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Article

The Basic Requirements For Implementing Six Sigma and its Impact on Creating Smart Organizations: An Analytical Study in Private Universities in The Middle Euphrates Region

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Abstract: The current research aims to identify the basic requirements for implementing Six Sigma (continuous improvement, teamwork, and fact-based decision-making), and its impact on smart organizations across its dimensions (understanding the environment, continuing education, and strategic vision). The study problem was represented by a number of questions aimed at identifying the intellectual frameworks of its variables, and then diagnosing the level of interest in them in the field, as well as identifying appropriate measures by the organization. Two main hypotheses were developed, from which several hypotheses branched out to measure the level of correlation and influence by analyzing the relationship between these variables. Private universities in the Middle Euphrates region were selected for the field study and testing its hypotheses. A questionnaire was adopted as the primary tool for collecting data related to the field aspect of the study. The sample size reached (168) instructors at the universities under study. A set of results was reached, the most important of which is that the availability of the basic requirements for implementing Six Sigma, such as leadership support, adopting a culture of quality, and the availability of accurate data, is an essential condition for the success of any initiative towards building smart organizations.

Keywords: Six Sigma, Smart Organizations, Private Universities

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1. Introduction

Private universities in the Middle Euphrates region, like other higher education institutions, face accelerating challenges resulting from technological advancements, increasing competition, and rising student and stakeholder expectations regarding the quality of educational services [1]. The Six Sigma methodology has emerged as one of the most important modern management tools aimed at improving processes, reducing errors, and increasing performance efficiency based on statistical analysis and accurate data. Implementing this methodology in universities is not limited to improving the quality of education and administrative services; it also represents a fundamental step toward creating intelligent organizations capable of continuous learning, adapting to change, and making knowledge-based decisions [2].

The importance of studying the basic requirements for implementing Six Sigma in private universities lies in revealing their readiness to adopt this approach and whether they possess the necessary knowledge infrastructure, leadership support, and organizational culture. Exploring the implications of applying Six Sigma on building smart organizations represents an important knowledge addition that contributes to

enhancing the ability of private universities to achieve academic and administrative excellence and ensure their sustainability in a changing competitive environment [2].

2. Research Methodology

First: The Research Problem

Despite the significant progress witnessed by the higher education environment, especially private universities in the Middle Euphrates region, they still face multiple challenges related to the weak efficiency of administrative and academic processes, high rates of resource waste [3], as well as the limited ability to adapt to rapid environmental and technological changes. On the other hand, the Six Sigma methodology is viewed as a methodological framework that contributes to improving the quality of performance by reducing errors, achieving optimal use of resources, and promoting a culture of continuous improvement [4]. Hence, the study's problem arises in questioning the extent to which these requirements are available in private universities in the Middle Euphrates region, and how the implications of applying Six Sigma can contribute to creating smart organizations that possess the capacity for continuous learning and respond effectively to change. This is what this study attempts to address by answering the following question: What are the basic requirements for applying Six Sigma to create smart human-centered organizations in private universities in the Middle Euphrates region? From this question, the following questions arise: The following sub-questions:

1. What is the reality of Six Sigma implementation in the private universities studied?
2. What is the reality of smart organizations in the private universities studied?
3. What is the level of impact of the basic requirements for Six Sigma implementation in creating smart organizations?

Second: Importance of the Research

1. The theoretical importance of this study is evident in its examination of a body of previous literature and studies related to the application of Six Sigma and smart organizations in private universities in the Middle Euphrates region.
2. This study represents a starting point upon which researchers can build and conduct further studies and research in the future, contributing to expanding knowledge and developing the field within the private university environment.
3. The study also contributes to supporting the application of Six Sigma in smart organizations within the private education sector, in line with contemporary trends toward sustainable development.
4. Providing accurate results and a true picture of the level of presence of each variable at the macro and micro levels, as well as offering a set of recommendations based on these results to develop and improve performance, and thus ensure the sustainability and continuity of their work for stakeholders.

Third: Research Objectives

1. This study aims to explore the basic requirements for implementing the Six Sigma methodology in private universities in the Middle Euphrates region. The study also seeks to analyze the extent to which the application of Six Sigma has impacted the creation of smart organizations by enhancing their ability to continuously learn, foster innovation, and respond quickly to changes in the higher education environment.
2. Identifying the basic requirements for implementing the Six Sigma methodology in private universities in the Middle Euphrates region.
3. Analyzing the availability of the organizational and knowledge infrastructure that enables private universities to effectively adopt Six Sigma.
4. Identifying the relationship between the application of Six Sigma and the construction of smart organizations in the university environment.

Fourth: Hypothetical Plan and Development of Hypotheses

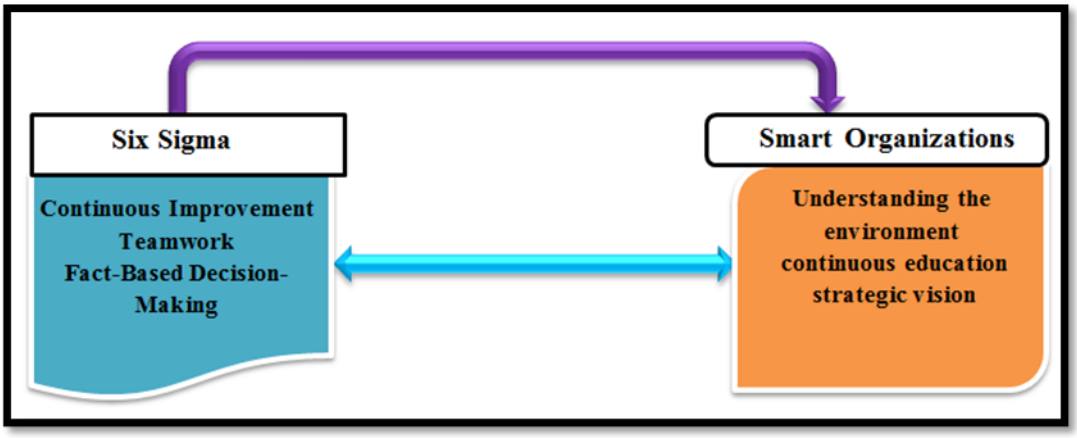

Figure 1. Hypothetical plan of the study.
Source: Prepared by the researchers.

Fifth: Research Community

The study community was represented by the lecturers at the private universities in the Middle Euphrates region, the subject of the study, numbering (260) lecturers. The sample size was determined based on the study by (Krejcie & Morgan), which is one of the most widely used formulas in postgraduate research [5]. Accordingly, the sample size amounted to (155). Accordingly, the researchers distributed (175) questionnaires to the sample members, and (168) questionnaires were retrieved, all of which were valid for analysis, representing (65%) of the study community.

3. The Theoretical Side

First: The Concept of Six Sigma

A defect in the Six Sigma methodology is defined as anything that falls outside the user's specifications. The results from companies that follow the Six Sigma methodology appear convincing regarding its contribution to the industry [6]. Modern and successful methods of quality management rely on the continuous and interconnected combination of effective management, modern technology, and statistical software, which constitutes the fundamental foundation of Six Sigma [7]. Six Sigma has been implemented in many related companies, such as General Motors, Ford, Sony, and others. Therefore, they have succeeded in saving millions of dollars as a result of the correct application of the Six Sigma method [8]. Motorola was one of the first companies to implement the Six Sigma method, and this method achieved savings of $2.2 billion over four years, according to the Six Sigma Academy, as well as General Electric [3]. One of the companies implementing the Six Sigma method was able to achieve revenues of (10) billion dollars during the first five years of implementation. Six Sigma maximizes corporate revenues by streamlining operations and eliminating tasks that waste time and effort. The result is streamlined operations to meet customer requirements faster, more efficiently, and with better quality [1]. The Six Sigma concept is considered... Six Sigma is a methodology for development and improvement. It is a strategy that enables an organization to achieve significant continuous improvement in its core processes and structure by designing and monitoring daily business activities to minimize waste and optimize available resources, while simultaneously meeting customer needs and achieving satisfaction [9]. The researcher believes that Six Sigma is a systematic approach to strategic development, relying on scientific methods, to achieve a dramatic reduction in product error rates.

Second: Six Sigma Objectives

There are several objectives for Six Sigma, the most important of which are the following [10] [11] [2]:

1. Improving the quality of services and academic processes and every element of quality within an educational institution. It is a direction aimed at improving the effectiveness of operations.
2. Reducing all forms of waste—time, effort, and money—by eliminating defects or failures in any work process. The Six Sigma principle aims to graduate high-quality students who meet customer expectations at the lowest cost and with the fewest defects.
3. The primary goal of implementing the Six Sigma methodology is to adopt a strategy to improve the capacity of employees and enhance their problem-solving skills within the educational institution.
4. Improving customer satisfaction levels, focusing on them (students, parents, the community in general, and all relevant parties).
5. Using data to make decisions, as the Six Sigma culture uses data as a driving force for work, and does not accept assumptions, which led to the emergence of what is called management by facts.

Third: Six Sigma Activities

Six Sigma activities can be measured through three activities [12]:

1. Continuous Improvement

   Adopting the concept of continuous improvement in organizations of all types aims to deliver high-quality outputs that enable the organization to stand firm in the face of the obstacles it faces. This is achieved through continuous improvement of various organizational activities and processes, starting from leadership to the base of the organizational pyramid, and providing an appropriate infrastructure for creativity using information technology, which has become one of the most important factors for organizational success [13]. It helps create flexibility in organizational processes and facilitates communication between employees, leading to increased and enhanced levels of understanding and thinking, which motivates them to continue to innovate and embrace innovation. It is worth noting that continuous improvement is one of the most important pillars of Total Quality Management, which has become a key requirement for business organizations regardless of their activities [14].
2. Teamwork

   Greater participation in teamwork is the responsibility of all members of the organization, including senior management, as they serve as role models for all members of the organization and provide support and strength to individual employees [15]. The more senior management commits to participating in the work and providing support, whether directly or through the formation of teams and committees, and assumes the responsibility of chairing these committees and work teams, the greater the motivation for employees to work together. The collective work it achieves in the workplace is incomparable to individual work [16].
3. Fact-based decision-making

   Is the analysis and evaluation of all shared variables, all of which are subject to scrutiny and examination, so that they are all included and subjected to scientific measurement, research rates, scientific theory, and statistical methods to arrive at a solution or result, and to conclude and recommend recommendations for putting the solution into practical application [17]. It is a complex human activity that begins with a feeling of uncertainty on the part of the decision maker about what should be done about a problem and ends with choosing one of the

solutions that is expected to remove the state of uncertainty and thus help in reaching a solution to the problem [18].

Fourth: Concept of Smart Organizations

They are defined as organizations that dynamically adapt to modern organizational forms and practices and have the ability to exploit all available opportunities in the digital age [19]. Adamik & Sikora-Fernandez (2021: 1573) indicated that a smart organization is one that possesses sufficient awareness of the internal and external environment and a high level of responsiveness to related information [20]. Yaghoubi et al defined a smart organization as one with a high degree of organizational intelligence, adopting a culture and behavior of excellence and total quality management, possessing collective leadership, and a high degree of employee loyalty and belonging, while making sure to leverage information and communications technology, including artificial intelligence [21]. They also possess the ability to learn quickly in all aspects related to the organization's work [4].

The researcher believes that smart organizations are characterized by exploiting ideas to achieve innovation. Researchers believe that smart organizations are the product of continuous processes that apply new technology and service models to address the challenge of improving business performance.

Fifth: Importance of Smart Organizations

Smart organizations are among the most prominent factors contributing to organizational success. Their importance stems from the acceleration of material, cognitive, and moral developments, which require a high level of intelligence from the organization to enable it to survive and adapt to environmental changes [22]. Their importance also lies in their ability to formulate accurate future scenarios based on data extracted from the external environment, in addition to the competitive advantage they provide, enhancing their position among other organizations [23]. Thanks to these characteristics, smart organizations contribute to achieving excellence and leadership through their flexibility in facing challenges and responding to rapid transformations in the contemporary business environment [24]. The importance of smart organizations lies at three main levels [25]:

1. A deep understanding of the environment and a vision for the future.
2. The accelerated ability to acquire knowledge and skills and employ them with high efficiency.
3. Surpassing traditional performance and achieving advanced levels compared to traditional organizations.

Sixth: Dimensions of Smart Organizations

The dimensions of smart organizations can be measured through three dimensions [26]:

1. Environmental Understanding

This is the deep understanding of the external environment by managers, through which they monitor, evaluate, and disseminate information and identify the influences that could affect the organization's business. This understanding is used to ensure the organization's long-term survival and avoid surprises at the strategic level [27]. Research has found a positive relationship between environmental scanning and organizational profitability [28]. Current predictions indicate that the environment for all organizations will become more ambiguous, increasing complexity and increasing the degree of change present in the external environment of any organization. This poses a threat to strategic managers because it hinders their ability to develop long-term plans and make strategic decisions that maintain the company's balance with its external environment [24].

2. Continuing Education

This term refers to ongoing education to gain experience and skills, through which the behavior of individuals working in organizations is changed and their expertise is used to adapt the organization to its surrounding environment [28]. It is also considered an entry point for enhancing the capabilities of its employees. Continuing education is an absolute necessity for work in contemporary business organizations [19]. This dimension provides employees with the opportunity to develop their skills and hone their expertise on a regular basis, enhancing their efficiency and increasing their ability to be creative and solve problems in innovative ways. Continuing education also contributes to spreading a culture of organizational learning [22]. Mistakes are viewed as learning experiences, and the exchange of knowledge and experiences between individuals and departments is encouraged, achieving knowledge accumulation and employing it in service of strategic objectives [24].

3. Strategic Vision

This refers to defining the path an organization will follow to achieve its long-term goals, within competitive conditions and the surrounding environment. The organization possesses a concept or principle that defines its mission, with the strategic vision being the goal the organization seeks to achieve [28]. Furthermore, the strategic vision is not merely a means of determining direction; it is an essential tool for leading change, ensuring the organization remains at the forefront of the competition, and establishing an organizational culture based on awareness, learning, and the ability to anticipate events [19].

4. The Practical Aspect

First: Describing and Coding the Research Variables

This step aims to provide the codes that represent the variables and items in the measurement tool, helping the reader understand the results correctly and providing a clear vision of the objectives the study seeks to uncover. Therefore, Table (1) illustrates the coding and description of the study variables.

Table 1. Coding and description of variables.

Variables	Dimensions	NO.	symbol	
Six Sigma	Continuous Improvement	6	SSCI	SISI
	Teamwork	5	SSTE	
	Fact-Based Decision Making	6	SSFD	
Smart organizations	Understanding the Environment	5	SOUE	SMOT
	Continuing Education	6	SOCE	
	Strategic Vision	4	SOSV	

Second: Normal Distribution Test

The results in Table (2) indicate the analysis of the data related to the research variables. A statistical test was used to examine whether the data followed a normal distribution. This indicated that the significance level was greater than 0.05, meaning that the data conformed to a normal distribution. Accordingly, the null hypothesis, stating that the data drawn from the study sample followed a normal pattern, was accepted, and the alternative hypothesis was rejected.

Table 2. Normal distribution test for study variables.

NO.	Kol-Smia			Sig.			NO.	Kol-Smia			Sig.		
SSCI1	0.252	0.116	0.086	0.144	0.071	0.065	SOUE1	0.275	0.116	0.098	0.114	0.093	0.164
SSCI2	0.231			0.136			SOUE2	0.263			0.119		
SSCI3	0.228			0.161			SOUE3	0.250			0.179		
SSCI4	0.245			0.174			SOUE4	0.255			0.181		
SSCI5	0.258			0.173			SOUE5	0.250			0.140		
SSCI6	0.276			0.185			SOCE1	0.281	0.133		0.151	0.097	
SSTE1	0.293	0.124		0.175	0.100		SOCE2	0.262			0.106		
SSTE2	0.250			0.175			SOCE3	0.274			0.174		
SSTE3	0.233			0.141			SOCE4	0.278			0.125		
SSTE4	0.245			0.158			SOCE5	0.237			0.115		
SSTE5	0.243			0.105			SOCE6	0.275			0.175		
SSFD1	0.253	0.093		0.153	0.079		SOSV1	0.262	0.119		0.134	0.066	
SSFD2	0.249			0.161			SOSV2	0.299			0.127		
SSFD3	0.263			0.183			SOSV3	0.248			0.199		
SSFD4	0.287			0.117			SOSV4	0.258			0.167		
SSFD5	0.279			0.118									
SSFD6	0.284			0.134									

Third: Exploratory Factor Analysis Test

Exploratorial factor analysis is considered one of the most prominent statistical tests that contribute to determining the relationship between variables and latent factors. This analysis aims to discover the factors that explain the variables, and the statistical saturation value for the variables must not be less than 0.60 (Chan et al., 2007). The results in Table (3) show that the standard saturation values for the research variable items are acceptable, as the saturation value exceeded 0.60 at a significance level of less than 0.00001. Furthermore, all items designed to measure the research variables represent this variable and help explain it.

Table 3. Exploratory factor analysis saturations of the research variables factors.

Component Matrix						
NO.	SISI			SMOT		
	SSCI	SSTE	SSFD	SOUE	SOCE	SOSV
SSCI1	0.827					
SSCI2	0.916					
SSCI3	0.871					
SSCI4	0.816					
SSCI5	0.945					
SSCI6	0.865					
SSTE1		0.816				
SSTE2		0.846				
SSTE3		0.803				
SSTE4		0.917				
SSTE5		0.859				
SSFD1			0.865			
SSFD2			0.848			
SSFD3			0.827			
SSFD4			0.799			
SSFD5			0.855			
SSFD6			0.827			
SOUE1				0.925		
SOUE2				0.846		

SOUE3	0.874			
SOUE4	0.899			
SOUE5	0.866			
SOCE1		0.922		
SOCE2		0.869		
SOCE3		0.801		
SOCE4		0.847		
SOCE5		0.861		
SOCE6		0.864		
SOSV1			0.812	
SOSV2			0.876	
SOSV3			0.825	
SOSV4			0.795	

Fourth: Analysis of the reliability of the measurement tool

The results in Table (4) show that the average reliability of the measurement tool reached (0.956), distributed among the Six Sigma variable, which consists of three dimensions and (17) items, achieving a reliability of (Cronbach's Alpha = 0.942). The reliability of its dimensions ranged from a low of (0.839) for the continuous improvement dimension to a high of (0.925) for the teamwork dimension. This demonstrated the consistency of the questionnaire items.

The results indicated that the dependent variable (smart organizations), which consists of three dimensions and (15) items, achieved a reliability of (Cronbach's Alpha = 0.929). The reliability of its dimensions ranged from a low of (0.813) for the continuing education dimension to a high of (0.887) for the environmental understanding dimension. This demonstrated the consistency of the questionnaire items.

Table 4. Cronbach's Alpha test parameter.

Variables	Dimensions	NO.	Cronbach's Alpha		
Six Sigma	Continuous Improvement	6	0.839	0.942	0.956
	Teamwork	5	0.925		
	Fact-Based Decision Making	6	0.863		
Smart organizations	Understanding the Environment	5	0.887	0.929	
	Continuing Education	6	0.813		
	Strategic Vision	4	0.857		

Fifth: Statistical Description of Variables

The results of Table (5) show a clear focus by faculty members on improving Six Sigma, achieving an arithmetic mean of (4.07) and a standard deviation of (0.62). This is due to faculty members' interest in adopting the dimension of fact-based decision-making (SSFD), achieving an arithmetic mean of (4.15) and a standard deviation of (0.60). Meanwhile, there is little interest in the dimension of continuous improvement (SSCI), achieving an arithmetic mean of (4.01) and a standard deviation of (0.68). This demonstrates the keenness of private universities to use modern technologies to enhance their skills in the effective use of data, which in turn enhances the capabilities of faculty members. The results of Table (5) indicate a clear interest by faculty members in improving smart organizations by achieving an arithmetic mean of (4.18) and a standard deviation of (0.55). This is due to the interest of faculty members in adopting the strategic vision dimension SOSV by achieving an arithmetic mean equal to (4.22) and a standard deviation of (0.61), while it is noted that there is little interest in the environment understanding dimension SOUE by achieving an arithmetic mean of (4.16) and a standard deviation equal to (0.64). This shows the focus of private universities on partnerships with local and international companies, which contributes to the

universities' tendency to exchange knowledge and experiences related to the application of Six Sigma concepts, which enhances scientific training opportunities for students and faculty in real work environments.

Table 5. Statistical description.

No.	Mean	S.D	No.	Mean	S.D	No.	Mean	S.D
SSCI1	3.90	1.01	**SSFD2**	4.14	0.86	**SOCE2**	4.17	0.82
SSCI2	3.81	1.01	**SSFD3**	4.08	0.89	**SOCE3**	4.17	0.70
SSCI3	4.08	0.90	**SSFD4**	4.12	0.83	**SOCE4**	4.10	0.82
SSCI4	4.19	0.86	**SSFD5**	4.14	0.81	**SOCE5**	4.19	0.77
SSCI5	3.94	0.93	**SSFD6**	4.14	0.79	**SOCE6**	4.19	0.70
SSCI6	4.12	0.89	**SSFD**	**4.15**	**0.60**	**SOCE**	**4.16**	**0.61**
SSCI	**4.01**	**0.68**	**SISI**	**4.07**	**0.62**	**SOSV1**	4.19	0.76
SSTE1	3.85	1.02	**SOUE1**	4.08	0.83	**SOSV2**	4.37	0.84
SSTE2	4.09	0.89	**SOUE2**	4.13	0.80	**SOSV3**	4.21	0.81
SSTE3	3.95	0.97	**SOUE3**	4.20	0.87	**SOSV4**	4.09	0.91
SSTE4	4.13	0.87	**SOUE4**	4.19	0.88	**SOSV**	**4.22**	**0.61**
SSTE5	4.22	0.79	**SOUE5**	4.17	0.74	**SMOT**	**4.18**	**0.55**
SSTE	**4.05**	**0.74**	**SOUE**	**4.16**	**0.64**			
SSFD1	4.27	0.70	**SOCE1**	4.13	0.76			

Sixth: Hypothesis Testing and Path Analysis

H1: There is a significant correlation between Six Sigma and smart organizations.

The results of Table (6) show a significant correlation between Six Sigma and smart organizations. This indicates a correlation strength of (0.809), which represents the relationship between these variables. This result is due to the sample's significant focus, among its priorities, on the relationship between the dimensions of these variables, with a correlation strength ranging from (0.576) between the dimension of teamwork (SSTE) and the dimension of understanding the environment (SOUE), to (0.725) between the dimension of fact-based decision-making (SSFD) and the dimension of understanding the environment (SOUE). This, in turn, highlights the interest of private universities in promoting a culture of quality by adopting a culture of spreading quality among students and faculty members, which contributes to building a deeper understanding of Six Sigma concepts, which encourages creativity and critical thinking.

Table 6. Correlation Matrix.

	SSCI	**SSTE**	**SSFD**	**SISI**	**SOUE**	**SOCE**	**SOSV**	**SMOT**
SSCI	1							
SSTE	.767**	1						
SSFD	.736**	.755**	1					
SISI	.914**	.928**	.899**	1				
SOUE	.665**	.576**	.725**	.711**	1			
SOCE	.688**	.607**	.716**	.729**	.768**	1		
SOSV	.650**	.621**	.681**	.709**	.603**	.654**	1	
SMOT	.754**	.679**	.799**	**.809****	.896**	.912**	.847**	1

H2: There is a significant effect of Six Sigma on smart organizations.

The results of Table (7) and the data presented in Figure (2) demonstrate a significant effect of Six Sigma on smart organizations. A one-unit increase in Six Sigma

results in an improvement in smart organizations of 0.719, with a standard error of 0.045 and a critical value of 15.978. This indicates that faculty members are aware of the importance of promoting Six Sigma by focusing on smart organizations. This contributes to ensuring the basic requirements for implementing Six Sigma and smart organizations are built. This means that implementing Six Sigma contributes to building advanced educational curricula that focus on the principles of quality and continuous improvement. This means that approved requirements must include training courses that enhance the skills of faculty members at universities.

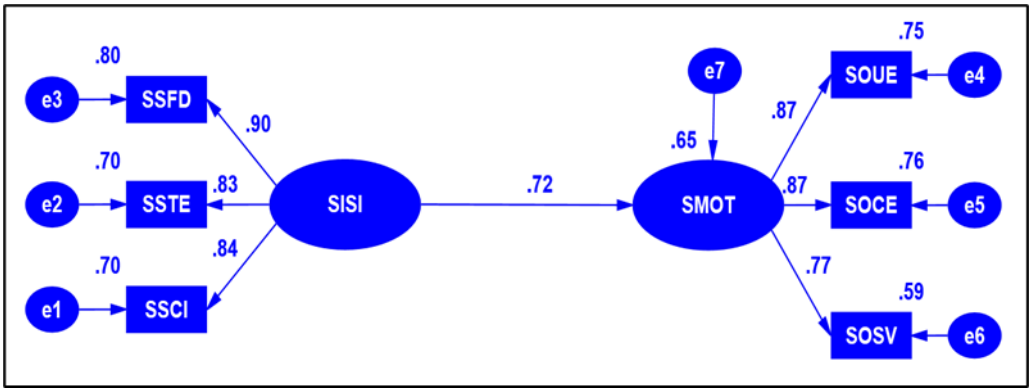

Figure 2. Path analysis of the impact of Six Sigma in smart organizations.

Six Sigma also contributed to explaining 0.654% of the variance in smart organizations, while the remaining value falls outside the study's scope.

Table 7. Path analysis results for the impact of Six Sigma on smart organizations.

Path			Standard weights	standard error	critical value	R^2	P
SISI	--->	SMOT	0.719	0.045	15.978	0.654	***

5. Conclusions

1. There is a significant correlation and influence between the basic requirements for implementing Six Sigma and smart organizations. This means that implementing Six Sigma contributes to building advanced educational curricula focused on the principles of quality and continuous improvement. This means that the approved requirements must include training courses that enhance the skills of faculty members at universities.
2. Private universities are interested in promoting a culture of quality by adopting a culture of quality dissemination among students and faculty members. This contributes to building a deeper understanding of Six Sigma concepts, which encourages creativity and critical thinking.
3. Private universities focus on partnerships with local and international companies, which contributes to universities' orientation toward exchanging knowledge and expertise related to implementing Six Sigma concepts, enhancing academic training opportunities for students and faculty in real-world work environments.
4. Private universities are keen to use modern technologies to enhance their skills in the effective use of data, which in turn enhances the capabilities of faculty members.
5. Private universities are focused on training faculty members, which in turn focuses on improving the quality of education by offering specialized workshops and courses to provide them with the knowledge necessary to effectively guide students.

Recommendations

1. Establish specialized quality centers to ensure the promotion of research and development in the field of Six Sigma. This requires providing consultations and workshops that help faculty members effectively implement Six Sigma requirements and concepts.
2. Universities should provide practical training opportunities for faculty members in companies and institutions that implement Six Sigma. This requires studying practical experiences to enhance faculty members' understanding of theoretical concepts and help them apply them in real-world work environments.
3. Develop the skills of faculty members by ensuring that universities offer training programs for faculty members in Six Sigma concepts. This requires enhancing their ability to guide faculty members and providing them with the knowledge necessary to apply these principles in their academic projects.
4. Building partnerships with companies to exchange knowledge and expertise related to Six Sigma implementation, which requires establishing mechanisms to provide training and employment opportunities for students and promote innovation in education.
5. Improving performance evaluation systems by developing academic and administrative performance evaluation systems in accordance with Six Sigma principles. This requires establishing mechanisms to identify areas for improvement and enhance the quality of the educational process.

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