

Entrepreneurship Curriculum Design and the Role of Information Centers in Supporting Student Business Projects

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Abstract

In order to impart students with the information, skills and mindset required to initiate and run successful business ventures, entrepreneurship education is very crucial in equipping students with the essential elements. This paper explores the entrepreneurship curriculum design and examines how information centers such as libraries, business incubation centers and online knowledge platforms can support student-initiated business ventures. A successful entrepreneurship curriculum has been designed to include both the theoretical foundation and the practical and experience-driven learning approaches. These strategies are project-based learning, case studies, market research and innovation challenges. Such curricula are geared towards making the students creative, problem solvers, risk-takers and entrepreneurial decision makers. The study highlights how information centers are important support systems in the field of entrepreneurship education through the provision of access to market intelligence, company databases, financial tools, mentorship resources, and digital learning materials. These centers aim to cover the gap between theoretical education and the practice

of the same through the real-world business conditions and at the same time enhance the ability to make informed decisions and increase research abilities. Moreover, information centers facilitate the interdisciplinary cooperation and offer support to students at the numerous phases of business development, including the process of creation of ideas and continuing with the examination of the feasibility and the implementations of the projects. This study aims to point out the importance of an integrated educational ecosystem that contributes to the development of entrepreneurial capability. This is achieved through the assessment of the connection between information support services and the design of the curriculum. According to the data, the well-designed entrepreneurship programs, along with the all-inclusive information resource services, can significantly enhance the quality, feasibility as well as sustainability of student business ventures. The study offers useful information, which can be applied by educators, curricular developers, and academic institutions with the aim of improving the innovative outcomes of student innovation and entrepreneurship learning.

Keywords: Entrepreneurship Curriculum Design (ECD), Information Centers (IC), Supporting Student (SS), Business Projects (BP)

Introduction

Entrepreneurship has become a key center of economic growth and social innovation in the innovative world, where fast-developing technological changes, globalization, and the labor market are common. Schools around the world are

increasingly becoming familiar with the need to not only prepare students with knowledge that would help them secure the conventional jobs but also establish entrepreneurial projects that require creativity and resilience as well as the ability to solve problems (Sulistiyowati et al., 2025). The development of skills-based learning, instead of content-based education, has increased the desire to introduce entrepreneurship in formal education so that students can be exposed to real-life issues and acquire skills to develop, administer, and maintain business projects (Mirhabibi et al., 2025).

With the transformation in education systems to accommodate the current economic realities, entrepreneurship education has grown beyond the establishment of optional upgrading courses to structured academic programs that are part of the course structures in the secondary, vocational, and higher education systems (Suminar et al., 2025). Good entrepreneurship education goes way beyond learning the fundamentals of business planning or market research. They include practical learning, mentoring programs, project learning, and exposure to entrepreneurial ecosystems (Rakhimova et al., 2025). The aim is to provide learning conditions under which the students are able to experiment with the intellectual ideas and learn through the trial-and-error method in an advanced educational environment. These curricula are extensively interdisciplinary, incorporating the ideas of management, technology, finance, communication, design thinking, and social sciences (Dada, 2025). Therefore, curriculum planners must carefully balance theory and practical learning to equip learners with both theoretical and practical skills. This equilibrium is significant to providing learners with the ability to utilize intellectual ideas in workable business models and to developing the skills that the contemporary entrepreneurial ecosystems require (John and Usoroh, 2025). Even in the modern education systems, the learning of entrepreneurship cannot work efficiently on its own, which is considered one of the most remarkable changes. Students need to have access to all the information resources, which are timely, reliable, and diverse, as well as have contextual relevance to inform their decisions and positively impact the quality of their business projects (Braithwaite and Trencher, 2025). It has promoted the status of academic information centers such as libraries, digital repositories, innovation hubs, and knowledge

resource units as critical stakeholders in the entrepreneurship curriculum (Robinson et al., 2025). The information centers are emerging from the traditional book borrowing services to become multi-purpose knowledge centers, which offer students access to research resources, digital databases, business intelligence systems, market analysis, case studies, and access to entrepreneurial networks (Mani and Manoharan, 2025). These centers support the learning process by providing filtered information that helps students to polish business concepts, evaluate markets, analyze competition, and learn industry trends. The presence of such support is especially significant at a period when the credibility and applicability of information in the decision-making process of an entrepreneur can have a great impact (Weng et al., 2025). In addition, the functions of information centers are extended to the delivery of special service that directly facilitates student business projects (Ullah et al., 2025). Apart from this, the information professionals are trained professionals who help students navigate complex information sources, assume feasibility studies, and apply research results to business conditions. These services not only help to improve the quality of student academic projects, but they also encourage greater engagement, inquiry, and informed decision-making, which are critical qualities of the entrepreneurial process (Yoganandham, 2025).

Furthermore, the application of social enterprises, technology-driven products, community-based innovations, and the importance of information centers also extend to an even greater extent with the development of digital projects, which demands students' attention to work. The students are not always able to assess the credibility of information, locate market-related sources, or process the complex business data (Bais et al., 2025). Information centers are able to fill this gap by integrating information literacy education into entrepreneurship courses so that students are able to critically evaluate sources and analyze market data by using digital tools. With this integration, students are enhanced to create research-based entrepreneurship, which allows the generation to create evidence-based business plans instead of instinctive proposals. The growth of these competencies is becoming an essential need in the entrepreneurial system that considers data analytics, digital marketing metrics, and market intelligence

platforms (Xanthopoulou and Sahinidis, 2025). Whereas information centers also play their part in the development of collaborative space, innovation laboratories, and networking possibilities. The modern information centers provide workshops, startup clinics, mentoring programs, and industry seminars, which expose the students to real entrepreneurship, investors, and business professionals (Ncube and Lekhanya, 2025). The exchanges also enable the students to get feedback, test their business concepts, and get to learn the reality of business outside the classroom (Kaur and Chawla, 2025). Through the establishment of these dynamic learning platforms, information centers help in the development of the confidence, motivation, and strategic thinking that the project of entrepreneurship demands. Simultaneously, properly designed curricula lead to increased use of information resources, which establishes a cooperative relationship, improving the results of learning (Cocu et al., 2025). When these factors coincide, students prepare themselves to have the ability to come up with mature, research-based, and socially oriented business projects that represent creativity and analytical precision. Since there is the need to pay more attention to preparing students to become entrepreneurs, it is necessary to know how the design of the curriculum and the information centers influence the formation of student business projects together (Uddin et al., 2025). The information center role has evolved radically in the recent past not just in terms of the usual library roles to become dynamic learning and innovation spaces. These institutes encourage student business ventures in entrepreneurship education through making data-based decisions and autonomous study.

The information centers are used by students to access information on consumer behavior, industry trends, competitive environment, and regulatory environments. This access is essential especially at the initial stages of developing a venture; where intelligent planning may determine the viability and sustainability of a business idea. In addition, the entrepreneurial curriculum is focusing more and more on interdisciplinary learning, as it is acknowledged that successful ventures are usually based on the knowledge of various spheres such as technology, finance, marketing and social sciences. Information centers are an addition to this multidisciplinary approach providing organization of different materials and assistance in cooperation

between students who belong to various academic backgrounds. With the help of workshops, trainings, and availability of digital technologies, information centers enhance the research literacy, analytical skills, and the entrepreneurial awareness of students. Entrepreneurship education is founded on student business projects where theoretical knowledge is applied in practice. Such efforts usually involve the creation of ideas, market analysis, prototype design, financial projection, and business model design. During this process, students have issues to do with information availability, correctness of data, and research skills. Without well instituted support, such problems might limit the quality and performance of student businesses. The information centers fill these gaps by giving organized guidance, research support services and access to reliable source of information which enhance the overall learning process. Also, the presence of information centers facilitates in encouraging an entrepreneurial culture in academic institutions. Organizing seminars, startup demos, and innovation challenges help them create space of information sharing and networking. These operations help students to be introduced to real world entrepreneurs, industry professionals and investors, and add more weight to the entrepreneurship program. These kinds of contacts not only provide motivation to the students but also help bridge the academic learning with the entrepreneurial ecosystem beyond university.

Research Objective

The aim of this research paper is to examine how institutions may enhance the climate of entrepreneurial learning, maximize the utilization of informational resources, and also facilitate the educational results that are oriented towards innovation. Furthermore, the influence of entrepreneurship curriculum design and the role of information centers in assisting student business projects have also been studied in the paper.

Literature Review

The recent research on entrepreneurship education points out to the increasing significance of systematic curriculum development in shaping entrepreneurial skills in students. Researchers highlighted that the curriculum of entrepreneurship should no longer be focused on lectures, but should adopt the experiential learning techniques that

expose the students to real-life problems in the world of business (Nor et al., 2025). Studies claimed that curricula leadership has been made to highlight the pivotal role in determining the entrepreneurial intentions, opportunity recognition and ability of students to translate ideas into a feasible project. The project-based learning, case-based instruction, and collaborative activities have commonly been referred to as the key elements of successful entrepreneurship education within the given framework (Maharani, 2025). Researchers have observed that these techniques help the learners in corresponding the theoretical knowledge with the practical knowledge, which enhances business model thinking, evaluation, and development. It was also demonstrated that the most effective entrepreneurship curriculum was one that was designed to develop an entrepreneurial mindset, but not necessarily a curriculum that teach the student about business information (Nurhayati and Handayani, 2025). Researchers argued that entrepreneurs can be guided better in entrepreneurial professions by programs, which focus on creativity, innovation, risk evaluation, and problem solution. Many scholars focused on addressing the importance of support systems that can be offered to a student when he/she completes business projects. It was indicated that students need to have access to credible information, market-related information, industry data, and research resources to make superior quality of business plans (Yasin and Gilani, 2025). The information centers like academic libraries, digital repositories, entrepreneurial support units, and innovation laboratories seems to be very essential to the succeeding entrepreneurship education. Studies explore that modern information centers have shifted their functions towards active knowledge repositories which offer specialized services, digital databases, repositories of business cases as well as research consultation than a passive collection of books (Odewole, 2025).

These services directly play a role in the entrepreneurial learning process by allowing students to collect evidence, analyze the market, and assess industry trends. Studies have shown that students were usually confused on which sources were considered as reliable and the ones that were weak or out of date thus having an impact to poor business planning and decision making by the students. To overcome this problem, information

centers have been significantly involving information-literacy education in the support programs of the entrepreneurship (Thottoli et al., 2025). Researcher indicated that when learners was trained in examining data, market research instrumentation, and mastering how to navigate digital resources, they come up with credible and research-oriented business projects. Researchers also claim that information literacy is not an optional skill anymore and part of the basic ingredients of entrepreneurship, due to the nature of the contemporary business environment which is heavily data-driven (Gacem et al., 2025). Researchers noted that online business databases, digital libraries, virtual simulation tools, and open educational resource substantially can increase the availability of the relevant materials to students. These online platforms enable students to learn on their own, learn interdisciplinarity, and learn about different trade conditions (Liang et al., 2025). Studies highlighted that digital repositories help in long-term preservation of the institutional knowledge, such as past projects of students, case studies, and faculty research on which students can rely as a reference point in the generation of new ideas. The digital resources offer continuous access to updated information to improve the capacity of students to perform feasibility, develop market strategies, and make evidence-based decisions (Gassol, 2025). Researchers also highlight the importance of information centers in promoting entrepreneurial system in schools.

According to studies, in most information centers, there seems workshops, seminars, hackathons, and mentorship activities that help to introduce students to entrepreneurs and industry partners as well as innovation experts (Setiawan et al., 2025). These operations support to bridge the academic studies with practical entrepreneurial work. It was examined that these engagements enhance motivation among the students, their insights into the realities of business, and provides them with constructive criticism which improves their projects. Such initiatives also help in developing a culture where innovation, collaboration and entrepreneurial thinking all were appreciated in the campus (Zhang, 2025). It was also explored that information centers offer customized research support in order to help student business projects. The role of information specialists and librarians has also been recorded in modifying

research questions, becoming aware with market data and finding suitable sources. This individual help has been documented to enhance the depth and quality of the business proposals of students (Wang and Horta, 2025). According to researchers, this kind of counseling can provide great help to a beginner entrepreneur who might be new to the world of business and might not have sufficient experience in using the complex business databases, or reading technical marketing data. However, researchers observe that, students might not be effectively making use of such information centers because they lack awareness of possibilities or because they lack the expertise of research (Borghi, 2025). Studies indicated that some information centers might not even have some specialized entrepreneurship databases or current market information thus were not capable of fully assisting the student projects. But, despite these drawbacks, most of the researcher also concluded that when the information centers have an institutional underpinning, investing in digital tools, and closely working with faculty, they can play a great role in improving the quality of entrepreneurship education (Pearce et al., 2025).

Overall, many scholars shows that the relationship between the design of entrepreneurship curriculum and information center support seems complementary and interdependent. It was suggested that a carefully-developed curriculum would have the effect of motivating the students to use theoretical knowledge in the form of an applied business project, and the informational centers will provide the research background, tools, and expertise to help the business projects (Kreiser and Bailey, 2025). The combination of these learning environmental changes encouraging to innovation, entrepreneurial competence, and prepares students to come up with well-informed and sustainable business concepts. however, it was claimed that there seems significant need to enhance this association to enable universities to prepare students to take up responsibilities as future entrepreneurs and innovators (YUSUF, 2025).

Methodology

In this research, the quantitative research methodology is used to examine the correlation between the design of entrepreneurship curriculum and the contribution made by information centers in supporting student business projects. The

quantitative design is considered acceptable because it allows exploring the topic of teaching practices, institutional support, and student experiences in entrepreneurship programs in great detail. The research design is based on the examination of the interplay between information services and curriculum architecture to enhance the success of entrepreneurial learning.

Research Design

The study takes a descriptive and exploratory design in order to determine the current entrepreneurship courses and services offered by information centers within institutions of higher learning. The method facilitates the research to develop profound information about the curricular content, instructional approaches, and facilitating resources that assist in the development of student-led business ventures. The research focuses on the real-world setting of education as opposed to experimental manipulation.

Data Collection Methods

Data will be gathered through various quantitative methods to make the data credible and detailed in the analysis. The main methods of data collection will be document analysis, semi-structured interviews and surveys. Document analysis involves an in-depth examination of descriptions of entrepreneurship courses, curricular maps, institutional policy reports and descriptions of information center services. These reports give information about curriculum goals, learning outcomes, assessment strategies, and how information resources have been incorporated in entrepreneurial education. The interviews will be conducted in the form of semi-structured interviews with key stakeholders such as teachers of entrepreneurship, teachers of information center, and academic administrators. The interviews are dedicated to the processes of curriculum design, availability of resources, faculty and information centers collaboration, and the perceived issues in providing assistance to business ventures of students. Open-ended inquiries permit participants to express themselves and thoughts willingly. Also, questionnaires will be given to students taking entrepreneurship courses to receive information about their use of information center resources and research patterns as well as experience in business project development. The questionnaires also have

closed-ended questions and open-ended questions to measure both quantitative and qualitative feedback.

Sampling Strategy

To select the respondents that will be directly involved in the field of entrepreneurial education and information support services, a purposive sample strategy is employed. The sample will consist of academic members who teach courses that are related to entrepreneurship, librarians or information center employees with business resource specialization, and undergraduate or postgraduates' students engaged in business projects. Such a personalized sample will help to

make sure that outcomes will be relevant and will be aligned with the objectives of the study.

Data Analysis

Data analysis is done using a theme analysis approach. Transcripts of the interviews, survey data, and institutional files are classified in order to find recurring themes that are associated with curriculum design, the availability of information, student support, and entrepreneurial performance. Thematic patterns are explored so as to determine the relationship between information center services and the educational objectives. Data source triangulation enhances the validity and reliability of the conclusions.

Table 1: Results of Descriptive Statistics.

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Entrepreneurship Curriculum Design 1	53	1.00	3.00	1.6226	.65710
Entrepreneurship Curriculum Design 2	53	1.00	3.00	1.6226	.62716
Information Centers 1	53	1.00	3.00	1.5094	.60836
Information Centers 2	53	1.00	3.00	1.5094	.57588
Supporting Student Business Projects	53	1.00	3.00	1.4717	.60776
Valid N (listwise)	53				

The above result of table 1 demonstrate that the descriptive statistical analysis result describes minimum values, maximum values, the mean values, the standard deviation of each variable. the entrepreneurship curriculum design 1,2, both are considering as independent variable result shows that mean values are 1.6226, the standard deviation rates is 65% and 62% deviate from mean. The information centers 1,2, shows that mean values are 1.5094 the standard deviation rates is 60% and 57% deviate from mean. According to the result the supporting student business projects consider as dependent variable result shows that its mean values are 1.5094 and 1.4717 respectively shows positive average value of mean. The standard deviation rate is 57% and 60% deviate from mean. Overall result shows minimum value is 1.000 the maximum value is 3.00 respectively. In order to impart students with the information, skills and mindset required to initiate and run successful business ventures, entrepreneurship education is very crucial in equipping students with the essential elements. This paper explores the entrepreneurship curriculum

design and examines how information centers such as libraries, business incubation centers and online knowledge platforms can support student-initiated business ventures. A successful entrepreneurship curriculum has been designed to include both the theoretical foundation and the practical and experience-driven learning approaches. These strategies are project-based learning, case studies, market research and innovation challenges. Such curricula are geared towards making the students creative, problem solvers, risk-takers and entrepreneurial decision makers. The study highlights how information centers are important support systems in the field of entrepreneurship education through the provision of access to market intelligence, company databases, financial tools, mentorship resources, and digital learning materials. These centers aim to cover the gap between theoretical education and the practice of the same through the real-world business conditions and at the same time enhance the ability to make informed decisions and increase research abilities. Moreover, information centers facilitate the interdisciplinary

cooperation and offer support to students at the numerous phases of business development, including the process of creation of ideas and continuing with the examination of the feasibility and the implementations of the projects. This study aims to point out the importance of an integrated educational ecosystem that contributes to the development of entrepreneurial capability. This is achieved through the assessment of the connection between information support services and the design

of the curriculum. According to the data, the well-designed entrepreneurship programs, along with the all-inclusive information resource services, can significantly enhance the quality, feasibility as well as sustainability of student business ventures. The study offers useful information, which can be applied by educators, curricular developers, and academic institutions with the aim of improving the innovative outcomes of student innovation and entrepreneurship learning.

Table 2: Results of ANOVAa.

ANOVAa						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.700	4	.675	1.963	.115b
	Residual	16.507	48	.344		
	Total	19.208	52			
a. Dependent Variable: Supporting Student Business Projects						
b. Predictors: (Constant), Information Centers 2, Information Centers 1, Entrepreneurship Curriculum Design 2, Entrepreneurship Curriculum Design 1						

The above result of table 2 demonstrate that ANOVA test analysis related to the regression, residual values. The sum of square value is 2.7000 the residual value is 16.507 the total value is 19.208 respectively. The significant value is 11% significant level between them. Information centers are a part of the general trend to more learner-focused and resourceful educational paradigms, which is reflected in the design of entrepreneurship curricula. Instead of teachers guiding the learning process, contemporary entrepreneurship education promotes students to be responsible of their own learning process by mean of inquiry, experimentation and self-directed learning.

Information centers facilitate this change by providing students with the skills and resources to independently develop, test and refine business ideas. In spite of the established topicality of entrepreneurial education, there are problems with the relationships between the designing of the curriculum and the effective support system. The courses offered in entrepreneurship in most universities are not integrated with the information services, and hence the available resources are not used fully. Such a deficiency can slow down the effectiveness of the entrepreneurship courses and limit the ability of students to translate ideas into company activities. Thus, it is important to learn how the design of the entrepreneurship curriculum

is related to the role the information centers have in raising the educational outcomes. This paper is aimed at researching the organization of courses focused on entrepreneurship and the information center assistance to the business ventures of students in this context.

It aims at highlighting the best practices in curricular integration, determine the necessary resources provided by information centers, and research their effect on entrepreneurship performance of students. Through research on this correlation, the study aims to offer information to the educators, curriculum developers, librarians, and academic policymakers who want to facilitate entrepreneurial education. To sum up, the development of the entrepreneurship curriculum and its information center support are complementary elements of a successful entrepreneurship education. The curriculum developed correctly will provide the framework and learning goals needed to develop an entrepreneur, and the resources provided by information centers will provide the resources and help needed to make it functional. The combination of both offers an enabling climate which leads to creativity, critical thinking and entrepreneurial success among students. The ability to learn and harness this synergy is crucial in preparing the students to thrive in an ever growing entrepreneurial and knowledge-based world.

Regression Analysis

Table 3: Results of Coefficients.

Model		Coefficients				
		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.432	.434		.996	.324
	Entrepreneurship Curriculum Design 1	.285	.129	.308	2.218	.031
	Entrepreneurship Curriculum Design 2	.170	.133	.176	1.284	.205
	Information Centers 1	.148	.136	.148	1.086	.283
	Information Centers 2	.051	.146	.049	.351	.727

a. Dependent Variable: Supporting Student Business Projects

The above result of table 3 describes linear regression analysis result demonstrate that unstandardized coefficient values, included beta and standard error the result also shoe t values and significant value of each variable. the entrepreneurship curriculum design 1 is main independent variable result shows that its t value is 2.218 the significant value is 0.031 shows that

positive and 3% significant link in between entrepreneurship curriculum design and supporting student business project respectively.

The information centers 1,2, shows that t statistic values are 1.086 and 0.351 shows that positive t statistic values between them. the significant value s 28% and 72% significantly levels between them.

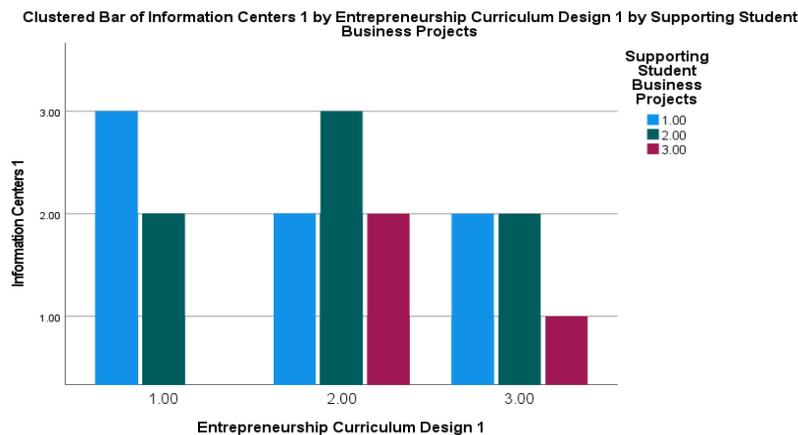


Figure 1: Control Chart

The above graph of figure 1 present that bar analysis related to the information centers 1 and entrepreneurship curriculum design 1 shows between them.

Applications

The combination of good entrepreneurship curriculum development and support services provided by information centers has broad application in the practice of the educational institutions. Through these applications, students

learn better, businesses have better project outcomes and institutions have better entrepreneurship ecosystems. Benchmarking the break-even point between curriculum goals and information resources can also help the schools to be in a better position to equip the students to be more prepared to translate the entrepreneurial ideas into successful business enterprises.

Curriculum Development Application

Development and improvement of

entrepreneurship curriculum is one of the major applications of this study. The findings can be applied by educators and curriculum developers to impart information literacy, market research skills, and decision-making based on data directly into the course format. Classes on entrepreneurship may be customized to include obligatory interaction with information centers, including directed research, training of databases, workshops on business intelligence technologies. This would ensure that the students do not just study entrepreneurial theory but acquire the research skills required in the planning of business and innovation.

Student Business Ventures

Information centers have a practical direct and direct role in supporting student business ventures at most of the business growth stages. The students can access the trend research, industry research, and consumer behavior research to learn about the gaps and opportunities within the market during generation of ideas. Financial databases, feasibility tools and case study will help the students build realistic business models and predictions when they are at the planning stage. The applications enhance the quality, legitimacy and sustainability of student-led projects.

Improvement of Research and Information Literacy

The other important application is in improving research and information literacy of students. Entrepreneurship education also promotes the analysis of accuracy of data, recognition of market risks, and evidence-based judgment on the part of the student. Information centers help in this process by providing training in database use, citation process, intellectual property awareness as well as ethical use of information. These skills can be applied beyond the courses in entrepreneurship and make students ready to learn all their lives and engage in professional practice.

Interdisciplinary and Collaborative Learning

The results of the study can be transferred to interdisciplinary collaboration in academic institutions. A large number of entrepreneurship projects involve business, engineering, technology, and social sciences students. Information centers

facilitate this cooperation by being learning commons places where different resources and collaborative technologies are provided. This course encourages cross-functional embracing of creativity whereby learners have the ability to blend technical skills with business and social intelligence in their enterprises.

Institutional Policy and Strategic Planning

In the institutional level, the policy development and strategic planning are informed by the applications of this study. The increase in information center services as compared to the entrepreneurship programs enables universities to distribute their resources more efficiently. Having more integrated systems of support can be achieved by policies that encourage the collaboration between information workers and teachers. Also, to further encourage student entrepreneurship, institutions may design innovation hubs or incubation facilities of companies located in information centers.

Digital and Remote Learning Applications

Information centers are important in the digital and hybrid learning environment since they provide remote access to the entrepreneurial resources. Connectivity to online databases, e-books, virtual consultation, and other online research assistance facilitates the work of students carrying out business projects outside the physical boundaries of the colleges. The study has found the application especially pertinent in enhancing access to entrepreneurial education among the distance learners and non-traditional students.

Real-World and Community Learning

The applications are not limited to the context of the academic but rather to the real-world entrepreneurship and community learning. The information centers may facilitate the development of student businesses by linking them to local industry information, government laws, and funding sources, and legal advice. This kind of involvement augments university industrial connectivity and social and economic impact of student business ventures.

Professional Development of Educators and Information workers

The findings have a practical importance to

professional development of educators and information center workers. It is possible to develop training programs that would enhance the collaboration between professors and librarians so that the teaching of entrepreneurship could be facilitated by the corresponding information services. This is a collaborative strategy that improves classroom performance and student achievement.

Discussion

This research shows that entrepreneurship curriculum design and information centers play a major role in the promotion of business initiatives among students. The discussion has shown that entrepreneurship education is effective when the coordination and complementary working of curricular structure and information support services. Instead of functioning as distinct institutional elements, curricula and information centers co-exist as a unified ecosystem, which encourages entrepreneurial learning and practice. One of the main conclusions made during the research is that entrepreneurship education with an orientation to practical and project-based learning results in a significant need of reliable, timely, and diversified information resources. Students who are on business initiatives need to have availability of market data, industry reports, financial tools and case studies to aid in decision-making and innovation. In cases where information research assignment is explicitly included in the curriculum, students also present better analytical abilities and become more confident in their ability to write business ideas. This conclusion confirms the existing studies that promote the practice-based entrepreneurship education based on the real-life facts and evidence.

The importance of information centers seems especially important during the initial processes and developmental levels of student business projects. Students can easily face challenges because of inadequacy in research skills, uncertainties when assessing the quality of information and the inability to retrieve expert knowledge in business. Information centers assist in alleviating these challenges through organized research assistance, training sessions and carefully compiled materials. The analysis indicates that those students that actively use information center services build stronger, realistic, and market-oriented business

proposals. This expedites the idea that information literacy is a fundamental entrepreneurial ability and not an additional one. One more important point of discussion is interdisciplinary collaboration. The entrepreneurship education is becoming more multidisciplinary, compelling the students to combine both technical and business, financial, and social aspects. Information centers are considered as the unbiased and all-encompassing places where interdisciplinary communication can take place due to the existence of resources in academic fields. The role contributes to collaborative learning and innovation as students can count on diverse perspectives and expertise as they come up with the solutions to business problems. Although these positive impacts have been noted, the research also brings out the shortages of institutional integration. There are some situations when the entrepreneurship curriculum is set without enough cooperation with informational specialists that leads to under-exploitation of the current resources. This breach undermines the role that information centers could possibly have and emphasizes more on instructor-based training. These results suggest that better coordination between scholars and information center managers can significantly enhance the delivery of the curriculum and support of the students. Using information literacy objectives and information center interaction embedded within course assessment could help address this problem. The discussion also emphasizes the increasing role of digital information services in the entrepreneurship education.

Now information centers are no longer limited to physical locations due to the emergence of online learning and hybrid learning. Online databases, virtual research consultation, and online business services increase the support of remote or out-of-classroom students. The solution is conducive and ensures the support continuity throughout the lifecycle of the business project. Lastly, the research highlights the pedagogical implications at large scale in the association of entrepreneurship coursework with information support systems. This kind of congruence leads to not only an improvement of the student business project outcomes, but also, it contributes to the building of transferable skills, such as critical thinking, problem-solving, and the independent learning. These attributes are required to achieve a

long-term business performance and be job seekable amid changing economic situations.

Overall, the discussion has shown that support of information centers and curriculum design are two interdependent aspects of successful entrepreneurship education. Their combination encourages student-centeredness, enhances quality of project, and enhances a long-term entrepreneurial educational setting. Those institutions that give this synergy priority are in a better position to give rise to graduates who can generate innovative and informed business initiatives.

Conclusion

The research comes to the conclusion that information center support and the design of the curriculum are important and interdependent elements of the effective entrepreneurship education. The need of curriculum that meets the requirement of theoretical knowledge and practical skills is more evident following the increased focus of higher education institutions on innovation and entrepreneurial skills. Powerful information services support entrepreneurship education provides an environment where students can successfully conceive, analyze, and implement ideas of companies.

The paper has found that the entrepreneurship curricula that are well designed will spur creativity, problem solving, and opportunity recognition and the information centers will provide the resources and advice to translate the ideas into a viable business enterprise. Availability of market data, financial tools, case studies, and research assistance can assist students in improving the quality of their decision-making in the business, as well as the effectiveness of their work in general. This is the integration that ensures that the effort of students in business is founded on facts and not speculations. In addition, the results point to the growing presence of information centers as active partners in the field of entrepreneurship education. The information centers no longer have the traditional functions of libraries, but they promote innovation and interdisciplinary collaboration and digital learning. Their input is especially essential in the creation of information literacy, ethical research methods, and data-driven entrepreneurship - the skills, which are vital to success in the long-term professions. The need of institutional commitment is also brought into the conclusion. Colleges and universities should

recognize the essence of integrating entrepreneurial programs to information center services by supporting policy, allocating funds and planning. The relationships between faculty and librarians, research training incurred into the curriculum and available digital resources are essential methods to gain the highest student involvement and learning outcomes. To conclude, the information support system and curriculum design work in synergy to develop entrepreneurship education. This paper shows that information centers are not an extra rather they are essential to the achievement of student business enterprises. Through facilitating a more unified educational ecosystem, schools will be in a better position to equip students with a more efficient challenge to the demands of an ever competitive and knowledge-focused entrepreneurial environment. Enhancing such synergy will lead to a more creative, sustainable, and efficient student-driven programs in both scholarly and practical settings.

Recommendations

It is possible to propose several recommendations, based on the findings of this study:

1. Curriculum Integration: Schools must institutionalize the use of information centers in the requirements of the entrepreneurial course in research assignments, workshops and guided resource sessions.

2. Faculty- Information center Cooperation: There should be a closer cooperation between the entrepreneurial faculty and the information professionals in order to match the learning goals with available resources.

3. Information Literacy Training: The institutes are recommended to include information literacy and business research skills as a part of the entrepreneurship training.

4. Increased Digital Access: Digital databases, virtual consultations and research assistance need to be expanded in information centers to accommodate flexible and remote learning conditions.

5. Entrepreneurial Spaces: Universities are encouraged to construct innovation centers or incubation centers in or around information centers so as to promote business entrepreneurship and project development amongst students.

Future Research

Future studies may take on quantitative or mixed methodology to study the direct effect of information center usage on the success of business project by students. Comparative research within institutions or countries would be more helpful in understanding best practices. Also, the effect of new technologies on augmenting information center support of entrepreneurship education can be researched in the future by exploring the role of the new technologies like artificial intelligence and data analytics.

References

- Bais, P., Bahadur, P. S. and Bais, A. (2025). Endorsing Entrepreneurship and Innovation in Higher Education System. In *Global Perspectives on Quality Management and Accreditation in Higher Education* (pp. 433-460). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-9481-6.ch018>
- Borghi, M. (2025). Embedding entrepreneurship and technology literacy in the student curriculum: A case study of a module for real estate students. *Innovations in Education and Teaching International*, 62(3): 959-970. <https://doi.org/10.1080/14703297.2024.2382413>
- Braithwaite, N. and Trencher, L. (2025). A Green Community for Change, Through Sustainable Development and Entrepreneurship in the Fashion Business Curriculum. In *North American and European Perspectives on Sustainability in Higher Education* (pp. 261-277). Springer. https://doi.org/10.1007/978-3-031-80434-2_16
- Cocu, A., Pecheanu, E., Susnea, I., Dingli, S., Istrate, A. and Tudorie, C. (2025). Technology-enabled learning for green and sustainable entrepreneurship education. *Administrative Sciences*, 15(2): 45. <https://doi.org/10.3390/admsci15020045>
- Dada, K. S. J. (2025). Creativity, Innovation, and Entrepreneurship in Library Services. *ETHICS, ENTREPRENEURSHIP AND SUSTAINABLE DEVELOPMENT: Converging Perspectives and Insights*: 263. <https://tinyurl.com/3k5sdsy9>
- Gacem, M., Bouhali, T. and Zerouati, M. (2025). The university as an incubator Environment for entrepreneurial act. *Afak for sciences journal*, 10(2): 262-274. <https://asjp.cerist.dz/en/article/264656>
- Gassol, J. H. (2025). Interdisciplinary and systems thinking solutions for complex challenges: a paradigm shift in undergraduate entrepreneurship education. *Discover Education*, 4(1): 295. <https://doi.org/10.1007/s44217-025-00693-2>
- John, A. M. and Usoroh, C. I. (2025). Chapter Twenty-Three Relevance of Information Communication Technology for Students' Entrepreneurial Skills Development in Home Management In Nigeria. *VOCATIONAL EDUCATION IN NIGERIA: CHALLENGES, REALITIES AND PROSPECTS*: 180. <https://tinyurl.com/y6tt2pt9>
- Kaur, M. and Chawla, S. (2025). Does curriculum support and extra-curriculum support contribute to students' entrepreneurial intentions? *Innovations in Education and Teaching International*, 62(2): 657-673. <https://doi.org/10.1080/14703297.2024.2325646>
- Kreiser, P. M. and Bailey, R. C. (2025). 15. Entrepreneurship education at the University of Wyoming. *Annals of Entrepreneurship Education and Pedagogy-2025*: 277. <https://doi.org/10.4337/9781035325795.00024>
- Liang, H., Bangkheow, P., Sethakhajorn, S. and Bangkheow, P. (2025). Educational Management Strategies to Promote the Sustainable Development of Entrepreneurship of Students in Higher Vocational Colleges. *Higher Education Studies*, 15(1): 188-201. <https://doi.org/10.5539/hes.v15n1p188>
- Maharani, S. N. (2025). Building a Digital Business Incubation Ecosystem for a Sustainable University. *Proceedings of the 8th International Research Conference on Economic and Business (IRCEB 2024)*, 329: 260. https://doi.org/10.2991/978-94-6463-722-9_22
- Mani, A. and Manoharan, G. (2025). Empowering the Next Generation: The Role of Youth Entrepreneurship in Shaping College Students. In *Sustainable Entrepreneurship and Family Business for Women's*

- Empowerment* (pp. 347-364). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3693-8694-1.ch015>
- Mirhabibi, A., Shayan, A. and Sahraei, S. (2025). Improving digital entrepreneurship readiness of business students: The moderating roles of digital mindset and digital education. *The International Journal of Management Education*, 23(2): 101151. <https://doi.org/10.1016/j.ijme.2025.101151>
- Ncube, T. R. and Lekhanya, L. M. (2025). THE ROLE OF ENTREPRENEURSHIP EDUCATION IN SHAPING FINAL-YEAR STUDENTS' CAREER PATHS: A CASE STUDY OF DURBAN UNIVERSITY OF TECHNOLOGY'S FACULTY OF MANAGEMENT SCIENCE. *Journal of Economic and Social Development*, 12(1): 35-50. <https://tinyurl.com/jjfhmyhf>
- Nor, A. I., Mohamed, F. S., Barre, M. M. and Hussein, M. A. (2025). The role of higher education institutions in promoting entrepreneurship development. *Cogent Business & Management*, 12(1): 2523417. <https://doi.org/10.1080/23311975.2025.2523417>
- Nurhayati, S. and Handayani, F. A. (2025). PROJECT-BASED BUSINESS MANAGEMENT TRAINING FOR WOMEN'S ENTREPRENEURIAL SKILLS DEVELOPMENT. *Jurnal Visi Ilmu Pendidikan*, 17(1): 28-39. <https://doi.org/10.26418/jvip.v17i1.83520>
- Odewole, P. O. (2025). Do undergraduate art and design students' entrepreneurship skill sets influence their intention to own a business? *Journal of Entrepreneurship and Public Policy*, 14(1): 104-128. <https://doi.org/10.1108/JEPP-08-2024-0129>
- Pearce, R., Zitha, I., Mokganya, G., Molaudzi, V., Nekhubvi, V. and Matsilele, O. (2025). Project-based learning for promotion of entrepreneurial education among first level science students. *International Journal of Research in Business and Social Science*, 14(1): 151-159. <https://doi.org/10.20525/ijrbs.v14i1.3820>
- Rakhimova, Z., Topildiev, B., Nazarov, S., Kadirova, M., Sobirova, N., Rustamova, M. et al. (2025). Fostering Entrepreneurial Competencies in Higher Education: Trends, Challenges, Legal Issues and Impacts on Student Success. *Qubahan Academic Journal*, 5(3): 114-142. <https://doi.org/10.48161/qaj.v5n3a1712>
- Robinson, A. E., Cascella, B., Wegorzewska, M. M., Berkovich, D. A. and Jez, J. M. (2025). The Biotech Explorers Pathway equips students for STEM futures. *Nature biotechnology*, 43(5): 823-827. <https://doi.org/10.1038/s41587-025-02666-0>
- Setiawan, M. E., Suwono, H., Alias, S. H., Sulisetijono, S. and Nur, H. (2025). Qualitative exploration of factors influencing the development of entrepreneurship courses in select Indonesian universities with fuzzy logic integration. *Qualitative Research Journal*, 25(2): 203-226. <https://doi.org/10.1108/QRJ-03-2024-0051>
- Sulistiyowati, R., Maula, F. I., Mahendra, A. M., Fahrullah, A. r., Rahayu, W. P. and Ahmad, M. F. (2025). The Role of Islamic Values-Based Entrepreneurship Education and Government Support in Improving Students' Business Success in Islamic Boarding School. *IJORER: International Journal of Recent Educational Research*, 6(1): 238-252. <https://doi.org/10.46245/ijorer.v6i1.760>
- Suminar, T., Sutarto, J., Siswanto, Y. and Cahyani, A. D. (2025). Creating a technopreneurship-based life skills education model with methods of project-based learning. *Aptisi Transactions on Technopreneurship (ATT)*, 7(2): 567-581-567-581. <https://doi.org/10.34306/att.v7i2.576>
- Thottoli, M. M., Cruz, M. E. and Al Abri, S. S. S. (2025). The incubation revolution: transforming entrepreneurial education with artificial intelligence. *Asia Pacific Journal of Innovation and Entrepreneurship*, 19(1): 2-23. <https://doi.org/10.1108/APJIE-11-2023-0221>
- Uddin, M., Bal, H. and Hoque, N. (2025). Paving the way towards effective entrepreneurship education in private higher educational institutions in emerging economy: An analysis of barriers and strategies. *Sustainable Futures*: 101027. <https://doi.org/10.1016/j.sftr.2025.101027>
- Ullah, U., Ghutai, G. and Tariq, M. (2025). The Influence of Entrepreneurial Education on

- Entrepreneurial Capacity and Value Creation Development. *Indus Journal of Social Sciences*, 3(1): 811-822. <https://doi.org/10.59075/ijss.v3i1.877>
- Wang, Y. and Horta, H. (2025). University-based social innovation and entrepreneurship education in Hong Kong: a curriculum analysis. *Studies in Higher Education*, 50(6): 1248-1267. <https://doi.org/10.1080/03075079.2024.2369202>
- Weng, X., Gu, M. M., Xia, Q. and Chiu, T. K. (2025). SWOT analysis of AI empowered entrepreneurship education: insights from digital learners in higher education. *Thinking Skills and Creativity*, 56: 101763. <https://doi.org/10.1016/j.tsc.2025.101763>
- Xanthopoulou, P. and Sahinidis, A. (2025). Exploring the Impact of Entrepreneurship Education on Social Entrepreneurial Intentions: A Diary Study of Tourism Students. *Administrative Sciences*, 15(3): 111. <https://doi.org/10.3390/admsci15030111>
- Yasin, N. and Gilani, S. A. M. (2025). 'Imitate or incubate?' evaluating the current state of university-based business incubators in the United Arab Emirates. *FIIIB Business Review*, 14(5): 631-644. <https://doi.org/10.1177/23197145221112744>
- Yoganandham, G. (2025). Innovativeness, Skill Development, Competitive Efficiency, Capacity of Hard Work and Entrepreneurial Intentions among the Students of Higher Learning Institutions-An Assessment. *International Journal on Recent and Innovation Trends in Computing and Communication*, 13(1): 41-49. <https://core.ac.uk/download/pdf/654637544.pdf>
- YUSUF, H. T. Y. (2025). Integrating Entrepreneurial Skills in the Nigerian Teacher Education Programmes to Foster Edupreneurship. *Ilorin Journal of Education*, 45(2): 333-351. <https://ije.unilorinedu.sch.ng/index.php/ije/article/view/259>
- Zhang, H. (2025). AI-driven innovation and entrepreneurship education: a K-means clustering approach for Chinese university students. *Discover Artificial Intelligence*, 5(1): 1-19. <https://doi.org/10.1007/s44163-025-00341-6>