

## **The Role of Human Capital in Achieving Competitive Advantages: An Empirical Study at Knowledge Private University /Erbil, Iraq**

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**Abstract:** Present study aims to examine the role of Human Capital and its dimensions including (employee's knowledge, employee's creativity, employee's competencies, and social competence) in achieving competitive advantages. Its dimensions include (least cost (price), quality, service, and differentiation) at Knowledge private University Science and Technology departments in Kurdistan Region/Iraq. A survey questionnaire was used to collect data, and the questionnaire was distributed directly to 26 of administrative leaders at Knowledge private university consisting deans and department heads. The questionnaire comprised two sections with 32 questions. Data collected was analysed quantitatively by using SPSS program version 20. This study found that there is a strong positive correlation as well as a significant impact of human capital in achieving competitive advantages.

**Keywords:** Human Capital, Employee's Knowledge, Employee's Competencies, Employee's Creativity, Social Competence, Competitive Advantages

### **1. Introduction**

Organisations in Iraq are characterised by being unstable, complex, and diverse. The problem of managing in organisations is not investing the physical assets to raise the efficiency of their performance and thus enhance their competitiveness to ensure their survival and growth. It is essential that organizations attempt to achieve a balance between those physical assets and humanitarian in work. These physical dimensions are identified as human capital, intellectual capital, knowledge capital, and cultural capital which represent a strategic existence, and they include a range of resources which give the organisation's competitive advantage. Available knowledge in cognitive units has become a competitive advantage that differentiates the leading organisations from others. Thus, this study empirically seeks to examine the role of human capital in achieving competitive advantages.

#### **1.1 The Problem of the Study**

The problem of the study can be described as the omission of many organisations to the concept and the importance of human capital as it is the most important tool to achieve high efficiency and value to organisations. Based on the above, this study attempts to answer the following questions:

- What is the extent relationship *between* human capitals and achieving competitive advantages at Knowledge private university?
- What is the extent impact of human capitals on achieving competitive advantages at Knowledge private university?

### **1.2 The Significance of the Study**

This study has a great significance because human capital has received great interest in many industrialised countries in order to maximise the competitiveness of their organisations. In addition, it is important as one of the intellectual capital components (human capital, structural capital, and customers' capital). Furthermore, human capital is considered as an effective tool for the success of organisations along with the creation of competitiveness. Finally, this study will clarify the concepts and contents of human capital and competitive advantages.

### **1.3 Research Objectives**

The main objective of conducting this study is to examine the role of human capital in achieving competitive advantages. Besides, the sub-objectives derived from the main objective are:

- To determine the correlation between human capital and achieving competitive advantages
- To examine the impact of human capital on achieving competitive advantages
- To identify the strongest human capital elements in achieving competitive advantages

### **1.4 Research Design**

This study involves human capital as independent variables. However, achieving competitive advantages is dependent variable (see Figure 1). Data were obtained by using a survey questionnaire and distributed directly to participants selected as a study sample. The questionnaire designed in the form of a nominal scale, and five point Likert scale (ranging from 1 strongly disagree to 5 strongly agree). Furthermore, the study population represents all administrative leadership at Knowledge private university that included (26) managers.

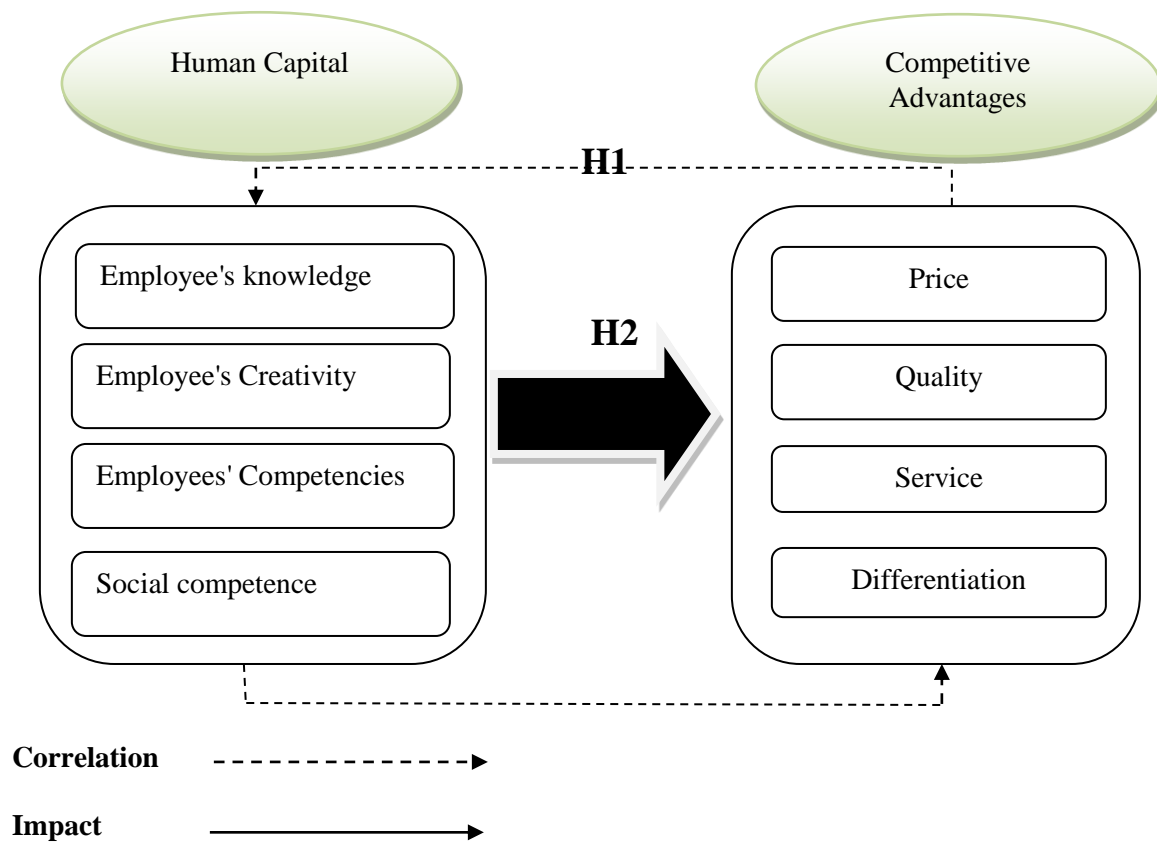


Figure 1: Theoretical Framework

### 1.5 Research Hypothesis

**The First Hypothesis:** there is a measurable positive correlation between human capital and achieving competitive advantages.

From this main hypothesis there are four sub-hypothesis as follows:

- There is a measurable positive correlation between employee's knowledge and achieving competitive advantages.
- There is a measurable positive correlation between employee's competencies and achieving competitive advantages.
- There is a measurable positive correlation between employee's creativity and achieving competitive advantages.
- There is a measurable positive correlation between social competence and achieving competitive advantages.

**The Second Hypothesis:** there is statistically a significant impact of human capital in achieving competitive advantages. From this main hypothesis there are four sub-hypothesis as follows:

- There is statistically a significant impact of employee's knowledge in achieving competitive advantages.

- There is statistically a significant impact of employee's competence in achieving competitive advantages.
- There is statistically a significant impact of employee's creativity in achieving competitive advantages.
- There is statistically a significant impact of social competence in achieving competitive advantages.

## 1.6 Study Limitations

The study limitations are:

**Human Limitations:** Head of departments, dean of colleges who work at Knowledge Private University science and technology departments.

**Place Limitations:** Knowledge Private University science and technology departments.

**Time Limitations:** The time needed for study accomplishment is from May 2017 to January 2018.

## 2. Literature Review

**2.1 Human Capital:** Human element is the main engine aspects of the development of all sectors, whether it is at the administrative level, or political, or economic, and due to the importance of human element many countries resorted to develop strategic plans for human resources such as planning, training, and follow-up in order to supply their employees with theoretical knowledge and technical skills. Hence, human capital can be defined as "individuals who have skills, potential of knowledge, and capacity to contribute to increasing the economic value of organisations business" (Youndit et al., 1996, p. 836). It is human resources that accumulate knowledge within the organisations (Bontis, 2002). Petty and Guthrie (2000) state that human capital refers to human resources within the organisations (employees) and outside (customers' suppliers). Human capital according to Al-Safar (2008) is the most important component that represents information, knowledge, skills, and of economic value expertise which can be put into practice in order to create a capital. Bontis et al. (2008) states that human capital represents the organisation's ability to obtain the best benefit from the knowledge of its members. Human capital is an essential resource in many industries, such as developing programs, consulting management, and money services. Besides, it includes intangible resources such as capabilities, efforts, and time that employees have to invest in their work (Seleim & Ashour, 2007).

**2.1.1 Employees' Competencies:** it refers to the level of skills and experience that employees acquired from current and previous jobs. Employees' skills refer to the capability that is gained by training and experience at work (Al-Maghreby, 2004). The most important skills that employees should have are; implementation skills, coordination skills, support skills, investigation skills, renewal skills, evaluation skills, concentration skills, and termination skills (Al-Tarawna & Al-Salihy, 2004).

**2.1.2 Employee's Creativity:** it refers to the process when a new idea is transferred into practice to create goods and provide services or any other activity in an effectively means (Moorhead & Griffin, 2000). It is the evaluation of a new way of business development and management (Al-Sarn, 2000). Innovation may classify into multiple types such as technical innovation, product innovation, process innovation and managerial innovation (Al-Safar, 2008).

### **2.1.3 Employee's Knowledge (level of education):** includes

- Professional, technical and specialised knowledge
- The knowledge that fits the industry
- Operations knowledge
- Understanding and realising the changing in a business environment
- Knowledge of using technology (Lau et al., 1998).

**2.1.4 Social Competence:** it is the ability to interact and pairing with each other, individual's cooperation with each other in the organisation is necessary to achieve the desired performance (Yousif, 2005).

**2.2 Competitive Advantages:** it is the organisation's ability to formulate and implement strategies that make an organisation in a better position against other organisations working in the same activity (Abu Bakr, 2006). It is the organisation's ability to attract customers and build its products with increased perceived value to achieve customers' satisfaction (Al-Bakri, 2008). Competitive advantage means a unique feature that the company outperforms competitors, in other words, competitive advantage makes a unique and distinct company than other competitors (McMillan & Tampoe, 2000). It is the organisation's ability to achieve what consumers wish from the products, such as high-quality, low price, or provide distinct benefits in the product/service compared to competitors (Selma, 2001). The areas of competitive advantages are in four areas, namely: least cost (price), quality, service, and differentiation.

**2.2.1 Least Cost (price):** is the organisation's ability to struggle against its competitors. It is the basis on least cost and price that enables the organisation to pursue the least cost through overall control of its products (Li et al., 2006).

**2.2.2 Quality** is the organisation ability to provide quality products and high performance that create value for customers.

**2.2.3 Service** is the organisation ability to provide at the right time and right type and volume of products that are required by the client.

**2.2.4 Differentiation** is the organisation seeking to provide products or services that are distinct from other organisations' products. Therefore, the organisation may resort to cutting-edge technology in their products or make changes depending on the customer's desire, as a kind of excellence for other organisations to achieve a competitive advantage (Al-Hawajreh, 2013).

### **3. Survey Questionnaire**

Data were collected through survey questionnaires comprising (32) closed-ended questions and organised into two sections; human capital questions, and achieving competitive advantages questions. Table (1) gives more details about the questionnaire instruments. Five point Likert scale was implemented, and the thirty-two items of the questionnaire were rated as (1= Strongly Disagree; 2 = Disagree, 3= Uncertain, 4= Agree, and 5= Strongly Agree). Collected data were analysed using (SPSS) version 20. The statistical analysis that was used in this study included descriptive statistics (mean and standard deviation), Pearson's correlation coefficients (determine the correlations between study

variables along with testing the first hypothesis), and multiple regression analysis. Questionnaires were distributed to the (26) administrative leaders at Knowledge private university in science and technology departments consisting deans of colleges and heads of departments.

Table 1: Questionnaire Instrument

Study Variables	No of Items	Sources
Employee's knowledge	4	(Delaney & Hassled, 1996), (Stewart, 1999), Lenznet & Shook, 1998), (Benevene & Cortini, 2010), (Chaudhry & Roomi, 2010)
Employee's Creativity	4	
Employees' Competencies	4	
Social competence	4	
Human Capital	16	
Price	4	(Abo-Baker, 2012), (Altelbani et al, 2012), (Rosan, 2000), (Awad, 2004), (Qutob, 2002)
Quality	4	
Service	4	
Differentiation	4	
Competitive Advantages	16	

Source: prepared by researchers

### 3.1 Reliability Analysis

Cronbach's alpha as it is illustrated in Table (2) was administrated to test the reliability of the scale, which indicated how well the items measure a concept. It is equal to 0.994 for the whole questionnaire, and .987, .911 for human capital and competitive advantages respectively. This result is considered to be high reliable according to (Sekaran, 2005).

Table 2: Reliability Statistics

Study Variables	No of Items	Cronbach's alpha
Human Capital	16	.987
Competitive Advantages	16	.911
Whole Questionnaire	32	.994

Source: prepared by researchers

### 3.2 Descriptive Statistics

#### 3.2.1 Human Capital

Human capital elements of Knowledge private university in science and technology departments were evaluated under four internal variables: employee's skills, employee's knowledge, employee's innovation, and social competence. The overall human capital has a high level of mean (mean = 3.9736) as well as (79.472%) rate of agreement. The means of employee's skills, employee's knowledge, employee's innovation, and social competence are 4.1923, 3.8269, 3.8462, and 4.0288 respectively.

### 3.2.2 Competitive Advantages

Achieving competitive advantages of Knowledge private university in science and technology departments were evaluated under four internal variables as well: price, quality, service, and differentiation. The overall competitive advantages have a high level of mean (mean = 4.0264) as well as (80.528) rate of agreement. The means of price, quality, service, and differentiation are 4.1923, 4.0000, 3.9327 and 3.9808 respectively.

Table 3: Descriptive Statistics (N=26)

Study Variables	Mean	StD. Deviation	Rate of Agreement	Rank
Employee's knowledge	4.1923	1.01811	83.846%	1
Employee's Creativity	3.8269	.88252	76.538%	4
Employees' Competencies	3.8462	.97488	76.924%	3
Social competence	4.0288	.94161	80.576%	2
<b>Human Capital</b>	<b>3.9736</b>	<b>.93159</b>	<b>79.472%</b>	
Price	4.1923	.82858	83.846%	1
Quality	4.0000	.86891	80%	2
Service	3.9327	.89877	78.654%	4
Differentiation	3.9808	1.02451	79.616%	3
<b>Competitive Advantages</b>	<b>4.0264</b>	<b>.89655</b>	<b>80.528%</b>	

Source: prepared by researchers

### 3.3 Pearson Correlation Analysis

Table (4) shows the result of the analysis carried out to test the first hypotheses along with its sub-hypotheses. To test the correlation among the study variables; Pearson's (r) correlation was calculated. The correlation coefficient for the data revealed that variables were positively and significantly related. In Table (5) the correlation matrix explains that human capital was positively correlated with achieving competitive advantages as the value of the correlation coefficient was high (.990<sup>\*\*</sup>) at the level of significance (0.01) and reached the value of significant at (0.000). Therefore, the first hypotheses accepted that there is a measurable positive correlation between human capital and achieving competitive advantages.

The independent variables (employee's knowledge, employee's creativity, employee's competence, and social competence) were positively correlated with achieving competitive advantages at the value of significant (0.00). The value of the correlation coefficient was high reached (.959<sup>\*\*</sup>, .937<sup>\*\*</sup>, .984<sup>\*\*</sup>, and .983<sup>\*\*</sup>) respectively. In addition, the table shows that employee's innovation achieved the highest positive correlation with achieving competitive advantages. In contrast, employee's knowledge has the weakest correlation with achieving competitive advantages. Therefore, the sub-hypotheses were accepted as well.

Table 4: Pearson Correlation analysis

Variables	Human Capital	Employees' Competencies	Employee's knowledge	Employee's Creativity	Social competence
Competitive advantages	.990**	.959**	.937**	.984**	.983**
Sig. (2-tailed)	.000	.000	.000	.000	.000

Source: prepared by researchers

### 3.4 Regression Analysis

This study conducted a multiple linear regression analysis in order to examine the impact of human capital and its variables (employee's skills, employee's knowledge, employee's innovation, and social competence) on achieving competitive advantages.

Therefore, the regression model becomes:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

Whereby:  $\beta_0$  is the regression intercept;  $\beta_1 - \beta_4$  are the regression coefficients; Y is the dependent variable (achieving competitive advantages); X1 is employee's skills; X2 is employee's knowledge; X3 is employee's innovation, and X4 is social competence.

Human capital illustrates that 98% of the achieving competitive advantages were succeeded (R Square). Thus, it means that other elements which were not studied in this study contributed 2% of the achieving competitive advantages.

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F	df1	df2	Sig. F Change
1	.990 <sup>a</sup>	.980	.979	.13451	.980	1175.141	1	24	.000

Source: prepared by researchers

The significance value is 0.000 which is less than 0.05. Consequently, the model has statistical significance in predicting how human impacts on achieving competitive advantages. At 5% level of significance, F was calculated as 1175.141, which explains that the overall model was significant. Therefore, second hypotheses are accepted which state that there is statistically a significant impact of human capital on achieving competitive advantages.



Table 6: ANOVA analysis

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	21.262	1	21.262	1175.141	.000 <sup>b</sup>
	Residual	.434	24	.018		
	Total	21.697	25			

Source: prepared by researchers

Regression equation;

$$Y = .486 + X_1 0.844 + X_2 0.951 + X_3 0.905 + X_4 0.937$$

Table (8) shows that among the four elements of Human capital, social competence is the one which has the most impact in achieving competitive advantages as characterised by R Square (96.9%). Employee's innovation comes second with (96.8%) impacts in achieving competitive advantages. Thirdly, employee's skills with (92.0%) impact in achieving competitive advantages. Finally, employee's knowledge with (87.7%) impact in achieving competitive advantages as characterised by R Square. Therefore, all sub-hypotheses are accepted.

The regression equation above has established that taking variables into account (employee's skills, employee's knowledge, employee's innovation, and social competence) for achieving competitive advantages will be .486. The results presented illustrate that statically there is a significant impact of employee's skills, employee's knowledge, employee's innovation, and social competence in achieving competitive advantages hence the sub-hypotheses are accepted.

Table 7: Testing sub-hypotheses from the second main hypotheses

Model	R Square	F change	Sig. F Change	t	Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta
(constant)					.486	.220	
<b>Employees' Competencies</b>	.920	274.630	.000	16.572	.844	.051	.959
<b>Employees' Competencies</b>	.877	171.270	.000	13.087	.951	.073	.937
<b>Employees' Competencies</b>	.968	722.168	.000	26.873	.905	.034	.984
<b>Employees' Competencies</b>	.969	754.047	.000	27.460	.937	.034	.984

Source: prepared by researchers

#### 4. Recommendations

1. Knowledge University has to focus on human resources development as they are the basic component in managing knowledge and achieving competitive advantages.
2. Human capital as a management strategy and policy in order to meet the rapid environmental changes and the challenges of economic globalisation is to look for employees with high skills and retain them.
3. Knowledge University has to give attention to the development of human capital through accessing to the experiences of international organisations in developed countries in the education field.
4. Human resources should reward employees for their excellent performance by focusing on their abilities and the way they implement their work.

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