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## Developing Entrepreneurial Potential in Information Science Students: A Critical Review of LIS Training Programs in Kenya

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# **Developing Entrepreneurial Potential in Information Science Students: A Critical Review of LIS Training Programs in Kenya**

## **ABSTRACT**

The purpose of this study was to evaluate the state of entrepreneurial education in library and information science programs and the influence that entrepreneurial education has on LIS students. The study adopted a descriptive research design approach. Both primary and secondary data was collected through questionnaires, observation and data review. The study population comprised of diploma and undergraduate students as well as alumni of LIS. The research data was analyzed through descriptive statistics and the results presented in tables. The findings showed that only basic entrepreneurship education was offered in LIS programs and not incorporated across all the years of study of a student. Entrepreneurship education was delivered in theory while practical experience was lacking. However, it was not conclusive from the study whether entrepreneurship education was taught by professionals or there were sufficient information resources to support teaching. The findings revealed that entrepreneurship education had little impact on student's business skills, their potential of starting business, their attitude towards self-employment and their pursuit of personal economic venture or on their creativeness and innovation. The study recommends for entrepreneurship education to be aligned with the library practices and be offered throughout the study years of a student and be taught beyond the basics while incorporating practical lessons. It should also be handled by a professional with both entrepreneurship and LIS background and supported with information resources that are relevant. Entrepreneurship education should focus on adding business skills to a student, enhancing their creativity and innovativeness and creating a mindset and attitude of self-employment and business ventures. It further recommends that institution of higher learning should adopt strategies that can help to develop the entrepreneurial potential of students.

**Keywords:** *Entrepreneurship education; enterprise education; entrepreneurial competencies; learning; education; innovation; Kenya.*

## **Introduction**

Entrepreneurship is defined in different ways. According to Hisrich, Peters, & Shepherd, (2009) entrepreneurship is the practice of developing a new thing having value by investing the necessary resources, while taking the associated risks with the expectation of generating commercial profits, deriving personal satisfaction and freedom. Hisrich, (2012) described entrepreneurial as a behavioral activity of a person directed towards a critical decision under improbable circumstance concerning a likely profit-making opportunity. According to Timmons, (1989) as cited in Kirby, (2003) entrepreneurship is the capability to design and develop something from absolutely nothing and as a process it entails starting, undertaking, accomplishing and developing an enterprise. Brooks, et al., (2007) on the other hand thought of entrepreneurship as concerning the designing and applying of new ideas and practices or enhancing old ones. This study perceives entrepreneurial in Library and Information Science students as the skills and ability instilled through their study curriculum in order to enable them create value in their information professional career.

Entrepreneurship has emerged as an essential component in various fields of study. It has gained approval in training curriculums to impart students into job creators rather than job seekers (Kariv, 2011). According to Othman, & Nasrudin, (2016) entrepreneurial education is perceived to develop students' attitude to work independently and initiate enterprise ventures of their own. Hattab, (2014) observed that entrepreneurship education is significant in uplifting students' creativity and innovativeness. Integrating entrepreneurship into learning systems is a way that helps in the growth and expansion of the economy and especially in the creation of employment opportunities and improving of the living standards of the community. Entrepreneurship education can inspire students to become self-sufficient; this can have a positive impact on the growth of the economy, business innovation and the creation of employment opportunities.

Laverty, et al., (2015) noted that having an entrepreneurial spirit has become one of the modern critical factor that is crucial for advancing innovation and ensuring development in the society. According to Othman, & Nasrudin, (2016) entrepreneurial potential of students of higher learning institution is fostered by teaching positive attitudes, inspiring entrepreneurial characteristics in students, and nurturing entrepreneurial performance in the students. The training and teaching of Library and Information Science (LIS) students should also be able to inspire entrepreneurial spirit

that would drive creativity and innovation in relations to information resource practices and development among the LIS students.

The purpose of teaching entrepreneurship in higher education institution is to enhance the entrepreneurship skills in students to be creative, self-assured in their undertaking and enhance their marketability in the labor market (European Commission, 2012). Entrepreneurship education has been an objective of inspiring business start-ups in careers as well as enhances the student role in the society and the economy of the country. Brooks, et al., (2007) observed that a culture of education animated by entrepreneurial principles improves research as well as develop an ample academic environment for students. This enhances their creativity and innovation and places them in a better position of creating more value in their academic profession. According to Kaijage, Wheeler & Newbery, (2013) integrated entrepreneurship education (IEE) offers learning of skills that empower students to strategize, start and manage their own enterprise in either formal or informal sector.

In the context of library and information science, entrepreneurship is generally associated with exercising creativeness or offering library and information services and products to satisfy users requirements in more creative and innovative techniques (Edewor & Omosor, 2012). Entrepreneurial in library and information centers takes a business perspective that integrates commercial activities that can help librarians and information professionals to draw funds for libraries and information centers. It exposes the librarians and information professionals to business activities that generate profits for themselves or the library. As observed by Chung, (2010) entrepreneurial in LIS offers information professionals with ways of blending enterprise skills in the field of LIS, mainly financial marketing and fund raising. It further provides ways of using enterprises skills for various purposes that include not only business activities but also socio-economic activities. It is imperative to have entrepreneurship integrated into LIS curriculum to enhance the spirit of entrepreneurship among LIS students. As observed by Scanlon & Crumpton, (2011) it is possible for information professionals to be entrepreneurial and they should be entrepreneurial in their profession.

The recent World Bank data on unemployment in Kenya indicate that youth without a job in the in the ages 18 to 28 years as at 2016 was at 22.17% (World Bank, 2017). In most cases, youth unemployment is linked to crime. The United Nations Office on Drugs and Crime (UNODC)

disseminates data on crime at the international level. The data are collected through an annual United Nations Survey on Crime Trends and Operations of Criminal Justice Systems. The data suggest that mostly unemployed youth between the ages of 15 to 25 are involved in theft, robberies, homicides and other petty crimes etc.

The number of unemployed graduates in the Kenyan job market cut across all discipline that also includes LIS. There are also very few library and information centers in Kenya that can offer enough employment opportunities to all graduating LIS students graduating in the local universities, colleges and tertiary institutions. There are very few employment opportunities to match the high number of graduating LIS students. This has brought the problem of unemployment among the graduates with many of them wasting their years of education through crime, sitting at home while others resorting to odd jobs for their income.

Entrepreneurship was incorporated in education system to ease the pressure of unemployment among graduates, equip them with the necessary skills that would enable them achieve self-reliance through economic initiatives. This study will therefore evaluate the state of entrepreneurial education in LIS programs and the influence it has on LIS students and the ways entrepreneurship education can be utilized in LIS programs to enable students to develop their entrepreneurial potential and be able to create value in their lives and society through business startups that would ease unemployment.

### **Research Questions**

The study sought to find out the state of entrepreneurship education in LIS programs in Kenya; the impact that entrepreneurship education had on the careers of LIS students and how entrepreneurship potential in LIS students can be enhanced through entrepreneurship education

### **Literature Review**

#### **Entrepreneurship Education in Library and Information Science**

Entrepreneurship was initially considered a discipline of business. It's largely featured in business courses curricula and was neglected in other fields of study (Brooks, et al., 2007). Nevertheless, with its significance in the transition of a country's economy, entrepreneurial education has now been incorporated into undergraduate courses in universities, colleges and tertiary institutions. According to a study carried out in Malaysian polytechnics to evaluate their entrepreneurship

education programs, several agreements were made among various organizations and the Student Entrepreneurship Council and Female Students Entrepreneurship Centre in Malaysian University, in order for entrepreneurial teaching to be offered to students, to guide them in entrepreneurship (Othman, & Nasrudin, 2016). Maritz, Jones, & Shwetzter, (2015) reviewed the status of entrepreneurship education in higher learning institution in Australia. This study observed that most of the Australian Universities offered few to numerous courses about and related to entrepreneurship.

Most of the courses offered in universities nowadays have incorporated entrepreneurship subjects in their curricula, according to Othman, & Nasrudin, (2016) entrepreneurship has started drawing far reaching interests and being deployed widely in every field of study. It is expected that these initiatives of incorporating entrepreneurship in learning would have a far-reaching impact on the student professional career after graduation whereby they will be able to create value for their life and society (Brooks, et al., 2007).

According to a board of distinguished educators in America that looked into the place of entrepreneurship in America's higher learning institution, entrepreneurship is naturally associated with higher learning institution teaching (Brooks, et al., 2007). According to Brooks, et al., (2007) to have an entrepreneurial society in United States entrepreneurship ought to be taught across all courses in the higher education system. They observed that having entrepreneurial education is the best investment that can ensure the greatest rewards for the finest results of independent and creative education.

Jaeger, Subramaniam, & Bertot, (n.d.) presented a paper at the Association for Library and Information Science Education Conference. The paper explored significant lessons and best practices from a master's degree program in Library Science at the University of Maryland. According to the paper, educational entrepreneurship in the University of Maryland greatly benefited students, information centers and the patrons they served. It attributed to the new and worthy concepts and work on projects that profited the society.

As observed in recent times, entrepreneurship has been really embraced across various fields with the players in these fields enjoying the benefits of entrepreneurship. It has also been noted that people outside the LIS professional through entrepreneurial activity have greatly benefited from

opportunities lying in the library because of the lack of entrepreneurial spirit among information professionals (Ntui, 2015). Having the right knowledge and training for LIS students will help revitalize their entrepreneurial potential and enable them take on entrepreneurial activities in the library. It is practical to develop entrepreneurial potential in students through the learning process.

Kariv (2011), observed that any person with formal training for entrepreneurship or motivated to entrepreneurship can develop to an entrepreneur. Elonye, & Uzuegbu, (2013), on the other hand opined that for information professionals to develop as entrepreneurs, they should focus on training on skills, attitudes and values essential for enhanced library and information services in order to deal with the growing entrepreneurship opportunities created by Information Communication & Technology (ICT). Appropriate training should be given to LIS students to develop their entrepreneurial potential to position them in lucrative entrepreneurial courses where they are able to harness the entrepreneurial prospects in LIS profession (Ntui, 2015).

Njenga, (2015) sought to highlight the achievement of graduate and undergraduate programs in the education system in Kenya that were offered in or related to entrepreneurship. He focused his study on the Global Social Sustainable Entrepreneurship Program (GSSE), that purposes to teach undergraduates students essential business and entrepreneurial skills when they study at the university. Njenga, (2015) observed that numerous universities in Kenya are now providing courses in entrepreneurship and/or small business. Most of these courses or programs take place within, or as an addition to, the education system.

### **Impact of Entrepreneurship Education on Students' Professional Career**

Entrepreneurship education is meant to prepare students to be suitable candidate for employment and especially for self-employment career. According to Babatunde, & Durowaiye, (2014) entrepreneurship education experience in students influences their intentions of pursuing self-employment. Entrepreneurship education exposes students to the world of business and the potential benefits that entrepreneurship ventures have. It offers solution to the problem of unemployment, that instead of one wasting their hard times of education and training through sitting and waiting for an employment opportunity that have become rare, they can venture into the business world and create business venture that can turn into lucrative business and be their source of their livelihood. According to Ejedafiru, & Oghenevwogaga, (2015) entrepreneurship in LIS is concerned with developing mentality, behavior of information professions at the individual



level in pursuit of income oriented approach. Ejedafiru, & Oghenevwogaga, concluded in their study that incorporating entrepreneurship education in LIS curricula will enable graduates to harness their entrepreneurial potentials while also act to job creation and self-reliance.

Hattab (2014), investigated the impact of entrepreneurship education on the entrepreneurial intentions of university students to establish new venture. A positive correlation was established between entrepreneurship education and the student's plans and desire to venture into their own businesses after completion of their studies. A survey on alumni students of higher education institution in Malaysia, who had attended entrepreneurship education, was done in order to study the effects and impact of entrepreneurship programs in higher education. According to this study education carries a positive influence on the entrepreneurial mentality of the students, their intentions to entrepreneurship, their employability and lastly on their role in the community and the economy (European Commission, (2012). According to Nnadozie, Akanwa & Nnadozie, (2013) entrepreneurship education enhances students' knowledge while also increasing their employment opportunities. Nnadozie, Akanwa & Nnadozie, studied the impact of entrepreneurship education on the aspirations of para-professional librarians-in-training. One of their objectives was to highlight the impact of entrepreneurship education on students' career selections. The findings of this study revealed a paradigm shift in the career objectives of students. They were found to favor self-employment over employment in the library.

Entrepreneurship education in Nigerian Universities was introduced over a decade ago by the government that saw it necessary to produce graduates who would be self-employed and additionally be able to generate employment opportunities for others. The introduction of entrepreneurship education in Nigerian Universities according to Innocent & Alice, (2016) has received mixed success. It is against the observation by Innocent & Alice, (2016) that led to the adoption of business-related course by LIS Departments in Nigerian Universities, as they remain optimistic that the National University Council of Nigeria will adopt a core course that relates both information and entrepreneurship such as 'infopreneurship'. Innocent, & Alice, (2016) recommend that ICT facilities and various essential facilities be offered to LIS departments in universities to improve the teaching of entrepreneurship. Gerba, (2012) did a comparison study to establish the impact of entrepreneurship education on entrepreneurial intentions of university students in Ethiopia in the field of business and engineering. Gerba, (2012) was conclusive that

students who went through entrepreneurship education in their university education, tend to have greater entrepreneurial intention than the students who went through university education without entrepreneurship education

### **Strategies of Enhancing Entrepreneurial Potential in Students through Entrepreneurship Education**

Entrepreneurship education aims at producing graduates who are well suited for the job market that has very few employment opportunities and thus calls for creativity in graduates to improve on their employability and self-employment. It is therefore necessary for entrepreneurship education to be developed in relation to the current demands in the socio-economic environment that the society is currently operating. According to Brooks, et al., (2007) entrepreneurship education needs to adopt a multidisciplinary approach that is responsive to the actual needs of the market. Aina, (2007) as cited in Nnadozie, Akanwa & Nnadozie, (2013) also noted that library training curriculum should be pertinent to the immediate environment and imitate the best global practices. This makes it imperative for Library and Information Science curriculum to be enhanced regularly with emphasis on the integration of entrepreneurship education in the Library and Information Science program.

On the other hand, Ejedafiru & Oghenevwogaga, (2015) observed that LIS curricular should incorporate entrepreneurship education so that entrepreneurial potential of LIS students can be cultivated. They opined that this can be realized through an education system that is self-sustaining and has the capacity of preparing students with ability, attitude and standards needed for enhanced information services and handling the growing entrepreneurship prospects brought by new technologies. A study was carried out in Eastern Africa to assess the capacity of business schools and other learning institution to support the growth of entrepreneurship. This study was done in collaboration between the School of Business of the University of Nairobi and Plymouth University Business School and supported by UK Department for International Development. The study engaged three countries: Kenya, Tanzania and South Sudan. According to the assessment in Kenya, entrepreneurship education is not yet mainstreamed across the curriculum of higher institution of learning. However, the study noted that Kenya's higher education was strategically evolving to more systematic approach to entrepreneurship education (Kaijage, Wheeler & Newbery, 2013).

Similarly, a World Bank study to examine entrepreneurship education and training in three countries in sub-Saharan Africa, concentrated on Kenya, Ghana, and Mozambique. According to the study, entrepreneurship in Kenya is incorporated in the formal curriculum across all educational streams and levels apart from primary education (Robb, Valerio & Parton, 2014). It was observed that Kenya had focused to institutionalize entrepreneurship education through making it part compulsory in public education system. Parton, (2014) observed that entrepreneurial education programs in Kenyan education system started when Know About Business (KAB) approach was implemented. This was a branded technique for entrepreneurship education focused on developing business awareness amongst students. KAB advanced by International Labour Organization (ILO) is thought as a teaching technique that is hands-on and experimental and focusses on practical learning (Robb, Valerio, & Parton, 2014).

## **Methodology**

A survey method that employed descriptive research design was adopted in this study. The study population comprised the LIS student in selected universities, colleges and tertiary institution that offered LIS program at diploma and undergraduate level. In order to draw the study sample, the study population was divided into two groups, undergraduate students and diploma students. Alumni from these two categories also participated in the study. Simple random sampling was then used to get one hundred and fifty respondents.

The study used secondary and primary data. Primary data was collected through observation and questionnaires that helped collect both qualitative and quantitative data. Secondary data was collected from institutions' online (websites) information on the curricula. The questionnaire instruments were validated by professionals and further tested in a pilot study to ensure their validity and reliability. Contact was established with the respondents and the questionnaires were administered through drop and pick method. Data collected was analyzed through descriptive statistics to generate percentage distribution tables on background information of respondent while the scale questions, generated mean and standard deviation.

## **Research Findings**

The total number of questionnaire returned out of the total number of questionnaire (150), that were administered to the respondents was 92, this represented a response rate of 61%. Among the

respondents, 54% were male and 46% were female, additionally, 69% of the respondents were undergraduate students while 29% were diploma students. This clearly shows that male students formed the majority of the respondents and further, undergraduate students dominated diploma students among the respondents.

### **The State of Entrepreneurship Education in LIS Programs in Kenya**

The state of entrepreneurship education in LIS programs was evaluated through questionnaire items on a Likert scale that measured the respondent level of agreement with the factors provided on the state of entrepreneurship education. In the Likert scale, 1 is the maximum and 5 is the least level of agreement. The findings are displayed in table 1, it displays the mean value and the standard deviation of the agreement level.

**Table 1: The State of Entrepreneurship Education in LIS Programs in Kenya**

<i>Construct</i>	<i>Mean</i>	<i>Standard Deviation</i>
Entrepreneurship education is/was covered in my curricula	2.37	0.98
Entrepreneurship course/unit is offered across all levels of my program (i.e. Y1, Y2, Y3, Y4)	4.00	0.86
Entrepreneurship education is delivered in both theory and practical lesson	4.25	0.89
Entrepreneurship education is taught by a profession	3.04	1.26
Entrepreneurship education is well supported with enough relevant information material in the institution	3.01	1.10
Entrepreneurship offered in my program is more than the basics	4.33	0.88

The findings of this study showed that LIS programs had incorporated entrepreneurship education in their curricula. This was illustrated with a mean of 2.37 and a standard deviation of 0.98. An evaluation of the various curricula of different institution in Kenya showed that entrepreneurship was offered as a unit of business course i.e. ‘Business Plan’ such as in Technical University of Kenya (TUK) while it is offered as an entrepreneurial course in other institution such as Kisii University where ‘Entrepreneurship for Knowledge Management Center’ is offered. These findings concur with Njenga, (2015) who observed that numerous universities in Kenya are now providing courses in entrepreneurship and/or small business. Most of these courses or programs take place within, or as an addition to, the education system. These findings are further supported by Robb,

Valerio & Parton, (2014) who said that entrepreneurship in Kenya is incorporated in the formal curriculum across all educational streams and levels apart from primary education.

However, findings showed that entrepreneurship education was not offered across all levels of education as shown with a mean score of 4.00 and a standard deviation of 0.86, for instance at TUK it is included in one semester like Kisii University. This could also be the reason as to why entrepreneurship education is not offered beyond the basics as revealed in this study, with a mean of 4.33 and standard deviation of 0.88.

The findings also revealed that entrepreneurship education was taught as a theory with not much needed practical lesson that could expose student to the real entrepreneurial experience. This is as shown with a mean of 4.25 and a standard deviation of 0.89. This was also evidenced in the curricula of different universities that offered LIS program that was sampled. The findings from respondent were not conclusive as to whether entrepreneurship education was taught by professions or not. This was illustrated with a mean of 3.04 and a standard deviation of 1.26. However, information collected from the faculties of universities reveal that lectures handling entrepreneurship education for LIS students were not LIS professional but business professional and therefore they were not familiar with library and information science opportunities. It was further not conclusive whether entrepreneurship education was well supported with enough relevant information material in the institution as shown with a mean of 3.01 and standard deviation of 1.10.

### **The Impact of Entrepreneurship Education on the Career of LIS Students**

The impact of entrepreneurship education on the career of LIS students was evaluated through questionnaire items measured on a Likert scale that measured the extent of influence of entrepreneurship education on the career of LIS students. In the 4-point scale, 1=Great extent, 2=Moderate extent, 3=Little extent, 4=Not at all. The findings are displayed in table 2 below to provide the mean value and the standard deviation of the extent of the impact felt by the respondent.

**Table 2: The Impact of Entrepreneurship Education on the Career of LIS Students**

<i>Parameters</i>	<i>Mean</i>	<i>Standard Deviation</i>
Entrepreneurship Education has improved my potential for a business venture	3.06	1.13
Entrepreneurship Education has enhanced my creativity and innovation	2.05	0.91
Entrepreneurship Education instilled in me business skills that might help in my business	3.08	1.17
Entrepreneurship Education has instilled in me a positive attitude and mind-sets towards self-employment	3.07	0.69
Entrepreneurship Education has well prepared me for a personal economic venture	3.08	0.29

The results of the study showed that entrepreneurship education in LIS curricula had little impact on the potential of LIS students starting their own business. This was illustrated with a mean of 3.06 and a standard deviation of 1.13. This was also evidenced when examining the LIS student alumni who even after graduation have not bothered initiating business venture, instead they have stuck in the hunt for employment opportunities. On the other hand, findings showed that entrepreneurship education in LIS curricula had a moderate influence on the creativeness and innovation of LIS students, as illustrated with a mean of 2.05 and a standard deviation of 0.91. This was also observed in alumni students who were working. They were rarely seen with an invention in the library and information centers.

Additionally, findings revealed little impact of entrepreneurship education on the business skills of LIS that could be helpful in owning and running a successful business as illustrated with a mean of 3.02 and a standard deviation of 1.17. These findings are contradicting with Ejedafiru, & Oghenevwogaga, (2015) who were conclusive that entrepreneurship education in LIS curricula will facilitate graduate's students to harness their entrepreneurial potentials while also act to job creation and self-reliance. Similarly, the findings differ with Gerba, (2012) study that found out that students who went through entrepreneurship education in their university education tend to have greater entrepreneurial intention. This can be explained by the inefficiency of the entrepreneurship education in LIS programs in Kenya.

Similarly, findings showed that entrepreneurship education had had little impact on the mindset and attitude of LIS students towards self-employment as illustrated with a mean of 3.07 and a standard deviation of 0.69. The findings differ from the observation made by Nnadozie, Akanwa, & Nnadozie, (2013) in Nigeria on the impact of entrepreneurship education on students' career selections. They observed that students were shifting their career interest from employment in the library to self-employment.

The findings further showed that entrepreneurship education in LIS curricula had prepared LIS to a little extent for personal economic venture, as shown with a mean of 3.08 and a standard deviation of 0.29. The findings are reflected in alumni students with all of them seeking career employment with no desire for self-employment and business ventures. These findings contradict Hattab, (2014) who established a positive correlation between entrepreneurship education and the student's plans and desire to venture into their own businesses after completion of their studies. These findings demonstrate that entrepreneurship education in LIS programs in Kenya has failed to inspire entrepreneurship among the LIS students.

### **Strategies of Enhancing Entrepreneurship Potential through Entrepreneurship Education**

The strategies of enhancing entrepreneurship potential in LIS students through entrepreneurship education were assessed through a questionnaire on a Likert scale that measured the respondent level of agreement with the factors provided on strategies. In the Likert scale, 1 was the maximum and 5 is the least level of agreement. The findings are displayed in table 3. It displays the mean value and the standard deviation of the agreement level.

**Table 3: Strategies of Enhancing Entrepreneurship Potential through Entrepreneurship Education**

<b>Parameters</b>	<b>Mean</b>	<b>Standard Deviation</b>
Entrepreneurship education should be taught both in theory and practical lesson	2.06	0.14
Entrepreneurship education should be more of practical than theory	2.08	0.11
Entrepreneurship education should be taught by professionals who have proven qualification	1.08	1.17
Universities, colleges and tertiary institution should provide resources necessary to deliver effective Entrepreneurship education	1.07	0.96

Entrepreneurship education should be revised and updated from time to time to be in touch with the market demands	1.08	0.19
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Findings of the study identified several strategies that could be adopted in order to enhance the effectiveness of entrepreneurship education in LIS students. It was established that teaching of entrepreneurship education in both theory and practical would help develop entrepreneurial potential in LIS students. This was illustrated with a mean of 2.06 and a standard deviation of 1.14. Findings showed that entrepreneurship education should be mainly practical since this will offer practical experience to students. This was shown with a mean of 2.08 and a standard deviation of 0.11. Further, entrepreneurship education should be strategized by using professional with both entrepreneurship and LIS background so that they can be able to clearly bring out entrepreneurship for LIS students. This was shown with a mean of 1.08 and a standard deviation of 1.17. The results were in line with Ntui, (2015) who stated that appropriate training should be given to LIS students to develop their entrepreneurial potential in order to position them in lucrative entrepreneurial courses where they are able to harness the entrepreneurial prospects in LIS profession.

The findings showed that resources need to be availed in institution to aid in entrepreneurship education. This was illustrated with a mean of 1.07 and a standard deviation of 0.96. These sentiments were echoed by Innocent, & Alice, (2016) who recommend that ICT facilities and various essential facilities be offered to LIS departments in universities in order to improve the teaching of entrepreneurship. Lastly, findings showed that entrepreneurship education needs to be updated from time to time to be in touch with the market demands. This was shown with a mean of 1.08 and a standard deviation of 0.19. These findings resonate with Brooks, et al., (2007) who observed that entrepreneurship education needs to adopt a multidisciplinary approach that is responsive to the actual needs of the market.

## **Conclusions**

This study evaluated the state of entrepreneurship education in Kenya tertiary institutions. The impact of entrepreneurship education among the LIS students was also assessed together with the strategies that might ensure full impact of entrepreneurship education in LIS students. The study used survey method that employed descriptive research design. The population of study comprised the LIS student in selected universities, colleges and tertiary institution that offered LIS program



at diploma and undergraduate level. Questionnaire and observation methods were used to collect primary data while secondary data was collected from institution online information on their programs curricula. The findings showed that indeed entrepreneurship education is incorporated in LIS curricula but it is taught to a small extent, covering only the basic knowledge of entrepreneurship and this is delivered in theory by a professional with no LIS background. The findings also revealed that entrepreneurship education has not had a great impact on the entrepreneurial potential of students. Students lack skills that are needed to develop entrepreneurship for their personal economic value. Lastly, the findings revealed that a number of strategies should be taken to enhance the impact of entrepreneurship education on student, such as, teaching entrepreneurship education in both theory and practical with much emphasis on practical knowledge, entrepreneurship education to be handled by a professional with both entrepreneurship background and LIS background, availing the necessary resources in institutions to facilitate entrepreneurship education and aligning entrepreneurship education with the market requirements.

### **Recommendations**

In assessment of the study findings, the recommendations made were that Entrepreneurship education incorporated in LIS curricula should be included throughout the study years of students; this should also allow it to be taught past the basic knowledge and to incorporate practical knowledge. In addition, entrepreneurship education should be handled with a professional with both entrepreneurship and LIS background and supported with information resources that are relevant;

Entrepreneurship education should focus on adding business skills to students, enhancing their creativity and innovativeness and creating a mindset and attitude of self-employment and business ventures; and lastly strategies that should be adopted to enhance the entrepreneurial potential of students include: Entrepreneurship education should be delivered in both theory and practical with much emphasis on practical knowledge; entrepreneurship education to be handled by a professional with both entrepreneurship background and LIS background necessary resources should be made available in institution to aid in EE and lastly EE should to be aligned with the market demands.

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