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## Impact of E-learning on the Institutional Quality on Higher Education System: A Review Analysis

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### Abstract

To ascertain the organizational requirements for e-learning implementation in a university, the purpose of this research is to present a collection of classifications and characteristics obtained from a review of the literature pertaining to e-learning implementation in higher education. Prior research has examined the implementation and outcomes of learning platforms, in addition to the challenges, concerns, and critical success factors that impact e-learning acceptance. Nevertheless, the number of articles delineating the stipulations for implementing an e-learning solution and the methods for evaluating it is quite limited. As a result, the subsequent research inquiry was formulated: Which institutional characteristics are considered during the global implementation of e-learning? We identified the characteristics of research on the application of e-learning through the use of benchmarking techniques and documentary analysis, which were developed after a comprehensive review of the relevant literature. Three stages were required to complete this work: In the initial phase, papers were selected according to criteria such as title, abstract, and keywords. The articles were required to be completely accessible and pertinent to the subject matter of institutional attributes and evaluation in the context of e-learning implementation. In the second stage, attributes were extracted from the selected papers by selecting the most significant features of each investigation. Benchmarking and categorizing the extracted features comprised the final stage. This was accomplished by benchmarking the derived features prior to categorizing them as emerging categories. Financial resources, management, planning, communication, evaluation, functional and structural factors, quality, technical assistance, and training are the primary emerging categories, according to the findings. The literature review identified the subsequent characteristics: e-learning project planning, design, production, presentation, availability, standards and procedures, politics, leadership, organizational culture, organizational change, quality assurance, technological platform selection, platform quality evaluation, and e-learning project financial and economic resources. In conclusion, our research outcomes encapsulated the fundamental institutional characteristics identified in numerous scholarly articles and provided a practical, user-friendly framework for the integration of e-learning in higher education.

**Keywords-** Impact of E-learning Institutional Quality, Higher Education System Analysis

### Introduction

According to the Royal Spanish Academy, implementation refers to the act of initiating,

employing various methodologies, executing measurements, installing, or carrying out a design, specification, standard, or policy.

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The commissioning of online programs in this activity is contingent upon the execution of a planning document formulated by a university or Higher Education Institution (HEI). In order for any conventional institution to begin an online teaching program, it is imperative to address a series of concerns, foremost among them being: What are the necessary conditions for commencing an online program? What organizational changes are deemed necessary? Addressing these problems can be particularly problematic due to the inherent differences across systems [1], the rapid advancement of technology, and the unique conditions and architectural designs of higher education institutions (HEIs). In a similar vein, the integration of virtual learning into the traditional course setting presents a formidable challenge for educational institutions [2]. In addition, it is imperative for them to provide substantial resources towards education and training in order to effectively address the difficulties at hand and successfully execute the requisite modifications [1]. Furthermore, the establishment of a robust management system is essential to provide administrators with the required assistance in their decision-making processes [3].

Educational institutions are often acknowledged as facilities that are committed to the instruction and development of individuals. There are notable distinctions between Higher Education Institutions (HEIs) and corporate or commercial organizations in several aspects, including directional considerations, organizational structure, operations, values, and methods of activity assessment. Moreover, higher education institutions (HEIs) may be perceived as social establishments that possess the ability to be adaptable and responsive to their environment. This adaptability enables the formation of many types of institutions that share the fundamental responsibilities of generating, disseminating, acquiring, and preserving knowledge [4],[7].

Prior research has investigated the use and outcomes of establishing a learning platform [8], [13], along with the barriers, challenges, and key determinants of success that impact the adoption of e-learning [14],[18].

However, as stated by the author in reference [19], there is a limited body of research dedicated to exploring the strategic management aspects of e-learning. This includes a lack of studies focused on strategy creation and analysis, strategy implementation, strategy assessment, and

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comprehensive descriptions of the necessary components for establishing an online teaching program.

Hence, the primary inquiry that this study endeavors to explore is: What are the institutional factors that are considered in the worldwide implementation of e-learning? Furthermore, the objective is to present a collection of institutional characteristics and classifications that are essential for the implementation of e-learning in Higher Education Institutions (HEIs), as identified by an analysis of published case studies in scientific databases.

The successful adoption of e-learning at higher education institutions necessitates the establishment of a well-defined organizational management plan. This strategy should encompass several crucial elements, including task operation, administrative and financial issues, e-learning management, ongoing development of e-learning, fostering a positive organizational culture, and ensuring continual quality improvement. References [3], [20], and [21] are cited in the text. Organizational management is a systematic procedure that establishes connections between different acts in order to achieve the goals and objectives of an institution. It effectively oversees the human element to

generate desired outcomes and coordinates efforts and resources to fulfill both tactical and strategic goals [21].

This study outlines the methodology employed, the findings of the documentary analysis of research paper content benchmarking, and the key characteristics categorized into ten groups. The last phase of our work encompasses our final reflections and expressions of gratitude.

### **Methodology**

The research topic was addressed using a descriptive research technique in this study. The objective of this essay is to ascertain the fundamental institutional characteristics necessary for Higher Education Institutions (HEIs) to effectively adopt and execute e-learning methodologies. As stated by the source referenced as [22], this particular approach is employed to delineate a research object by documenting its inherent traits and attributes.

A comprehensive review of the literature was conducted, including benchmarking approaches and documentary analysis, to identify institutional components from significant articles pertaining to the implementation of e-learning.

Benchmarking is a systematic and thorough evaluation of many aspects of organizations, goods, services, and processes, with a

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specific focus on online education [23], [24]. As stated in citation [25], benchmarking has gained popularity as a strategic approach for not only detecting and addressing gaps, but also effectively implementing new standards and policies. The present undertaking comprises a tripartite process, consisting of three sequential stages.

The process of selecting appropriate documents for analysis. At the commencement of this phase, a search algorithm was employed to retrieve information from a diverse range of scientific databases by utilizing phrases associated with the implementation, evaluation, and assessment of e-learning and online education within the context of higher education, along with their respective modifications. Upon careful examination of the title, abstract, keywords, full-text accessibility, and their correlation with intriguing issues such as institutional features, e-learning deployment, and evaluation in the realm of online education, a total of 78 papers were selected.

### **Identifying key attributes in the chosen Research**

At this juncture, a summary encompassing the fundamental aspects of each selected work was finalized. This paper examines the attributes associated with a certain

institutional element necessary for the implementation of e-learning. In this section, we will discuss the process of comparison and attribute categorization. In order to complete this stage, the extracted features obtained from the analyzed articles were subjected to benchmarking. The aforementioned traits were subsequently categorized into emergent clusters. As a result, comparison tables were generated whereby qualities and authors were organized based on the frequency of their recurrence.

### **Results**

This section provides a summary of scholarly publications that compile research on the adoption and integration of e-learning in various educational institutions. Upon thorough examination and analysis of the articles, the distinctive attributes linked to the practice of institutional administration were identified. Subsequently, a total of eleven distinct categories were formed to encompass and classify these aforementioned features.

### **Paper Selection**

The databases employed in this study were EBSCO-ERIE, JSTOR, IEEE Xplore, Emerald, Springer, Science Direct, and Taylor & Francis. These databases provide

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access to full-text articles from academic journals and conference sessions.

The search equation encompassed a total of seventeen phrases that pertained to the domains of implementation or implantation, e-learning or online education, higher education, and their respective variants. After applying a filtration process to the initial set of 5,044 records obtained from the search, specifically based on availability of full-text, a reduced set of 4,231 records was identified. Following this, a thorough evaluation was carried out on the title, abstract, and keywords, considering their alignment with the intellectually stimulating subjects, namely online education assessment, institutional features, higher education, and e-learning implementation. Following the completion of the evaluation, a total of 132 records were acquired. Ultimately, duplicate items were eliminated from a total of 78 specifically chosen articles.

Upon examination of the 78 relevant publications, it was found that 51 of them were journal articles, accounting for 65% of the total, while the remaining 27 were conference proceedings papers, representing 35% of the total.

**Comparing and classifying traits within the categories**

The present study involves the comparison and classification of features within several groups.

In the last phase, the process involved comparing each characteristic to other characteristics in order to facilitate the integration and consolidation of features into many groupings.

### **Examining the characteristics**

After conducting a thorough analysis of the 191 qualities, a process of comparison was undertaken to identify any semantic similarities. As a result, these qualities were subsequently consolidated and categorized into a total of 105 different traits. The results encompassed characteristics derived from the frequency of one author compared to that of 10 writers. The present study has identified several supplementary characteristics through an in-depth examination of literature and analysis of relevant documentaries. These traits encompass leadership, organizational culture, faculty beliefs, quality assurance, technological platform selection and evaluation, planning, design, production, presentation, availability, and assessment of e-learning projects.

A total of 105 homologated qualities were analyzed in relation to the development of categories for the classification of

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institutional aspects, with the aim of identifying any emergent concerns within these categories. The aforementioned classification categories were established as a consequence of this undertaking: fiscal assets, administration, strategic development, information dissemination, assessment, operational and organizational components, excellence, technical support, and instruction.

When doing a comparative analysis between two entities, the findings of this study have demonstrated that the necessary characteristics for implementing e-learning in higher education institutions are multifaceted, comprising several dimensions ranging from the organizational structure of the institution to operational features such as strategic planning, effective communication, and efficient management. Moreover, out of the 68 articles selected for the study, the functional category exhibited the highest number of associated references, accounting for 51.5% (35). This was followed by the structural category, which comprised 39.7% (27) of the chosen articles. The financial resources category had 35.3% (24 references), while the planning category accounted for 32.4% (22 references). There are a total of 21 items in each of the management and communication categories,

which collectively account for 30.9% of the whole dataset. The evaluation category was referenced in 22.1% (15) of the articles, technical support was noted in 23.5% (16) of the references, and training was cited in 13, or 19.1%, of the publications. The further organization of characteristics inside categories.

### **Conclusion**

This study illustrates that the application of e-learning extends beyond the instructional procedures carried out within the technology platform. Instead, the proper operation of the online educational system necessitates certain organizational and activity changes.

This study contributes to the advancement of knowledge on the fundamental institutional characteristics necessary for the effective implementation of an e-learning system. In order to achieve this objective, a set of 10 institutional categories were formed, namely: communication, evaluation, financial resources, administration, strategizing, quality, technical assistance, and training. Therefore, this study consolidates the essential institutional attributes found in several academic papers and presents a pragmatic framework that can be easily consulted

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when incorporating e-learning in higher education.

Based on the results, it was seen that the functional category had the highest number of linked traits. This suggests that a more thorough examination of the considerations that higher education institutions should take into account while developing online programs in the future may be achieved by breaking this category into smaller subcategories. There is evidence to show that the functional and structural categories hold significance.

However, the findings also indicated a lack of scholarly literature on the subject of e-learning awareness and training inside the institution. This might possibly impact the effectiveness or ineffectiveness of implementing an online academic program.

Furthermore, it can be noted that the assessment process plays a pivotal role in establishing the criteria used to evaluate e-learning initiatives within an organization. This includes the formulation of strategies for measuring the effectiveness of e-learning, as well as determining the perceived value of technology, skills, and student behavior in the e-learning environment. Additionally, assessment is instrumental in evaluating self-efficacy and ensuring the active participation of all stakeholders within the

organization. Nevertheless, the assessment of the organizational characteristics identified in this study is inconclusive. While the articles outline the necessary expertise that higher education institutions should possess, they do not provide any guidance on the suitable approaches for quantifying or evaluating these characteristics. The emergence of a specialized field of research has been driven by the advancement of measuring concepts, aiming to enhance the acquisition of knowledge.

### References