



## **(Impact of Sustainable Development on Relationship Between Competitive Advantage and Organizational Cultural : A Field Study of Higher Education and Scientific Research Institutions)**

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### **Abstract:**

Higher education is considered the backbone of all countries, as it contributes to the process of developing countries in line with the requirements of life. In addition, it contributes to preserving the sustainability of the economy of countries, as it provides the labor market with expertise and competencies, and depends on sustainable development that possess these experiences and full knowledge as a scientific standard. There is a wide interest in how to sustainable development for state institutions, including institutions affiliated to the Ministry of Higher Education and Scientific Research. Therefore, the labor market is characterized by a diversity of experiences and intense competition among them. The main purpose of the study is to measure the impact and relationship between sustainable development and competitive advantage in institutions of higher education and scientific research. The problem of the study included identifying the extent to which sustainable development contributes to achieving competitive advantage in institutions of higher education. Data through the distribution of Data was collected through a questionnaire form . The sample size of the valid forms for analysis was (173) and the use of the SPSS program for data entry and the SEM program, the Structural Equations Model (AMOS) for the purpose of analysis and measuring the relationship and influence between the variables referred to above. In addition, sustainable development affects the Organizational Cultural, with a statistically significant positive effect in institutions of higher education and scientific research.

**Key words:** - (SEM-AMOS, sustainable development , competitive advantage, Organizational Cultural , institutions of higher education and scientific research)

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## 1. Introduction

Most of the countries presented are interested in human resources management, as it is considered one of the basic foundations upon which institutions and all public facilities are based. Accordingly, it was noted that most researchers highlighted the importance of human resources, which some consider to be the vital artery and backbone of public institutions. Porter (1985); Sirotkin et al (2023) emphasized the importance of the role that resource management referred to above plays in companies and institutions, and what is the basic role that it depends on, which is directly related to achieving advantage, and it is one of the basic components that most competing companies aim to achieve competitive advantage. Wright and McMahan (1992) thus argue that human resources his point of view and through the studies he concluded, he believes have From that achieving competitive advantage is achieved through human resources, as he considers it the only solution to achieving sustainable competitive advantage. In addition, Susanto (2023) he pointed out that employees must possess high performance skills, experience, and full knowledge, that is, a high workforce. the quality. Kadiyono et al.(2020); Purwanto et al.( 2021); Aust et al.(2020) Despite previous studies that showed that there is a strong relationship between sustainable development and competitive advantage, there is a view that when companies want to reduce costs for the company or organization, the first thing they look at is investing in sustainable development, that is, including training them and reducing numbers and wages, and this is what was discussed. Mechanism Barney and Clark (2007). Historically, App & Büttgen (2012); Dong (2023) organizations consider that the sustainable development is not considered one of the departments that comes first. This is for many reasons, which consider that the sustainable development is considered one of the less important departments or that it is considered one of the less important functions than the rest of the departments, the Finance and Informatics Department, the Agricultural Department, and so on. Lawler (2008) and this is what he mentioned, as he looked at most studies and companies in the year and showed the role of the human resources manager and the role he plays in companies and organizations. As a way of dealing. As Lawler (2008) says, these companies are not meant to manufacture people Target capital.

## 2. Sustainable Development

According to Armstrong (2008); Bush(2020), the public harvest is certain that it has the ability to fully invest in the source of its success. It is human resource management, that is, it includes forming a non-profit organization whose source of success is people. In addition to that, sustainable development was explained by Legg (1989) that resource management Human resources are integrated with proposals that include integrating policies and plans for human resources, which leads to the promotion of an optimal culture, and this has been confirmed through studies (Armstrong, 2010). Agree on the development and management of human resources (SHRM) to meet the needs of the company or organization than its competitors (Purcell, 1999); Sirotkin et al (2023). Boxall (2007) Summarize the definition of management For sustainable development in a short sentence: "Managing work and people to achieve desired goals." Boxall et al (2007) believe that sustainable development is compatible with innovation in line with the development taking place in the organization and within scientific strategies based on scientific foundations (Barney and Clark, 2007). According to Kadiono and Amin (2020); Purwanto and Aymon (2021) The main forms that contribute to the process of interaction between education and leadership for sustainable development and the nature of the relationship between them, as the concept of transformational change in terms of educational change is represented by guidance, control and motivation towards achieving goals.. According to Leonarseh and Aminion (2020); Purwanto and Aminion (2020) Managers who are distinguished by their high performance are those who are distinguished by their high performance and how they manage human resources correctly and safely by motivating them as an integrated work team. According to Susilo et al., (2020); Koswara Woman (2021)

Transaction Management, Leadership was referred to from a general perspective through its connection to the human resources initiative and how to deal with it in a way that contributes to the success of the organization.

### **3- The Relationship Between Sustainable Development And Competitive Advantage and Organizational Cultural**

Competitive advantage (CA) can be defined as the basic advantage enjoyed by competitors, which represents the image of competition between competitors through the quality and service provided in the field of work, which in turn represents the competition that leads to a basic advantage and often takes place between leading companies in the labor market. Or organizations related to the perspective are often interested in setting strategies and goals that directly and indirectly contribute to developing their work (Harmon, 2007). According to Porter (2008), he shows that there are many types of competition, which can be in the products that are produced by giant companies, which here refers to the competitive advantage in the economy, meaning that the competitive advantage exists in the economic sector. There are many types of competition. Porter's (2008) model of CA clearly shows that competitive advantage is linked to the level of technology and its relationship to the executive activities of companies and organizations. There has been a trend towards a continuous increase in various businesses, including commercial businesses, which sometimes aim not only at the profit side, but rather at creating value that contributes to a competitive advantage in the labor market. According to Widiyarti (2013); Wang (2022) concluded that sustainable development can achieve competitive advantage among organizations, companies, and public institutions, and this is what distinguishes them from their ability to operate quality management. Management is represented by sustainable development and can be seen clearly through the strategies and plans that are developed. Odionye (2014) indicated that human resource development contributes directly and indirectly to the development of a superior workforce that works and works on the success of organizations, which contributes to the development of personal capabilities, which are represented by mental and physical skills and abilities. Saigh (2010); Sirotkin et al (2023) pointed out in his study that developing the administrative system includes facing burdens that ultimately lead to achieving an efficient administrative system in various dimensions that contribute to facilitating procedures and policies so that employees become efficient and possess effective capabilities and skills. Yaseen & Zahi (2013); Novitasari (2020) revealed that the researchers indicated that the role of sustainable development contributes significantly to the development of educational personnel in educational institutions, not only in order to benefit from them, but also to consider human resources as the primary source in comprehensive institutions Kurniawan and Aimon (2022).

### **3. Problem Statement**

Higher education is considered one of the important institutions characterized by continuous creativity, and it is important from which institutions derive knowledge. It is considered a positive energy for public institutions that contribute to building human resources in the correct manner and in a way that contributes to the development of skills. Higher education and all its affiliated institutions were and still are a source of inspiration, and it is of interest to Researchers accepted it because of its great importance, and therefore this study came to complement the studies as it included one of the basic pillars of higher education, which is sustainable development. The problem of the study centers on finding the relationship between sustainable development and competitive advantage and Organizational Cultural so what is the impact of sustainable development on higher education institutions.

### **4. Study Hypotheses**

The study included two main hypotheses that were based on the data on which the study was based and which relied on previous studies, including the independent variable and the dependent variable on sustainable development and competitive advantage, which are:

- 1- sustainable development (SD) has a significant effect on competitive advantage (CA) in institutions of higher education and scientific research.

- 2- sustainable development (SD) has a significant Relationship With competitive advantage (CA)
- 3- sustainable development (SD) has a significant Relationship With Organizational Cultural (OC)
- 4- sustainable development (SD) has a significant effect on With Organizational Cultural (OC) in institutions of higher education and scientific research.
- 5- competitive advantage (CA)has a significant Relationship With Organizational Cultural (OC)

## **5. Study Objectives**

The study includes three main objectives to contain the problem of the study. The study aims to bridge the existing gap between human resources development and competitive advantage in institutions of higher education and higher research, and because the study has great importance in advanced studies, which depends on shedding light on such important topics, and accordingly these came. The study has three main objectives:

- 1- To determine the impact of sustainable development on competitive advantage in institutions of higher education and scientific research?
- 2- To examine the relationship between sustainable development and competitive advantage?
- 3- Knowing the impact of sustainable development on the development of higher education institutions.
- 4- To determine the impact of sustainable development on Organizational Cultural in institutions of higher education and scientific research?

## **6. Importance Of Study**

This study includes a set of main points that highlight and demonstrate the importance of this study through the scientific content and can be summarized thus:

- 1- One of the important things in this study is that it touched on the study of the most important sectors in public institutions, which is the higher education sector, which is considered the vital artery and from which the rest of the sectors derive through what it does in supplying other institutions with experienced and competent human resources.
- 2- One of the important issues raised by this study is how to pay attention to the higher education sector by relying on the elements of sustainability and integrating them into all fields related to administrative and scientific work and by preserving human resources that enjoy high efficiency and outstanding performance.
- 3- In addition, this study focused on the practical side on following modern statistical analysis methods, including the use of the Amos structured equation model program, which tests and measures data for the purpose of finding the effect and relationship between the independent variable and the dependent variable.
- 4- This study mixed ancient sources with modern sources, relying on previous studies, through which the gap is found and the focus is on finding successful solutions.

## **7. Results**

Higher education is considered one of the important topics that is of interest to many researchers who have highlighted it as it is considered the backbone. In this study, the researcher used the quantitative method in all data, where 200 workers in institutions of higher education and scientific research were selected as a random sample, and the questionnaire was distributed as a whole. The main data collection method, where the response was 173, was valid for analysis and was analyzed by entering it into the SPSS program The data was analyzed using Amos version 24. The main purpose of the study is to measure the relationship and influence between the two variables: competitive advantage and sustainability in higher education, as this study has great importance in this field, as due to the lack of studies that have dealt with this field, especially sustainability in higher education, it is considered one of the very important topics that has been highlighted. It has recently been highlighted in recent studies. The structural equation model was used to find the relationship and influence between the variables. The structural equation model is considered one of the most important statistical models that contribute to finding the

relationship and influence at the same time and with high accuracy, and this reflects positively on the results and what is required for this to contribute. The results also included that the degree of reliability of the two variables was High for the competitive advantage variable and the sustainability variable. The questionnaire form was relied upon to collect data, which in turn was a major tool in collecting data from the selected random sample determined according to scientific standards and designed through previous studies. The results showed that there is a strong relationship between competitive advantage and organizational culture with significant statistical significance. Competitive advantage also affects organizational culture. In addition, sustainable development affects organizational culture..

### 9.1 RELIABILITY

The items were tested in terms of reliability or credibility using SPSS for the two variables (sustainable development and competitive advantage), and the results appeared below, which show a high degree of reliability for the items that were tested in the questionnaire. Coding: The dependent variable and the independent variable were coded with the following symbols in order to facilitate understanding of the variables used in this study. The independent variable (Sustainable Development) was coded with the symbol (SD) and the dependent variable (competitive advantage) was coded with the symbol (CO)

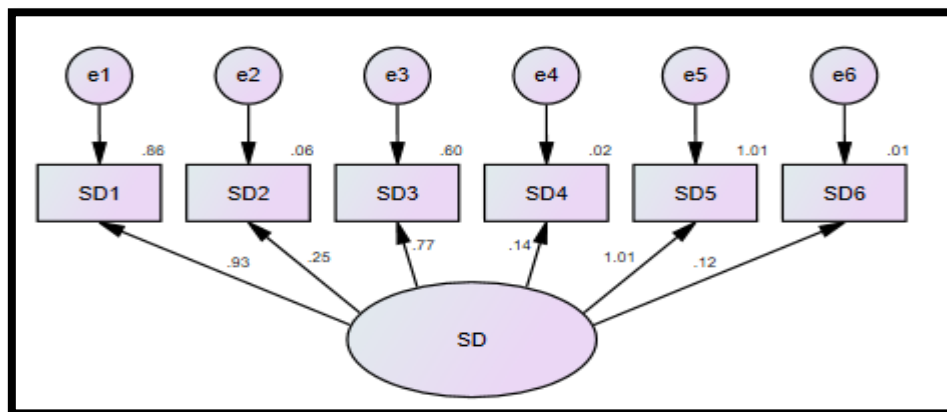
**Table 1: Reliability Score Table For The Dependent Variable And The Independent Variable**

	Variables	Coding	Results
Independent Variable	Sustainable Development	SD	79
Dependent Variable	Competitive Advantage	CA	82
Dependent Variable	organizational culture	OC	83

**TABL2: ASSESSMENT OF GOODNESS OF FIT**

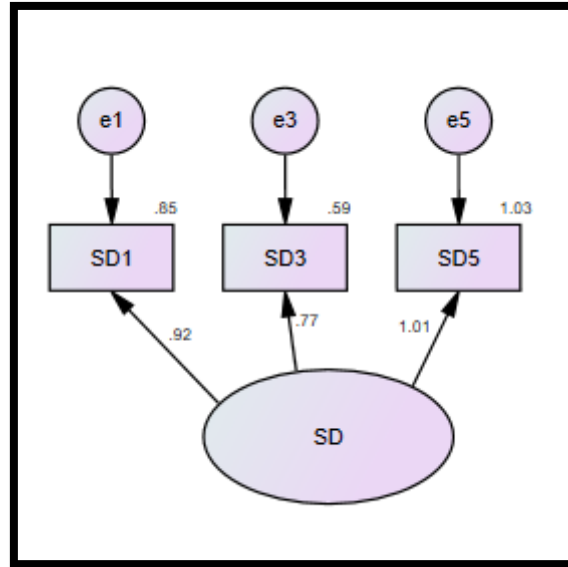
Types of constructs	Cut-off
Chi-square (x2 )	Smaller to 0
Degree of freedom (df)	Smaller to 0
Probability (P)	≥ 0.05
CMIN/df	≤ 2-5
Goodness of fit index (GFI)	≥ 0.90
Adjusted goodness of fit index (AGFI)	≥ 0.90
Comparative fit index (CFI)	≥ 0.95

Source: Hair et al. (1998, 2010), Byrne (2001, 2010), and Ernest et al. (2008)



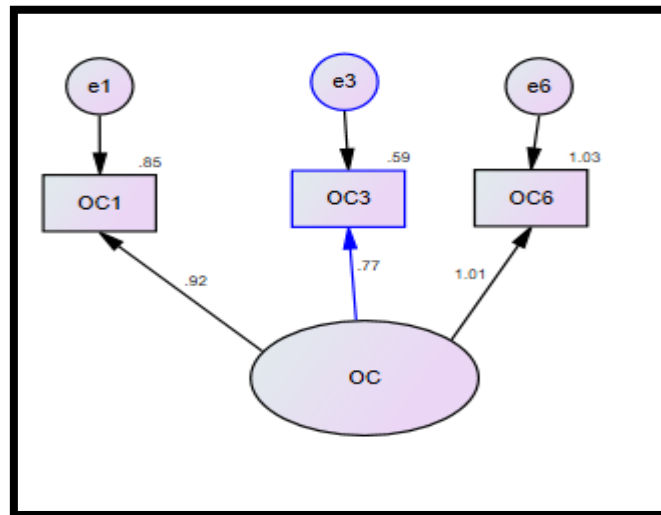
**Figure 1: The Measurement Model For Measuring Sustainable Development**

The six paragraphs of the sustainability development variable were tested through the AMOS program to measure the impact factor for each paragraph, as it was found that some paragraphs were valid for measuring the relationship and impact through what was found that the impact factor  $\geq 0.05$ , which are (SD1, SD3, SD5), and some paragraphs were found  $< 0.05$  (SD2,SD4,SD6).



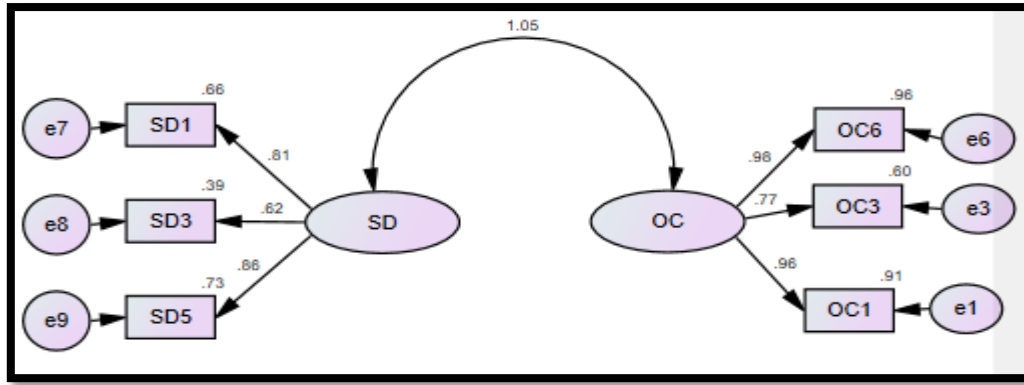
**Figure 2: The Measurement Model For Measuring Sustainable Development After Modification**

Measuring sustainable development after modification, where paragraphs that were found to be unsuitable for the test criteria were deleted.



**Figure 3: The Measurement Model For Measuring Organizational Culture After Modification**

By testing the identified paragraphs and for the purpose of obtaining the results, a test was conducted for the paragraphs to know which of them are valid for use, which are represented by the seven paragraphs of the dependent variable, organizational culture, where it became clear that some paragraphs have an impact factor of more than  $\geq 0.05$  (OC1, CO3, C05) and some paragraphs have an impact factor of less than that, which are (OC2, C04, OC6, OC7), where they were deleted because they are less than 0.05. Accordingly, the paragraphs shown in the figure above were relied upon, which represent the paragraphs of organizational culture.



**Figure 4 : Structural Relationship And Affect Between Sustainable Development And Competitive Advantage**

**CMIN**

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	13	213.783	8	.000	26.723
Saturated model	21	.000	0		
Independence model	6	1304.113	15	.000	86.941

**Regression Weights: (Group number 1 - Default model)**

	Estimate	S.E.	C.R.	P	Label
OC1 <--- OC	1.000				
OC3 <--- OC	.724	.050	14.613	***	par_1
OC6 <--- OC	.959	.029	33.388	***	par_2
SD1 <--- CO	1.000				
SD3 <--- CO	.716	.076	9.424	***	par_3
SD5 <--- CO	1.005	.071	14.203	***	par_4

**Standardized Regression Weights: (Group number 1 - Default model)**

	Estimate
OC1 <--- OC	.957
OC3 <--- OC	.772
OC6 <--- OC	.978
SD1 <--- CO	.812
SD3 <--- CO	.624
SD5 <--- CO	.855

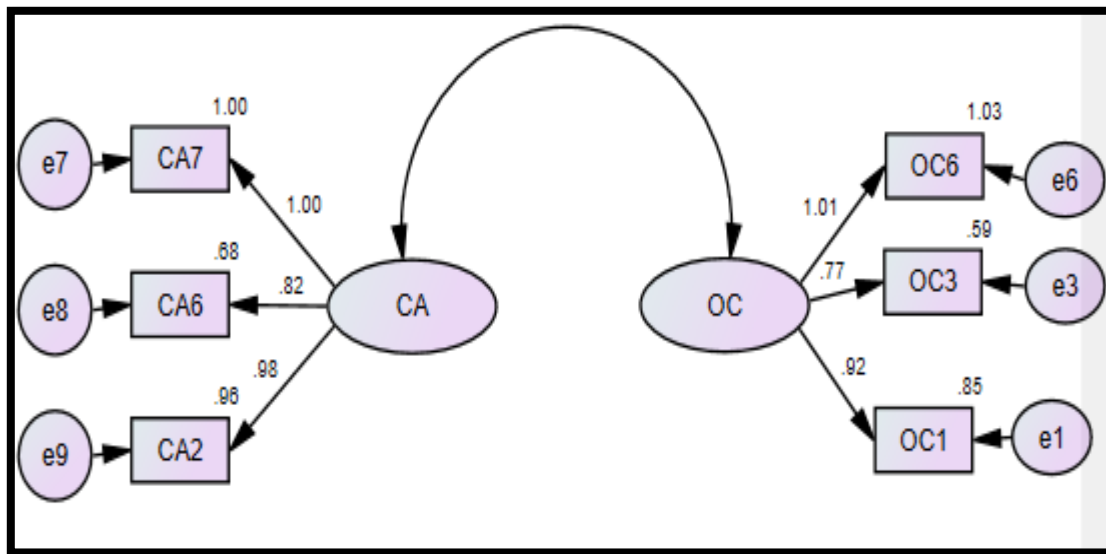
**Covariances: (Group number 1 - Default model)**

	Estimate	S.E.	C.R.	P	Label
OC <--> CO	1.261	.153	8.261	***	par_5

From what is shown above in the figure, it is clear that there is a strong relationship between sustainable development (SD) and organizational culture (OC), as the type of relationship is positive with statistical significance, in addition to this achieving the third hypothesis, and there is also a significant effect, i.e. sustainable development affects organizational culture, which achieves the fourth hypothesis.

sustainable development (SD) has a significant relationship with organizational cultural (OC).

sustainable development (SD) has a significant effect on With Organizational Cultural (OC) in institutions of higher education and scientific research.



From what is shown above in the figure, it is clear that there is a strong relationship between Competitive Advantage (CA) and organizational culture (OC), as the type of relationship is positive with statistical significance, in addition to this achieving the Fifth hypothesis, and there is also a significant effect, i.e. sustainable development affects organizational culture, which achieves the hypothesis.

competitive advantage (CA) has a significant Relationship With Organizational Cultural (OC)

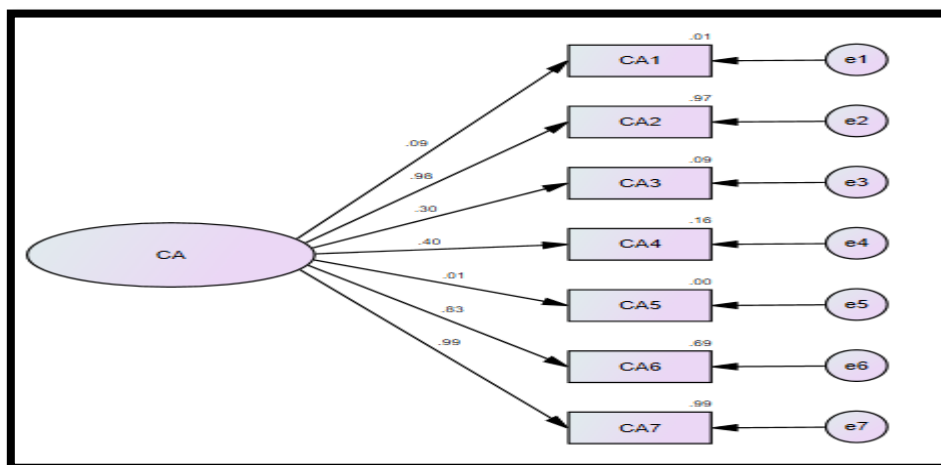


Figure 3: The Measurement Model For Measuring Competitive Advantage

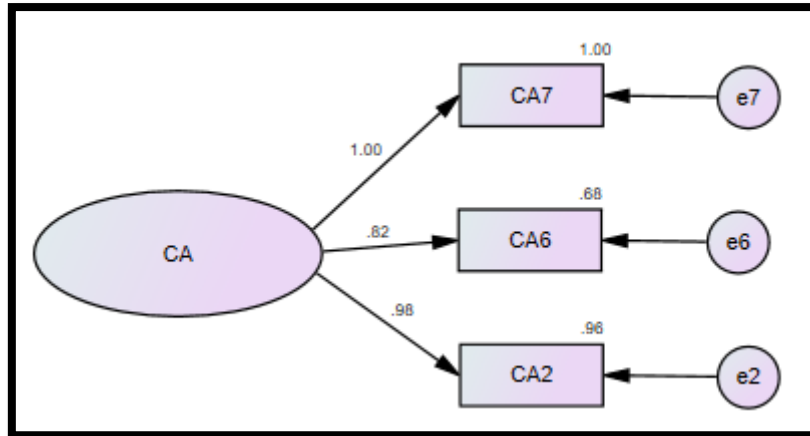


Figure 4: The Measurement Model For Measuring Competitive Advantage After Modification

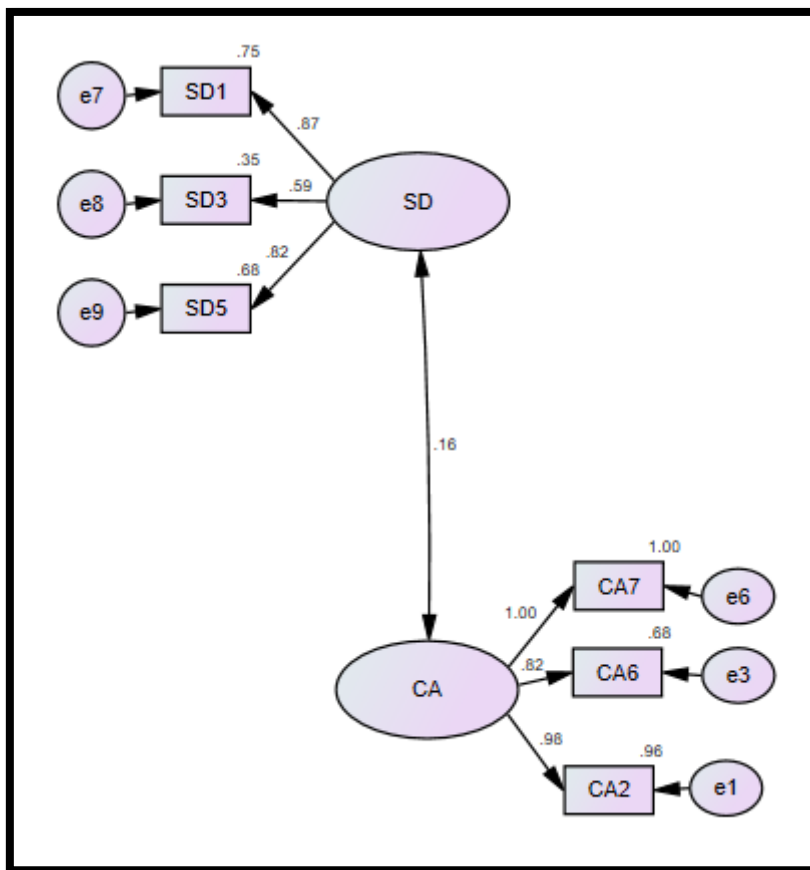


Figure 5 : Structural Relationship And Affect Between Sustainable Development And Competitive Advantage

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	13	20.732	8	.008	2.591
Saturated model	21	.000	0		
Independence model	6	944.026	15	.000	62.935

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.073	.963	.904	.367
Saturated model	.000	1.000		
Independence model	.478	.458	.242	.327

### Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.978	.959	.986	.974	.986
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

### Parsimony-Adjusted Measures

#### Regression Weights: (Group number 1 - Default model)

	Estimate	S.E.	C.R.	P	Label
CA2 <--- CA	1.000				
CA6 <--- CA	.841	.046	18.305	***	par_1
CA7 <--- CA	1.046	.020	51.927	***	par_2
SD1 <--- SD	1.000				
SD3 <--- SD	.631	.087	7.243	***	par_3
SD5 <--- SD	.904	.106	8.539	***	par_4

The model shown below represents the relationship and influence between the two variables, which was reached through the Amos statistical program using structural equations. The results of running the data show the positive effect of each indicator on each internal variable, as it indicated that the results are positive through what was achieved from testing the variables, as it becomes clear. The CFI value (.98) is greater than 90, and therefore the result is considered acceptable and good, as well as the IFI value (.98) and the GFI value (.96), all of which indicate acceptable and good ratios, and this is a clear interest in supporting this research. This form is considered acceptable as it states that the form is acceptable to both parties. Based on the results shown below that appeared through AMOS, it was found that sustainable development (SD) has a significant positive impact on the competitive advantage (CA) of workers in institutions of higher education and scientific research. This can be seen through the path coefficients with a positive sign obtained for the value shown below, and a probability of significance (P) of 0.000 is obtained, which is smaller than the specified significance level of 0.05. Hence, sustainable development (SD) has a significant impact in a positive direction on competitive advantage (CA). In addition, it is clear that there is a strong relationship with a positive moral effect between the variables referred to, and in addition to that there is a positive moral effect between the independent variables and the dependent variable. Accordingly, these results lead us to achieve the first and second hypotheses.

sustainable development (SD) has a significant effect on competitive advantage (CA) in institutions of higher education and scientific research.

sustainable development (SD) has a significant Relationship With competitive advantage (CA)

## 8. Conclusion

Through the results reached by the researcher, it is clear that higher education is considered one of the important institutions, based on studies and research, as it is considered the vital artery of all countries as it contributes to the process of developing countries in a way that is consistent with the requirements of life. In addition, it contributes to maintaining the sustainability of the countries' economies as it supplies the market. Working with expertise and competencies depends on human resources that possess these experiences and full knowledge as a scientific standard. The world today is witnessing a wide interest in how to manage knowledge for state institutions, including institutions affiliated with the Ministry of Higher Education and Scientific Research. Therefore, the labor market is characterized by the diversity of experiences and intense competition among them. The main purpose of the study is to measure the impact and relationship between sustainable development and competitive advantage in higher education institutions and scientific research. The problem of the study included identifying the extent to which sustainable development contribute to achieving competitive advantage in higher education institutions. A random sample of workers in higher education institutions was taken and it was Collecting data by distributing the questionnaire form as the main tool for all data. The sample size of the questionnaires suitable for analysis was (173). The use of SPSS program for data entry and SEM program Structural Equation Model (AMOS) for the purpose of analyzing it and measuring the relationship and influence between the variables referred to above. The results showed that there is a relationship. Strong, statistically significant difference between the two variables, sustainable development and competitive advantage and organizational culture (OC). In addition, sustainable development affects competitive advantage and organizational culture (OC), competitive advantage affects organizational culture (OC), with a positive, statistically significant effect in institutions of higher education and scientific research. The results concluded that human resources development is considered the main source in educational institutions.

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