



Entrepreneurship Education: Effective Ict Skills for Music Educators in Nigerian Higher Institutions

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Abstract: The integration of Information and Communication Technology (ICT) into music education is exceedingly imperative for preparing music students for entrepreneurial success in the digital age. This study examines the ICT skills required for music educators in the selected Nigerian tertiary institution of higher learning to effectively deliver music entrepreneurship education. Descriptive research design was employed; information from the respondents was through the use of well-structured questionnaire. Mean scores and standard deviation were used for analysis with the study sampled of one hundred and twenty respondents. The findings reveal that essential ICT skills required for entrepreneurial success include digital literacy, proficiency in music technology, utilization of e-learning platforms, social media marketing, and familiarity with business and financial software. These skills will enable music educators to create dynamic, interactive, and practical learning experiences, equipping students with the tools needed for music production, marketing, and business management.

Keywords: Entrepreneurship Education, Information Communication Technology, Music Educators, Digital literacy.

Introduction

Entrepreneurship skills are indispensable for the economic survival of any nation. According to Mgbonyebi and Olaniyi (2019), teaching individuals the necessity of making their own business decisions, acquiring some core professional skills, and combining those talents with academic knowledge is the cornerstone of critically needed economic empowerment and development. Information and communication technologies, which are considered entrepreneurial skills, are a real and important tool in entrepreneurship education around the world. Okereke and Okoroafor (2011) emphasize that entrepreneurship abilities have been recognized globally as relevant and fulfilling tools for job creation, self-employment, and the economic survival of any nation. Developing effective skill development systems that connect education to entrepreneurship skills acquisition can assist a nation in maintaining productive growth and development which leads to the creation of decent jobs, raising people's standard of living. Ademiluyi (2007) defines entrepreneurship skills as business skills acquired by an individual to be able to function effectively as an entrepreneur in the unstable business environment or in self-employment.

Information processing uses computers and other electronic devices as part of information and communication technology (ICT). One of the key factors defining the fundamental skills in the educational system is the use of information and communication technologies (ICTs), which are quickly gaining popularity. Howell and Lundall (2000) described ICTs as all forms of technology used to create, store, process and use information in various forms (data, voice, image and multi-media presentations) to facilitate and support communication. In the view of Chinien (2001), ICT deals with digital data and ways of storing, retrieving, transmitting and receiving information. According to World Bank (2006), ICT consists of the hardware, software, networks, and media for collecting, storing, processing, transmitting, and presenting information. The use of ICT falls into four major categories: constructing knowledge and problem-solving through the Internet, email, CD-ROMs, databases, video conferencing, using process skills, aiding explanation of concepts, and communicating ideas through the use of PowerPoint, desktop publishing (Aladejana, 2007).

ICT facilitates communication, plays a crucial role in education by enabling communication, increasing access to learning, and motivating both teachers and students. It also

helps in developing problem-solving capabilities and aids in deeper understanding (Selinger, 2002). Computer graphics and the internet are two essential components of ICT that are relevant in entrepreneurship and music education. According to Bamberger & DiSessa (2003), graphics, such as diagrams, charts, and musical notation examples, can provide visual representations of musical concepts aiding in comprehension and retention for students, Walzer (2016). Also highlighted the importance of Digital Audio Workstations (DAWs), which have graphical interfaces that allow students to manipulate and produce music digitally. This technology is essential for recording, editing, and arranging music in a digital format. Graphics can be used for visual analysis of musical elements such as waveform visualization, frequency spectra, and spectrograms. This aids in understanding the structure and timbral qualities of music (Chinien, 2001).

Pitts (2005) suggested that the Internet facilitates interactive learning experiences through virtual instruments, music theory applications, and interactive tutorials. This hands-on approach can engage students more actively in the learning process. Aladejana (2007) emphasized the relevance of the Internet in music education, stating that music notation software provides a graphical interface for creating, editing, and printing sheet music. Thereby streamlining the composition and arrangement process, making it more accessible to students. Any program or computer hardware that enables a computer to display and manipulate images is referred to as computer graphics. According to Ezeasomba (2004) the Internet is a worldwide network of millions of computers that exists everywhere. Through developing and using pertinent ICT skills and competencies, users can communicate information such as data, programs, photos, and music over this connection.

Competency, according to Olaitan (2003) means knowledge, skills, attitudes and judgment generally required for the successful performance of a task. Oliva (2002) posited that competency involves knowledge, skills, attitudes, values, motivation and beliefs people need to be successful in a job. In Katane's (2001) opinion, the competency of teachers in the teaching profession has to do with the ability of teachers to integrate different kinds of knowledge and use them synergically for instructional delivery. Effective teaching of entrepreneurship in music education in any learning environment requires the demonstration of various competencies which invariably enable students to learn by improving their knowledge, skills, attitudes and values. The teaching of music education is vital in the impartation of required skills to students through the acquisition and possession of the required ICT competencies. It is imperative to state that the ineffective use of modern facilities or infrastructure such as ICTs are major challenge facing contemporary teaching and learning in Nigerian tertiary institutions because where the required ICT facilities are provided for teaching, they are not well utilized due to ineffective entrepreneurship education available to the users.

The incorporation of I.C.T in teaching Music offers a wide range of opportunities to enhance pedagogical practices. I.C.T facilitates personalized learning experiences, catering to

diverse learning styles and abilities (Pew Research Center, 2015). The effectiveness of digital resources, such as e-textbooks, online tutorials, and educational software, in teaching Music in Nigerian secondary schools is a critical area of consideration. Mndzebele (2013) opined that well-designed digital resources can enhance comprehension, retention, and application of musical concepts. However, the quality and relevance of these resources must be carefully evaluated to maximize their impact. The successful integration of I.C.T in Music education necessitates the continuous professional development of teachers.

To buttress this point, Jegede (2005) observed that most Nigerian teachers lack basic skills and competencies required for effective use of ICTs for teaching and learning. The case of some music teachings in using ICT facilities is not an exemption. It is widely acknowledged that integrating ICT into teaching and learning is a relevant and effective way to provide education that prepares students for the workforce (Aladejana (2007)). In addition, effective use of ICTs in teaching music can help achieve the objectives of an educational programme by enhancing students' innovation, curiosity and creativity. In fact, the World Bank (2006) stated that effective use of the information and communication resources available in schools will undoubtedly aid in the achievement of the Millennium Development Goals. Given the importance of ICT use in education, it is crucial to pinpoint the ICT skills that teachers need to realize the goals of music education in Nigeria.

Research Questions

1. How does music education connect to and foster entrepreneurship opportunities in Nigeria?
2. What specific ICT skills are essential for music educators to successfully integrate entrepreneurship education, and how do these skills influence student engagement and learning outcomes?
3. How does the integration of specific ICT tools and platforms enhance the effectiveness of entrepreneurship education for music educators in tertiary institutions?

Information and Communication Technology

The integration of Information and Communication Technology (I.C.T) in education has transformed the landscape of teaching and learning across the globe. In Nigeria, like many other countries, the adoption of I.C.T in tertiary education has been a subject of growing interest (Mndzebele, 2013). The inception and evolution of I.C.T in education can be traced back to the early 20th century. Initially, educational technology consisted of audio-visual aids, which gradually evolved into more sophisticated forms, including computers and multimedia resources. With the advent of the internet and the proliferation of digital devices, I.C.T has become an integral part of educational systems worldwide.

Busari (2014) revealed that training programs should be made available so as to equip educators with the skills and knowledge required to effectively utilize digital tools in their teaching practices. Furthermore, ongoing support and resources are essential to ensure sustained integration of I.C.T in the classroom. ICT offers opportunities to engage students in active learning experiences, encouraging them to explore, analyze and collaborate. Online platforms can stimulate curiosity and foster critical thinking skills. Moreover, ICT enables the integration of real-world examples and current research findings, making Music education more relevant and dynamic (U.N 2018). The incorporation of ICT into teaching is viewed as a pertinent and effective method of imparting education to learners, fostering the necessary skills for the contemporary workforce. In the current job landscape, virtually all professions demand proficiency in technology, collaboration, teamwork, and information utilization competencies readily acquired through ICT-integrated education. This transformative integration fundamentally alters our lifestyle, learning methodologies, and professional practices, with technology assuming a significant role in the classroom environment (Busari, 2014).

Entrepreneurship Education in Nigeria

Entrepreneurship can be understood as an individual or collective system and internal or external to the organizational structure, developing something new, from conception of ideas to the creation of a business. Being entrepreneurial and the creation of an entrepreneurial culture goes beyond the fear of risk (McMullen, 2019) and the stigma of failure that influence decisively the entrepreneurship context. Implementing ideas is not an easy process even though we can say that entrepreneurs' profile is crucial to define a business idea and implement it successfully, but it is important to note that there is also the possibility of developing entrepreneurial characteristics and here come the educational institutions that should play a key role, very early in the creation of knowledge and skills related to entrepreneurship. The example of an innovation is a discipline that can come into teaching from the earliest years of school, because it is a specific tool of entrepreneurs, used to explore new opportunities for business or a different product or service. It's important to know how to reduce the risk, seek for new sources of innovation, use creativity tools, and learn from the market. These are skills that every entrepreneur or potential entrepreneurs need to have (Wiklund, 2017).

According to Shepherd (2015) every day we witness the birth and death of companies, products, processes and services, and the goal of entrepreneurship learning is to seek and to systematically explore new business and new practices that add value to the market and streamline the economy. In this sense, entrepreneurship is built based on the different types of skills widely studied in the literature and referred as soft and hard skills. Entrepreneurship skills are the target of analysis in the next section and the basis for building the skills development model (Kinkus, 2017). The soft skills can be defined as the behavioral skills required for the application of hard skills and knowledge in organizations. James et al. (2014)

also suggest that soft skills are a set of skills and talents of an individual. Other authors categorize the soft skills such as interpersonal skills; personal and social skills; and cognitive skills. With regard to soft skills inherent to managing entrepreneurial projects.

Entrepreneurship Skills Essential for Music Educators and Specific ICT Tools for Effective Entrepreneurship Education

1) Studying and practicing Popular Music that develops the Economy:

It is snooping that those who make money from music are those ignored by music educators. The music that one hears at parties is not the music that is seriously studied in the classroom, even though they are sometimes made reference to. Musicians make huge royalties from music that is generally ignored in the classroom. This is a very serious gap. If the audience responds to particular type or style of music, then researches need to be made to understand why this is so. The musician who is trained under this curious system of education is at a disadvantage. He is an expert in a type of music that is mostly classical and elevated but not necessarily accepted to his culture. He has not been trained to discern the secrets or factors that influence audience response to a popular music of his cultural background. He graduates and finds himself unable to compete favourably with musicians who are seen as uneducated.

Ogunrinade (2022) corroborated this when he pointed out that the present Nigerian music curriculum has much of its content based on Western tradition instead of the cultural and popular music of Nigeria, which the latter can equip and empower the youth economically and thereby fortify them to be self-reliant. From observation, students of music find it difficult in adjusting in tune with those who never studied music in schools, but are doing well in the popular Nigerian music scene. Confirming this, Okafor (2005:216) asserts quite frankly that, "the student of music in Nigeria finds difficulty in adjusting his personality and in tuning it to the environment". What is favoured by the population is largely ignored by the music educator. However, entrepreneurship is guaranteed when there is a radical shift that will help the study of music across the board right from the primary level through the secondary level and university levels of education. There is need to properly incorporate the study of Nigerian popular music and musicians of the day in to the curriculum. Popular music and musicians need to be interviewed and consciously studied in classroom situation.

2) Blending Indigenous and modern popular music: The blenders of western and traditional music are the great musicians of today. Their music tries to appeal to both the old and young and also the urban and rural dwellers. This cross section of appeals merges together into a huge resonance that swells the popularity of their music. In teaching music and in practicing music, this blending needs to be put into consideration for a total revamp of the music industry. The curriculum of music education should emphasize greater African, Nigerian characters. Western music should be

explored from local perspectives. The act of African drumming, for example, “is a skill that exposes the human rhythmic sense. A drummer, in the African musical context, is a rhythmic personality” (Chukwu, 2011) with a skill that enhances African rhythmic sensibility and practicality. Practicing musicians, especially the instrumentalists, should be hired as instructors to teach students so that their skills are imparted in practical classes to students. Their original styles are then captured and theorized as footprints for posterity.

3) Folksongs in Media trade Advertisement: Popular folksongs have social functions which help in ordinary hawking and everyday face to face trading. Now, the advent of electronic media has provided an opportunity to set these folksongs into electronic form and flash them as advertisement for the sales of any product related to them. In fact, advertisements with other wordings can be set to the tune of the folk songs. These manipulations incite nostalgia in people and make them remember what was advertised.

4) Industrial Trainings in Popular studios: If students of music go for internship in the studios, and as Industrial Training students in some band outfits of the producers of popular musicians, they are then given the opportunity to unravel the skills of the supposedly uneducated musicians. And then, improve on these skills.

5) Entrepreneurial Items of Equipment: In teaching and practicing music, there is a very high need for items of equipment. Without the guitar and the trumpet, certain elements of music are not noted, and the opportunity to see how they contribute to reactions from audience is missed. Again, no musician would make it without first having the instruments with which to play, either voice or any other instrument.

6) Choral arrangement: Some students or graduates of music are skillful in the manipulation of computer, which is an aspect of musical instrument technology. Even before graduation, some students try to arrange some folk tunes or religious songs for their fellow students or for choristers in churches. If a student knows the theory of music and sound appreciation and adjudication, and understands the melodic and harmonic manipulations of sounds heard or played, all he or she needs is a personal computer and wonders are done. People tend to sought out such individuals due to their skills in transcription and notation. Sometimes, they could go further in researching on cultural songs in Nigeria, especially those of their ethnic groups, sometimes, researching and documenting and developing a book about folksongs in their various ethnic areas for preservation and for posterity.

7) Training of choir or choristers: The influx of religious groups in Nigeria is an encouragement to many Nigerian music scholars. There is no Christian group that does not have need for a choir. Many choir masters and choir mistresses turn professional and get well paid in their churches. Professional musicians organize their own choir and set them up for hire by the public (Okereke & Okorafor, 2011).

8) Organist or instrumentalist: As instrumentalist, an individual has gotten an item of equipment that can start off self-entrepreneurship. Practice, they say, makes perfect. As long as one is skillful in playing any musical instruments such as organ or keyboard, there would be a demand for that individual and he or she can comfortably live by it and contribute to economic development.

9) Musician Band and Performance: As long as social life in Nigeria still exists, there will always be periods of entertainment. Birthday celebrations, weddings, governmental social functions, death ceremonies, political rallies etc. are occasions where good live bands are needed. If there is evidence of seriousness and professionalism in such a band group, there is every tendency that the group will flourish and get invited to occasions.

10) Computer Software Skills: In scoring and script productions, the advent of computers has been most helpful. Students of Musical Instrument Technology move ahead from repairing and constructing modern musical instruments to mastering music editing software in computers. Such software packages like Finale, Sibelius, Cubase, etc., have made the transcription, scoring and arranging of songs very easy and tidy, just as long as the skill is acquired and developed (Mgbonyebi & Olaniyi, 2019).

11) Diversification of skills: Performers need to combine music with other ventures so that what financial gain they derive from music would be channeled to other prospects and rechanneled back to music as oil to keep the vibes alive. Furthermore, skill diversification would help to shatter prejudices fueled by stereotypes associated with lone professions. And then, with experiences gained from other professions, the knowledge of music is enhanced and many avenues for hybridization and acculturation are guaranteed. Amalgams, synergies and hybrids are, quite often, the enzymes that serve as growth catalysts for civilizations. Music videos are actually a combination of acting and music (Jegede, 2005).

Method of Data Analysis

The study utilized a descriptive survey research design. The target population consisted of all students from the Music departments of Adeyemi College of Education, Ondo, Obafemi Awolowo University, University of Ibadan, and Lagos State University. A total of 120 students were selected using the simple random sampling technique, with 30 students sampled from each of the four institutions. Data was collected using a self-designed questionnaire titled Questionnaire on Information and Communication Technology Skills Required of Music Educators for Effective Entrepreneurship Education in Selected Nigeria Institution of Higher Learning. The questionnaire was validated by experts and found to have a reliability coefficient of 0.76 using the Cronbach alpha method. The data was analyzed using simple percentage, mean, and standard deviation.

Findings

Demographic Information of Respondents.

Table 1: Characteristics of the respondent's level

S/N	Class	Frequency	Percentage (%)
1.	Adeyemi Federal University	30	25
2.	Obafemi Awolowo university	30	25
3.	University of Ibadan	30	25
4	Lagos State University	30	25
Total		120	100%

Table 1 above reveals the level of the respondents of the study, the study involved four (4) tertiary institutions that offer music as a discipline were selected for the study and 25% of the total respondents were sampled in each university.

Table 2: Showing the characteristics of the respondents based on age

Age	Frequency	Percentage (%)
16-19 years	47	39.17
20-24 years	39	32.5
25 years and above	34	28.33
Total	120	100%

Table 2 above reveals the age of the respondents of the study, the table identifies that 39.17% of the respondents were in between 16-19 years old, 32.5% were in-between 20-24 years and 28.33% were of 25 years and above.

Table 3: Showing the characteristics of the respondents based on their gender

Gender	Frequency	Percentage (%)
Male	53	44.21
Female	67	55.7
TOTAL	120	100%

The table above reveals the gender of the respondents of this study; it shows that only 45.8% of the respondents were male, while the remaining 44.21% which constitutes the larger part of the population, were females.

Research Question 1: How does music education connect to and foster entrepreneurship opportunities in Nigeria?

Table 4: Connection between music education and entrepreneurship

S/N	Items	S.A	A	D	S.D	\bar{x}	Std. Dev.	Remark
1.	Music education equips individuals with the necessary skills to becomes a proficient musician.	77	34	7	2	3.55	.684	Accepted
2.	Music education enhances making musicians better equipped to navigate the business side of the music industry.	28	87	3	2	3.18	.545	Accepted
3.	Creativity is valuable in the entrepreneurial realm as a tool in Music Education.	31	72	16	1	3.11	.646	Accepted
4.	Musicians can become entrepreneurs by establishing their own record labels, production studios, or music schools.	37	69	12	2	3.18	.669	Accepted
5.	Music education provides insights into topics such as copyright, contracts, and negotiation skills.	39	64	15	2	3.17	.702	Accepted
6.	Music education provides a foundation for understanding the technical and business aspects of music.	39	69	11	1	3.22	.638	Accepted

The table 4 above shows the connections between music education and entrepreneurship in Nigeria. The table reveals that music education equips individuals with the necessary skills to becomes a proficient musician with a mean score of (3.55), music education enhances making musicians better equipped to navigate the business side of the music industry (3.18), creativity is valuable in the entrepreneurial realm as a tool in music education (3.11), musicians can become entrepreneurs by establishing their own record labels, production studios, or music schools (3.18), music education provides insights into topics such as copyright, contracts, and negotiation skills (3.17) and also that music education provides a foundation for understanding the technical and business aspects of music (3.22) as some of the connections between music education and entrepreneurship in Nigeria. Since all the items have a mean score above 2.50, they are all considered as accepted items.

Research Question 2: What specific ICT skills are essential for music educators to successfully integrate entrepreneurship education, and how do these skills influence student engagement and learning outcomes?

Table 5: Specific ICT skills essential for music educators

SEE APPENDIX A

The table above reveals the specific ICT skills that music educators need to effectively integrate entrepreneurship education within tertiary institutions, and how do these skills impact student engagement and learning outcomes. The table

shows that proficiency in using digital audio workstation (Daw) software such as Ableton live, pro tools allows educators to teach students how to produce, and edit music digitally, preparing them for modern music production practices with the mean score of (3.28), familiarity with various music software and apps for composition, notation, and performance enables educators to introduce students to innovative tools for music creation (3.10), understanding of digital marketing strategies and social media platforms helps music educators to teach students how to promote their work online, build a personal brand (3.18), proficiency in project management tools for organizing and planning music-related projects facilitates the teaching of project-based learning, and this help students to develop organizational for entrepreneurial ventures (3.16), and basic understanding of data analysis tools to assess trends and make informed decisions helps music educators and students to analyze market trends, audience preferences (3.17) are some of the specific ICT skills that music educators need to effectively integrate entrepreneurship education within tertiary institutions, and how do these skills impact student engagement and learning outcomes.

Research Question 3: How does the integration of specific ICT tools and platforms enhance the effectiveness of entrepreneurship education for music educators in tertiary institutions?

Table 6: Integration of specific ICT tools to enhance entrepreneurship education

SEE APPENDIX B

The table above shows how the integration of specific ICT tools and platforms can enhance the effectiveness of entrepreneurship education for music educators in tertiary institutions. The reveals that implementation of Learning Management Systems (LMS) and online platforms to deliver entrepreneurship courses can enhances multimedia content, discussion forums, quizzes, and assignments, providing a flexible and interactive learning environment with the mean score of (3.61), bringing in industry professionals as guest speakers, can fostering real-world connections for the students (3.00), integration of modules on digital marketing strategies and the use of social media for music promotion enhance the effectiveness of entrepreneurship education for music educators (2.97), this hands-on experience allows students to develop practical skills in music creation and production, aligning with the demands of the modern music industry (3.03), and also that utilization of collaborative platforms for project-based learning, can work together on entrepreneurial projects, fostering teamwork and simulating real-world collaborative experiences in the music industry (3.05) as some of the way of how the integration of specific ICT tools and platforms can enhance the effectiveness of entrepreneurship education for music educators in tertiary institutions.

Discussion of Findings

The finding of the study reveals the connection between music education and entrepreneurship in Nigeria. It shows that music education is useful avenue for fostering entrepreneurial skills among individuals. Analyzing the data reveals significant insights into how music education can serve as a driving force for entrepreneurial activities within the music industry. The findings, quantified through mean scores and standardized measurements, highlight the multifaceted benefits of music education, underscoring its importance in developing not only proficient musicians but also adept entrepreneurs. The data from the study indicates that music education significantly equips individuals with the necessary skills to become proficient musicians, as evidenced by a mean score of 3.55. This high mean score suggests that music education programs are effective in imparting essential musical skills. Proficiency in music is a foundational aspect that can open various entrepreneurial opportunities, allowing individuals to leverage their musical talents in various contexts. This foundational skill set is crucial as it forms the bedrock upon which other entrepreneurial skills are built. The connection between music education and skill development has been widely recognized. According to Hallam (2010), music education enhances cognitive abilities, fine motor skills, and emotional sensitivity, which are crucial for professional musicianship. These skills are not only essential for musical performance but also for innovative and entrepreneurial activities within the music industry (Hallam, 2010).

A mean score of 3.18 reveals that music education enhances musicians' abilities to navigate the business aspects of the music industry. This includes understanding how to market oneself, manage finances, and engage in effective business practices. In the competitive world of music, having a strong grasp of the business side can differentiate successful musicians from others. Music education programs that

incorporate business training provide musicians with the tools needed to succeed not only artistically but also commercially.

Bridgstock (2013) emphasizes the importance of entrepreneurial education in creative fields, noting that such training helps artists understand and leverage business opportunities. By integrating business education into music curricula, musicians are better prepared to manage their careers and navigate the complexities of the music industry (Bridgstock, 2013). The role of creativity in entrepreneurship is well-documented, and this study further supports this notion with a mean score of 3.11 for creativity being a valuable tool in music education. Creativity, fostered through music education, is a critical asset for entrepreneurs. It enables musicians to innovate, whether in composing unique pieces, developing novel business ideas, or creating original marketing strategies. This creative mindset is invaluable in the entrepreneurial realm, where innovation often leads to success. Runco (2014) highlights the role of creativity in entrepreneurial success, arguing that creative thinking allows individuals to identify unique opportunities and develop innovative solutions. In the context of music education, fostering creativity can lead to the development of new music genres, innovative performance techniques, and novel business models within the music industry (Runco, 2014).

The study also identifies that music education enables musicians to become entrepreneurs by establishing their own record labels, production studios, or music schools, as reflected by a mean score of 3.18. This score underscores the potential of music education to inspire and equip individuals to create and manage their own businesses. By providing knowledge and skills pertinent to running these enterprises, music education fosters a sense of autonomy and entrepreneurial spirit among musicians. According to Bennett (2016), entrepreneurial education in music helps musicians develop the necessary skills to launch and manage their own ventures. This includes understanding market dynamics, developing business plans, and acquiring management skills. These competencies are essential for musicians looking to establish successful enterprises in the music industry (Bennett, 2016).

Another crucial finding is that music education provides insights into important topics such as copyright, contracts, and negotiation skills, with a mean score of 3.17. These areas are critical for musicians who aim to protect their intellectual property, negotiate favorable terms, and understand their rights and obligations. Knowledge in these areas helps musicians to operate more effectively and confidently in the industry, reducing the risk of exploitation and enhancing their professional autonomy. Coulson (2012) discusses the importance of legal education for musicians, highlighting how understanding copyright laws and contract negotiations can empower musicians to protect their work and secure fair compensation. Music education that includes legal training ensures that musicians are well-equipped to navigate these complex issues (Coulson, 2012).

Music education provides a foundation for understanding the technical and business aspects of music, as indicated by a mean score of 3.22. This comprehensive education ensures that musicians are well-versed not only in the artistic aspects

but also in the technicalities and business strategies necessary for a successful career. By covering a broad spectrum of knowledge areas, music education prepares individuals to tackle various challenges in the music industry. Rogers (2013) notes that a well-rounded music education includes training in both technical and business aspects, which are crucial for career sustainability. This dual focus helps musicians understand the industry from a holistic perspective, enhancing their ability to adapt and thrive in various professional contexts (Rogers, 2013).

Identification of Information and Communication Technology (ICT) skills in music education is pivotal for preparing students for modern entrepreneurial ventures. The table presented highlights specific ICT skills that music educators need to effectively integrate entrepreneurship education within tertiary institutions and underscores their impact on student engagement and learning outcomes. The ability to use digital audio workstation (DAW) software such as Ableton Live and Pro Tools is critical for modern music production practices. The table indicates a mean score of 3.28 for this skill, reflecting its importance in the curriculum. Proficiency in DAW software allows educators to teach students how to produce and edit music digitally, providing them with hands-on experience in contemporary music production techniques. Studies show that incorporating DAW software in music education significantly enhances students' technical skills and creativity. According to Williams (2014), using DAWs in the classroom helps students understand the complexities of music production and fosters a more engaging learning environment. This proficiency not only prepares students for careers in music production but also equips them with the technical skills needed for entrepreneurial endeavors in the music industry (Williams, 2014). Familiarity with various music software and apps for composition, notation, and performance is another crucial ICT skill, with a mean score of 3.10. This skill enables educators to introduce students to innovative tools for music creation, thereby expanding their creative capabilities. Software such as Sibelius for notation and GarageBand for composition can revolutionize how students approach music creation and performance.

Research by Bauer (2014) highlights the positive impact of technology on music education, noting that the use of music software enhances students' engagement and creativity. By integrating these tools into the curriculum, educators can provide students with a broad range of resources for developing their musical ideas, ultimately improving learning outcomes and fostering innovation (Bauer, 2014). A mean score of 3.18 underscores the importance of understanding digital marketing strategies and social media platforms. This skill helps music educators teach students how to promote their work online and build a personal brand, essential components of modern entrepreneurship. Proficiency in digital marketing allows students to reach wider audiences and engage with their fan base effectively. According to Hargittai (2015), digital literacy, including the ability to use social media for self-promotion, is crucial for success in the digital age. Music educators who teach these skills help students navigate the complexities of online marketing, enhancing their ability to monetize their music and build sustainable careers

(Hargittai, 2015). Proficiency in project management tools for organizing and planning music-related projects is essential, with a mean score of 3.16. These tools facilitate the teaching of project-based learning, helping students develop organizational skills crucial for entrepreneurial ventures. Applications like Trello and Asana can be used to manage music projects, from planning concerts to releasing albums. Project-based learning has been shown to improve student engagement and learning outcomes significantly. According to Bell (2010), this approach encourages active learning and critical thinking, essential skills for entrepreneurship. By mastering project management tools, students are better prepared to handle the logistical challenges of running their own music businesses (Bell, 2010).

A basic understanding of data analysis tools to assess trends and make informed decisions is also highlighted, with a mean score of 3.17. This skill helps music educators and students analyze market trends and audience preferences, providing valuable insights for entrepreneurial decision-making. Tools like Excel and Google Analytics can be used to gather and interpret data relevant to the music industry. Research by Brynjolfsson and McElheran (2016) indicates that data-driven decision-making leads to better business outcomes. By incorporating data analysis into music education, educators can teach students how to use data to guide their entrepreneurial strategies, from identifying target audiences to evaluating the success of marketing campaigns (Brynjolfsson & McElheran, 2016).

Furthermore, the study reveals that the integration of Information and Communication Technology (ICT) tools and platforms in tertiary education can significantly enhance the effectiveness of entrepreneurship education for music educators. The table presented highlights specific ICT tools and strategies that contribute to a more engaging and practical learning experience for students. The use of Learning Management Systems (LMS) and online platforms to deliver entrepreneurship courses is highly effective, as indicated by a mean score of 3.61. LMS platforms such as Moodle, Blackboard, and Canvas facilitate the incorporation of multimedia content, discussion forums, quizzes, and assignments, providing a flexible and interactive learning environment. These systems allow educators to create a dynamic and engaging curriculum that can be accessed anytime and anywhere, enhancing student engagement and participation. Research by Al-Qahtani and Higgins (2013) shows that LMS platforms improve the quality of education by offering a centralized and accessible repository of learning materials. The flexibility of these systems caters to diverse learning styles and schedules, making it easier for students to manage their learning and collaborate with peers. This integration of LMS in music education fosters a more interactive and comprehensive approach to teaching entrepreneurship (Al-Qahtani & Higgins, 2013).

Involving industry professionals as guest speakers can foster real-world connections for students, reflected by a mean score of 3.00. Guest speakers provide students with insights into the industry, share their experiences, and offer practical advice, bridging the gap between theoretical knowledge and real-

world application. This exposure is invaluable for students aspiring to enter the music industry as entrepreneurs. According to Knight and Yorke (2003), engaging with professionals enhances students' understanding of industry expectations and challenges. It also helps them build networks and gain mentorship, which are crucial for their career development. By integrating guest lectures into the curriculum, music educators can provide students with a more nuanced and practical understanding of entrepreneurship in the music industry (Knight & Yorke, 2003). The integration of modules on digital marketing strategies and the use of social media for music promotion enhances the effectiveness of entrepreneurship education, with a mean score of 2.97. These modules teach students how to market their music, build an online presence, and engage with audiences on platforms such as Instagram, Facebook, and YouTube. Evans (2012) highlights the importance of digital marketing skills in today's digital age, noting that proficiency in these areas is essential for successful entrepreneurship. By learning to leverage social media and digital marketing tools, students can promote their music effectively, reach broader audiences, and build a sustainable career in the music industry (Evans, 2012).

Providing hands-on experience in music creation and production is crucial, with a mean score of 3.03. Practical skills in music production align with the demands of the modern music industry, ensuring that students are well-prepared for real-world challenges. Tools like DAW software and various music apps enable students to experiment with music creation and production, fostering creativity and technical proficiency. Williams (2014) emphasizes that hands-on experience is critical in music education, as it allows students to apply theoretical knowledge practically. This experiential learning approach enhances their understanding and retention of concepts, making them more adept at handling real-world tasks and projects in the music industry (Williams, 2014). The utilization of collaborative platforms for project-based learning, which has a mean score of 3.05, is another effective strategy. Platforms like Google Workspace, Slack, and Trello enable students to work together on entrepreneurial projects, fostering teamwork and simulating real-world collaborative experiences in the music industry. Project-based learning encourages active participation and allows students to develop essential skills such as project management, communication, and collaboration.

Conclusion

The exploration of ICT skills required by music educators for effective entrepreneurship education in some selected tertiary institutions reveals there is a profound impact of ICT skills on the potential success of music students. The integration of ICT into the curriculum is not merely an enhancement but a necessity in the modern educational landscape. The digital age demands that educators possess a broad spectrum of ICT competencies, ranging from basic digital literacy to advanced proficiency in music technology and online platforms. These skills empower music educators to offer a more dynamic, interactive, and practical learning experience. Students gain hands-on experience with industry-standard tools and platforms, equipping them with the technical know-how required to produce, market, and distribute their music

independently. This directly addresses the entrepreneurial aspect of their education, providing them with the tools to carve out successful careers in highly competitive and digitized market. Moreover, the ability to utilize e-learning and online platforms effectively extends the reach of education beyond the physical classroom. It allows educators to create flexible, accessible learning environments that cater for diverse student body, accommodating various learning styles and schedules. This adaptability is crucial in fostering an inclusive educational environment where all students have the opportunity to thrive.

Social media and digital marketing skills further enhance the entrepreneurial education by teaching students how to build and manage their personal brands, engage with audiences, and market their products. In an era where digital presence can make or break a career, these skills are indispensable. They enable students to navigate the complexities of the digital marketplace, leveraging social media platforms to reach wider audiences and generate revenue. The emphasis on business and financial software competency equips students with essential business management skills. Understanding financial software and business planning tools prepares students to handle the financial aspects of their careers, ensuring they are not only creatively talented but also business-savvy. This holistic approach to education ensures that graduates are well-rounded professionals ready to tackle the challenges of the music industry. Collaborative tools and networking platforms further enrich the educational experience by facilitating connections between students and industry professionals. These connections are vital for real-world exposure, mentorship, and opportunities for collaboration, all of which are critical components of entrepreneurial success.

Continuous professional development for educators is another cornerstone of this study's findings. In a rapidly evolving technological landscape, ongoing training and development ensure that educators remain current with the latest advancements. This commitment to lifelong learning translates to high-quality, relevant education for students, keeping them at the forefront of industry trends and innovations. Ultimately, the positive findings of this study underscore the transformative power of ICT skills in entrepreneurship education for music students. By equipping educators with the necessary ICT competencies that can significantly enhance the entrepreneurial capabilities of their students. This not only prepares them for successful careers in the music industry but also fosters a generation of innovative, tech-savvy entrepreneurs who can contribute meaningfully to the broader economy. The integration of ICT in music education is, therefore, not just beneficial but essential for the advancement and sustainability of the music industry in the digital age.

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Key: χ = Mean, S. D= Standard Deviation, C= Cut-off point,
N= Number of Respondents

APPENDIX A

Table 5: Specific ICT skills essential for music educators

S/N	Items	S.A	A	D	S.D	$\bar{\chi}$	S.D	Remark
1.	Proficiency in using Digital Audio Workstation (DAW) software such as Ableton Live, Pro Tools allows educators to teach students how to produce, and edit music digitally, preparing them for modern music production practices.	46	65	5	4	3.28	.698	Accepted
2.	Familiarity with various music software and apps for composition, notation, and performance enables educators to introduce students to innovative tools for music creation.	32	72	12	4	3.10	.703	Accepted
3.	Understanding of digital marketing strategies and social media platforms helps music educators to teach students how to promote their work online, build a personal brand.	35	74	9	2	3.18	.635	Accepted
4.	Proficiency in project management tools for organizing and planning music-related projects facilitates the teaching of project-based learning, and this help students to develop organizational for entrepreneurial ventures.	29	84	4	3	3.16	.594	Accepted
5.	Basic understanding of data analysis tools to assess trends and make informed decisions helps music educators and students to analyze market trends, audience preferences.	40	63	14	3	3.17	.726	Accepted

Key: χ = Mean, S. D= Standard Deviation, C= Cut-off point,
N= Number of Respondents

APPENDIX B

Table 6: Integration of specific ICT tools to enhance entrepreneurship education

S/N	Items	S.A	A	D	S.D	$\bar{\chi}$	S.D	Remark
1.	Implementation of Learning Management Systems (LMS) and online platforms to deliver entrepreneurship courses can enhances multimedia content, discussion forums, quizzes, and assignments, providing a flexible and interactive learning environment.	49	58	10	3	3.61	3.787	Accepted
2.	Bringing in industry professionals as guest speakers, can fostering real-world connections for the students.	30	65	20	5	3.00	.767	Accepted
3.	Integration of modules on digital marketing strategies and the use of social media for music promotion enhance the effectiveness of entrepreneurship education for music educators.	26	68	22	4	2.97	.733	Accepted
4.	This hands-on experience allows students to develop practical skills in music creation and production, aligning with the demands of the modern music industry.	28	72	16	4	3.03	.709	Accepted
5.	Utilization of collaborative platforms for project-based learning, can work together on entrepreneurial projects, fostering teamwork and simulating real-world collaborative experiences in the music industry.	30	70	16	4	3.05	.720	Accepted