

**SUCCESS FACTORS FOR THE IMPLEMENTATION OF DIGITAL  
LEARNING: A CASE STUDY OF GRESTA UNIVERSITY, THIKA, KENYA.**

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## DECLARATION


This is my original work and has not been presented for the award of a degree for any other similar purpose in any other institution.

Signature:  Date: 9<sup>th</sup> December, 2024

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This project has been submitted with my approval as the university supervisor

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## **DEDICATION**

I would like to dedicate this project to my parents for their support morally and financially throughout the process of writing this work.

## **ACKNOWLEDGEMENT**

All gratitude and honor go to the almighty God for giving me this opportunity to write this project. I also thank the Online Distance learning department for allowing and providing information needed in preparing this project.

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## **ABBREVIATIONS AND ACRONYMS**

**COVID-19-** Corona Virus Disease 2019

**DL** – Digital Learning

**OER** -Open Educational Resources

**Wi -FI** – Wireless Fidelity

## ABSTRACT

This research project was based on the fact that it focused on the success factors that in turn have influenced the implementation of digital Learning at Gretsia University-Thika. The problem stated that most universities in Africa and beyond are focusing on investing and implementing Digital Learning to advance their technological aspect of learning. This has led most universities in the African continent and even in the East African nations to invest in more technology-based platforms to help in the establishment of more digital learning platforms. In the case study, the statement of the problem was that Gretsia University there is more interaction because the online learners have to come to school for tutorials before exams, this was a problem because many may have left their jobs, families, and businesses to just come for that and yet that can be curbed. Some also have to travel for long distances to come, which is also a time consuming. The general objective of the research study was to investigate the various factors that have contributed to the implementation of Digital Learning. The study was carried by the following specific objectives are to investigate the assessment of the current digital program for the implementation of digital learning, to examine the continuity of learning in the implementation of digital learning and to investigate the effect of engagement strategies in the implementation of digital learning. On the research methodology. The research design used was quantitative research with the use of experimental research. The sampling technique used was that of random sampling. The research instrument used questionnaires. The target population being 100, the sample size was 72 that were the respondents. The study area was at Gretsia University- Thika. The recommendations were that there should be steps taken for the implementation to be a success using the given factors. In conclusion was that the implementation of digital learning is needed for the success factors to be more efficient to the learners of Gretsia University.

## CHAPTER ONE: INTRODUCTION

### 1.0 Introduction

This chapter presents the background of the study, statement of the problem, general research objectives, significance of the study, purpose of the study, scope of the study, limitations of the study, delimitations of the study and the conceptual framework.

### 1.1 Background to the Study

Digital learning (DL) is the delivery of learning, coaching, or education through digital assets according to Downes (2007). DL, often referred to as e-learning or online education uses the internet to facilitate and enhance the learning process. The success of digital learning implementation hinges on a complex interplay of factors encompassing instructional design, technology infrastructure, educator readiness, and learner engagement.

Globally, there have been technological advancements regarding online learning in universities, there is, for instance, Hodges. et al. (2020) said, there was Global Access to education which allows acquiring information, learning materials, and resources individuals worldwide. Graham. et al. (2019) said that that there is also blended learning which is an approach that entails in-person teaching with online learning activities. Here students are engaged in both face-to-face with their lecturers and online activities, but then there was a rise of e-learning during the global shutdown of learning activities due to the COVID-19 pandemic. In Russia, they say that online learning helps to cut down costs since there is no need for a learner to travel longer distances or away from home to get the needed

education. In Africa, South Africa during the pandemic they had to study at home hence online learning was more effective because there was face-to-face interaction between learners and teachers. There was a gap between the learners who would access the internet and the gadgets and those who would not, there was an implementation that was suggested to take place, by the university to provide learners with free laptops and Wi-Fi (Wireless Fidelity) access at the school premises and outside as stated by Rodrigues et al. (2019). In Kenya, online learning is done at both public and private universities for learners to access learning without disruptions said Hodges. et al. (2020)

At Gretsia University there is digital learning through the Online Digital Learning program for learners who are occupied with jobs and also those who are far away. The problem at hand is that digital learning is not effective, therefore they should be implementation needed because the learners should have very minimum interaction in the case that the classes are rarely conducted online.

## **1.2 Statement of the Research Problem**

Online Distance Learning was aimed at having minimum face-to-face interaction between the learner and the lecturer however the problem at hand here is that at Gretsia University there is more interaction because the online learners have to come to school for tutorials before exams, this is a problem it is inconvenient for online learners since many may have leave their jobs, families and also their businesses to come for that and yet that can be curbed.

### 1.3 Purpose of the Study

The study was to examine the success factors for the implementations of digital learning.

### 1.4 Conceptual Framework

The variables that were being investigated are articulated in a meaningful structure without discussing the contents. The conceptual framework for the study showed how the success factors affect the implementation of digital learning. The success factors are the independent variables and the implementation of digital learning is the dependable variable.

#### INDEPENDENT VARIABLES

#### DEPENDENT VARIABLE

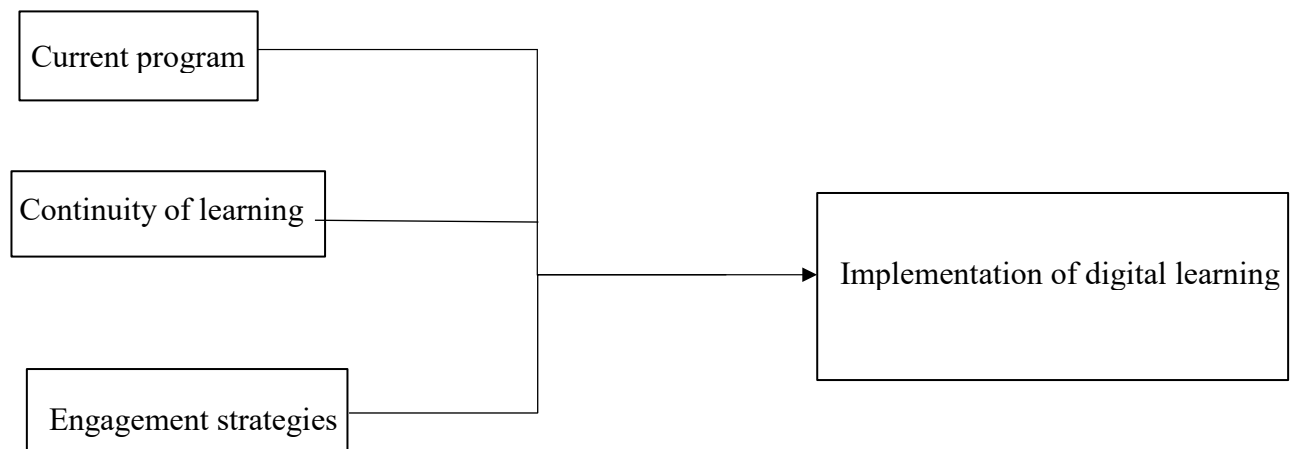


Figure 1.1 Conceptual Framework

## **1.5 Research Questions**

The research questions of the study were:

- I. How does the assessment of the current digital program influence on the implementation of digital learning?
- II. What effect does the continuity of learning without disruption have on the implementation of digital learning?
- III. What effect does engagement strategies have on the implementation of digital learning?

## **1.6 Objectives of the Study**

### **1.6.1 General Objective**

To examine the success factors for the implementation of digital learning at Grets University.

### **1.6.2 Specific Objectives**

- I. To examine the assessment of the current digital program for the implementation of digital learning.
- II. To examine the continuity of learning in the implementation of digital learning.
- III. To assess the effect of engagement strategies in the implementation of digital learning.

### **1.7 Significance of the Study**

The importance of the study would widely benefit the lecturers and learners. For lectures there would be no creating time to have tutorials face-to-face with the learners and learners won't have to leave what they are doing or even travel for long distances to be there for the tutorials for example.

### **1.8 Scope of the Study**

The study was to enable the target population as a whole to enable the success of the implementation of online learning. The study is limited to Greta University as the only case study. In addition, the learners are the source of information specifically who take online courses.

### **1.9 Limitation of the Study**

The challenge that was faced was accessing information from online learners because they only come during tutorials and exams.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Introduction**

This chapter examines the theoretical literature relating to financial distress and financial performance using machine learning algorithms, as well as other components of the research as encompassed in the conceptual framework. The chapter included a summary of the studied literature, as well as a conceptual framework that depicts the relationship between independent and dependent variables.

### **2.2 General Concept of Digital Learning**

Siemens (2020) defined digital learning as a wide term that includes the application of digital tools and technologies in learning environments. He highlighted how it may improve multimedia resource integration, personalized learning experiences, and educational access. The limited studies have focused on the long-term impact of digital learning programs beyond immediate outcomes such as engagement which this study would cover. In addition, there was need for more study on how digital learning continuity changes overtime due to different reasons like the different geographical locations. Siemen (2020) said that however the literature discusses engagement strategies broadly, there limit research on the specific effectiveness of these strategies across different digital learning platforms.

### **2.3 Current Program and Implementation of Digital Learning**

Bates et al. (2011) argued that it was essential to know the present programs that students use to ensure exceptional and make a contribution to the implementation of digital learning.



Vygotsky (1978) said that there was classroom learning which referred to acquiring knowledge, skills and understanding in a formal educational setting usually physical or virtual classroom, it involves the teacher and a learner interaction. Classroom learning environments can vary, ranging from typical face-to-face lecture rooms to on-line or blended learning environments. The goal of school room studying was to provide a structured and supportive space where college students can collect knowledge, develop skills, and have interaction in meaningful interactions that contribute to their overall instructional development.

Digital learning provided a social interaction through virtual discussions and collaborative projects but may lack the immediate, in-person connection found in traditional classrooms (Piccano, 2009).

Garrison et al. (2004) said in addition that information of current curricula led to non-stop enhancement in digital mastering and helped students adapt to adjustments based totally on their wants and technological advances.

#### **2.4 Continuity of Learning and Implementation of Digital Learning**

Reimers et al. (2020) said that there was remarkable resilience, flexibility, and commitment to education in having established strategies for education continuity in extremely challenging periods that caused physical distancing. They also had to make an effort to allow learners and teachers to find ways to learn and teach remotely since there was no face-to-face interaction.

Jolliffe et al. (2012) said that digital learning was provided in two ways that is: Asynchronous and synchronous learning, asynchronous learning has the advantage of

accessing information anytime anywhere, which would allow learners to partake in their courses anywhere they are anytime. They also said that digital learning is beneficial for learners as they can learn at their own pace with the availability of online materials.

Clark (2020) investigated the contributions multimedia components including music, video, and interactive simulations make to digital learning environments. He contended that these components could have improved the effectiveness of online learning overall as well as engagement and information retention.

Blended learning, which combines in-person instruction with online learning resources, was examined by (Garrison and Kanuka, 2020). They went over how this method, which offered customization, flexibility, and chances for active learning, combined the best features of digital and conventional learning.

## **2.5 Engagement Strategies and Implementation of Digital Learning**

Hu & Hui (2012) said that learner engagement is an important aspect of learning outcomes since it is difficult because the physical touch by the instructor is limited. Kehrwald (2008) said that the social presence of learners means that it is not only them using the virtual spaces but also showing willingness to engage in communicating by exchanging ideas, and questions and also interacting with their lecturers. He encouraged learners to participate in online forums and collaborate with fellow learners.

Open Educational Resources (OER) are examined by Ally and Samaka (2020) in relation to digital learning. They drew attention to the ways that open educational resources (OER), such as publicly accessible textbooks and learning modules, could save costs for teachers and students while fostering fair access to high-quality learning resources.

## **2.6 Theoretical Framework**

In this section, the following theory was about the implementation of digital learning which was the case study research.

### **2.6.1 Constructivism Theory**

Jean (1977) was the founder scholar of this theory which stated that constructivism was a learning theory that assumes that learners actively construct their knowledge by engaging with new information and experiences. It also talked of emphasizes the role of having familiar knowledge, social interaction, and hands-on activities in the learning process. Vygotsky (1978), introduced the idea of social constructivism, emphasizing the need of having social interaction in learning, expanded the constructivist ideas. In the digital mastering context, constructivism could be applied using designing online publications that interact with novices in problem-solving, collaborative activities, and real-world applications. Interactive simulations, dialogue forums, and peer assessments are examples of how constructivist standards can be built into digital knowledge of experiences.

### **2.7: Summary of Identified Gaps in the Literature Review**

The identified gaps in the literature review are: Limited research comparing the effectiveness of different digital learning platforms, there is lack of research on how digital learning systems adapt during large scale disruptions such as natural pandemics and lastly, there is insufficient research on engagement strategies.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This section mainly looked at the various methodologies and techniques that were used in the process of gathering various data that shall be necessary for the attainment of the research findings.

### **3.2 Research Design**

James (2019) suggested that design is an aspect of training a research objective in terms of what needs to be done in the making of the research. The research would employ the use of quantitative research method especially the use of Experimental Research that helped to justify the research questions and establish cause and the effect relationships between the variables. The research that was carried out is a case study that mainly involves the aspect of only one institution of study in the research.

### **3.3 Study Area**

The study area of research study was carried out at Grets University, Thika which is a private learning university located in the Thika constituency. This is because it will encourage more learners to enroll in Online Distance Learning because of various reasons like a learner can multi-task school with job. The implementation will be of great benefit for them.

### **3.4 Target Population**

The population was mainly individuals who were working in the information technology department and the learners who would access the digital learning at Grets University. At Grets University, the information technology department was mainly in charge of all aspects

of developing digital learning systems as well as being the key policy leader in the implementation of digital learning systems. At Greta University the target population was the learners taking the Online Distance learning who are in total 250 but the target population was 100.

### **3.5 Sampling Techniques**

The sampling technique that was used in the research study was the simple random sampling technique method. This method was essential in that it focused on randomly selecting without being bias, providing a fair and representative sample. The people who in turn were the learners.

### **3.6 Sample Size**

In sample, the research study took the whole target population as the sample size. As such it was be taken to be 100. The 100 individuals were involved in the process of gathering various data in the research study. The sample size in the used Slovin's formula which was formulated in 1960 by Micheal Slovin. According to this formula a confidence level of 95% was laced giving a margin error 5%.

The formula is:  $n = N / (1 + Ne^2)$

Where:

n = Sample size

N = Total target population size

e = margin error

$$n = 100 / (1 + 100 * 0.05^2)$$

$$n = 100 / (1 + 100 * 0.0025)$$

$$n = 100 / (1 + 0.25)$$

$$n = 100 / (1.25)$$

$$n = 80$$

The sample size for the target population of 100 using the Slovin formula with a 5% margin of error is 80.

### **3.7 Research Instruments**

The research instrument that applied in the process of the research use of questionnaires that included both close-ended and open-ended questions. These questions were based on the objectives of the research study and were able to gather quantitative information data that in turn was used in the process of data analysis.

### **3.8 Validity of Measurements**

Kibera (2017) said that validity is commonly termed as the notion under which research is well and purely grounded and supported by the fact that it meets its preferable standards. The concept of validity in research was adhered to in that the study was intended to meet based on the research objectives and was guided properly by the research supervisor. In this study the validity was proven through the use of the theory stated above and the use of pilot study.

### **3.9 Reliability of Measurements**

Hamersley (2018) stated that reliability refers to the degree of consistency whereby phenomena were given the same cluster by different observers or by the same observers in different situations. The research study was utilized in the pre-testing methodology in the various questionnaires produced to verify if the respondents were able to give valid information and if possible, to see if the respondents were able to answer the questionnaires.

### **3.10 Data Collection Techniques**

Data was collected in that during data analysis, the researcher was to account for the various quantitative information that was able to be used in data analysis.

### **3.11 Data Analysis**

After the gathering of various respective data, the research carried on with the process of analyzing the various respective data was compiled and accounted for in the research. The data was analyzed using various mathematical calibration software and this was Microsoft Excel.

Upon analysis of the data, the research findings were brought and presented using various charts and designs to explain more about the data findings.

### **3. 12 Logistical and Ethical considerations**

The various logical and ethical considerations that was done in the research study was as First, it ensured that they were a research permit that was authorized by Grets University- Thika.

Secondly there was ensured that the questions in the interview guide did not indulge the respondent's privacy.



## **CHAPTER FOUR: FINDINGS AND DISCUSSION**

### **4.1 Introduction**

This section mainly entailed on the various data analysis that were carried out and also the various findings that the researcher was able to obtain. The objectives of the research were:

- I. To examine the assessment of the current digital program for the implementation of digital learning.
- II. To examine the continuity of learning in the implementation of digital learning.
- III. To assess the effect of engagement strategies in the implementation of digital learning.

### **4.2 Overview of Findings**

The study was aimed at achieving several objectives that is the assessment of the current digital program, examining the continuity of learning and to investigate the effect of engagement strategies.

#### **4.2.1 Response Rate**

A total of 100 questionnaires were given out, 72 of the totals issued were filled out and given back while 28 not filled nor returned.

The table below showed how sufficient it was:

**Table 4.1: Response Rate**

Questionnaires status	No. of questionnaires	Percentage
Filled and returned	72	72%
Not filled	28	28%
Total	100	100%

#### 4.2.2 Gender Response

Deducing from respondent's demographic information, the results showed that 47% of the respondents were male while the other 53% of the respondents were female. A comparison showed that most of the respondents were female. The below table showed the results.

**Table 4.2: Gender Response**

Respondents	Frequency	Percentage
Female	38	53%
Male	34	47%
Total	72	100%

#### 4.2.3 Level of Education

The study investigated the level of educations of the respondents to ascertain their level of competency. Below was the table from the results obtained:

**Table 4.3: Level of Education**

Literacy levels of respondents	Frequency	Percentile
Bachelor's degree	29	40.28%
Diploma's degree	25	34.72%
Certificate	18	25.00%

### **4.3 Current Program**

The study showed that the current program was not clear depending on the response given. Different levels were distributed to show five groups thus: strongly support, somehow support, neutral, somehow oppose and strongly oppose. Below showed the certainty comparison. The table below showed the results for the questionnaires given to conduct the current program in implementation of digital learning.

**Table 4.4: Current Program**

Statement	Strongly support	Somehow support	neutral	Somehow oppose	Strongly oppose	Total
How satisfying is the assessment	18	21	6	12	15	72
The rate of accessibility of learning resources	24	10	1	23	14	72
How often there is encounter of technical issues in using the digital learning platforms	40	10	5	12	5	72
Total	31.48%	25.46%	5.55%	21.76%	15.74%	100%

#### **4.4 Continuity of Learning**

Different levels were distributed to show five groups thus: strongly support, somehow support, neutral, somehow oppose and strongly oppose. Below shows the certainty comparison. The table below showed the results for the questionnaires given to conduct the continuity of the program in implementation of digital learning.

**Table 4.5: Continuity of Learning**

Statement	Strongly support	Somehow support	neutral	Somehow oppose	Strongly oppose	Total
To what extent does interruption be experienced in accessing digital learning resources	29	13	24	5	1	72
How effectively does digital learning prepare for assessment or exams	12	18	7	30	5	72
Do organizational factors affect the accuracy of algorithm	1	20	21	2	28	72
Total	19.44%	23.61%	24.07%	17.59%	15.277	100%

#### **4.5 Engagement Strategies**

Different levels were distributed to show five groups thus: Very satisfied, satisfied, neutral, dissatisfied and very dissatisfied. Below showed the certainty comparison. The table below showed the results for the questionnaires given to conduct the engagement strategies in implementation of digital learning.

**Table 4.6: Engagement Strategies**

Statement	Very satisfied	Satisfied	Neutral	Dissatisfied	Very dissatisfied	Total
How often there is actively participation	18	21	6	12	15	72
How to perceive the impact of engagement strategies	10	24	1	23	14	72
How important the instructor involvement and feedback enhance engagement	40	10	5	12	5	72
Total	31.48%	25.46%	5.55%	21.76%	15.74%	100%

## **CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

### **5.1 Introduction**

This chapter provided a concise summary of the study findings, followed by conclusions drawn from the analysis from analysis and recommendations for policy, practice and further research.

### **5.2 Summary of Findings**

The study investigated the success factors for implementation of digital learning. The factors were to access the current program, the continuity of learning and use of engagement strategies.

The study showed that there was moderate response in relation to the current program at Grets University however some responses showed that the current system needs much improvement for the implementation to be a success. On the continuity of learning there was moderate response that showed that learning was somehow a challenge from the responses give. Under the engagement strategies there was moderate responses that indicated that digital learning can be a success fully if taken to considerations.

### **5.3 Conclusions**

Based on the study findings, we concluded that the implementation of digital learning was needed for the success factors to be more efficient to the learners of Grets University. To satisfy changing technical and educational needs, continuous assessment and modification



are required. In addition, continuity of learning was still hampered by issues like internet connectivity and technologies access. To conclude with digital learning environments, better learning results and student retention were positively correlated with effective engagement tactics.

#### **5.4 Recommendations for Policy**

We recommend that there should be steps taken for the implementation to be a success using the given factors. Under the current program there should be changes made that will make it possible to see the change in the learning henceforth. Ensure that there is regular assessment and update digital learning infrastructure and resources. There should also be feedback mechanisms that show continuous improvement based on the learner's experience and performance.

On continuity of learning there has to be changes on how the learning is conducted to ensure there is smooth learning for students in digital learning. There should be investment in infrastructure to enhance access to digital tools and reliable connectivity.

Under the engagement strategies there should be ways that will help in the interaction of learners and the lecturers. There should be use of active engagement techniques like real-term feedback systems and personalized learning pathways. The lecturers to be given opportunities for professional development so as to improve their digital teaching techniques and make the se of powerful engagement technologies.

## **5.5 Suggestions for Further Research**

The study suggested that there should more to be done by investigating frameworks for evaluating the success of digital learning, assess how feedback from learners and lecturers is integrated into program updates. In addition, there should be the examining the effectiveness of engagement strategies.

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- Satisfied { }
- Neutral { }
- Dissatisfied { }
- Very dissatisfied { }

5. How would you rate the accessibility of digital learning resources provided?

- Excellent { }
- Good { }
- Fair { }
- Poor { }
- Very poor { }

6. How often do you encounter technical issues while using digital learning platforms?

- Frequently { }
- Occasionally { }
- Rarely { }
- Never { }

### Section 3: Continuity of learning

7. Have you experienced any interruptions in accessing digital learning resources (e.g., technical issues, internet connectivity problems)? If yes, please describe.

.....  
.....  
.....

8. How often do you encounter challenges transitioning between different digital learning tools or platforms?

- Frequently        { }
- Occasionally    { }
- Rarely            { }
- Never             { }

9. How effectively does digital learning prepare you for assessments or exams compared to traditional methods?

- Excellent        { }
- Good             { }
- Fair              { }
- Poor              { }
- Very poor        { }

Section 4: Effect of Engagement Strategies

10. How often do you actively participate in discussions or interactive activities during digital learning sessions?

- Always { }
- Often { }
- Sometimes { }
- Rarely { }
- Never { }

11. How do you perceive the impact of engagement strategies on your motivation to learn?

- Very positive { }
- Positive { }
- Neutral { }
- Negative { }
- Very negative { }

12. How important do you think instructor involvement and feedback are in enhancing engagement in digital learning?

- Excellent { }
- Good { }
- Fair { }
- Poor { }
- Very poor { }