#### **Open Access**

# The Impact of Human Capital on Corporate Profitability with Emphasis on Innovation, Knowledge and Employee Satisfaction

#### Mehdi Khazaei\*

Faculty of Entrepreneurship, University of Tehran, Tehran, Iran

#### Abstract

Human capital is a key factor in improving the performance of organizations. Every business must use knowledgeable and experienced employees to increase its profit. In this regard, attracting professional, creative and innovative employees and maintaining them by creating job satisfaction is inevitable. The main purpose of the present study is to investigate the impact of Knowledge, Innovation and Employee satisfaction indicators on the Corporate Profitability. For this purpose, 224 top companies in the world from 2013 to 2019 that were profitable among the top 300 companies each year were selected as the statistical population. IMD digital Competitiveness, Global Entrepreneurship Monitor reports and Fortune site were used to collect the data. Also the data analysis was done according to the panel data method using Stata 15 software. The results shows that in general, there is a positive relationship between Knowledge, Innovation and Employee satisfaction indicators with corporate profitability

### Keywords

Human capital • Profitability • Knowledge • Innovation • Employee satisfaction

### Introduction

Organizations in the global economy are facing new trends of globalization and free market in which competitiveness is the key to economic success. In order to have an efficient and competent organization that can achieve this goal, the managers of organizations must continuously improve their performance by reducing costs, increasing innovative products and services, improving quality and improving market productivity [1]. In a knowledge-based economy, the ability to create intangible assets and use the value of these assets leads to a kind of core competency for organizations. Experience has shown that increasing the abilities and capabilities of employees has a direct effect on financial results and thus on the performance of the company. Therefore, measuring and valuing the human capital of companies has become very important. If managers understand the importance and value of their human resources and recognize them as the main assets of the organization, they will trust them and by trying to improve the scientific and professional position of human resources, they will be able to achieve superior performance and thus competitive advantage and reduce internal and external pressures imposed on themselves and the organization.

According to two important dimensions can distinguish the strategic approach in human resource management from traditional methods of employee management. The first step requires that human resource management practices be linked to the strategic organizational process. That is, first, human resource issues should be considered part of the organization's strategy guidelines. Second, it is necessary to achieve some kind of synergy (or at least, a degree of compatibility) in different methods of human resources and make sure that these methods are in line with

\*Address for correspondence: Dr. Mehdi Khazaei, Department of Business and Economics, University of Tehran, Tehran, Iran; E-mail: mehdi.khazaei1165@gmail. com

**Copyright:** © 2021 Khazaei M. This is an open-access article distributed under the terms of the creative commons attribution license which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

Received: August 06, 2021; Accepted: August 20, 2021; Published August 27, 2021

the needs of the organization. In this regard, the study of strategic human resource management and its impact on the performance of organizations seems necessary [2].

The necessity and importance of human capital management can be raised from these two perspectives; on an individual scale, investing in humans increases their productive capacity and increases their income. People increase their capacity to gain utility in the future by investing in their capacity. Investing in education also has social dimensions. As the organization of human capital increases the productive capacity of society; any cost in education can be considered as a national investment. Human capital, or in other words, the quality of people's work, increases the production and economic growth of countries and is a source of sustainable competitive advantage. To achieve this goal, one of the basic solutions is to introduce strategic concepts into the field of human capital and formulate appropriate solutions for the workforce working in the organization [3]. Human capital helps to create growth opportunities and responds to changing customer needs and market opportunities [4]. In general, based on the resource-based perspective and the dynamics capability perspective, human capital is clearly the center for gathering resources and capabilities because the company's competitiveness and performance depend on the characteristics of human capital [5]. Most previous studies have focused on job characteristics such as income, work-family conflict. stress, and leadership; but researchers have recently paid more attention to the influence of individual factors such as innovation, knowledge and job satisfaction of employees, which leads to employee satisfaction improve the financial performance of organizations [6].

### **Materials and Methods**

#### Theoretical foundations and research background

The concept of capital is one of the richest explanatory frameworks in contemporary sociological and economic considerations. This concept has undergone changes over the past forty years, through which we are witnessing the emergence of new theories of capital such as human capital, cultural capital and social capital. In fact, capital is a productive wealth or resource that one can use to generate income or other additional resources. For Bourdieu, the meaning of capital is broader than its monetary meaning in economics. Capital is a general resource that can take the form of monetary and non-monetary or tangible and intangible. Bourdieu sees "capital" as accumulated labor in its materialized or embodied form, which, when privatized by agents or groups of agents on a private basis, enables them to materialize social force in the form of labor, or Captured alive. Human resources, as the most key organizational resources, will be used efficiently and effectively when managed with a strategic attitude. Factors affecting human resource management and strategic business operations as a general factor, fit the human resource management model suitable for modern business and its relationship with aspects of knowledge management [7].defines human capital as an organization's investment in talent and technology that leads to competitive advantage and is valuable and unique and must be kept out of the reach of other companies. Human capital, as the most important asset of an organization, is a source of creativity and innovation [8]. In an organization, implicit knowledge assets of employees are one of the most vital components that have a significant impact on the performance of the organization. The goal is to turn implicit knowledge of employees into explicit knowledge at all levels of the organization, in this way, it will be possible to create value in the organization. Human capital is the result of employees' professional knowledge, leadership skills, risk-taking and problem-solving abilities [9].

Strategic human capital is about acquiring, analyzing, and reporting on data that provides information about strategic decisions, value-added, investments, and human management; This is done at the level of lowerlevel managers of companies [10]. Strategic human capital management is associated with targeted measurement. The hallmark of strategic human capital management is the use of metrics to guide our vision in the management of human beings as an asset and emphasizes that competitive advantage is achieved through strategic investment in these assets and this can be done from By involving employees in the process and retaining them, talent management and programs related to employee learning and development took place. Human capital management is a bridge between human resources and business strategy. Strategic human capital management means the full development of potential human capabilities that crystallize into an organizational value. Strategic human capital management is associated with value creation through humans, and what can lead to value creation is the philosophy of human development, not just the development process [11]. Strategic human resource management is an effective factor in improving the proper performance of all organizations. Human resource management can help all organizations to improve the utility process, promote efficient operations, increase innovation, change capability and increase the usefulness of organizational performance to , operations affecting the performance of organizations are associated with seven activities, including job security, careful selection and recruitment, self-control teams, high-paying and performancedependent companies, extensive training, reducing the complexity of the situation and sharing information. On the other hand, claim that strategic human resource management is a highly productive factor that can core with a changing environment. Strategic human resource management is directly and indirectly beneficial for the organization due to positive changes in innovation, organizational goals and more involvement of line managers [12]. The characteristics of human capital include knowledge, experience, professional skills and cognitive ability that allow access to more opportunities, lead to positive company performance and economic performance of start-ups. Knowledge, from the point of view of human capital theory, brings more cognitive skills to individuals and ensures their productivity and efficiency potential for the development of activities [13]. In a study with the aim of evaluating the human capital and social capital of managers and the impact of these characteristics on the performance of small and medium-sized companies in Portugal it was found that human capital has an impact on social capital; this experience and cognitive ability affect relationships and individual empathy [14]. Finally, organizational performance has been strongly influenced by human capital through the cognitive ability of managers. In a study conducted by, superior human capital development policies reflect competitive advantage and improve the operational performance of organizations. Improving operational performance also leads to positive financial results and ultimately leads to increases revenue and sales. According to a study conducted [15]. the effect of intellectual capital on financial performance has been studied with a sample of 934 small and medium hotels. The findings of this study show that human capital, structural capital and communication capital It has a positive effect on the financial performance of hotels. have conducted from a sample of 237 employees working in executive positions in various organizations. Different regression techniques were used for analysis. The researchers concluded that organizational human capital has a positive effect on organizational performance [16]. examined the impact of human capital development on organizational performance in the Nigerian banking sector, particularly in Osun State. They conducted their study based on a questionnaire as a research tool using judgmental and simple random sampling methods. The results showed that the development of human capital has a positive effect on organizational performance. Concluded that human capital and social capital were strongly correlated with firm performance when conducting a study using data from 319 Vietnamese ICT companies [17]. emphasizing the importance of human capital in promoting innovation and improving company productivity, conducted a study on 600 manufacturing companies in [18]. has conducted research through content analysis to analyze the relationship between human capital and organizational effectiveness. Organizational effectiveness is characterized by competitiveness, innovation and excellence. Competitiveness depends on skills and investing in human capital. Investing in human capital is characterized by investing in knowledge, health and education. He narrates that globalization has led to the creation of a new economy called the knowledge economy in which the variables of education and knowledge play an important role in human capital. Based on the existing literature, it was analyzed that investing in human capital is not only directly proportional to the productivity of organizations but also increases their profitability by 16% [19]. conducted a study in Egyptian software companies to assess the relationship between human capital and organizational performance. The results showed that the performance of software companies is influenced by intelligence, innovation and creative ideas of employees. According to the above, the research hypotheses are as follows

research on the relationship between organizational human capital and

organizational performance. A questionnaire was used to collect data

• **Hypothesis 1:** The Knowledge (KN) index has a positive relationship with Corporate Profitability.

• Hypothesis 2: The Innovation (In) index has a positive relationship with Corporate Profitability.

• Hypothesis 3: The employee satisfaction especially Salary (SA) index has a positive relationship with Corporate Profitability.

#### Hypothetical research model

Based on the hypotheses presented, the hypothetical model of the present study is shown in Figure 1.

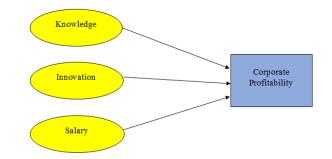


Figure 1. The hypothetical research model.

#### **Research method**

This quantitative study in terms of data type is secondary data. The research consists of three general stages; firstly, using library studies, reviewing existing texts, models, and related theories, and selecting the appropriate model. In the second step, the data are collected and preprocessed according to the hypotheses and sample size, and in the last step, using panel data modeling approach and using SPSS and Stata software, the collected data were analyzed using econometric methods and data were analyzed. The dependent variable of the research is the Corporate Profitability (CP). The independent variables of the research are Knowledge (Kn), Innovation (In), and Salary (Sa). Every year, Fortune site publish a report on revenue, profitability, industry type, number of employees, and more from the top 500 companies in the world [20-25]. The statistical population of the study is the countries whose company or companies were among the top 300 companies in the world for profitability from 2013 to 2019. In the present study, from 2013 to 2019, data on the top 300 companies in the world were extracted for profitability from 37 countries. Of these, 224 companies over the past seven years have been among the top 300 profitable companies in 28 countries. Therefore, the world's top 224 companies are considered as sample size in terms of profitability of 28 countries in the statistical community. Data on the dependent variables, are extracted from Fortune's annual reports and data on independent research variables from the IMD digital Competitiveness ranking and Global Entrepreneurship Monitor (GEM) annual reports between 2013 and 2019.

#### Data analysis

Descriptive and inferential statistics were used to analyze the collected data. The descriptive statistics of the graphs, Central indicators (mean) and dispersion (standard deviation) indices and SPSS software is used for this purpose. In the inferential statistics section, since the nature of the data is cross-sectional and time series, the panel data technique is used. Panel data is a combination of cross-sectional data and time series, meaning that we observe cross-sectional data over time. It is clear that such data have two dimensions, one dimension being related to different units at each specific time point and the other dimension being time [26-28]. The use of panel data methods over cross-sectional and time series methods has two major advantages: First, it allows the researcher to consider the relationship between variables and even units (companies) over time, and The second advantage is the ability of this method to control the individual effects of companies (as cross-cutting units) that are not observable and measurable. In statistics, linear regression is a linear model approach between response variables with one or more descriptive variables. Regression is often used to explore the linear relationship model between variables [29-32]. In this case, it is assumed that one or more descriptive variables whose value is independent of the other variables or under the researcher's control can be effective in predicting the response variable whose value is not dependent on the descriptive variables under the researcher's control. The purpose of regression analysis is to identify the linear model of this relationship.

The general form of the linear K-variable regression model is as follows:

$$Y_{i} = \beta_{1} + \beta_{2}X_{2i} + \beta_{3}X_{3i} + \dots + \beta_{k}X_{ki} + u_{i} \ (i = 1, 2, \dots, N)$$

Where the  $\beta 1$  is width of the origin, is the coefficients of partial angles, u are the random disruption component (estimation error), N is the size of the original population, and i represents the i-th observation. Y denotes the dependent variable and X denotes the independent variable. [20].

Table 1. Descriptive indices of the research variables.

By expanding the main equation we will have:

$$\begin{split} Y_{1} &= \beta_{1} + \beta_{2}X_{21} + \beta_{3}X_{31} + \ldots + \beta_{K}X_{K1} + u_{1} \\ Y_{2} &= \beta_{1} + \beta_{2}X_{22} + \beta_{3}X_{32} + \ldots + \beta_{K}X_{K2} + u_{2} \\ Y_{N} &= \beta_{1} + \beta_{2}X_{2N} + \beta_{3}X_{3N} + \ldots + \beta_{K}X_{KN} + u_{N} \\ \begin{bmatrix} Y_{1} \\ Y_{2} \\ \vdots \\ Y_{N} \end{bmatrix} = \begin{bmatrix} 1 & X_{21} & X_{31} & \ldots & X_{K1} \\ 1 & X_{22} & X_{32} & \ldots & X_{K2} \\ \vdots \\ 1 & X_{2N} & X_{3N} & \ldots & X_{KN} \end{bmatrix} \begin{bmatrix} \beta_{1} \\ \beta_{2} \\ \vdots \\ \beta_{K} \end{bmatrix} + \begin{bmatrix} u_{1} \\ u_{2} \\ \vdots \\ u_{N} \end{bmatrix} \\ Y &= X \qquad \qquad \beta + u \\ N \times 1 \qquad \qquad N \times K \qquad \qquad \qquad K \times 1 \qquad \qquad N \times 1 \\ Y &= X\beta + u \end{split}$$

If one observes autocorrelation or variance heterogeneity, the Generalized Least Squares (GLS) method can be used to estimate the coefficients. However, using this method requires some guesses about the variance-covariance matrix of the disturbance statements that the use of the variance-covariance matrix of the estimated OLS model as a starting point and the use of iterative methods can be helpful in this regard.

### Results

The minimum, maximum, mean, standard deviation, Kurtosis and skewness of the research variables are listed in Table 1. Because the distribution of the research variables is not normal, by logarithmizing the data, their distribution is normalized. It should be noted that due to the large amount of corporate profits, these values are scaled between 0 and 100 to allow for comparison with other variables. For example, the highest profit is \$ 53394 million, which is scaled to 99.8 Table 1.

### Unit root test

Before estimating the model, it is necessary to Durability test all variables used in the research model. Because the inaccuracy of the variables causes the problem of false regression. In this study, the Levin, Lin, and Chu (LLC) Unit Test were used to investigate the variables maneuverability. The basic assumption of the LLC test is the existence of a single root process between sections. Based on the results of Table 2, all the research variables are either at a stable level or in other words zero degree of accumulation Table 2.

Variable	Skewness	Kurtosis	St. deviation	Mean	Max.	Min.	
CP	2.986	8.736	12.796	14.523	99.8	1.62	
Kn	-0.969	3.113	8.573	70.461	96.26	43.09	
In	-0.437	4.326	6.234	31.623	60.53	0.76	
Sa	-3.041	4.674	9.659	79.126	94.08	41.57	

#### Table 2. Unit root test.

Var.	Statistic	Prob.	Degree of accumulation
InCP	-43.631	0	I(0)
InKn	-53.34	0	I(0)
InIn	-21.814	0	I(0)
InSa	-16.354	0	I(0)

#### **Research model analysis**

The purpose of this study is to investigate the effects of Knowledge (Kn), Innovation (In), and Salary (Sa) index on corporate profitability. This model has the following functional form:

$$lnCP_{i,t} = \alpha_0 + \beta_1 lnKn_{i,t} + \beta_2 lnIn_{i,t} + \beta_3 lnSa_{i,t} + \varepsilon_3 lnSa_{i,t} + \varepsilon_$$

Where 0 is the width of the origin and  $\varepsilon$  is the estimated error. In order to estimate the above model, the F-Limer test and then the Hausman test for the type of estimation model should be performed. After confirming the results of these tests, the final model is estimated.

In order to analyze the data using the panel data method, a number of tests must be performed in the first step to determine the method of analysis. These tests are:

#### **F-Limer test**

In order to investigate the type of model in panel data method, F-Limer test was used. In this test, the null hypothesis of the existence of a pool method is tested against the hypothesis of a panel data method. If the null hypothesis is rejected, the model is panel data type and then fixed and random effects tests should be performed in the next step. If the null hypothesis is confirmed, the pool model should be used. Based on the results in Table 3, the null hypothesis is rejected. Therefore, panel data method should be used to estimate the model Table 3.

Table 3. F-Limer fixed effects test for the research model.

Test	Statistic	d.f.	Prob.
F	13.62	-22,31,341	0
Chi-square	7.37	223	0.308

#### Hausman test

Once the type of data has been determined, it is now clear which model should be used fixed effects model or random effects model. In this study, the Hausman test was used to determine the type of model. If the null hypothesis of this test is rejected, the fixed effects model should be used, otherwise the random effects model should be used. Based on the results in Table 4, the null hypothesis is confirmed. Therefore, the random effects model should be used to estimate the model Table 4.

Table 4. Hausman test for the research model.

Test	Statistic	d.f.	Prob.
Chi-square	8.69	6	0.426

#### Test of homoscedastic of likelihood ratio

Homoscedastic is a phenomenon in which the variance of disruption components changes over time or between sections. The existence of variance heterogeneity in the model results in estimates that, despite being consistent, are inefficient. Therefore, to ensure that there is no homogeneity variance problem, and homogeneity variance test should be performed. In this study, the likelihood ratio test was used to investigate the presence or absence of heterogeneity variance. The null hypothesis of this test is the homogeneity variance. Therefore, if the null hypothesis is rejected, it means that there is heterogeneity in the research model. In such circumstances, the GLS method should be used.

Based on the results in Table 5, the null hypothesis of the homogeneity variance test is rejected, meaning that the research model faces the problem of heterogeneity variance Table 5.

Table 5. Homoscedastic test for the research model.

Test	Statistic	d.f.	Prob.	
Chi-square	8.69	6	0.426	

#### Wooldridge test for autocorrelation

Another test to be taken in panel models is the autocorrelation test. In this study, Wooldridge autocorrelation test was used. The null hypothesis of this test is the absence of autocorrelation with the disorder. If this assumption is rejected, the research model should estimate the model with AR. Based on the results of Table 6, the null hypothesis of the Wooldridge test has been rejected, meaning that the research model has encountered any autocorrelation problem shown in Table 6.

Table 6. Wooldridge test for research model.

Test	Statistic	d.f.	Prob.	
Wooldridge	31.06	223	0	

### **Research model estimation**

Based on the findings, all model variables have a positive and significant effect on corporate profitability. According to the results, Salary has the greatest impact on corporate profitability. The estimated coefficient for the Knowledge is 0.022, which is significant. The estimated coefficient for the Innovation is 0.026, which is significant. The estimated coefficient for Salary is 0.031 which is significant. That is, as salary increases by one percent, corporate profitability increase by 0.031 percent.

At the end of Table 7, the coefficient of determination, the adjusted coefficient and the Durbin-Watson statistic are presented. The coefficient of determination is 0.969, indicating that the independent variables were able to explain 96.9% of the dependent variable changes. Also the adjusted coefficient of determination is 0.964 which due to the small difference of this coefficient with the coefficient of determination it can be said that there is no surplus variable model and the model is well fitted. Durbin-Watson statistic is also 1.726, so there is no correlation between the residuals Table 7.

Table 7. Estimation of research model.

Prob.	t-Statistic	Std.error	Coefficient	Var.
0	7.09	0.0031	0.022	InKn
0.003	10.83	0.0024	0.026	InIn
0.001	16.31	0.0019	0.031	InSa
0.016	7.65	0.0426	0.326	С
D.W=1.726		R <sub>2adjusted</sub> =0.964		R <sub>2</sub> =0.969

## Discussion

### Hypothesis 1

The Knowledge (Kn) index has a positive relationship with Corporate Profitability. According to the results of this study, Knowledge index has a significant positive effect on Corporate Profitability. The estimated coefficient is 0.022, which is significant. Therefore, this hypothesis is confirmed. In study, increasing employees' abilities and capabilities has direct effects on financial outcomes and thus on firm performance. Also according to a study conducted the effect of intellectual capital on financial performance has been studied with a sample of 934 small and medium companies. The findings of this study show that intellectual capital includes the expertise of employees. Organizational processes, and sum of knowledge contained within the organization has a positive effect on the financial performance of companies. The present study examines the impact of the Knowledge index on the corporate profitability and shows that the Knowledge index, published annually by the IMD digital competitiveness ranking, has a significant relationship with the profitability of the world's top corporations.

#### Hypothesis 2

The Innovation (In) index has a positive relationship with Corporate Profitability. According to the results of this study, Innovation index has a significant positive effect on Corporate Profitability. The estimated coefficient is 0.026 which is significant. Therefore, this hypothesis is confirmed. According to there is a positive relationship between innovation capability and firm performance and that innovation is a critical factor for companies that needs to provide competitive advantage. On the other hand, the findings of the present study confirm the research of that innovation capability enables the company to become a growing organization and enriches the company which leads to growth of its performance. Emphasizing the importance of human capital in promoting innovation and improving company productivity. The present study examines the impact of the Innovation index on the corporate profitability and shows that the Innovation, released annually by the Global Entrepreneurship Monitor ranking, has a significant relationship with the corporate profitability.

#### Hypothesis 3

The employee satisfaction especially Salary (Sa) index has a positive relationship with Corporate Profitability.

According to the results of this study, Salary index has a positive and significant effect on Corporate Profitability. The estimated coefficient is 0.031 which is significant. Therefore, this hypothesis is confirmed. The results of many studies suggest the existence of positive correlation between job satisfaction and individual performances. Found positive correlations between employee satisfaction-engagement and the organizational performance measured by productivity, profit, employee turnover, employee accidents, and customer satisfaction. Therefore, the results of this study also confirm the mentioned cases.

# Conclusion

There has been a lot of research on human capital and its impact on the performance of companies so far, but in none of them has the analysis been done in the form of panel data. The panel data method, due to its regressive nature, well expresses the relationships between dependent variables and independent variables. In this study, we analyzed data from 224 large companies in the world, which belong to 28 countries, between 2013 and 2019. Due to the fact that the data were both cross-sectional and time series, we used the panel data method and Stata software for analysis. As expected from the existing literature, the results showed that there is a positive and significant relationship between knowledge, innovation and employee satisfaction with corporate profitability. Companies must invest well in their human resources to achieve proper performance that leads to increased profitability. Human resources, which is referred to as the human capital of companies, is the most important asset of companies and its promotion, maintenance and satisfaction is very important.

### Recommendation

#### Availability of data and materials

• Data on the Innovation Index are extracted from the Global Entrepreneurship Monitor Annual Reports between years 2013 to 2019.

• Data on the Knowledge Index are extracted from the IMD digital competitiveness Annual Reports between years 2013 to 2019.

• Data on the Corporate Profitability are extracted from the Fortune Annual Reports between years 2013 to 2019.

# References

- 1. Armesterang, Michael. "A Hand Book of Human Resource Management Practice." (10th edn). Michael Armestrang, United Kingdom, (2006).
- 2. Bamberger, Peter and Meshoulam Z. "Human Resource Strategies: (Formulation, Implementation, Impacts)." *Thousand Oaks: SAGE Publications, United States*, (2000).
- Beattie, Vivien and Jane Thomson Sarah. "Lifting the Lid on the Use of Analysis to, Investigate Intellectual Capital Disclosures." J Account Forum 31 (2007): 129-163.

- Becker, Brain E, Huselid Mark A and Ulrich David. "The HR Scorecard: Linking People, Strategy and Performance." Boston, MA: Harvard Business School Press, United states. (2001).
- Bendickson, Joshua S and Chandler Timothy D. "Operational Performance: The Mediator between Human Capital Developmental Programs and Financial Performance." J Bus Res 94 (2017): 162-171.
- Bontis, N and Serenko A. "A Causal Model of Human Capital Antecedents and Consequents in the Financial Services Industry." J Intellect Cap 10 (2009): 53-69.
- Bozbura, Faik Tunc. "Measurement and Application of Intellectual Capital in Turkey." *Learn Organ* 11 (2004): 357-367.
- Brayfield, Arthur H and Crockett Walter H. (1955). "Employee Attitudes and Employee Performance." *Psychol Bull* 52 (1955): 396-424.
- Campbell, David and Ridhuan Abdul Rahman Mara. "A Longitudinal Examination of Intellectual Capital Reporting in Marks and Spencer Annual Reports, 1978-2008." J Br Account Rev 42 (2010): 56-70.
- Chadwick, Clint and Dabu Adina. "Human Resources, Human Resource Management, and the Competitive Advantage of Firms: Toward a More Comprehensive Model of Causal Linkages." Organ Sci 20 (2009): 253-272.
- Chang, Wan Jimg April and Huang Tung Chun. "Relationship between Strategic Human Resource Management and Firm Performance a Contingency Perspective." Int J Manpow 26 (2005): 434-449.
- Cook, Deborah and Ferries Gerald. "Strategic Human Resource Management and Firm Effectiveness in Industries Experiencing Decline." *Hum Resour Manag J* 25 (1986): 441-458.
- Corner, David. (2006). "The United Kingdom Private Finance Initiative: The Challenge of Allocating Risk." OECD J Budg 5 (2006): 37-55.
- 14. Felicio, Jose Augusto, Couto Eduardo and Caiado Jorgo. (2014). "Human Capital, Social Capital and Organizational Performance." *Manag Decis* 52 (2014): 350-364.
- 15. Goslin, E Annelise. "Managing Employee Satisfaction of Volunteers in South African Sport." *Afr J Health Prof Educ* 12 (2005): 30-40.
- Gujarati, Damodar. "Basic Econometrics." New York: McGraw Hill Education, United States, (1995).
- Harter, James K, Schmidt Frank L and Hayes Theodore L. (2002). "Business-Unit Level Relationship between Employee Satisfaction, Employee Engagement, and Business Outcomes: A Meta-Analysis." J Appl Psychol 87 (2002): 268-279.
- Harter, James K, Schmidt Frank L and Keyes Corey L M. "Well-Being in the Workplace and its Relationship to Business Outcomes: A Review of the Gallup Studies." (2003).
- 19. Hawkins, Douglas M. "A New Test for Multivariate Normality and Homoscedasticity." *Technometrics* 23 (1981): 105-110.
- 20. Hoang, Thanh Nhon, Thong Bui Quang and Phuong Nguyen. "The Impact of Intellectual Capital Dimensions on Vietnamese Information Communication Technology Firm Performance: A Mediation Analysis of Human and Social Capital." Acad Strateg Manag J 17 (2018): 1-15.
- 21. Kannan, Gopika and Aulbur Wilfried G. "Intellectual Capital: Measurement Effectiveness." J Intellect Cap 5 (2004): 389-413.
- Lapina, Inga, Maurāne Gunta and Starineca Olga. "Holistic Human Resource Management Model towards Sustainable and Sophisticated Business." (2013).
- Li, Tiger and Calantone Roger. "The Impact of Market Knowledge Competence on New Product Advantage: Conceptualization and Empirical Examination." J Mark 62 (1998): 13-29.
- Liu, Chih Hsing. "Creating Competitive Advantage: Linking Perspectives of Organization Learning, Innovation Behavior and Intellectual Capital." Int J Hosp Manag 66 (2017): 13-23.
- 25. Mahmood, Fahad, Iqbal Nadeem and Sahu, Samsaa Rasul. "The Impact of Human Resource Management Practices on Employee Performance in Banking Industry of Pakistan." *Euro-Asian J Econ Finance* 2 (2014): 86-99.
- Mayer, Kyle J, Deepak Somaya and Ian O Williamson. "Firm-Specific, Industry-Specific, and Occupational Human Capital and the Sourcing of Knowledge Work." Organization Science 23 (2012): 1311-1329.

- Michael, Oyinlola Olabisi and Adeyemi Adewumi Zaid. "An Empirical Analysis of Human Capital Development and Organizational Performance in Banking Sector: A Nigerian Experience." (2014).
- Pfeffer, Jeffrey. "Competitive Advantage through People." California management review 36 (1994): 1-9.
- 29. Salim, Ashour and N Bontis. "Intellectual Capital in Egyptian Software Firm, the Learning Management." A Int J 11 (2004): 332-346.
- Sardo, Filipe, Zelia Serrasqueiro, and Helena Alves. "On the Relationship between Intellectual Capital and Financial Performance: A Panel Data Analysis on SME Hotels." Int J Hosp Manag 75 (2018): 67-74.
- Vixathep, Souksavanh, Nobuaki Matsunaga, and V. K. Luong. "Human capital, innovation, and productivity in Vietnam's SMEs—Evidence from the manufacturing industry." *Discussion Paper*, 96 (2017):1-10.
- 32. Zhang, Jiaxi, Qing Wu, Danmin Miao and Xiaofei Yan et al. "The Impact of Core Self-Evaluations on Job Satisfaction: The Mediator Role of Career Commitment." Soc Ind Res 116 (2014): 809-822.

**How to cite this article:** Khazaei, Mehdi . "The Impact of Human Capital on Corporate Profitability with Emphasis on Innovation, Knowledge and Employee Satisfaction." *J Glob Econ* 9 (2021): 375.