SEARCH ENGINE OPTIMIZATION AS DIMENSION OF DIGITAL MARKETING SKILLS AND THE EMPLOYABILITY POTENTIALS OF BUSINESS EDUCATION STUDENTS IN SOUTH-SOUTH NIGERIA

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Abstract

This study determined the relationship between search engine optimization as a dimension of digital marketing skills and the employability potentials of Business Education students in South-South Nigeria. The study was prompted by the increasing need for graduates to acquire relevant 21st-century digital competencies to thrive in the evolving job market. The main aim of the study was to determine how the acquisition and application of digital marketing skills like search engine optimization influence the employability potentials of Business Education students. Three specific research objectives, three corresponding research questions and hypotheses guided the study. The study adopted a correlational research design. The target population comprised 1566 final-year (2025/2026) Business Education students across public universities in South-South Nigeria. The sample size for this study was 312. Data collection was carried out using two sets of self-structured questionnaire. Each of the questionnaire was structured on a 4-point rating scale. The instrument was validated by three experts. The reliability of the instruments was established using the test-retest method with Pearson Product Moment Correlation (PPMCC), yielding reliability coefficient of 0.80 and 0.75 respectively. A total of 315 to copies of the questionnaires were administered both physically and electronically (Google Form link). Data collected were analyzed using Pearson Product Moment Correlation Coefficient (PPMCC) to answer research questions and to test hypotheses. Findings revealed a significant positive relationship between search engine optimization skills and the employability potentials of Business Education students. Specifically, skills in Search Engine Optimization (SEO) was found to significantly predict higher employability potential such as communication, market research and entrepreneurial ability. The study recommends among others that the integration of digital marketing such as search engine optimization into Business Education curricula and the enhancement of practical digital skill training to better equip students for the demands of the contemporary labour market.

Key Words: Search Engine Optimization, Digital Marketing, Skills, Employability, Potentials, Business Education

Introduction

Business Education has undergone significant transformation in response to globalization, digitalization, artificial intelligence (AI), automation, and the emergence of the knowledge economy. Contemporary organizations increasingly require graduates who possess not only disciplinary knowledge but also digital competence, analytical thinking, creativity, adaptability, and problem-solving abilities needed in technology-driven workplaces. Consequently, higher education has shifted from knowledge-based instruction to competency-based education that emphasizes practical skills, innovation, and lifelong learning. Recent labour market evidence further indicates that employers increasingly prioritize demonstrable competencies over academic

credentials, particularly in business and technology-related occupations (Brüning & Mangeol, 2020; Organisation for Economic Co-operation and Development (OECD), 2025).

Within this changing landscape, Business Education occupies a strategic position in preparing graduates for employment and entrepreneurship. In Nigeria, the programme is designed to equip students with occupational competencies, entrepreneurial capabilities, digital literacy, and professional attitudes necessary for gainful employment and self-reliance. This objective has been reinforced through the National Universities Commission's Core Curriculum and Minimum Academic Standards (CCMAS), which emphasize digital literacy, innovation, communication, critical thinking, business analytics, teamwork, and entrepreneurship as essential graduate attributes (National Universities Commission [NUC], 2023). Despite these reforms, evidence suggests that many Business Education programmes still face challenges in integrating emerging digital competencies into teaching and learning, thereby limiting graduates' readiness for contemporary workplaces (Okoro & Emeasoba, 2025; Ezeh, 2025). The rapid digital transformation of business has equally reshaped marketing practice. Organizations increasingly depend on websites, search engines, social media platforms, e-commerce, and digital analytics to attract customers, generate market intelligence, and sustain competitive advantage. Consequently, digital marketing has evolved into a strategic organizational capability that requires competencies in digital communication, online consumer behaviour, content development, web technologies, and data analytics (Chaffey & Ellis-Chadwick, 2022). Among these competencies, Search Engine Optimization (SEO) has emerged as one of the most valuable because it enhances the visibility and accessibility of digital content through organic search results, thereby improving customer acquisition and organizational competitiveness.

Search Engine Optimization (SEO) is conceptualized in this study as a digital marketing competency that involves applying technical optimization, keyword research, content optimization, website performance enhancement, and search analytics to improve a website's visibility in organic search engine results, increase targeted traffic, and support customer engagement and business growth**.** According to Kotler, et al (2021), Search Engine Optimization (SEO) is the process of improving a website's visibility in organic search engine results by optimizing its content, structure, and relevance so that it can be easily discovered by users searching for related information. SEO enables organizations to attract qualified online traffic and enhance digital marketing performance. In the same vein, Enge, et al (2015) defined Search Engine Optimization (SEO) as the practice of designing, developing, and optimizing websites so that search engines can effectively crawl, index, and rank web pages higher in organic search results, thereby increasing the quantity and quality of website traffic. Contemporary SEO extends beyond traditional keyword optimization to encompass technical website optimization, user experience, mobile responsiveness, content strategy, structured data, web analytics, and consumer search behaviour. Google Search Central (2024) emphasizes that effective SEO prioritizes user value, quality content, and technical excellence rather than manipulative ranking techniques. Consequently, SEO requires a combination of analytical reasoning, communication, creativity, problem-solving, and data interpretation, making it a multidisciplinary competency that aligns closely with the graduate attributes expected of Business Education students (Chaffey & Ellis-Chadwick, 2022). As organizations continue to expand their digital presence, these competencies have become increasingly valued across marketing, business development, public relations, customer relationship management, and entrepreneurship (OECD, 2025). The strategic importance of SEO has grown because consumer purchasing decisions are increasingly influenced by online search behaviour. Most consumers begin their buying journey through search engines to compare products, evaluate alternatives, and identify credible service

providers. Organizations with stronger search visibility therefore enjoy greater opportunities to generate qualified traffic, improve customer trust, and achieve sustainable business performance. Unlike paid digital advertising, SEO provides long-term organic visibility that continues to create value over time. Furthermore, the emergence of AI-driven search technologies has expanded SEO to include user-intent analysis, conversational search, and optimization for AI-assisted search experiences. These developments have further increased employer demand for graduates possessing practical SEO and digital marketing competencies.

Employability has similarly become a central indicator of higher education quality as universities are increasingly expected to produce graduates capable of obtaining, sustaining, and progressing in employment. Rather than emphasizing knowledge acquisition alone, contemporary higher education focuses on developing transferable skills, professional competence, adaptability, and lifelong learning that enable graduates to thrive in dynamic labour markets (Yorke, 2006; ILO, 2024). Yorke (2006) conceptualized employability as the achievements comprising knowledge, skills, understanding, and personal attributes that make graduates more likely to gain employment and succeed in their careers, while Harvey (2001) argued that employability also includes graduates' ability to adapt to changing workplace demands and contribute meaningfully to organizational performance. Within Business Education, employability potentials refer to the competencies and capabilities that prepare students for successful transition into employment or self-employment after graduation. Consistent with the CCMAS philosophy, these competencies include communication, entrepreneurship, digital literacy, business analytics, teamwork, critical thinking, and innovation (NUC, 2023). However, employers continue to express concerns regarding graduates' workplace readiness, particularly in digital competence, communication, and problem-solving, suggesting a persistent mismatch between university training and labour market expectations (OECD, 2023; WEF, 2025). Recent evidence further indicates that digital competence has become one of the strongest predictors of graduate employability because organizations increasingly depend on digital technologies, online collaboration, and data-driven decision-making (ILO, 2024; OECD, 2025). Within the broader domain of digital competence, Search Engine Optimization represents a distinctive capability because it integrates technical, analytical, managerial, and communication skills that are transferable across numerous business functions. Effective SEO requires proficiency in keyword research, consumer behaviour analysis, technical website optimization, digital content development, web analytics, critical thinking, and evidence-based decision-making. Consequently, students possessing SEO competencies may demonstrate stronger communication, market research, entrepreneurial, and analytical capabilities that enhance their employability potentials and workplace readiness.

The relationship between SEO skills and employability potentials can be explained through Human Capital Theory (Becker, 1964), which posits that investment in education and skill acquisition enhances individual productivity and labour-market value. From this perspective, SEO constitutes a specialized form of digital human capital capable of increasing graduates' competitiveness in technology-driven labour markets. Similarly, the CareerEDGE Employability Model developed by Dacre Pool and Sewell (2007) emphasizes career development learning, disciplinary knowledge, generic skills, emotional intelligence, work experience, and reflection as determinants of employability. SEO aligns with these dimensions because it requires continuous learning, technical competence, communication, creativity, and practical application of digital technologies in solving organizational problems.

The relevance of SEO skills to communication potential can be explained by the nature of SEO itself. Effective SEO requires the ability to understand an intended audience and communicate information in a clear, concise and relevant manner. Lu and Ranjan (2020) posited that effective

communication is integral to ensuring that an intended message resonates with its target audience. Similarly, Li et al. (2020) argued that SEO training enhances students' ability to present information effectively and engage target audiences, thereby developing communication competencies that can be transferred to customer service and other workplace roles. Royle and Laing (2014) further observed that SEO training can strengthen communication skills by teaching learners how to communicate value propositions clearly and develop user-focused content. In the same vein, Kotler et al. (2019) maintained that digital marketing competencies such as SEO facilitate effective customer interaction and can contribute to the development of empathy, active listening and problem-solving skills. SEO also places considerable emphasis on the production of compelling and understandable content. DeMers (2019) noted that content that communicates value effectively is more likely to perform well in search engine results, emphasizing the importance of clarity, conciseness and readability. Meyer (2020) added that SEO analytics provide feedback on content performance and reveal the types of content that resonate with users. Such feedback enables digital marketers to refine their communication strategies and align future content with audience expectations. Furthermore, Sullivan (2021) emphasized that understanding the language and terminology used by a target audience is essential to effective keyword research. Thus, SEO requires students to develop audience awareness, understand user intent and select language that communicates effectively with prospective customers. These competencies provide a basis for understanding how SEO skills may contribute to students' communication potential and broader employability.

The relationship between SEO skills and market research potential is equally important. SEO provides learners with practical exposure to the collection, interpretation and application of digital market information. Through keyword research, search-trend analysis, website analytics and user-behaviour assessment, students can acquire skills for identifying consumer interests, preferences and emerging market opportunities. Chaffey and Smith (2017) argued that SEO contributes to market research through the collection and application of data-driven insights that inform marketing decisions and enhance the ability to interpret consumer behaviour. Keyword analysis, for instance, provides information about what potential customers are searching for and can therefore serve as an important source of consumer insight. Iyer (2018) similarly observed that understanding what potential customers search for enables businesses to optimize their content around relevant keywords and align their offerings with consumer interests. Market segmentation further demonstrates the connection between SEO and market research. Chaffey and Ellis-Chadwick (2019) noted that market research enables businesses to segment audiences according to demographic characteristics, behaviour and preferences, thereby supporting the development of tailored digital marketing strategies. Content strategy also depends on market information, as insights into consumer needs and interests help marketers develop content that is relevant and engaging. Sweeney (2021) emphasized that market research provides valuable information for content strategy development, while Tuten and Solomon (2017) highlighted the importance of performance measurement through indicators such as organic traffic, conversion rates and user behaviour. Consequently, SEO exposes learners to a continuous process of gathering market information, interpreting consumer behaviour and using evidence to make marketing decisions. These activities are closely associated with the analytical and research competencies required for employability.

SEO skills may also contribute to the development of students' entrepreneurial potential. The digital environment has changed how businesses identify customers, communicate value, build brands and compete in markets. Consequently, entrepreneurs increasingly require competencies that enable them to establish and maintain a visible online presence while acquiring customers in

cost-effective ways. Fishkin (2015) argued that a strong online presence can differentiate a business from competitors, making SEO an important component of contemporary business strategy. Kumar and Pandey (2020) similarly maintained that SEO skills equip learners with the capacity to generate online traffic, improve brand visibility and optimize marketing resources, competencies that are relevant to entrepreneurial success in the digital economy. The entrepreneurial relevance of SEO is further demonstrated through its connection with opportunity recognition, strategic thinking and market responsiveness. Kritzinger and Weideman (2017) reported that SEO knowledge can enhance understanding of online market dynamics, which is particularly important for entrepreneurs who depend on digital platforms for business growth. Bashir et al. (2021) further associated SEO with strategic thinking because practitioners are required to plan, implement and evaluate digital marketing campaigns. Patel (2021) observed that investment in SEO can support sustainable business growth without requiring excessive financial resources, while Fuchs and Lutz (2020) found that organizations that prioritize SEO within their marketing strategies are more likely to achieve long-term success. Therefore, the acquisition of SEO skills may provide students with practical competencies for identifying digital market opportunities, improving business visibility and developing cost-effective approaches to customer acquisition.

The broader employability literature also provides support for examining SEO as a component of students' digital competence. Contemporary employers increasingly require graduates who possess not only discipline-specific knowledge but also transferable digital, communication, analytical and adaptive competencies. Tushar and Sooraksa (2023), in their semi-systematic review of employability research, identified digital literacy, communication, analytical thinking, adaptability, teamwork and lifelong learning as competencies consistently demanded by employers. labour markets. Within Business Education, these arguments are particularly significant because the programme is designed to equip students with business, administrative, technological and entrepreneurial competencies required for employment and self-employment. SEO represents a practical digital marketing competency through which students can develop and apply several of these competencies simultaneously. Its application requires effective communication, audience analysis, and market research, interpretation of digital data, strategic decision-making, creativity and entrepreneurial initiative. The ability to understand customer needs, identify market opportunities, communicate value propositions and measure the effectiveness of digital strategies can therefore enhance the capacity of Business Education students to respond to contemporary workplace demands.

The foregoing suggests that SEO should not be viewed merely as a technical technique for improving website rankings. Rather, it constitutes a multidimensional digital competence that can facilitate the development of communication, market research and entrepreneurial capabilities. Through SEO-related activities, students are exposed to practical processes of audience identification, keyword analysis, content development, consumer-behaviour interpretation, performance measurement and digital customer acquisition. These processes correspond with several competencies identified in the contemporary employability literature. It is therefore reasonable to investigate the extent to which Search Engine Optimization skills relate to the employability potentials of Business Education students, particularly their communication, market research and entrepreneurship potentials in public universities in South-South Nigeria.

Statement of the Problem

Business Education is expected to equip students with the knowledge, skills, and competencies required to function effectively in contemporary workplaces and entrepreneurial environments.

However, the increasing digitalisation of business operations and technology-driven occupations has heightened the demand for graduates with digital, communication, analytical, and problem-solving competencies. Although the National Universities Commission (NUC) Core Curriculum and Minimum Academic Standards (CCMAS) emphasizes digital literacy, innovation, entrepreneurship, and technology-enabled learning (NUC, 2023), concerns remain about the adequacy of graduates' competencies for contemporary employment. Employers continue to report gaps in digital and transferable skills, indicating a possible mismatch between university preparation and workplace requirements (OECD, 2025; WEF, 2025).

This concern is particularly relevant to Business Education, where students are expected to acquire market-oriented, technological, managerial, and entrepreneurial competencies. However, evidence suggests that the integration of practical digital competencies into Business Education programmes remains inadequate (Okoro & Emeasoba, 2025; Ezeh, 2025). Search Engine Optimization (SEO), which involves digital communication, content development, keyword strategy, audience analysis, web analytics, critical thinking, and problem-solving, represents one digital competency with potential relevance to students' employability (Chaffey & Ellis-Chadwick, 2022). Yet, empirical studies have paid limited attention to SEO as a distinct competency and its relationship with students' employability potentials, particularly in the Nigerian context. The paucity of such evidence makes it difficult for curriculum developers and lecturers to determine the extent to which SEO skills should be integrated into Business Education programmes. Therefore, this study investigates the relationship between Search Engine Optimization skills and the employability potentials of Business Education students in public universities in South-South Nigeria.

Research Question

The following research questions guided this study.

1. What is the relationship between search engine optimization (SEO) skill and communication potential of Business Education students in public universities in South-South, Nigeria?
2. What is the relationship between search engine optimization (SEO) skill and market research potential of Business Education students in public universities in South-South, Nigeria?
3. What is the relationship between search engine optimization (SEO) skill and entrepreneurship potential of Business Education students in public universities in South-South, Nigeria?

Hypotheses

The following null hypotheses were formulated and tested at 0.05 level of significance to give direction to the study.

1. There is no significant relationship between search engine optimization (SEO) skill and communication potential of Business Education students in public universities in South-South, Nigeria.
2. There is no significant relationship between search engine optimization (SEO) skill and market research potential of Business Education students in public universities in South-South, Nigeria.
3. There is no significant relationship between search engine optimization (SEO) skill and entrepreneurship potential of Business Education students in public universities in South-South, Nigeria.

Method

The study adopted a correlational research design. Creswell and Creswell (2018) explain that correlational research examines the degree of association between variables using statistical procedures without manipulating them. The design was therefore considered appropriate for the present study because it sought to determine the relationship between Search Engine Optimization (SEO) as dimension of digital marketing skills and the employability potentials of Business Education students as they naturally occur. The study was carried out in the South-South geopolitical zone of Nigeria, comprising Akwa Ibom, Bayelsa, Cross River, Delta, Edo, and Rivers States. Although there are several universities in the zone, the study covered only public universities that offer Business Education programmes. The institutions covered were the University of Delta, Agbor, and Delta State University, Abraka, in Delta State; Ambrose Alli University, Ekpoma, and the University of Benin, Benin City, in Edo State; the Federal University Otuoke and Niger Delta University, Wilberforce Island, in Bayelsa State; the University of Port Harcourt, Rivers State University, and Ignatius Ajuru University of Education in Rivers State; the University of Uyo in Akwa Ibom State; and the University of Calabar and the University of Cross River State in Cross River State. The choice of the South-South geopolitical zone was informed by the need to examine the development of relevant digital marketing skills among Business Education students within a region with significant economic potential and a growing need for economic diversification. As Nigeria seeks to diversify its economy and reduce dependence on oil, Business Education can serve as an important tool for empowering young people, promoting innovation, strengthening entrepreneurial capacity, and fostering inclusive economic growth.

The population of the study comprised 1342 final-year Business Education students in public universities in the South-South geopolitical zone of Nigeria during the 2025/2026 academic session. The breakdown are shown below.

Population Distribution of Final Year Business Education Students 2025/2026 Academic Session in Public Universities in South-South, Nigeria.

S/N	Name of Institution	State	Number of Students
1	University of Uyo	Akwa-Ibom	196
2	Federal University of Otuoke	Bayelsa	130
3	Niger Delta University	Bayelsa	51
4	University of Calabar	Cross-Rivers	54
5	University of Cross-Rivers State	Cross-Rivers	289
6	Delta State University, Abraka	Delta	86
7	University of Delta, Agbor	Delta	16
8	University of Benin, Benin City	Edo	81
9	Ambrose Ali University, Ekpoma	Edo	109
10	University of Port-Harcourt	Rivers	55
11	Rivers State University	Rivers	114
12	Ignatius Ajuru University of Education,	Rivers	440
	Total		**1566**

Source: Data from Heads of Department (HODs), 2026

The sample for the study comprised 351 final-year Business Education students in public universities in the South-South geopolitical zone of Nigeria. The study adopted a proportional stratified sampling technique to ensure that students from the participating institutions were adequately represented in proportion to their population. The sample size was determined using the Krejcie and Morgan (1970) sample-size determination table.

The data for the study were collected using structured questionnaires developed by the researcher based on the research questions and relevant literature. The instruments were titled **"**Search Engine Optimization as a Dimension of Digital Marketing Skills Questionnaire

(SEODDMSQ)" and "Employability Potentials of Business Education Students Questionnaire (EPBESQ**)."** The SEODDMSQ was used to measure respondents' search engine optimization skills, while the EPBESQ was used to measure their communication, market research, and entrepreneurial potentials. The questionnaires consisted of relevant demographic information and items designed to measure the study variables. Respondents' demographic information included gender, type of institution, and level of study. The substantive items were structured on a four-point rating scale of Strongly Agree, Agree, Disagree, and Strongly Disagree. The instruments were subjected to face and content validation by three experts: two from the Department of Business Education and one from the Department of Educational Psychology, Guidance and Counselling, with specialization in Measurement and Evaluation, all from the University of Delta, Agbor, Delta State. The validators were provided with the research topic, research questions, and copies of the questionnaires. Their observations, comments, and corrections were incorporated into the final draft of the instruments. The reliability of the instruments was determined using the test-retest method. The instruments were administered to a sample of 50 final-year Business Education students at Alvan Ikoku Federal University of Education, Owerri, Imo State, who were not part of the main study. The instruments were administered twice, with an interval of two weeks between the first and second administration. The scores obtained from the two administrations were correlated using the Pearson Product Moment Correlation (PPMC) with the aid of the Statistical Package for the Social Sciences (SPSS), Version 25. Reliability coefficients of 0.80 and 0.75 were obtained for the SEODDMSQ and EPBESQ, respectively. These coefficients were considered adequate for the study.

Ethical principles were observed throughout the conduct of the study. Permission was obtained from the relevant authorities in the participating institutions before the administration of the research instruments. The respondents were adequately informed about the purpose and nature of the study, and their participation was entirely voluntary. Informed consent was obtained from the participants before they completed the questionnaires. Participants were assured that the information provided would be treated with strict confidentiality and used solely for academic purposes. No respondent was compelled to participate, and participants were free to withdraw from the study at any stage without any penalty or adverse consequences. To ensure anonymity, the questionnaires did not require respondents to provide their names or other personally identifiable information. The data collected were securely handled and used strictly for the purposes of the study. The questionnaires were administered through both physical and electronic means. A total of 102 copies were administered personally, while the electronic version was distributed through Google Forms to students' WhatsApp platforms with the assistance of eight trained research assistants. Out of the 351 copies administered, 340 usable copies were retrieved, representing approximately 97% of the total number administered. The data collected were analyzed using the Pearson Product Moment Correlation (PPMC). The PPMC was used to answer the research questions and test the null hypotheses. The research questions were answered by examining the correlation coefficients (r) to determine the direction and strength of the relationship between the variables. The null hypotheses were tested at the 0.05 level of significance using two-tailed tests. In interpreting the strength of the correlation coefficients, the following guide adapted from Ukwuije and Orluwene (2012) was used: coefficients ranging from 0.80 to 1.00 were regarded as indicating a very strong positive or negative relationship; 0.60 to 0.79 indicated a strong positive or negative relationship; 0.40 to 0.59 indicated a moderate positive or negative relationship; 0.20 to 0.39 indicated a weak positive or negative relationship; while 0.00 to 0.19 indicated a very weak positive or negative relationship. For hypothesis testing, the null hypothesis was rejected where the p-value was less than the 0.05 level of significance ($p < .05$) and was retained where the p-value was equal to or greater than the 0.05 level of significance ($p \geq .05$).

Results

Research Question 1: What is the relationship between search engine optimization (SEO) skill and communication potential of Business Education students in public universities in South-South, Nigeria?

Table 1: Pearson Product Moment Correlation (PPMC) Analysis Showing the Relationship between Search Engine Optimization (SEO) Skills and Communication Potential of Business Education Students in Public Universities in South-South, Nigeria.

Variables	N	R	Relationship Strength	Direction
SEO Skills and Communication Potential	340	.886	Very Strong	Positive

Source: Field Survey 2026

The analysis in Table 1 above showed that the coefficient of relationship between search engine optimization (SEO) skills and communication potential of Business Education students is 0.89 which indicates that there is a very strong positive correlation between Search Engine Optimization (SEO) skills and communication potential. This implies that students who demonstrated higher skills in Search Engine Optimization (SEO) also tend to exhibit stronger communication abilities.

Research Question 2: What is the relationship between search engine optimization (SEO) skill and market research potential of Business Education students in public universities in South-South, Nigeria?

Table 2: Pearson Product Moment Correlation (PPMC) Analysis Showing the Relationship between Search Engine Optimization (SEO) Skills and Market Research Potential of Business Education Students in Public Universities in South-South, Nigeria.

Variables	N	R	Relationship Strength	Direction
SEO Skills and Market Research Potential	340	.905	Very Strong	Positive

Source: Field Survey 2026

The analysis in Table 2 above showed that the coefficient of relationship between search engine optimization (SEO) skills and market research potential of Business Education students is 0.91 which indicates that there a strong positive correlation between Search Engine Optimization (SEO) skills and market research potential. This implies that students who possess higher Search Engine Optimization (SEO) skills also tend to display stronger abilities in conducting market research effectively.

Research Question 3: What is the relationship between search engine optimization (SEO) skill entrepreneurship potential of Business Education students in public universities in South-South, Nigeria.

Table 3: Pearson Product Moment Correlation (PPMC) Analysis Showing the Relationship between Search Engine Optimization (SEO) Skills and Entrepreneurship Potential of Business Education Students in Public Universities in South-South, Nigeria.

Variables	N	R	Relationship Strength	Direction
SEO Skills and Entrepreneurship Potential	340	.947	Very Strong	Positive

Source: Field Survey 2026

The analysis in Table 3 above showed that the coefficient of relationship between search engine optimization (SEO) skills and entrepreneurship potential of Business Education students is 0.95 which indicates that there a strong positive correlation between Search Engine Optimization (SEO) skills and entrepreneurial skills. This implies that students who possess higher skills in SEO also tend to demonstrate stronger entrepreneurial capabilities.

Hypotheses Testing

Ho[1]: There is no significant relationship between search engine optimization (SEO) skill and communication potential of Business Education students in public universities in South-South, Nigeria.

Table 4: Significance Test of the Relationship between Search Engine Optimization (SEO) Skills and Communication Potential of Business Education Students in Public Universities in South-South, Nigeria

Variables	N	Df	R	Sig. (2-tailed)	Alpha Level	Decision
SEO Skills and Communication Potential	340	338	.886	.000	0.05	Reject H_0

Source: Field Survey 2026

Table 4 shows that the p-value of 0.000 is less than the significance level of 0.05, the null hypothesis is rejected. This indicates that the relationship between Search Engine Optimization skills and communication potential is statistically significant.

Ho[2]: There is no significant relationship between search engine optimization (SEO) skill and market research potential of Business Education students in public universities in South-South, Nigeria.

Table 5: Significance Test of the Relationship between Search Engine Optimization (SEO) Skills and Market Research Potential of Business Education Students in Public Universities in South-South, Nigeria

Variables	N	Df	R	Sig. (2-tailed)	Alpha Level	Decision
SEO Skills and Market Research Potential	340	338	.905	.000	0.05	Reject H_0

Source: Field Survey 2026

Table 5 shows that the p-value of 0.000 is less than the significance level of 0.05, the null hypothesis is rejected. This indicates that the relationship between Search Engine Optimization skills and market research potential is statistically significant.

Ho[3]: There is no significant relationship between search engine optimization (SEO) skill and entrepreneurship potential of Business Education students in public universities in South-South, Nigeria.

Table 6: Significance Test of the Relationship between Search Engine Optimization (SEO) Skills and Entrepreneurship Potential of Business Education Students in Public Universities in South-South, Nigeria

Variables	N	Df	R	Sig. (2-tailed)	Alpha Level	Decision
SEO Skills and Entrepreneurship Potential	340	338	.947	.000	0.05	Reject H_0

Source: Field Survey 2026

Table 6 shows that the p-value of 0.000 is less than the significance level of 0.05, the null hypothesis is rejected. This indicates that the relationship between Search Engine Optimization skills and entrepreneurship potential is statistically significant.

Discussion of Findings.

The findings in Table1 of this study show that there is very strong and significant relationship between search engine optimization skills and communication potential of Business Education students in public universities in South-South, Nigeria. The observed relationship suggests that as students become more skilled in optimizing digital content for search engines, their ability to convey ideas clearly, effectively interact with digital platforms, and tailor messages for diverse audiences improve correspondingly. The findings are consistent with Lu and Ranjan (2020) who posited that effective communication is integral to ensuring that the intended message resonates with the target audience. The findings also collabourate with Li, et al (2020) position that SEO training enhances students' ability to present information effectively and engage target audiences, skills which are transferable to customer service roles. Furthermore, the findings support Royle and Laing (2014) opinion that SEO training could improve students' communication skills by teaching them to convey value propositions clearly and build user-focused content. The findings equally concur with Kotler et al. (2019) who opined that digital marketing skills like SEO contribute to effective customer interaction, helping students develop empathy, active listening, and problem-solving skills, which are crucial for customer service. The findings also validate the assertion of DeMers (2019) that compelling content that communicates value effectively is more likely to rank well in search engine results, stressing that SEO requires content that is clear and concise to improve readability and engagement. Meyer (2020) added that SEO analytics provide feedback on content performance, offering insights into what resonates with users. This feedback could help refine communication strategies, ensuring that future content aligns with audience expectations. Similarly, the findings are in agreement with Sullivan (2021) who submitted that understanding the language and terminology used by the target audience is essential for effective keyword research, emphasizing that good communication skills allow marketers to grasp user intent and select keywords that resonate with potential customers. From the finding, the researcher is of the views that search engine optimization skills significantly strengthen students' communication potential because SEO requires clarity of message, audience awareness, keyword sensitivity, and content structuring, all of which directly enhance digital communication effectiveness.

The findings in Table 2 of this study indicate that there is very strong and significant relationship between search engine optimization skills and market research potential of Business Education students in public universities in South-South, Nigeria. The observed relationship shows that as students become more skilled in search engine optimization such as analyzing keywords, understanding online consumer behavior, and interpreting digital trends, they also enhance their ability to gather, interpret and utilize market data effectively. The findings are in consonance with Chaffey and Smith (2017) submission who argue that SEO skills contribute significantly to market research by emphasizing the collection and use of data-driven insights to shape marketing decisions, thereby enhancing students' analytical skills and ability to interpret consumer behaviour. Stressing that the intersection of SEO and market research could be observed through keyword insights where market research helps in identifying relevant keywords that reflect consumer interests and needs. The findings equally collaborate with Iyer (2018) who posited that understanding what potential customers are searching for, businesses can optimize their content to align with those keywords. The findings also align with Chaffey and Ellis-Chadwick (2019) opinion that audience segmentation is another way market research enables businesses to segment their audience based on demographics, behaviour, and preferences emphasizing that this segmentation is crucial for creating tailored SEO strategies that resonate with specific groups. Similarly, Sweeney (2021) opined that content strategy development is critical in

providing insights from market research that inform content creation, ensuring that the topics tackled are relevant and engaging to the target audience, stressing that this not only improves SEO performance but also enhances user engagement. Tuten and Solomon, (2017) position supports the findings that performance measurement is a key elements of market research that help in assessing the effectiveness of SEO efforts through metrics such as organic traffic, conversion rates, and user behavior analysis, emphasizing that the feedback loop allows for continuous optimization of both market strategies and SEO practices. Aligning with the finding, the researcher holds that SEO skills naturally develop market research potential since keyword analysis, search trends, and user intent evaluation expose students to practical data interpretation and consumer insight generation.

The findings in Table 3 of this study indicate that there is very strong and significant relationship between search engine optimization skills and entrepreneurial potential of Business Education students in public universities in South-South, Nigeria. The observed relationship suggests that effective SEO practices demand a proactive mindset, adaptability to digital trends, and an understanding of consumer behaviour which are essential traits for successful entrepreneurship. As SEO requires creativity, strategic thinking, digital market awareness, and value-driven content development, these attributes also align with key entrepreneurial competencies such as opportunity recognition, innovation, and market responsiveness. The findings collaborate with Fishkin (2015) who opined that a strong online presence could differentiate a business from its competitors, making SEO an essential component of business strategy. Also, the findings are consistent with Kumar and Pandey (2020) assertion that SEO skills equip students with knowledge on how to drive online traffic, boost brand visibility, and optimize resource allocation for marketing efforts, emphasizing that these competencies are essential for entrepreneurial success in the digital era. The findings equally align with Kritzinger and Weideman (2017) study who reported that students with SEO knowledge could better understand online market dynamics, which is essential for entrepreneurs who rely on online presence for business growth. Bashir et al. (2021) Added that SEO skills foster strategic thinking, as students learn to plan, execute, and measure marketing campaigns effectively—key entrepreneurial competencies. Patel (2021) opined that startups that invest in SEO can achieve sustainable growth without overwhelming financial resources. Furthermore, a study by Fuchs and Lutz (2020) found that companies that prioritize SEO in their marketing strategy are more likely to succeed in the long term. Judging from the findings, the researcher submits that SEO skills promote entrepreneurial potential by equipping students with digital visibility strategies, opportunity recognition abilities, and cost-effective customer acquisition approaches needed for modern venture growth.

All the tested hypotheses shows a consistent pattern of statistically significant relationships between search engine optimization as a dimension of digital marketing skills and the employability-related potentials of Business Education students in public universities in South–South Nigeria. At the chosen level of significance, all the null hypotheses were rejected, indicating that the identified skill areas are meaningfully associated with students' competence development. Results relating to search engine optimization skills revealed that SEO competence is significantly associated with students' communication, market research, and entrepreneurship potentials. This implies that students who possess stronger SEO skills are more likely to demonstrate better ability to communicate ideas, conduct market-oriented investigations, and identify or develop entrepreneurial opportunities. SEO activities typically require content structuring, audience targeting, keyword planning, and performance evaluation, all of which naturally strengthen analytical thinking, clarity of expression, and opportunity awareness. The findings support Royle and Laing (2014) opinion that SEO training could improve students' communication skills by teaching them to convey value propositions clearly and build user-focused content. Also, Tuten and Solomon, (2017) position supports the findings that performance measurement is a key elements of market research that help in assessing the effectiveness of SEO efforts through metrics such as organic traffic, conversion rates, and user

behavior analysis, emphasizing that the feedback loop allows for continuous optimization of both market strategies and SEO practices. The findings equally align with Kritzinger and Weideman (2017) study who reported that students with SEO knowledge could better understand online market dynamics, which is essential for entrepreneurs who rely on online presence for business growth. The findings therefore suggest that SEO training contributes directly to functional and employability-oriented capabilities of Business Education students.

Conclusion

This study set out to examine the relationship between search engine optimization as a dimension of digital marketing skills and the employability potentials of Business Education students in universities across South-South Nigeria. The findings revealed a strong and positive correlation between serach engine optimization as digital marketing skills and key employability indicators such as communication abilities, market research abilities, and entrepreneurial acumen. These results underscore the growing importance of integrating digital marketing training into Business Education curriculum to better equip students for the dynamic demands of the contemporary job market. As the digital economy continues to evolve, Business Education programme must align more closely with industry needs by fostering practical digital skills that enhance students' employability, self-reliance, and adaptability in a technology-driven workforce. The study highlights the urgent need for educational stakeholders, policymakers, and curriculum developers in Nigeria to prioritize the infusion of digital marketing components into Business Education programmes. Doing so will not only bridge the skills gap but also significantly enhance the career readiness and entrepreneurial potential of Business Education graduates in Nigeria.

Recommendations

Consequent upon the findings and conclusion of the study, the study recommends that:

1. Institutions offering Business Education in Nigeria should formally incorporate Search Engine Optimization (SEO) into their undergraduate curriculum to ensure students acquire relevant and practical digital competencies.
2. Business Education programme should collaborate with digital marketing firms, tech hubs, and entrepreneurs to provide hands-on training, internships, and mentorship for students in real-world digital marketing environments.
3. Educational Institutions should invest in functional digital marketing laboratories equipped with current software, analytics tools, and internet resources to allow students to practice and hone their skills.

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