (10.36%). Considering the industry to which the company belongs, the highest share is of those companies engaged in trade (30.34%), manufacturing (23.9%) and construction (11%). Considering the ownership structure, companies with domestic private ownership dominate (75.64%), and given the legal form, 88.46% of companies are limited liability companies. In addition, most of the observed companies (77.78%) are older than 10 years.

"Determining the required competencies in a company" as a construct was measured by a questionnaire. It equals the average agreement of companies from the sample with 12 statements related to determining the required competencies. All claims were measured on a Likert scale of 1-5 (1 - not at all to 5 - excellent). Cronbach's alpha reliability coefficient, which is a measure of the internal consistency of statements or questions, for 12 statements from the questionnaire that express "the determination of required competencies in the company" is 0.938> 0.7, which means that these 12 statements can be aggregated into one variable. As an average of the answers or an assessment of agreement with the statements from the questionnaire related to a given construct, a variable called "determining the required competencies" was calculated. The obtained results are presented in Table 1.

Table 1: **Descriptive statistics for the construct and original variables from the questionnaire that express "determination of required competencies"**

Descriptive statistics							The Kolmogorov–Smirnov test for "normality"	
To what extent in your company:	N	Min	Max	**Ave-rage**	Standard deviation	Coeffici-ent of variation	Sta-ti-stics	P value
DESCR	234	1	5	**4.085**	0.941	23.031	0.236	0.000
PERF	234	1	5	**3.953**	0.941	23.814	0.225	0.000
KNOWL	234	1	5	**4.004**	1.017	25.398	0.233	0.000
ABILL	234	1	5	**3.850**	1.014	26.345	0.242	0.000
TECHSKILL	234	1	5	**3.850**	1.023	26.564	0.238	0.000
INTERPSKILL	234	1	5	**3.816**	0.996	26.097	0.201	0.000
TRAIT	234	1	5	**3.885**	0.993	25.570	0.217	0.000

DUTY	234	1	5	**4.047**	1.024	25.311	0.238	0.000
BEHAV	234	1	5	**4.017**	0.985	24.513	0.234	0.000
COMP	234	1	5	**3.987**	1.017	25.505	0.225	0.000
MOTIV	234	1	5	**3.885**	1.006	25.901	0.225	0.000
EXEMP	234	1	5	**3.782**	1.027	27.162	0.212	0.000
Construct, Average	234	1.42	5.00	**3.930**	0.771	19.616	**0.093**	**0.000**

Source: Author's work

The average grade for this construct is 3.93 with a standard deviation of 0.771. The "normality" of the distribution of answers from the sample for all 12 initial statements and the construct was also tested. For the initial claims from the questionnaire, "normality" was not satisfied even for the derived variable "determination of required competencies in the company" (p values of the KS test are lower than 0.05).

Four constructs or dimensions are used to measure the business success of an enterprise that is measured through performance measurement from four BSC perspectives. These are financial, customer, internal business processes, and learning and growth perspective. In order to see the performance of the company from a financial perspective, the movement of income, costs, operating result (profit or loss) and market share is monitored. In the context of better performance in revenue and profit, grade 1 is associated with a large decline and grade 5 with a large increase. In terms of costs and losses, there is an indirect relationship with performance, so a score of 1 joins a large increase and a score of 5 a large decline. Profit and loss scores derived in this way are combined for the business result. Cronbach's alpha reliability coefficient, which is a measure of the internal consistency of statements or questions, for 3 statements from the questionnaire expressing the movement of income, and operating expenses (profit and loss) in the company is 0.584 <0.7, which means that these 4 statements are not ideal to aggregate into one variable. Such reliability coefficients in the observed sample (lower than the limit of 0.7) indicate a possible problem with the measurement scales that unite these claims. Such results in the sample do not justify the application of the model of structural equations (SEM) in order to test the hypotheses of the work. This is the reason for the factor analysis to be carried out on the statements and see how they relate to the isolated factors, and by applying hierarchical regression analysis to test the set hypotheses. Another reason for choosing regression analysis in the hypothesis testing process is that it is possible and easy to interpret as needed qualitative dummy variables related to the characteristics of the company in the sample to include in the model. However, as a logical continuation of previous analyzes, as an average of responses or an assessment of agreement with these statements from the questionnaire related to a given construct, a variable called "performance from a financial perspective" was calculated. The obtained results are presented in Table 2.

Table 2: **Descriptive statistics for the construct and original variables from the questionnaire expressing "performance of companies from a financial perspective"**

Descriptive statistics							The Kolmogorov–Smirnov test for "normality"	
Results	N	Min	Max	Average	Standard deviation	Coefficient of variation	Statistics	P value
FINANC1	234	1	5	3.256	0.861	26.432	0.250	**0.000**
FINANC2	234	1	5	2.923	0.793	27.138	0.299	0.000
FINANC3	234	1	5	3.415	0.995	29.147	0.200	0.000
FINANC4	234	1	5	3.308	0.828	25.041	0.299	0.000
Construct, average	**234**	**1.25**	**4.75**	**3.225**	**0.517**	**16.031**	**0.151**	**0.000**

Source: Author's work

The average grade for this construct is 3,225 with a standard deviation of 0.517. The "normality" of the distribution of answers from the sample for all 4 starting elements and for the derived construct was also checked. For the initial elements from the questionnaire, "normality" was not satisfied even for the derived variable "performance of the company from the financial perspective" (p values of the KS test are lower than 0.05).

In order to see the performance of the company from the customer perspective, market share, retention of existing customers, retrieving new customers, and customer satisfaction are monitored. The Cronbach's alpha reliability coefficient, which is a measure of the internal consistency of statements or questions, for the 4 statements in the questionnaire is $0.864 > 0.7$, which means that these 4 statements can be aggregated into one variable. As an average of the answers or an assessment of agreement with these statements from the questionnaire related to a given construct, a variable called "performance from a customer perspective" was calculated. The obtained results are presented in Table 3.

Table 3: **Descriptive statistics for the construct and original variables from the questionnaire that express "business performance from a customer perspective"**

Descriptive statistics							The Kolmogorov–Smirnov test for "normality"	
Results	N	Min.	Max	Average	Standard deviation	Coefficient of variation	Statistics	P value
CUSTOM1	234	1	5	3.308	0.828	25.041	0.299	0.000
CUSTOM2	234	1	5	3.538	0.899	25.396	0.264	0.000
CUSTOM3	234	1	5	3.479	0.937	26.924	0.221	0.000
CUSTOM4	234	1	5	3.624	0.910	25.108	0.249	0.000
Construct, average	**234**	**1.00**	**5.00**	**3.487**	**0.753**	**21.601**	**0.160**	**0.000**

Source: Author's work

The average grade for this construct is 3,487 with a standard deviation of 0.753. The "normality" of the distribution of answers from the sample for all 4 initial statements was also tested for the construct. For the initial claims from the questionnaire, "normality" was not satisfied even for the derived variable "performance of the company from the customers perspective" (p values of KS test are lower than 0.05).

In order to see the performance of the company from the internal business processes perspective, the introduction of innovations in the business process, the percentage of mistakes made, compliance with deadlines and after-sales service or services are monitored. The percentage of errors made is indirectly related to performance, so a score of 1 is associated with a large increase and a score of 5 with a large decrease. In the context of better performance in the other three variables, grade 1 is associated with a large decline, and grade 5 with a large increase. Cronbach's alpha reliability coefficient, which is a measure of the internal consistency of statements or questions, for 4 statements from the questionnaire is $0.579 < 0.7$, which means that these 4 claims are not ideally aggregated into a single variable. As an average of the answers or an assessment of agreement with these statements from the questionnaire related to a given construct, a variable called "performance from the internal business processes perspective" was calculated. The obtained results are presented in Table 4.

Table 4: **The descriptive statistics for the construct and original variables from the questionnaire that express "performance of companies from the internal business processes perspective"**

Descriptive statistics							The Kolmogorov–Smirnov test for "normality"	
Results	N	Min	Max	Ave-rage	Standard deviation	Coefficient of variation	Stati-stics	P value
INT-PROC1	234	1	5	3.513	0.890	25.329	0.239	0.000
INT-PROC2	234	1	5	3.030	0.863	28.498	0.305	0.000
INT-PROC3	234	1	5	3.517	0.946	26.892	0.255	0.000
INT-PROC4	234	1	5	3.444	0.935	27.151	0.277	0.000
Construct, average	**234**	**1.00**	**5.00**	**3.371**	**0.604**	**17.918**	**0.165**	**0.000**

Source: Author's work

The average grade for this construct is 3,371 with a standard deviation of 0.604. The "normality" of the distribution of answers from the sample for all 4 initial statements was also checked for the derived construct. For the initial claims from the questionnaire, "normality" was not satisfied even for the derived variable "performance of the company from the internal business processes perspective" (p values of the KS test are lower than 0.05).

In order to see the performance of the company from the learning and growth perspective, investment in training and education of employees, enabling employees to use new technologies, mutual cooperation of employees and knowledge sharing and empowerment and acceptance of employee proposals are monitored. Cronbach's alpha reliability coefficient, which is a measure of the internal consistency of statements or questions, for 4 statements from the questionnaire is $0.845 > 0.7$, which means that these 4 statements can be aggregated into one variable. A variable called "performance from a learning and growth perspective" was calculated as the average of the answers or the score of agreement with these statements from the questionnaire related to the given construct. The obtained results are presented in Table 5.

Table 5: **The descriptive statistics for the construct and original variables from the questionnaire that express "performance of companies from a learning and growth perspective"**

Descriptive statistics							The Kolmogorov–Smirnov test for "normality"	
Results	N	Min	Max	Average	Standard deviation	Coefficient of variation	Statistics	P value
LEARNGROW1	234	1	5	3.410	0.914	26.799	0.263	0.000
LEARNGROW2	234	1	5	3.479	0.937	26.924	0.255	0.000
LEARNGROW3	234	1	5	3.551	0.926	26.081	0.258	0.000
LEARNGROW4	234	1	5	3.372	0.890	26.402	0.264	0.000
Construct, average	**234**	**1.00**	**5.00**	**3.453**	**0.758**	**21.940**	**0.157**	**0.000**

Source: Author's work

The average grade for this construct is 3,453 with a standard deviation of 0.758. The "normality" of the distribution of answers from the sample for all 4 initial statements was also tested for the construct. For the initial claims from the questionnaire, "normality" was not satisfied even for the derived variable "performance of the company from the learning and growth perspective" (p values of the KS test are lower than 0.05).

2.2. Testing research model hypothesis

The aim of this paper is to examine whether and to what extent the degree of "determining the required human resources competencies" has an impact on the performance of SMEs. In this way, the main hypothesis of the work is tested. As previously presented, the "determining the required human resources competencies", as an independent variable, and the business performance of the company, as a dependent variable, were "measured" and aggregated through a series of constructs through a questionnaire.

The testing of the theoretical model was conducted in two ways:
1. Previously elaborated final constructs obtained as subconstruct averages were taken

for the constructs that will express the degree of determining the required competencies and business performance of the company

2. For constructs that will express the degree of determining the required competencies and business performance of the company, factors are obtained by applying exploratory factor analysis (Principal Axes, the method with "oblique" rotation) to the original statements from the questionnaire related to these constructs. KMO measures and the sphericity test justify the obtained models (KMO> 0.7 and p values of the sphericity test less than 0.05).

2.2.1. Model with constructs obtained as variables averages

Table 6 shows the correlation matrix (partial correlation coefficients, control by excluded independent variables) for the previously described average constructs.

Table 6: **The correlation matrix: degree of "determining the required competencies", as an independent variable, and "business performance of SMEs", as a dependent variable (averages)**

The human resources competency management through:		Business success from:			
		financial perspective	customer perspective	internal business processes perspective	learning and growth perspective
Determining the required competencies	Partial correlation coefficient	0.170***	0.292***	0.284***	0.229***
	P value	0.009	0.000	0.000	0.000

(* p <0.1, ** p <0.05, *** p <0.01)
Source: Author's work

When the influence of the other two constructs that monitor the degree of human resources competency management is controlled or excluded, the conclusion follows that there is a significant positive impact of the level of determining the required competencies on the business performance of SMEs. Based on the above conclusions, main hypothesis H1 and auxiliary hypotheses AH1, AH2, AH3, and AH4 are fully confirmed.

The constructed averages for the degree of "determining the required competencies" and "business performance of SMEs" obtained in the previously described ways are further modeled by applying hierarchical regression analysis. The control variables included the dummy variable for the size of the company according to the number of employees and the dummy variable for the characteristics of the company, according to which significant differences in mean values for constructs (business and age of the company) were shown in previously performed statistical tests. According to ANOVA, all constructed models are significant with a coefficient of determination other than 0, which means that they are acceptable. The problem of multicollinearity was not present in the obtained models, so

it was not necessary to eliminate independent variables. Outliers were also considered, and one outlier is evident in every perspective however this deviation is not significant.

2.2.2. Model with constructs obtained as variable factors

Table 7 shows the correlation matrix (partial correlation coefficients, control by excluded independent variables) for the previously described construct factors.

Table 7: **The Correlation matrix: degree of "determining the required competencies", as an independent variable, and "business performance of SMEs", as a dependent variable (factors)**

The human resources competency management through:		Business success from:			
		financial perspective	customer perspective	internal business processes perspective	learning and growth perspective
determining the required competencies	Partial correlation coefficient	0.181***	0.294***	0.262***	0.236***
	P value	0.006	0.000	0.000	0.000

(* p <0.1, ** p <0.05, *** p <0.01)
Source: Author's work

When the influence of the other two constructs that monitor the degree of human resources competency management is controlled or excluded, the conclusion follows that there is a significant positive impact of the level of "determining the required competencies" on the business performance of SMEs. Based on the above conclusions, main hypothesis H1 and auxiliary hypotheses AH1, AH2, AH3, and AH4 are fully confirmed.

The constructs obtained in the previously described ways, factors for the degree of "determining the required human resources competencies" and "business success of SMEs", were further modeled by applying hierarchical regression analysis. The control variables included the dummy variable for the size of the company according to the number of employees and the dummy variable for the characteristics of the company, according to which significant differences in mean values for constructs (business and age of the company) were shown in previously performed statistical tests. According to ANOVA, all constructed models are significant with a coefficient of determination other than 0, which means that they are acceptable. The problem of multicollinearity was not present in the obtained models, so it was not necessary to eliminate independent variables. Outliers were also considered, and one outlier is evident in every perspective however this deviation is not significant.

Based on the results obtained by the research, the analysis and testing of hypotheses and models obtained based on from a sample of 234 companies, it follows that the degree of determining the required competencies has a positive and significant effect

on the performance of SMEs from four different perspectives (financial perspective; customer perspective; internal business processes perspective; and learning and growth perspective), observed both through the model with constructs obtained as variables averages and through the model with constructs obtained as variable factors. Based on the above conclusion, auxiliary hypotheses AH1, AH2, AH3, and AH4 are fully confirmed, and it can be concluded that main hypothesis H1 is fully confirmed.

CONCLUSION

In this paper, all relevant categories and concepts in the field of human resources competency management of SMEs, which also include SMEs in the field of tourism and hospitality, and a BSC through which business performance has been observed, which describe the previous theoretical and empirical findings in the field of the issue, have been researched and analyzed. The subject of research has been set in a new and original way linking the determining the required human resources competencies and the business performance of SMEs through the development of a theoretical model of the relationship between defined variables. An original theoretical and empirical model has been formed, the purpose of which is to determine the impact, direction, and intensity of the links between the first phase of human resources competency management and business performance of SMEs. A model for measuring the business performance of SMEs has been developed using a BSC model that includes four perspectives. The validity of the model has been verified by this research, which is a significant departure from other research and models. The mutual influence and connection in determining the required human resources competencies and business performance observed through all four perspectives of the BSC determined in the set model has been determined. Empirical verification of the defined model expanded and deepened the insight into the paradigm of modern business, and human resources competency management, their development and affirmation in the field of management and business success. The practical implications of this research and paper are also numerous. The business performance of SMEs in B&H has been determined and measured through four perspectives of the BSC method, which are to a large extent also predictors of future business performance indicators, which can be fully applied to SMEs in the fields of hospitality and tourism as well. The positive impact of the first phase of human resources competency management on business performance has been determined through all four perspectives, which will provide a quality foundation for SMEs in tourism and hospitality, as well as all other SMEs, to make further decisions on competency management activities in SMEs but also large enterprises, which can significantly raise competitiveness of enterprises in the field of tourism and hospitality and all other enterprises, and affect their business performance.

The limitation of a conducted research is reflected in the extent of the sample and the method of creating the research sample. A recommendation for future research is to include the other B&H entity, neighboring countries, EU member states, and other countries.

The goal of the paper was accomplished and the empirical research confirmed that the degree of determining the required human resources competencies as an independent

variable positively and significantly affects the business success of small and medium enterprises (observed through business performance from four BSC perspectives) as a dependent variable. It means that SMEs need to focus their approach on developing competency management models to improve their business performance.

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