

BUILDING DIGITAL LITERACY AND VIRTUAL COMPETENCIES IN BUSINESS EDUCATION: STRATEGIES FOR EMPOWERING FUTURE GENERATION LEADERS

Jide John OLORODE Ph.D

Department of Business Education, Federal College of Education, Abeokuta
jjolorode@fce-abeokuta.edu.ng

Abstract

In the fast-changing digital world, business education needs to pay serious attention on teaching digital skills and virtual abilities. These abilities are essential for preparing students for the opportunities and difficulties of the 21st-century job. This essay examines virtual skills and digital literacy, outlines the competencies required in the current digital environment, and offers ideas for integrating these competencies into Nigerian business education curricula. With a focus on empowering future business leaders, the paper also identifies key strategies for developing these skills in business education students who will become future generation leaders. It was concluded that building digital literacy and virtual competencies are fundamental to the success of business students in the digital age when business practices increasingly rely on digital technologies and virtual collaboration. Therefore, the need for well-rounded individuals who can navigate these environments effectively becomes increasingly critical and important. It was recommended that Business educators should continuously update curricula to reflect the latest trends and evolving digital and virtual competencies and ensure collaboration with tech companies to offer workshops and certifications that can provide students with exposure to cutting-edge digital virtual competencies. This will enhance the integration of digital literacy and virtual competencies in business education to ensure that graduates are well-prepared for the demands of the global, digitally-driven business environment.

Keywords: Business Education, Digital Literacy Competencies, Virtual Competencies, Empowering Future Leaders

Introduction

The goal of business education is to prepare students for specific office occupations, job creation, entrepreneurship, and knowledge about business, including ICT. Many organisations are undergoing digital and virtual transformation, which must be built and embedded in business education programs. Business education is an educational program that aims to meet labour market demands by equipping students with necessary skills, attitudes, and competencies for self-reliance and national development (Abdulrazak et al., 2023). It focusses on career development, enabling students to acquire relevant skills for success in the rapidly expanding business world (Okeke-Ezeanyanwu & Nweke 2021). Graduates of business education are employable in teaching and industries and qualify as self-employed entrepreneurs (Odoh, 2020).

The increase of remote work and virtual communication, along with the digital transformation of business processes, has made it necessary to rethink business education in order to adapt to these technological advancements (Pascucci et al., 2023). In order to navigate this shift and develop business students' skills, digital literacy and virtual competencies have become crucial. The ability to efficiently and critically access, evaluate, and produce information using a range of digital tools and platforms is known as digital literacy (Reddy et al., 2020). It encompasses a broad spectrum of skills necessary to work,

study, and survive in a digital environment (Spante et al., 2018). Since digital literacy is the cornerstone that allows students to participate in modern business operations without difficulty, it must be completely integrated into business programs today (Tang & Chaw, 2016). Similarly, virtual competences are the skills required for collaboration, interaction, and leading successfully in electronic and virtual settings (Azukas, 2022) and they are equally vital in business education in training individuals for the reality of the contemporary work environment (Morrison-Smith & Ruiz, 2020).

There is the need for business educators to analyse the significance of these digital literacy and virtual competencies, identify the essential digital and virtual competencies required in the current technological workplace, and offering workable solutions for incorporating digital literacy and virtual competencies into business education programs. Therefore, this paper seeks to investigate how digital and virtual competencies can be built or incorporated into business education programme in order to empower future generation of business educators who can promote innovation, adjust to changes, and prosper in a globalised digital economy by integrating digital and virtual competencies.

Objectives of the Study

The main objectives is o explore the strategies for building digital literacy and virtual competencies in business education for empowering future generation leaders. Specifically, the study sought to achieve the following:

1. **To examine the concepts of digital literacy and virtual competencies**as it relate to Business world
2. **To identify the essential digital and virtual competencies required for the 21st-century workforce.**
3. **To explore strategies for embedding digital literacy and virtual competencies into business education curricula in Nigeria**
4. **To assess the impact of digital literacy and virtual competencies on the effectiveness of business education in preparing future leader**

Concept of Digital Literacy

Digital literacy is an evolving concept that encompasses a wide range of skills and competencies necessary to navigate, critically engage with, and create digital content across diverse technological platforms. Pascucci et al. (2023) defines digital literacy as the ability to effectively and critically navigate, evaluate, and create information using various digital technologies. This competency is multi-dimensional, integrating both technical and critical thinking skills required to thrive in today's increasingly digital world. Digital literacy according to Martínez-Bravo et al. (2022) encompasses various dimensions, including technical literacy, information literacy, media literacy, collaborative literacy, and ethical literacy. Technical literacy involves using digital tools and platforms to access, process, and share information. Information literacy involves searching for, evaluating, and managing digital information. Media literacy involves critically analyzing and evaluating media content on digital platforms. Collaborative literacy focuses on working effectively within digital and online communities, using tools like cloud-based file sharing and social media platforms. Ethical literacy involves understanding and making responsible decisions about digital technologies, including respecting privacy, avoiding plagiarism, and ensuring cyber security. These dimensions are crucial for students to navigate and effectively cope in the current landscape of the digital world

In the context of business education, digital literacy is foundational for preparing students to engage with the digital tools that have become essential to modern business

practices. Business operations today are increasingly reliant on digital technologies such as data analytics, digital marketing, and online communication platforms. Mandinach and Gummer (2022) emphasize that the ability to analyze data, manage digital projects, and communicate via digital platforms are integral skills in business education. These skills are not only important for technical proficiency but also for fostering critical thinking, innovation, and entrepreneurship in the digital economy. Moreover, digital literacy in business education extends beyond the acquisition of technical skills to include the development of strategic thinking, problem-solving, and digital ethics. According to Spante et al. (2018), digital literacy is crucial for business students to understand the implications of emerging technologies and make informed decisions in their careers. The integration of digital literacy in business curricula can help students understand how digital tools and platforms can be leveraged for operational efficiency, customer engagement, and organizational growth.

Digital Literacy Skills in this Era

Voda et al. (2022) stated that there are several key skills that students must master to be considered digitally literate in today's digital landscape. These digital skills include:

1. **Digital Communication:** The ability to effectively communicate using digital tools such as email, instant messaging, video conferencing, and social media. In business, clear communication through digital channels is crucial for effective teamwork, marketing, and customer engagement.
2. **Information Management:** The skill of collecting, storing, and organizing information efficiently in digital environments. This includes understanding databases, cloud storage, and file management systems, which are essential in today's business operations.
3. **Critical Thinking and Problem Solving:** The ability to critically assess digital information, recognize biases, and solve complex problems using digital tools. This skill is vital for business students who must navigate an overwhelming amount of information and make informed decisions.
4. **Data Analysis:** Understanding how to collect, analyze, and interpret data using software tools (e.g., Excel, Tableau, Python, SPSS). Business students need this competency to drive data-informed decision-making.
5. **Digital Collaboration:** The ability to collaborate effectively using online platforms such as Google Workspace, Microsoft Teams, and Slack. Collaborative tools are essential for teamwork in digital environments.
6. **Cybersecurity Awareness:** Basic knowledge of how to protect oneself from cyber threats, including understanding encryption, passwords, phishing attacks, and data privacy.
7. **Social Media Literacy:** The ability to navigate, utilize, and analyze social media platforms effectively for personal and professional use. In business, social media literacy supports marketing, brand-building, and communication strategies.
8. **Digital Creativity:** The ability to create digital content such as videos, images, blogs, infographics, and websites for business use. This skill is especially important for marketing, content creation and innovation in business.

Strategies for Building Digital Literacy in Business Students

Building digital literacy in business students requires intentional and structured approaches within educational institutions which involve using strategies. Below are some of the key strategies for fostering digital literacy in business education (Elzir & Morgandi, 2024):

1. **Integrating Digital Literacy into Business Education Curriculum:** Business departments should integrate digital literacy into every aspect of business education curriculum, rather than treating it as a separate subject. Digital tools and platforms should be incorporated into coursework, case studies, and projects to allow students to engage with real-world scenarios.
2. **Practical Training and Workshops:** Offering workshops on data analytics tools, digital marketing strategies, and cybersecurity can provide students with hands-on experience and increase their comfort with various technologies. This will promote acquisition of digital literacy skills needed for future business drive.
3. **Collaborative Projects Using Digital Tools:** Encouraging group projects that require the use of digital platforms for collaboration can help students develop teamwork and digital communication skills. This also mirrors the collaborative work environment they will encounter in the workforce.
4. **Partnerships with Industry:** Collaborating with tech companies and industry partners to provide students with exposure to the latest tools and platforms can ensure that they are up-to-date with industry standards.
5. **Promoting Critical Thinking through Digital Content:** Incorporating case studies and discussions on ethical digital behavior, misinformation, and digital rights can help students develop critical thinking about their digital actions.

Concept of Virtual Competencies

The concept of virtual competencies has become increasingly relevant as organizations adapt to remote and hybrid work models. These competencies encompass a broad range of skills necessary to succeed in digital and geographically dispersed environments, and they are crucial for ensuring effective collaboration, communication, and leadership in virtual teams. Virtual competencies refer to the skills and abilities necessary for working effectively in virtual environments where teams are geographically dispersed and rely heavily on digital tools for collaboration, communication, and decision-making (Maduka et al., 2018). Virtual competencies include a combination of technical skills, such as proficiency with digital tools and platforms, and soft skills, such as communication, emotional intelligence, and leadership. According to Azukas (2022), these competencies are integral to an individual's ability to effectively interact within virtual teams, manage remote projects, and leverage digital platforms for collaboration. Virtual team members must be adept at using technology to share information, schedule meetings, and collaborate on projects across different time zones, making technological literacy a foundational competency.

As businesses continue to adopt hybrid and remote work models, the demand for virtual competencies is expected to rise. Maduka et al. (2018) argue that organizations that invest in developing these competencies in their employees will be better positioned to maintain high levels of performance and engagement in virtual environments. Additionally, Azukas (2022) noted that virtual competencies are not static; they evolve as new tools and technologies emerge, requiring workers to continuously update their skills. Virtual competencies are a diverse set of skills and abilities that extend beyond technical expertise to include communication, leadership, and interpersonal skills crucial for success in virtual teams. As remote work becomes more common, the ability to manage virtual teams and projects effectively will continue to be a key differentiator for individuals and organizations alike. Ensuring that workers possess these competencies is essential to achieving success in a rapidly changing digital workplace (Morrison-Smith & Ruiz, 2020).

Various Virtual Competencies for this Technological Era

Virtual competencies are integral for business students, especially as they enter a world where remote work and virtual teams are becoming the norm (Azukas, 2022). These competencies include:

- **Virtual Communication Skills:** The ability to communicate clearly and effectively in a virtual setting, using tools like video conferencing, chat apps, and email.
- **Remote Collaboration:** The ability to collaborate seamlessly with colleagues across different time zones and cultural backgrounds, using tools such as shared documents, project management software, and team collaboration apps.
- **Time Management:** The ability to manage one's time effectively in a remote work environment, balancing tasks and schedules independently.
- **Self-Motivation and Discipline:** Remote workers must be able to stay motivated without the physical presence of a manager. Virtual leaders must cultivate this competency in their teams
- **Cultural Sensitivity:** In a virtual team environment, students must develop the ability to understand and respect cultural differences, especially when teams are geographically dispersed
- **Digital Presentation Skills:** The ability to present ideas clearly and persuasively using digital tools such as PowerPoint, Zoom, Google meet and other online platforms.
- **Conflict Resolution in Virtual Teams:** The skill to resolve conflicts effectively in an online environment, where non-verbal cues are limited and miscommunications can easily arise.
- **Virtual Leadership:** The ability to lead teams remotely, inspires collaboration, and manages productivity in a virtual setting.

Strategies for Building Virtual Competencies in Business Students

The following are some of the strategies for developing virtual competencies in business education students (Voda et al., 2022):

- **Organizing Simulated Virtual Team Projects:** Business schools can organize projects where students collaborate in virtual teams using platforms such as Microsoft Teams, Slack, or Zoom to replicate remote work environments
- **Encouraging Virtual Internships and Work Experience:** Encouraging virtual internships or remote work placements can give students real-world experience in managing virtual teams, remote communication, and digital collaboration
- **Training in Virtual Leadership:** Offering courses or workshops on virtual leadership skills, including how to motivate remote teams, manage virtual meetings, and use digital collaboration tools, can empower students to lead effectively in a virtual environment

Conclusion

This study came to the conclusion that virtual competencies and digital literacy are essential for business education students to succeed in the digital era. This is due to the growing number of business practices that rely on digital technologies and virtual collaboration, which calls for people with a solid foundation who can successfully navigate these virtual and digital environments. Business education should emphasize digital literacy and virtual competencies such as digital communication, information management, data analysis, digital collaboration, cyber security awareness, remote collaboration, time management, digital presentation skills, and virtual leadership in order to prepare students for the modern digital

workplace. Other important tactics that business educators can use to empower the next generation of business educators and leaders include teaching and influencing digital literacy and virtual competencies, providing business students with hands-on training and workshops, collaborating on projects using digital and virtual tools, forming partnerships with industry, setting up simulated virtual team projects, promoting virtual internships, and providing training in virtual leadership.

Recommendations

The following recommendations are presented to ensure digitally and virtually embedded business education programme that will produce future generation of business leaders:

1. Business educators should continuously update curricula to reflect the latest trends in digital tools and virtual environments.
2. Administrators of Business Education department in tertiary institutions should collaborate with tech companies to offer workshops and certifications that can provide students with exposure to cutting-edge digital and virtual tools.
3. Based on the rapid pace of technological advancement, business educators should instill the mindset of lifelong learning in their students, equipping them with attitude to adapt to new tools and practices throughout their careers.
4. Business educators should orientate students to promote their understanding on the ethical implications of digital actions and are trained to think critically about technology's role in business which will help them to the challenges in their careers.

References

- Odoh, J. O. (2020). The quest for business education: A panacea for human capital development in Nigeria. *International Journal of Research Development*, 1(1), 6–16.
- Okeke-Ezeanyanwu, J. A., & Nweke, S. C. (2021). Strategies for improving employability skill acquisition of business education students in the E-world in tertiary institutions in Anambra State. *Multidisciplinary Journal of Vocational Education & Research*, 4(1), 174–187.
- Abdulrazak, M., Omolara, O., & Imam, M. M. (2023). Entrepreneurship skills needed by business education students for launching and operating small and medium-scale enterprises in Kwara State, Nigeria. *Al-Hikmah Journal of Business Education*, 3(2), 83–89.
- Tang, C. M., & Chaw, L. Y. (2016). Digital literacy: A prerequisite for effective learning in a blended learning environment? *The Electronic Journal of e-Learning*, 14(1), 54–65. <https://www.ejel.org>
- Spante, M., Sofkova Hashemi, S., Lundin, M., & Algers, A. (2018). Digital competence and digital literacy in higher education research: Systematic review of concept use. *Cogent Education*, 5(1), 1–21. <https://doi.org/10.1080/2331186X.2018.1464012>
- Reddy, P., Sharma, B., & Chaudhary, K. (2020). Digital literacy: A review of literature. *International Journal of Technoethics*, 11(2), 65–94. <https://doi.org/10.4018/IJT.2020070104>

- Pascucci, F., Savelli, E., & Gistri, G. (2023). How digital technologies reshape marketing: Evidence from a qualitative investigation. *Italian Journal of Marketing*, 12(2), 27–58. <https://doi.org/10.1007/s43039-023-00063-6>
- Martínez-Bravo, M. C., Sádaba Chalezquer, C., & Serrano-Puche, J. (2022). Dimensions of Digital Literacy in the 21st Century Competency Frameworks. *Sustainability*, 14(3), 1867. <https://doi.org/10.3390/su14031867>
- Voda, A. I., Cautisanu, C., Grădinaru, C., Tănăsescu, C., & de Moraes, G. H. S. M. (2022). Exploring Digital Literacy Skills in Social Sciences and Humanities Students. *Sustainability*, 14(5), 2483. <https://doi.org/10.3390/su14052483>
- Tinmaz, H., Lee, Y.T., Fanea-Ivanovici, M. et al. (2022). A systematic review on digital literacy. *Smart Learning Environments*, 9, 21. <https://doi.org/10.1186/s40561-022-00204-y>
- Elzir, A., & Morgandi, M. (2024). *Building digital literacy and skills to reflect the needs of the job market. Skills for Development*, 10, 1-11. World Bank Group.
- Azukas, M. E. (2022). Leading remotely: Competencies required for virtual leadership. *TechTrends*, 66(2), 327–337. <https://doi.org/10.1007/s11528-022-00708-x>
- Morrison-Smith, S., & Ruiz, J. (2020). Challenges and barriers in virtual teams: A literature review. *SN Applied Sciences*, 2(1), 1096. <https://doi.org/10.1007/s42452-020-2801-5>
- Wang, Y., & Haggerty, N. (2006). *Virtual competence: A new perspective on individual knowledge, skills, and abilities in virtual organizations. Association for Information Systems - 12th Americas Conference on Information Systems, AMCIS*, 7, pp. 523.
- Johnson, K. (2023). *Competencies in leading virtual teams*. SSRN. <https://ssrn.com/abstract=4389043> or <http://dx.doi.org/10.2139/ssrn.4389043>
- Maduka, N., Edwards, H., Greenwood, D., Osborne, A., & Babatunde, S. (2018). Analysis of competencies for effective virtual team leadership in building successful organisations. *Benchmarking*, 25(2), 696–712. <https://doi.org/10.1108/BIJ-10-2017-0270>