

# Effect of human resource management functions on the balanced scorecard – case study Jordanian public joint-stock companies

BILJANA STOJAN ILIC  
Faculty of Management Zajecar  
Megatrend University of Belgrade  
Boulevard of Marshal Tolbukin 8, Belgrade  
SERBIA

SAFWAN AL SALAIMEH,  
Information Technology Faculty  
Aqaba University of Technology  
JORDAN

SLAVICA ANDJELIC  
Modern Business School, Belgrade  
SERBIA

*Abstract:* The acceleration of contemporary and influencing changes in the future of administrative organizations has imposed on these organizations new, added challenges, which are evident in their relentless pursuit of realizing, absorbing, and introducing advanced systems adapting to modern ideas and trends, which give organizations the modernity and development character. The paper's study sought to determine the impact of human resource management functions on the balanced scorecard in Jordanian public joint-stock companies. Appropriate statistical methods were applied to the research process. In light of the results obtained, the study recommends the need to work on creating an organizational culture that promotes the optimal and effective use of human resource management functions in the organizational environment. Upgrading these functions to the desired higher levels, achieving compatibility between design and analysis of work with organizational structures, can provide incentives for employees and develop business procedures to improve the balanced scorecard of the organization.

*Keywords:* Human Resources, Management Functions, Balanced Scorecard, Analysis, Promotion, Organizational Structure.

Received: July 12, 2021. Revised: May 7, 2022. Accepted: May 28, 2022. Published: June 16, 2022.

## 1 Introduction

Business organizations are working permanently to achieve and maintain their success and survival. This makes them constantly seek to develop, improve, and amend their strategies, developing their products, using innovative tools and means. The administrations of modern organizations seek to benefit from the knowledge and science that researchers constantly create and develop [1]. These initiatives result in fresh prospects as well as

ongoing advancement and development. Human resource planning departments have made consistent efforts to secure capabilities and develop plans responsive to the needs of improving the balanced scorecard to gain a competitive advantage in quality, responsiveness, cost, customer satisfaction, and critical process performance measures [2].

The functions of human resources management are distinguished by their connection to the organization's management since it oversees the

organization's relationship with all employees in various departments [3].

A simple random sample of (443) employees was drawn for research purposes (effect of human resource management functions on the balanced scorecard-Jordanian public joint-stock companies), and the data were analyzed using the Statistical Package for Social Sciences (SPSS), and the studies reached conclusions. The inclusion of human resource management functions in the balanced scorecard in Jordanian public joint-stock firms was the most important theme. Human resource management functions accounted for a large (65.7%) variance in the balanced scorecard in Jordanian public joint-stock companies[4].

## 2 Literature review

The efficient use of resources is critical to an organization's ability to accomplish its duties and activities in an integrated manner [5]. Because it is a crucial aspect of the organization's future strategy, which aims to attain the desired balanced scorecard [6]. Where it meets the needs of the other departments that make up the organization for appropriate, trained, qualified, and well-motivated human resources through training programs and educational policies established by the human resources department to raise and develop the capabilities of these human resources, allowing each department within the organization to achieve its strategic objectives [7][8].

The concept of institutional performance is linked to a system (7-S, s) related to the Balanced Scorecard pillars, which includes the existence of Shared-Values, Strategy, Structure, and Management Style commensurate with the company's vision, work systems, and human cadres (staff), and continuous development of the skills required to perform the company's work [9]. The functions of human resource management have become of particular importance at the practical level, to correct and monitor the processes of change and development within various organizations, as evidenced by Jordanian companies' efforts to pay more attention to human resources (HR) to improve the Balanced Scorecard.

## 2 Problem Formulations

The problem of the study is concentrated in the lack of awareness of the nature of the relationship between the human resource management functions and the balanced scorecard in the Jordanian public shareholding companies, which would shackle them and affect their effectiveness and performance. Especially since the companies under discussion strive to achieve maximum levels of performance, in

addition to developing their jobs according to the requirements of the internal and external work environment, such as forecasting the supply and demand of human resources, setting strategic goals, planning career paths, providing the organization with a stock of skills and competencies needed for workers, and increasing the ability to know The current and expected performance, and achieving effectiveness in the performance of employees, and if the Human Resources Department succeeds in performing this role, it will have a great impact on the balanced scorecard of the company, so this study comes in an attempt to answer the following question: Balanced performance in the Jordanian public shareholding companies? *The research objectives are:* 1) Identify the functions of human resources management and their impact on improving the balanced scorecard in the Jordanian public shareholding companies. 2) Present a set of recommendations that help in improving the balanced scorecard in Jordanian public shareholding companies by raising the level of effectiveness of human resources.

### 2.1 Study methodology

The descriptive approach in the study was based on the theoretical dimensions of the human resource management (HRM) functions and the balanced scorecard in the Jordanian public joint-stock companies, through conducting a desk survey to build the theoretical framework and reviewing the previous studies. The study relied on the field method, using a questionnaire to collect data from the study population to answer the questions and test the hypotheses. The study society consisted of the Jordanian public shareholding companies listed in the Amman Financial Market, which numbered 243 companies registered at the end of 2019. They are distributed as follows: 104 in the financial sector, 52 in the services sector, and 87 in the industrial sector, according to the authority's division of economic sectors. The number of managers in these companies reached 972. A stratified random sample was drawn from 50 companies from different sectors, which constitutes about 20% of the total companies, distributed in proportion and proportionally consistent with the ratio of the number of companies in the sector to the total number of companies. Financial, 12- the services sector, 17- the industrial sector, and a simple random sample was drawn from the community of managers, at the rate of 50%, as the number of sample members reached 486 employees, and 486 questionnaires were distributed - 456 questionnaires were retrieved with a rate of 91.4%, and 13 questionnaires were excluded because they were not

valid for analysis, and thus 443 questionnaires were subjected to analysis, constituting 91.2% of the study sample, and 45.6% of the study population, which is an acceptable percentage for scientific research purposes[10][11]. The majority of the sample members were males, their percentage constituted - 84%, while the percentage of females was 16% of the total sample members. As for the educational qualification variable of the study sample, it was found that 63.9% of those who obtained a bachelor's degree, compared to 14.2% of holders of intermediate and general secondary diplomas, and finally the percentage of individuals who had general secondary qualifications or less came in the last place, reaching 6.5%. This is an indication of the high percentage of undergraduate degree holders working in extractive companies. Regarding the experience, individuals who experienced 11-15 years accounted for 40.2%, which is the highest percentage. Moreover, 26.2% of the study sample had an experience of 6-10 years, and 19% of the study sample had 16 years or more experience, and finally, the percentage of individuals with less than 5 years of experience came in last place. It reached 14.7%. This percentage indicates that employees in the extractive companies feel job security, and achieve their needs and desires, which contributed to their remaining in their business centers. Regarding the age variable, the age group 36-45 years occupied the highest percentage (40.2%), followed by the age group 26-35 years (27.8%). The age group is - 25 years or less - by 14%, while the percentage of respondents within the age group of 51 years and overreached 6.8%.

The study tool was developed based on the literature and previous studies and consulting with experts - consists of three parts. The first part includes the necessary demographic information about the respondent-educational qualification, experience, gender, and age. The second part of the study consists of 22 paragraphs that measure the independent variable and the functions of human resources management (HRM). This part was also designed based on a previous study [12]. It includes four sub-measures to measure the functions of HRM - employee recruitment and appointment, training and development, wages and incentives, and performance evaluation. The third part of the study consists of 16 paragraphs that measure the dependent variable in the Balanced Scorecard. This part was also designed based on a previous study by an eminent researcher[13]. It includes three sub-measures to measure the balanced scorecard, presented in financial and operating performances.

All the measures were formed on the five Likert scales and they: - always apply - often apply - sometimes apply - rarely apply - they do not apply at all. The questionnaire was presented to several referees, including specialized professors of Jordanian universities, to verify its validity of the questionnaire. The questionnaire was presented to a test sample of 30 employees (outside the study) to identify the degree of response, and they expressed their desire to interact with paragraphs, which confirmed the validity of the tool. The stability of the tool was confirmed by the test-retest method by distributing it to an exploratory sample consisting of 25 respondents from outside the study sample. The results were as shown in table 1.

Table 1 Value of the reliability coefficient for the internal consistency

	Dimension	Paragraphs sequence	Stability coefficient	
			test-retest	alpha
1	Attracting and hiring employees	1-4	0.88	0.78
a	Wages and incentives	5-10	0.86	0.90
P	Training and development	11-16	0.87	0.89
4	Performance evaluation	17-22	0.86	0.86
1-4	HRM functions	1-27	0.91	0.90
1	Financial performance		0.88	0.85
2	Operating performance	23-27	0.92	0.85
1-5	Balanced Scorecard	28-32	0.92	0.85

Source: Authors' research

After data was entered using the statistical package of social sciences (SPSS. V.16), the following statistical processors were used: 1)Descriptive statistic measures to describe the characteristics of the study sample in percentages; 2)Multiple Regression Analysis to test the validity of the study model and the effect of the independent variable on the dependent variable; 3)Stepwise Multiple Regression Analysis to test the entry of the independent variables into the dependent variable prediction equation; 4)The Variance Inflation Factory test and the Tolerance test to ensure that there is no high correlation (Multicollinearity) between the independent variables; 5)Skewness test, to ensure that the data follow a normal distribution; 6)Cronbach's Alpha for internal consistency to verify the stability of the study instrument[14] [15].  
*Study hypotheses:* a)The first hypothesis: There is no statistical significance at the level of significance

( $\alpha \leq 0.05$ ) for the human resource management functions (employee recruitment and appointment, wages and incentives, training and development, performance evaluation) in the balanced scorecard with its dimensions (financial performance, operational performance) in the Jordanian public shareholding companies; b) The second hypothesis: There is no statistical significance at the level of significance ( $\alpha \leq 0.05$ ) for human resource management functions (employee recruitment and appointment, wages, and incentives, training and development, performance evaluation) in financial performance as one of the dimensions of the balanced scorecard; c) The third hypothesis: There is no statistical significance at the level of significance ( $\alpha \leq 0.05$ ) for human resource management functions (employee recruitment and appointment, wages and incentives, training and development, performance evaluation) in operational performance as one of the dimensions of the balanced scorecard.

### 2.1.1 Procedural definition

*The independent variable* is presented by the HRM. That is "the administration that believes that the individuals working in the various levels or activities of the company are the most important resources and it must work to provide them with all means that enable them to carry out their work in their interest and to monitor them constantly to ensure their success [16]. HRM presents a set of coordinated and integrated functions to direct the use of available resources to achieve organizational goals [17]. Moreover, definitions of human resource management functions according to the current study: 1. Attracting and appointing employees: the process concerned with searching for workers in the labor market and filtering them through recruitment applications, selection, and personal interviews to place the right individual in the right place [18]. This dimension is measured through the paragraphs of the questionnaire bearing the numbers 1-4 (table 1). 2) Wages and incentives: determining the value and the relative importance of each job, determining the wage levels for the jobs. It is also concerned with granting fair compensation for distinguished performance, and workers can be motivated for their collective performance [19]. This dimension is measured through the paragraphs of the questionnaire bearing numbers 5-10 (table 1). 3) Training and development - the organization carries out training activities intending to raise the efficiency of individuals, their knowledge and skills, and direct their attitudes towards specific activities [20][21].

This dimension is measured through the paragraphs of the questionnaire - numbers 11-16 (table 1). 4)

Performance evaluation: every organization is concerned with evaluating its performance of its through certain methods [22] [23]. This dimension is measured through the paragraphs of the questionnaire bearing the numbers 17-22 (table 1).

*The dependent variable* presented the balanced scorecard - measures that help evaluate the organization's ability to link its present with its future in achieving its goals [24]. The balanced scorecard includes the following variables: a). Financial performance - refers to the follow-up of compliance with the financial laws and legislations stipulated in the organization [25].

This dimension is measured through the paragraphs of the questionnaire with the numbers 23-27 (table 1). b) Operational performance - expresses the broad concept of performance through its interest and financing operations [26]. This dimension is measured through the paragraphs of the questionnaire numbers 28-32 (table 1).

## 3 Problem Solution - The results

Descriptive analysis of all study variables was carried out according to the responses of the study sample members to the paragraphs contained in the questionnaire. The arithmetic averages and standard deviations were calculated and arranged in descending order according to relative importance based on the value of the arithmetic mean, based on the scale in the study.

This criterion was relied upon. If the arithmetic means the value of the items is greater than 3.5, then the level of the study sample's estimate is high, but if the arithmetic means the value is 2.5 - 3.49, then the level is medium, and if the arithmetic mean is 2.49 then the level concerning the arithmetic mean is low. What is the availability of human resource management jobs in Jordanian public joint-stock companies?

Table 2 shows that the averages of the respondents' perceptions of HRM in Jordanian public joint-stock companies came at a high degree. The overall average of the respondent's perceptions of HRM in Jordanian public joint-stock companies was 3.56, with a standard deviation (of 0.55). Training and development ranked first, with an arithmetic average of 3.68, followed by the performance appraisal dimension and the third place came in the dimension of recruiting and appointing employees. This result is explained by the Jordanian public shareholding companies possessing a clear vision for future planning of human resources according to their needs, and the changes that are expected to occur in the supply and demand of human resources.

Table 2 Arithmetic means and standard deviations -HRM in Jordan

Paragraphs/Sequence	HRM functions	SMA	Standard deviation	Rank	Arithmetic mean
1-4	Attr. and hiring an employee	3.55	0.58	3	High
5-10	Wages and incentives	3.42	0.61	4	Average
11-16	training and develop	3.68	0.54	1	High
17-22	Performance evaluation	3.58	0.58	2	High
1-22	Overall average	3.56	0.55	-	High

Source: Authors' research

What is the level of the Balanced Scorecard in the Jordanian public joint-stock companies? Table 3 shows that the averages of the Balanced Scorecard level in the Jordanian public joint-stock companies came with a high degree, with the overall average being (3.67) and a standard deviation (of 0.52). The financial performance dimension ranked first, with an arithmetic average of (3.68), following whereas, the operational performance dimension came in last place. This reflects the tendency of the Jordanian public shareholding companies to pay attention to the performance by drawing a common strategic vision, team spirit, participating, and building the internal operating system.

Table 3 Arithmetic means and standard deviations of the balanced scorecard level

Sequence of paragraphs	balance scorecard	SMA	Standard deviation	Rank	Arithmetic mean
23-27	Financial performance	3.68	0.55	1	High
28-32	Operating performance	3.65	0.56	2	High
23-32	Overall average	3.67	0.52	-	High

Source: Authors' research

Before applying the regression analysis to test the study hypotheses, some tests were performed to ensure that the data fit the assumptions of the

regression analysis, as follows: regarding the assumption that there is no high correlation between the independent variables "Multi-Collinearity", the researcher conducted the coefficient of inflation of variance "Variance" Inflation Factor-VIF ", and the permissible variance test" Tolerance "for each of the independent variables. Table 4 indicates that if the variance inflation factor (VIF) for the variable exceeds 10 and the value of the permissible variance is less than 0.05.

Table 4 Test of variance gain, permissible variance, and torsion modulus

Variables	Tolerance	Variance evaluation factor	Skewness
Attracting and hiring employees	0.313	1.404	0.370
Wages and incentives	0.464	2.156	0.210
Training and development	0.561	1.314	0.266
Performance evaluation	0.463	2.263	0.327

Source: Authors' research

The variable in table 4 has a high correlation with other independent variables and thus will lead to a problem in regression analysis. This rule was relied upon to test the "Multicollinearity" correlation between independent variables. As Table 4 indicates, the value of the variance inflation factor (VIF), and the tolerance factor for each variable, we note that the VIF for all variables was less than 10 and ranges from 1.314 - to 2.263. The tolerance value for all variables was greater than 0.05 as the ranges between 0.313 - 0.561. It can be concluded that there is no real problem related to the existence of a high correlation between the independent variables. To investigate the assumption of a normal distribution of the data, it was calculating the value of the Skewness coefficient of the variables. The value of the skew coefficient was less than 1. That relates to the normal distribution of the study data.

Table 5 shows the validity of the model for testing the study hypotheses and given the high value of (F) computed over its tabular value at the level of significance ( $\alpha \leq 0.01$ ) and degrees of freedom (4, 438), as the functions of HRM, explain (65.7%). The variance in the dimension of (balanced scorecard), is 42.4% of the variance in the dimension of financial performance, and the dimensions of HRM functions is 50.5%. HRM is based on the interpretation of the dimensions of strategic performance.

Table 5 Analysis of variance for regression

Dependent variable	Degrees of freedom	Determination coefficient R2	The computed F value	Indication level of F
Balanced Scorecard	(4,438)	0.657	118.49*	0.000
Fin. performance	(4,438)	0.424	45.55 *	0.000
Operation performance	(4,438)	0.505	62.97 *	0.000

\* Statistically significant at ( $\alpha \leq 0.01$ ) level.

Source: Authors' research

The multiple linear regression model is based on the assumption that there is a linear relationship between a dependent variable  $Y_i$  and several independent variables  $X_1, X_2, \dots, X_k$  and a random bound  $U_i$  - express this relationship concerning  $n$  of the observations and  $k$  of the independent variables as follows in formula 1 [27][28].

$$Y_i = B_0 + B_1X_{i1} + B_2X_{i2} + \dots + B_kX_{ik} + U_i \quad (1)$$

The balance in the Jordanian public shareholding companies, where the calculated values are: 7.665, 4.816, 3.434, and 5.176, respectively, are significant values at the level of significance ( $\alpha \leq 0.01$ ). From the above, it requires the rejecting the null hypothesis, which states that: There is no statistically significant effect at a level of significance ( $\alpha \leq 0.05$ ) for the functions of human resources management in its dimensions (employee recruitment and appointment, wages, and incentives, training and development, performance evaluation) in the scorecard Balanced Jordanian public shareholding companies.

Table 6 presented the results of the "Stepwise Multiple Regression" analysis. When performing a Stepwise Multiple Regression analysis to determine the importance of each independent variable separately in contributing to the mathematical model, which represents the effect of the dimensions of HRM functions in the balanced scorecard in Jordanian public joint-stock companies, the wages and incentives variable ranked first and explained an amount (50.7%) of the variance in the dependent variable, and the income of the performance evaluation variable was explained with the wages and incentives variable (60.3%) of the variance in the dependent variable. The employee recruitment and appointment variable, as was explained with the previous variables of the variance in the dependent variable, and finally the training and development

variable entered, as is explained with the previous variables an amount of 65.7% of the variance in the balanced scorecard in the Jordanian public joint-stock companies as a dependent variable.

Table 6 Results of "Stepwise Multiple Regression" analysis

The order of entry of the independent elements into the prediction equation	R2 value	The computed t value	A significance level of t *
Wages and incentives	Determination coefficient	9.307 *	0.000
Performance evaluation	0.507	6.548 *	0.000
Attracting and hiring employees	0.603	5.680 *	0.000
Training and development	0.646	3.371 *	0.000

\* Statistically significant at ( $\alpha \leq 0.01$ ) \*

The second hypothesis: There is no statistically significant effect at the level of significance ( $\alpha \leq 0.05$ ) of human resources management functions (employee recruitment and appointment, wages, and incentives, training and development, performance evaluation) on financial performance as one of the dimensions of the balanced scorecard.

From the statistical results presented in table 7 and from following up on the values of the (t) test that the following sub-variables related (employee recruitment and appointment, wages, and incentives, training, and development, and performance evaluation) are the most influential variables for human resources management functions on financial performance as A dimension of the balanced scorecard dimensions in the Jordanian public joint-stock companies, where the calculated values of (t) reached (3.687, 4.038, 3.163, and 3.860) respectively, which are significant values at the level of significance ( $\alpha \leq 0.01$ ).

From the foregoing, the following requires: Rejecting the null hypothesis, which states that: There is no significant statistically significant effect at the level of significance ( $\alpha \leq 0.05$ ) for the functions of human resources management in its dimensions (employee recruitment and appointment, wages, and incentives, training and development, performance evaluation) on performance Financial as a dimension of the balanced scorecard in Jordanian public joint-stock companies. It is evident from the statistical results of the test that the sub-

variables related (employee recruitment and appointment, wages, and incentives, training and development, and performance evaluation) are the most influential variables for the functions of human resources management on operational performance as a dimension.

Table 7 Results - the effect of the dimensions of HRM functions on financial performance

Dimensions of human resource management functions	B	Standard error	Beta	computed t value	The significance level of t
Attracting and hiring employees	0.227	0.062	0.218	3.678*	0.000
Wages and incentives	0.73	0.068	0.286	4.038*	0.000
training and development	0.104	0.032	0.134	3.163*	0.002
Performance evaluation	0.42	0.062	0.226	3.860*	0.000

\* Statistically significant at ( $\alpha \leq 0.01$ ) level.

There is no statistically significant effect at the level of significance ( $\alpha \leq 0.05$ ) for human resource management functions (employee recruitment and appointment, wages and incentives, training and development, performance evaluation) on operational performance as one Dimension of the Balanced Scorecard.

Stepwise Multiple Regression analysis - to determine the importance of each independent variable separately in contributing to the mathematical model - which represents the effect of HRM functions on operational performance as a dimension of the balanced scorecard dimensions in Jordanian public joint-stock companies - is presented in Table 8.

Table 8 shows the order of entry of the independent variables into the regression equation, the wages and incentives variable occupied the first place and explained an amount (42.3%) of the variance in the dependent variable, and the income of the employee recruitment.

Table 8 Predict operating performance through the dimensions of HRM functions

The order of entry of the independent elements into the prediction equation	The R2 value of the coefficient of determination	The computed t value	t*
Wages and incentives	0.423	9.909 *	0
Attracting and hiring employees	0.486	6.768*	0
Performance evaluation	0.491	5.352 *	0
training and development	0.502	4.606 *	0

\* Statistically significant at ( $\alpha \leq 0.01$ ) level

The recruitment variable was explained with wages and incentives (48.6%) of the variance in the dependent variable.

A third place is for the performance evaluation variable, as is explained by the previous variables (49.1%) the variance in the dependent variable, and finally entered the training and development variable, which is explained by the previous two variables (50.2%) of the variance in operational performance as a dependent variable.

#### 4 Conclusion

The results of the study showed that the human resource management functions in Jordanian joint stock organizations account for 65.7% of the total variance in the balanced results dimension. The financial performance is expressed as 42.4%, which is a percentage less than the dimension of human resource management.

The obtained results indicate that in the field of operational performance (which includes HRM) Jordanian public joint-stock companies have a clear vision of future human resource planning according to their needs, concerning changes expected in the supply and demand of human resources. It can also be concluded that these companies have succeeded in creating effective means of communication with their employees.

General conclusion: It can be noticed that the flexibility of Jordanian public joint-stock companies, both about their employees and at different administrative levels in organizations and outside them - with external factors, is the most important way to achieving the desired competitiveness and modernization.

References:

- [1] Al-Khashali, S. J. Knowledge Management and its Impact on Organizational Performance: A Field Study in Jordanian Industrial Companies, Vol. 29, No. 1, 2009, pp. 84-109
- [2] Al-Safou, Riyadh D. A. *Elements of Operations Strategy and Their Impact on the Balanced Scorecard*, University of Mosul, Iraq, 2009.
- [3] Wirtz, J. Managing human resources for service excellence and cost effectiveness at Singapore Airlines, Strategic Direction, Vol. 24, No.7., 2008, pp. 4-19.
- [4] Safwan A. S., Mohammad, B.Y. Functional structure of special computerized information system, Journal of Environmental Science, Computer Science and Engineering & Technology, Vol. 4, No. 1, 2014, p. 12
- [5] Ilic, B. S. & Salameh, S. A. Management of telecommunication operator services in Serbia–Case study Eastern Serbia. WSEAS Transactions on Business and Economics, Vol. 19, No.1, 2022, pp. 977-984
- [6] Kefi, H., & Kalika, M. Survey of Strategic Alignment Impact on Strategic Performance in International European Companies, Proceeding of the 38th Hawaii International Conference on System Sciences, 2005.
- [7] Shawabkah, A. M., Kadir, M. R. B. A., Nori, W., & Hassan, H. B. Validating the Framework of the Accounting Information Systems Components and Firm Performance: A Conceptual Study. WSEAS Transactions On Business And Economics , Vol. 19, 2022, pp. 985-999;
- [8] Al-Atwi, J. *The Impact of Complexity of Work Procedures on Institutional Performance An Empirical Study on Employees of the Ministry of Justice in Tabuk Region in the Kingdom of Saudi Arabia*, Mu'tah University, Jordan, 2010
- [9] Banker, R. D., Chang, H.H. & Majundar, S. K. Framework for Analyzing Changes in Strategic Performance” Strategic management Journal, Vol. 17, No. 9, 2009, pp. 23-36.
- [10] Ilic, B., Nikolic, M. Management innovation of products and services in strategic management., Proceeding of 37th International Scientific Conference On Economic And Social Development - Socio-Economic Problems Of Sustainable Development, Baku, Azerbaijan, 2019, pp.179-189
- [11] Al-Enezi, F. *The Impact of Human Resource Management Functions on Achieving Organizational Excellence in Saudi Customs*, Yarmouk University, 2010.
- [12] Al-Rashidi, K. M. The Effect of Effective Application of Human Resources Management Functions on Institutional Performance from the Viewpoint of Employees in Saudi Ministries in the Riyadh Region, Mutah University, Karak, 2009.
- [13] Al-Zoubi, M. A. *The Impact of Participatory Leadership on Improving the Performance of Human Resources in Kuwaiti Industry Companies* (unpublished master thesis), University of Jordan, Amman, 2009.
- [14] Petrucci, C. J. A primer for social worker researchers on how to conduct a multinomial logistic regression, Journal of Social Service Research, Vol. 35, No. 2, 2009, pp. 193–205
- [15] Geene, W. H. *Econometric Analysis* (Seventh Ed.). Pearson Education, Boston, 2012
- [16] David, F. R. *Strategic Management: Concepts and Cases*, 8th Ed., Prentice-Hall, Inc., U.S.A, 2001.
- [17] Nayef, A. K. *The Relationship between Knowledge Management and Core Ability and its Impact on the Balanced Scorecard*, College of Business and Economics, Al-Mustansiriyah University, 2007.
- [18] Al Salameh, S., Saraireh, Z., Hammad, J., & Rawashdeh, Al. Design a Model of Language Identification Tool, Vo.5, No.1, 2015, pp.11-18
- [19] Istyaq, S., Al Salameh, S. & Miqdadi, A. Decomposition Algorithm of the Model of Electronics Systems for Modeling in Conditions of Distributed Resource, Vol.8, No3., 2018, pp. 29-31.
- [20] Kotler, P. *Marketing Management, The Millennium edition*, Ed. 10th, Prentice Hall, Inc., New Jersey, 2000.
- [21] Ilic B, Djukic G, Nikolic M. Rural tourism of Eastern Serbia: Human resources management and motivation, Economy of Agriculture (on Serbian: Ekonomika poljoprivrede), Vol.69, No.1, 2022, pp. 241-255. doi: 10.5937/ekoPolj2201241I
- [22] Al Salameh, S. & Miqdadi, A.. (2018). Structuring of Logistics Management Organizational-Technological System, Mordovia University Bulletin, Vol. 28, No.2, 2018, pp. 175 -180
- [23] Ilic, B.S. Social Component of Sustainable Development and Quality of Life: Region of the Balkans, Eastern Serbia, In *Handbook of Research on Creating Sustainable Value in the Global Economy*. edited by Akkucuk, Ulas, pp. 452-462., IGI Global, Hershey, 2020.

- [24] Gordana, D. P., & Biljana, I. S. Sustaining SME Management and Innovations in the Post-COVID Era. In N. Baporikar (Ed.), *Handbook of Research on Strategies and Interventions to Mitigate COVID-19 Impact on SMEs*, IGI Global, pp. 588-608, 2021. <https://doi.org/10.4018/978-1-7998-7436-2.ch029>
- [25] Gordana, D. P., & Biljana, I. S. Sustaining SME Management and Innovations in the Post-COVID Era. In N. Baporikar (Ed.), *Handbook of Research on Strategies and Interventions to Mitigate COVID-19 Impact on SMEs*, IGI Global, pp. 588-608, 2021. <https://doi.org/10.4018/978-1-7998-7436-2.ch029>
- [26] Soltani, E., Meer, R. & Williams, T. M. A Contrast of HRM and TQM Approaches to Performance Management: Some Evidence, *British Journal of Management*, Vol. 16, No. 3, 2009, pp. 48-59.
- [27] Menard, S. *Applied Logistic Regression Analysis* (2nd Ed.), SAGE Publications, Thousand Oaks, London, 2002.
- [28] Field, A. *Discovering statistics using IBM SPSS statistics*, North American Edition, SAGE Publications, Thousand Oaks, London, 2017.

### **Contribution of individual authors to the creation of a scientific article (ghostwriting policy)**

BiljanaStojanIlic: Methodology, validation, resources, writing, and original draft preparation;

### **Sources of funding for research presented in a scientific article or scientific article itself**

This research received no external funding.

### **Creative Commons Attribution**

#### **License 4.0 (Attribution 4.0**

#### **International , CC BY 4.0)**

This article is published under the terms of the Creative Commons Attribution License 4.0

[https://creativecommons.org/licenses/by/4.0/deed.en\\_US](https://creativecommons.org/licenses/by/4.0/deed.en_US)