

DIGITAL LEARNING UTILIZATION AND ENTREPRENEURS SKILLS

DEVELOPMENT AMONG UNIVERSITY STUDENTS IN IMO STATE

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Abstract

The study investigated digital learning facility utilization and entrepreneurs' skills development among university students in Imo State. The study adopted the correlational research design. Three research questions guided the study. The population of the study was 20,163 respondents comprising of 300 level students of the two selected public universities in Imo State, Nigeria. The sample for the study was 472 respondents representing 2.34% of the entire population. The sampling was composed in multi-stage which included: purposive, simple random and cluster sampling techniques. Rating scale was the instrument used for data collection. The instrument was validated by five specialists, and reliability of the instrument determined using test re-test method. The research questions were answered, using Pearson product moment correlation coefficient. Findings revealed among others that there is a high and positive relationship between digital learning facility utilization and opportunity recognition entrepreneurs' skills development among the university students. It was recommended among others that students should endeavour to enhance their level of utilization of digital learning facilities in the universities, in order to improve their opportunity recognition entrepreneurs' skill development

Keywords: Digital, Learning Facility, Utilization, Entrepreneurs' Skills Development.

Introduction

Digital learning facilities entail the range of technology-based infrastructure, tools, and resources that support the delivery, management, and enhancement of teaching and learning in educational settings. These resources have revolutionized the ways most human activities are conducted in the contemporary period. According to Malhotra, Anil, and Kaur (2023), the rapid digitalization of contemporary societies has fundamentally reshaped the processes through which knowledge is produced, disseminated, and applied across sectors, including education, industry, and entrepreneurship. In the 21st century knowledge economy, universities are no longer perceived solely as centers for academic instruction and credentialing. Rather, they are increasingly positioned as engines of innovation, skill formation, and entrepreneurial capacity building. Begum, Mehmood and Maryam (2023) reported that this shift was driven by globalization, technological advancement, labor market volatility, and the growing recognition that formal qualifications alone are insufficient for meaningful economic participation and sustainable livelihoods. Consequently, higher education institutions are under increasing pressure in this digital era, to equip students with entrepreneurial skills.

Entrepreneurial skills development among university students is however, a

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multidimensional construct encompassing opportunity recognition skills, innovation/creativity skills as well as digital skills. According to Maudina (2022), opportunity recognition skills enable individuals to identify unmet needs, emerging trends, and viable business ideas within their environments. On the other hand, Young, Davis, Abhari and Wahlberg (2020) maintained that innovation/creativity skills support the generation of novel ideas, products, and processes that can translate opportunities into viable ventures. Moreover digital skills are those skills that are increasingly indispensable in modern entrepreneurship, such as: business operations, marketing, communication, and value delivery which are now largely mediated by digital technologies, which according to Resmi, Pahlevi, Kusumawati and Praselyo (2024), may all emanate from digital learning facilities utilization.

Digital learning facility utilization entails the extent to which available digital learning resources and infrastructures are accessed, adopted, and effectively used by learners, educators, or institutions to support teaching, learning, and skill development. More specifically, it involves the practical use of facilities such as computers and mobile devices, internet connectivity, learning management systems (LMS), virtual classrooms, educational software, digital libraries, multimedia tools, and online collaboration platforms for academic and instructional purposes. The concept goes beyond mere availability of digital facilities to emphasize frequency of use, manner of use, competence in use, and appropriateness of use in achieving learning objectives. In the views of Zeynalov and Dogantan (2025), digital learning facility utilization has the potential to directly influence the development of these entrepreneurial skills. The scholars maintained further that through access to online resources, market analytics tools, business simulations, and digital content creation platforms, students can enhance their opportunity recognition capabilities by exploring real-time market information and global entrepreneurial trends. Similarly, Fadjllah, Ganefri, Yulastri, Luthfi, Hidayat, Samala and Rawas (2024) avowed that innovation and creativity skills can be nurtured through interactive digital environments that support experimentation, design thinking, collaboration, and iterative learning. In addition, the scholars maintained that virtual brainstorming tools, multimedia production software, and simulation-based learning platforms can allow students to test ideas, refine concepts, and develop innovative solutions to real-world problems.

Against this backdrop, this study was anchored on the specific relationships between digital learning facility utilization and opportunity recognition entrepreneurs' skills development, innovation/creativity entrepreneurs' skills development, and digital entrepreneurs' skills development among the students. By aligning the background of study with these variables, the research sought to provide a coherent and empirically grounded understanding of how digital learning environments contribute to entrepreneurial skills development among university students in Imo State. Such understanding will be vital for informing policy, improving institutional practice, and strengthening the role of universities as catalysts for entrepreneurial and socio-economic development.

This study was anchored on Human Capital Theory. Human Capital Theory was propounded by Theodore W. Schultz in the year, 1961. The theory emerged from economic thought and emphasizes the role of education and training as strategic investments that enhance individuals' productive capacities and contribute to economic growth. The central tenet of Human Capital Theory is that human abilities, skills, knowledge, and competencies constitute a form of capital that can be systematically developed through education and training. According to the theory, investments in education such as schooling, professional training, and skill-oriented learning yield long-term returns in the form of improved productivity, innovation, employability, and entrepreneurial performance. Human Capital Theory is relevant because it provides a strong justification for examining digital learning facilities as investments in students' entrepreneurial capacity. Digital learning facilities such as online learning platforms, virtual business simulations, digital libraries, and collaborative software enhance students' access to knowledge and practical skills necessary for entrepreneurship.

Empirically, Morris, Soleimanof and Tucker (2023) found among others that use of digital learning facilities positively influenced the students development of insights in the good opportunities existing in small business ventures such as marketing skills for some small businesses. Wei, Liu and Sha (2019) found that students use of digital learning facilities had a high positive relationship with their development of opportunity recognition entrepreneurial skill. Mattingly, Mullins, Melendez, Boyden and Eddington (2019) found that there exists a low positive relationship between students' use of digital learning facilities and their development of

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innovation/creativity entrepreneurship traits in pharmaceutical internships and education. Dyer, Gregersen and Christensen (2019) found that there is a high positive relationship between utilization of digital learning facilities and students' development of innovative/creativity entrepreneurs' skill. Whewell, Caldwell, Frydenberg and Andone (2022) found that there is a very high positive relationship between students' utilization of digital learning facilities and their digital entrepreneurs' skill development. Spilbergs, Mavlutova and Lesinskis (2026) found that there is a high positive relationship between students' utilization of digital learning facilities and their development of digital entrepreneurial skill.

Statement of the Problem

Ideally, the provision and effective utilization of digital learning facilities in universities should enhance entrepreneurship education and result in graduates with strong entrepreneurial skills such as opportunity recognition, innovation, digital, and managerial/problem-solving competence. Such facilities are expected to translate entrepreneurial knowledge into practical skills through experiential and technology-enhanced learning. However, in universities in Imo State, many graduates continue to demonstrate limited entrepreneurial capacity, as reflected in persistent unemployment and low levels of sustainable venture creation. Although digital learning facilities seem to be available in varying degrees, their utilization by students appears largely confined to routine academic activities rather than purposeful entrepreneurial skill development. This suggests a disconnect between the potential of digital learning facilities and their actual contribution to entrepreneurship outcomes.

The problem, therefore, is the apparent ineffectiveness of digital learning facility utilization in fostering major entrepreneurial skills development among university students in Imo State. The gap addressed by this study is the lack of empirical, context-specific evidence explaining how digital learning facility utilization relates to the development of entrepreneurial skills, particularly: opportunity recognition, innovation/creativity, digital, and managerial/problem-solving skills among university students in the state.

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The main purpose of this study was to examine digital learning facility utilization and entrepreneurs' skills development among university students in Imo State. Specifically, the study sought to:

1. find out the relationship between digital learning facility utilization and opportunity recognition entrepreneurs' skills development among university students.
2. find out the relationship between digital learning facility utilization and innovation/creativity entrepreneurs' skills development among university students.
3. ascertain the relationship between digital learning facility utilization and digital entrepreneurs' skills development among university students in Imo State.

Research Questions

The following research questions guided the study:

1. What relationship exists between digital learning facility utilization and opportunity recognition entrepreneurs' skills development among university students in Imo State?
2. What relationship exists between digital learning facility utilization and innovation/creativity entrepreneurs' skills development among university students in Imo State?
3. What relationship exists between digital learning facility utilization and digital entrepreneurs' skills development among university students in Imo State?

Method

The research design adopted for this study is correlational research design. The population of this study was 20,163 respondents, comprising of 300 level students of the two selected public universities in Imo State, Nigeria, which included: Imo State University, Owerri and Federal University of Technology, Owerri. The sample size used in the study was 472 representing 2.34% of the population. The sampling was composed in multi-stages which included: purposive simple random and cluster sampling techniques. The researchers used rating scales as instrument for data collection in this

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 study. The university students were requested to indicate their opinion concerning the level of their utilization of the digital learning facilities and their levels of development of the three entrepreneurs' skills in the universities.

The instrument was validated by 5 experts, 3 from Department of Social Science Education (Education Management and Planning) and 2 from Educational Measurement and Evaluation, all in the Faculty of Education of Imo State University, Owerri. The stability overtime reliability of the instruments was determined. Pearson Product Moment Correlation Coefficient was used to test the reliability of the instrument. An estimate of 0.84 was obtained which showed that the instrument was reliable. On the sport method of administration and collection was used. Pearson r statistical tool was used to answer the research questions.

Results

Research Question One: What relationship exists between digital learning facility utilization and opportunity recognition entrepreneurs' skills development among university students in Imo State?

Table 1: Summaries of Pearson “r” statistics used to explain the relationship existing between digital learning facility utilization and opportunity recognition entrepreneurs' skills development among university students

V	N	R	\bar{x}	r^2	DR	Remarks
Digital learning Facility Utilization (X)			32.41			High
Opportunity Recognition Entrepreneurs' Skills Development (Y)	472	0.87		75.69%	Positive	Positive Relationship

V Variables, N Number of respondents, r Pearson (r), \bar{x} mean, r^2 Proportion of Variance, DR Direction of Relationship and Remarks

Data in Table 1, presents the summaries of Pearson “r” statistics used to explain the relationship between digital learning facility utilization and opportunity recognition entrepreneurs' skills

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development. The analysis reveals a high positive relationship between digital learning facility utilization and opportunity recognition entrepreneurs' skills development, indicating that as digital learning facility utilization increases, the likelihood of opportunity recognition entrepreneurs' skills development also increases. Specifically opportunity recognition entrepreneurs' skills development can be attributed to digital learning facility utilization, highlighting the significant impact of digital learning facility utilization on opportunity recognition entrepreneurs' skills development. Therefore, the answer to the above question reveals a high and positive relationship between digital learning facility utilization and opportunity recognition entrepreneurs' skills development.

Research Question Two: What relationship exists between digital learning facility utilization and innovation/creativity entrepreneurs' skills development among university students in Imo State?

Table 2: Summaries of Pearson “r” statistics used to explain the relationship existing between digital learning facility utilization and innovation/creativity entrepreneurs' skills development among university students

V	N	R	\bar{x}	r^2	DR	Remarks
Digital Learning Facility Utilization (X)			32.17			High
Innovation/Creativity Entrepreneurs' Skills Development (Y)	472	0.78		60.84%	Positive	Positive Relationship

V Variables, N Number of respondents, r Pearson (r), \bar{x} mean, r^2 Proportion of Variance, DR Direction of Relationship and Remarks

Data in Table 2, presents the summaries of Pearson “r” statistics used to explain the relationship between digital learning facility utilization and innovation/creativity entrepreneurs' skills development. The analysis reveals a high positive relationship between digital learning facility utilization and innovation/creativity entrepreneurs' skills development, indicating that as digital learning facility utilization increases, the likelihood of innovation/creativity entrepreneurs' skills development also increases. Specifically innovation/creativity entrepreneurs' skills development

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 can be attributed to digital learning facility utilization, highlighting the significant impact of digital learning facility utilization on innovation/creativity entrepreneurs' skills development. Therefore, the answer to the above question reveals a high and positive relationship between digital learning facility utilization and innovation/creativity entrepreneurs' skills development.

Research Question Three: What relationship exists between digital learning facility utilization and digital entrepreneurs' skills development among university students in Imo State.?

Table 3: Summaries of Pearson “r” statistics used to explain the relationship existing between digital learning facility utilization and digital entrepreneurs' skills development among university students

V	N	R	\bar{x}	r^2	DR	Remarks
Digital Learning Facility Utilization (X)			31.74			Very High
Digital Entrepreneurs' Skills Development (Y)	472	0.92	33.05	84.64%	Positive	Positive Relationship

V Variables, N Number of respondents, r Pearson (r), \bar{x} mean, r^2 Proportion of Variance, DR Direction of Relationship and Remarks

Data in Table 3, presents the summaries of Pearson “r” statistics used to explain the relationship between digital learning facility utilization and digital entrepreneurs' skills development. The analysis reveals a very high positive relationship between digital learning facility utilization and digital entrepreneurs' skills development, indicating that as digital learning facility utilization increases, the likelihood of digital entrepreneurs' skills development also increases very highly. Specifically digital entrepreneurs' skills development can be attributed to digital learning facility utilization, highlighting the significant impact of digital learning facility utilization on digital entrepreneurs' skills development. Therefore, the answer to the above question reveals a very high and positive relationship between digital learning facility utilization and digital entrepreneurs' skills development.

Discussion of Findings

Finding of this study as indicated in table one showed that there is a high and positive relationship between digital learning facility utilization and opportunity recognition entrepreneurs' skills development among the university students. In this case, it can be noted that one variable influences the other. In other words, it shows that as the digital learning facility utilization of the students increases, their opportunity recognition entrepreneurs' skill development equally increases. This finding corroborates that of Morris, Soleimanof and Tucker (2023) which revealed among others that use of digital learning facilities positively influenced the students' development of insights in the good opportunities existing in small business ventures such as marketing skills for some small businesses. It is equally in agreement with the finding of Wei, Liu and Sha (2019) which indicated that students' use of digital learning facilities had a high positive relationship with their development of opportunity recognition entrepreneurial skill. However, it can be concluded, based on this finding of the study that there is a high and positive relationship between digital learning facility utilization and opportunity recognition entrepreneurs' skills development among the university students.

Moreover, the finding of study as shown in table 2 indicated that there was a high and positive relationship between digital learning facility utilization and innovation/creativity entrepreneurs' skills development among the university students. This finding equally proved that one variable influenced the other. It therefore signified that as the digital learning facility utilization of the students increased, their innovation/creativity entrepreneurs' skill development equally increased. The finding has partially supported that of Mattingly, Mullins, Melendez, Boyden and Eddington (2019) which proved that there exists a low positive relationship between students' use of digital learning facilities and their development of innovation/creativity entrepreneurship traits in pharmaceutical internships and education. it partially supported it because one was low while the other was high. This could be as a result of the level of utilization of digital learning facilities applied by the students in each of the cases. However, the finding agrees with that of Dyer, Gregersen and Christensen (2019) which revealed that there is a high positive relationship between utilization of digital learning facilities and students' development of innovative/creativity entrepreneurs' skill. In any case, it can be concluded based

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on the finding of this study that there was a high and positive relationship between digital learning facility utilization and innovation/creativity entrepreneurs' skills development among the university students.

Finally, the finding of this study as shown in table 3 indicated that there is a very high and positive relationship between digital learning facility utilization and digital entrepreneurs' skills development among the university students in Imo State. This finding proved that the variable of digital learning facility utilization influenced that of digital entrepreneurs' skills development among the university students. The finding is in consonance with that of Whewell, Caldwell, Frydenberg and Andone (2022) which revealed that there is a very high positive relationship between students' utilization of digital learning facilities and their digital entrepreneurs' skill development. It is equally in line with the finding of Spilbergs, Mavlutova and Lesinskis (2026) which indicated that there is a high positive relationship between students' utilization of digital learning facilities and their development of digital entrepreneurial skill. However, based on the finding of this study, it can be concluded that there is a very high positive relationship between digital learning facility utilization and digital entrepreneurs' skills development among the university students.

Conclusion

This study has explored the relationship existing between digital learning facility utilization and entrepreneurs' skills development among university students in Imo State. It therefore concluded that: there is a high and positive relationship between digital learning facility utilization and opportunity recognition entrepreneurs' skills development; there is a high and positive relationship between digital learning facility utilization and innovation/creativity entrepreneurs' skills development; and there is a very high and positive relationship between digital learning facility utilization and digital entrepreneurs' skills development.

Recommendations

The following recommendations were therefore proffered by the researcher based on the findings of the study:

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1. Students should endeavour to enhance their level of utilization of digital learning facilities in the universities, in order to improve their opportunity recognition entrepreneurs' skill development.
2. Lecturers should encourage their students to intensify their use of digital learning facilities so as to enhance their innovation/creativity entrepreneurs' skill development.
3. University Management should assist their undergraduate students through provision of adequate digital learning facilities in the universities in order to aid them in their utilization of them, thereby improving on their digital skill entrepreneurs' skill development.

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