Technology enabled Business Plan for the course entrepreneurship creativity and innovation

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Abstract. Entrepreneurship Creativity and Innovation (EC and I) is the course that is obligatory for all the bachelor and diploma students in Oman irrespective of their major. The success of the course lays in the preparation of a well-thought-out business plan which provides a written roadmap for their proposed innovative business idea from feasibility reports including a marketing plan, financial, and operational reports. Among these, preparation of a financial plan requires accounting concepts and technical skills that may be lacking among students in different majors. There is a clear lack of empirical attention in practical knowledge in preparing a complete business plan among growing entrepreneurial students across higher educational institutions, universities, or colleges. To report those deficits, the purpose of this topic is to investigate how the entrepreneurial students in the university or college can be helpful technology-enabled business plan for preparing a well-thought-out business plan for their compulsory course, EC and I. Further, this study also aims to examine entrepreneurial students' basic skills in technology. To investigate the role of technology-enabled business plan for the course EC and I and students' perceptions in technical competence, data were gathered from students who enrolled in the course, EC and I in their bachelor or diploma degree irrespective of their major, accounting, or non-accounting at various universities or colleges in Oman. The data were obtained through questionnaires and assessment rubrics, respectively. Mean comparison analyses were conducted to examine any disagreements in the adoption of technology-enabled business plan among students for their course, EC and I.

Keywords: Entrepreneurship, Creativity, Innovation, Technology, Business Plan, University, College, Higher Educational Institutions.

1 Introduction

Creativity is an idea that should require an action-oriented follow-up that can be described in a business plan. Innovativeness is a unique new process, method, or object which can be used as am an entrepreneurial tool to creates value for an organization. Entrepreneurship always has innovation and business plans consider entrepreneurs as a blueprint for critical decisions. In university courses on entrepreneurship, theoretical content sometimes takes precedence over practical components [1]. Entrepreneurship education is believed as an essential means to impact the competitiveness of any nation

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[2]. Nowadays, entrepreneurship plays a critical role in both the establishment of jobs and the advancement of national economic growth [3]. Entrepreneurship can stimulate economic development, decrease poverty, encourage innovation, and improves social sustainability [4]. Technology-enabled learning enhances the teaching and learning entrepreneurship courses. An IT-enabled business plan helps students to predict their innovative business plan projection with ease by clicking numbers. [5]; [6]; [7]. A student's chances of getting funding or support increase with the strength of their interpersonal skills and the appealing nature of their business or financial plan [8].

A typical business plan should include marketing plans, feasibility plans, strategic plans, operational plans, financial plans, and internal plans [9]. Among them, the complex section of the business plan is the estimation of the financial plan such as projected income, balance sheet, and cash flow statements [10]. The calculation and prediction of revenue at different levels of sales or revenue might require a technology-supported business plan. The expenses (both revenue and capital expenditure), requires to be recorded in the projected income statements need to follow applicable accounting standards and basic accounting concepts. The statement of cash flows also needs to follow international financial reporting standards to know exact cash flow from operating activities, cash flow from investing activities, and cash flow from financing activities [6]. Entrepreneurship Creativity and Innovation (EC and I) is the course that is obligatory for all the bachelor and diploma students in Oman irrespective of their major. It is required to know the basic knowledge in IT skills and basic accounting concepts to prepare a well-thought-out business plan. The student whose major is non-accounting or non-business administration may face challenges in preparing the important sections of the business plan, financial projections. There is a clear lack of empirical attention in practical knowledge in preparing a complete business plan among growing entrepreneurial students across higher educational institutions, universities, or colleges. There is unique software for preparing a business plan for the compulsory course EC and I. It will be easy to prepare a business plan using software than MS Excel [11] which will accomplish the objective of the course. However, [12] observed that students are satisfied with R write programs instead of Excel. To report those deficits, the purpose of this topic is to investigate how the entrepreneurial students in the university or college can be helpful in the technology-enabled business plan for preparing a well-thought-out business plan for their compulsory course, EC and I. Further, this study also aims to examine entrepreneurial students' basic skills in technology.

1.1 Entrepreneurship Creativity and Innovation

The course, entrepreneurship creativity, and innovation aim to provide basic knowledge and skills to undergraduate students across Oman. At Present, striving towards creativity and innovation has developed key importance for different cultures all over the globe. This course facilitates every graduate student to perceives their creative skills, innovativeness, and talents to accomplish through new entrepreneurship startups. Innovative solutions reduce tough problems, build new prospects, resolve conflicts, in every individual's activity such as in the field of business, health, technology, education, society, and sustainable economic development of the country. Creativity, on another side also an important key aspect of the innovative process [13], and without creativity innovation is almost impossible. Hence, EC and I facilitate young graduating students to motivates to start new entrepreneurship startups.

1.2 Technology Enabled Business Plan

A technology-enabled business plan is a customized business plan software that facilitates entrepreneurial students to automate their business plans by using computer technology. This customized software exists to assist entrepreneurial students to complete their business plan including financial plan with limited data entry. By using a technology-enabled business plan, the input data will be automatically convert into reliable and fair financial output which can be further used by banks, investors, owners, accountants, incubators, and other stakeholders to take a corrective decision.

2 Main Focus of the Chapter

2.1 Issues, Controversies, Problems

Students as young entrepreneurs who have registered the course entrepreneurship creativity and innovation might have creative, thoughtful, challenging, unrivaled, and innovative business ideas but they may fail to execute those innovative ideas into reality. They may also fail to articulate their innovative ideas in any intercollege or intra college business competition. Faculties who teach entrepreneurship course should include practical aspects which combine different teaching methods to deliver the course with a broad range of necessary skills and an informed knowledge in the entrepreneurial process [14]; [15]. A well-prepared business plan that directs entrepreneurship operations mandated to any potential business startups must be considered regularly to assess the progress. The initial business plan might be required to be modified as time progresses. Most of the entrepreneurs don't have adequate expertise in the business plan [16]. Now in Oman, the course, EC and I have been made compulsory for all the students who are diploma or bachelor irrespective of their major, accounting / non-accounting [6]. Emerging countries are making entrepreneurship a compulsory course for all the major students [17]; [18]. However, [19] claimed that entrepreneurial startups are crucial for advancing the country's economic development and encouraging creativity among entrepreneurs. A typical business plan includes name & address of the business, executive summary, mission statement, business strategy, innovativeness of the business, product description, market analysis, human resource (HR) plan, SWOT (strengths, weaknesses, opportunities, and threats), operational plan and financial plan, which is depicted in Figure 1, the content of the business plan:

Fig. 1. Content of business plan.

A business plan includes a cover page, executive summary, business goals and objectives, project description, the industry, the company, and its products, market research and analysis, marketing plan, operating plan, management team, and the financial plan [20]. The business plan has considered as a tool where the important elements of the proposed business venture were explained in a transparent and consistent style. The components of the business plan primarily include parts related to the business' structure, market, and finances [21]. A well-thought-out business plan should be given cautious attention to each content. A convincing business plan needs to accept the proposed business idea. Preparing a business plan requires multi-disciplinary skills such as marketing, research, accounting, and finance.

The initial part of the business plan requires more theoretical knowledge in business strategy, innovativeness of the business, product description, market analysis, and HR plan including marketing research skills. The lecturing of business English writing was out of style in the reality of venture endeavors and the undergraduates also lack the real experience of practical operations of business activities. There had no opportunity to discover proposed business knowledge to gather information via market surveys. This will result in the entrepreneurial students' confidence in drafting more complex business documents, for instance, business contracts and business plans [22].

The later part of the business plan deals with the financial plan which is considered crucial for financial decisions by stakeholders, such as owners, investors, banks, and accountants [6]. A financial plan includes detailed calculation of projected income statement, statement of financial position, cash flow statement, breakeven analysis, ratio analysis, and payback period. Apart from those, financial plan sections include details of the previous year budget, actuals of the previous year, budgeted profit and loss account, product sales budget for the year, increase or decrease in stock (inventory), the cash budget for the year, the capital budget for the year, budgeted cost sheet product-wise, details of sales value, sales quantity, cost of production, operation cost, selling & distribution cost, the total cost per month product-wise, depreciation calculation (straight-line method or reducing balance method) as per IFRS, cash flow statements (direct method or indirect method) as per IFRS Hence, the students require accounting practical skills, basic accounting concepts, and knowledge of applicable International Financial Reporting Standards (IFRS). Though, the course, EC and I, made compulsory to all the bachelor/diploma students irrespective of their major, may lack in those required accounting practical skills. The key problem found in the entrepreneurial students' survey was the absence of proficiency in the practical aspects which has one of the essential elements to create their proposed venture [23]. New business startups failure may be affected by several issues. One of the main reasons was the lack of knowledge in preparing feasibility analysis. Though, the wrong estimation in the feasibility analysis might also adversely affect the longer-term sustainability of any business startup. New entrepreneurial business startup survival will be dependent on accurate and fair feasibility analysis and business simulation planning which are heading to the business plan [24].

While preparing the business plan, especially the financial plan, the students may require to know the profitability of the proposed business by applying different levels of sales revenue. They may also need to predict net cash flows at different levels of investing or financing activities. Preparations of those projected income statements, statement of financial position, and statement of cash flow necessitates automation by using a technology-enabled business plan. Therefore, the students also require basic ICT skills.

As per the limited knowledge of the author, there is no unique software available to the students to prepare a business plan for the course, EC and I among universities, colleges, or any other higher educational institutions in Oman.

3 Solutions and Recommendations

The initial part of the business plan such as knowledge in business strategy, innovativeness of the business, product description, market analysis, and HR plan including marketing research skills are easy to learn by the students. [25] were found that there had a positive relationship among respondents and the perceived importance of marketing research skills for entrepreneurship programs in the colleges in various courses. However, financial plan sections such as details of previous year budget, actuals of the previous year, budgeted profit and loss account, product sales budget for the year, increase or decrease in stock (inventory), the cash budget for the year, the capital budget for the year, budgeted cost sheet product-wise, details of sales value, sales quantity, cost of production, operation cost, selling & distribution cost, total cost per month product-wise, depreciation calculation (straight-line method or reducing balance method) as per IFRS, and cash flow statements (direct method or indirect method) as per IFRS, requires adequate practical accounting skills. Hence it is required to have unique software to draft a well thought out business plan for the course entrepreneurship creativity and innovation. Digital enterprises were described by the elevated intensity of application of information technologies to enhance business processes, build innovative products, practices, and corporate models and connect with stakeholders [26]; [27].

Initially, the students must possess basic knowledge in technology such as Microsoft Word and Excel. To know the basic level of ICT skills, the author has collected data from 174 graduating students across universities or colleges in Oman during the year 2020.

The survey respondents consisted of male students of 15.55% and female of 84.55%. 94.25% of students were in the age between 17 to 25 and the remaining 4.75% were having the age above 25. 83.91% of students were registered as bachelor's degree and the remaining 16.09% were registered under diploma degree. 54.59% of students were accounting majors and the remaining 45.41% of students were non-accounting majors. As per the survey, the basic skills in ICT represents 28.16%, intermediary skills in ICT have 53.44% and advanced level of skill in ICT have 18.40%, which has shown in Figure 2 below and the demographic information has been summarized under Table 1 below.

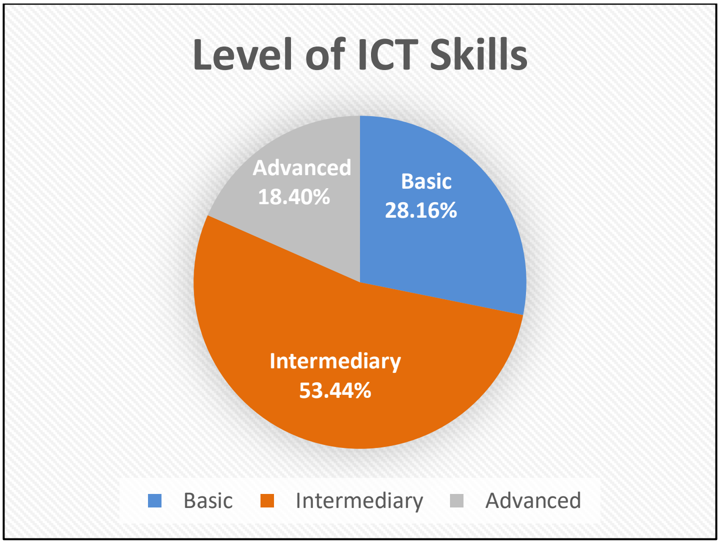

Fig. 2. Content of business plan.

Table 1. Demographic Information of survey respondents (N = 174).

Variables		Frequency	Percentage (%)
Gender			
	Male	28	15.55
	Female	146	84.45
Age			
	17-25	164	94.25
	Above 25	10	4.75
	Degree		
	Bachelor	146	83.91
	Diploma	28	16.09
Major			
	Accounting	95	54.59
	Non-accounting	79	45.41
Level of ICT Skills			
	Basic	49	28.16
	Intermediary	93	53.44
	Advanced	32	18.40

Technology-enabled business plan for the course EC and I require only basic ICT skills. That basic ICT skill has been sufficiently existing among the students who are registered for the course EC and I. Hence, a technology-enabled business plan provides practical solutions among accounting and non-accounting entrepreneurial students for their compulsory course, EC and I.

The technology-enabled business plan facilitates and provides basic contents of business to fill, name & address of the proposed business, executive summary, mission statement, business strategy, innovative features of the business, product description, market analysis, HR plan, SWOT analysis, and operational plan. More interestingly, technology-enabled business plan facilitates the students to automate reports on the financial plan such as reports on the projected income statement, statement of financial position, cash flow statement, breakeven analysis, ratio analysis, and payback period, details of previous year budget, actuals of the previous year, budgeted profit and loss, product sales budget, increase or decrease in stock (inventory), cash budget, capital budget, budgeted cost sheet product-wise, details of sales value, sales quantity, cost of production, operation cost, selling & distribution cost, the total cost per month product-wise, depreciation calculation (straight-line method or reducing balance method) as per IFRS, cash flow statements (direct method or indirect method) as per IFRS.

4 Conclusion

Technology-enabled business plan for the course, entrepreneurship creativity, and innovation limit students to enter only minimum information for their business plan. All the financial plan section of the business plan requires basic data entry to automate financial projections. The financial section facilitates students by entering required numbers or by clicking predefined icons in the technology-enabled business plan. It ensures fair projected financial statements for their innovative business ideas. The development of the unique technology-enabled business plan might be helpful for Higher Educational Institutions in the emerging country to revitalize University curricula by incorporating a technology-enabled business plan for the course, EC and I. This will ensure easy preparations of business plan for their innovative business idea by any students irrespective of their major, accounting or non-accounting. It is evident that the students who registered for the course, EC and I, possess adequate basic skills in ICT. The technology-enabled business plan can be beneficial to manage EC and I course more efficiently. Thus, it is suggested that a technology-enabled business plan is an excellent contribution to enhance the compulsory course, EC and I, irrespective of students major.

5 Future Research Directions

The results of the study have some implications for academicians, software developers, and potential researchers. The first implication is for universities, colleges, and other higher educational institutions may improve their entrepreneurial education practices by adopting technology-enabled business plans to compete globally. The authors might continue this study by considering the initial data collected from the students in building a customized business plan software among higher educational institutions in Oman to automate the entire business plan for the course, EC and I. This can be done after comparing similar available general business plan software in the developed countries or the software offered by the software developers throughout higher education institutions in Oman.

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