

BOTTOM-UP FRAMEWORK FOR EXPERIENTIAL & PROJECT-BASED 4-YEAR BS ENTREPRENEURSHIP PROGRAM: AN INTRAPRENEURIAL CONCEPTUALIZATION AT INSTITUTE OF BUSINESS MANAGEMENT (IOBM)

Noman Mahmood, Entrepreneurship Department, Institute of Business Management, Pakistan

Rizwan Elahi, Supply Chain Department, Institute of Business Management, Pakistan

Bazla Mukhtar, Entrepreneurship Department, Institute of Business Management, Pakistan

Marium Mateen Khan, Entrepreneurship Department, Institute of Business Management, Pakistan

Dr. Omar Javaid, Entrepreneurship Department, Institute of Business Management, Pakistan

Dr. Irfan Hyder, Institute of Business Management, Pakistan

ABSTRACT

***Purpose:** Framework of experiential project-based 4-Year BS Entrepreneurship Program is provided to cover the educational, value creation and strategic management gaps that has been caused due to lack of several parameters, such as the balance between passive & active teaching methodology, theoretical & applied knowledge, commercial & academic interests of students, conventional & unconventional business knowledge and specialized & generalized domains in programs.*

***Design:** A matrix approach has been used to design the framework for experiential project-based entrepreneurship program structure to simultaneously fill the gaps identified in various entrepreneurship education literature and entrepreneurship practice to cater on-going requirements of learning and surviving in real world.*

***Conceptual Findings:** Through rigorous restructuring of educational program nature, it is understood that educational programs can be made flexible and productive through simultaneous conceptual working by using matrix approach with an incorporation of experiential project-based learning. Such an integration gave 8 thematic entrepreneurial processes to contextualize 8 semesters within 4 years of educational program that can work in combination with 5 business domains consisting of 40 conceptual courses with applied characteristics, while having 1 full-fledged project-based section having complete 8 hands-on overarching experiential courses to work as foundation for each thematic semester and each course per semester.*

***Practical Implications:** This program can serve as the academia-industry linkage that has been concern of debate since ages, due to its simultaneous nature of combinatorial working and its tendency for in-program venture creation, management, development and several other*

business skills and acumen, rather than waiting for graduation and typically waiting for employment for the skills to be known or used. It provides both academicians and practitioners to see results with immediate effects and improve upon the course of action, which may minimize isolation that both academicians and practitioners feel due to lack of conceptual commonality and working between both forms of intelligentsia. Students will be able to see their brainchild grow within their years of continuous learning into a healthy entity that may provide them lifetime living, earning or survival skills to thrive in competitive world. It provides dynamic personality development ranging from venture creation traits to intrapreneurial traits of industry.

Keywords: Entrepreneurship Program, Intrapreneurship, Program Structure, Ideation, Networking, Experimentation, Execution, Break Even, Growth, Investment, Global, Experiential Learning, Project-Based Learning.

INTRODUCTION

The research focuses over the various dimensions required for a successful entrepreneurship program and highlights the overall approach of a Four-Year BS Entrepreneurship Program introduced at Institute of Business Management (IoBM)¹.

The paper contributes towards giving a grid representing a balance amongst various dimensions required for a successful entrepreneurship program, based upon these dimensions a program skeleton was created and subsequently program structure was finalized having a blend of dimensions.

Over the past few decades, at forums an increasing demand has been observed for an integrated entrepreneurship program that is distinct from conventional academic programs. The academic program that has been depicted in this paper has tried to fill the gap between conventional academic practices and required dimensions for a successful entrepreneurship program (Siegel & Wright, 2015; Dutta et al., 2011; Wong, 2005).

Dawn of digitalization from the early 1990s resulted in a change in the conventional business environment, this change gave a life to the startup culture, highlighting the entrepreneurial spirit as an important factor for the era. The increase in self-employed IT based startups has made self-employment appear more accessible to the increasing number of people around the globe. This ensued the growth of entrepreneurship programs that were introduced in early 1990s. An increasing pressure was built upon undergraduate and graduate level courses to build entrepreneurial programs. Moreover, the generation of the digital era was more interested towards learning about aspects of business start-ups. Therefore, both the factors i.e. environmental and demand driven influenced universities towards the development of entrepreneurship education.

WHY ENTREPRENEURSHIP EDUCATION?

The public sector is not the only sector that contributes towards the creation of more and better jobs in developed countries. In addition to it, the private sector seems to have a major role in solving the problem of unemployment. However, according to recent studies, the oldest and

¹BS Entrepreneurship Program official link: <https://www.iobm.edu.pk/course/bs-entrepreneurship/>

largest private companies seem unable to provide new opportunities to combat unemployment. This poses a question: which type of companies can provide employment to those individuals seeking it? (Harper et al., 2015) Lately, it seems that only companies which use advanced technology and companies having interorganizational entrepreneurial strategies can provide jobs to those seeking employment (Barringer & Harrison, 2000). Currently, the mission of the university as an institution has changed from creating employment seekers to employment providers. Education of entrepreneurship is one of the important areas of study in universities all around the world due to the transitional demand from developing employment seekers to employment creator (Timmons, 1978). Developments in information and technology are reaching their peak, creating new challenges and problems for universities. Additionally, universities have to change their teaching models and methods to achieve contemporary levels. It is possible for universities to revise their missions and visions. These missions should include objectives of education and a suitable strategy that considers the private sector and its expectations from universities. Collaboration with industry and other related sectors can support universities, and encourage them to add courses like “*Entrepreneurship*” to their curriculum as a strategic measure (Başçı & Alkan, 2015a; 2015b; Freeman, 1983; Sveiby, 1997).

GAPS AND PROBLEMS

According to Baumol (1993), entrepreneurship has been a significant aspect in economic activities throughout the globe and in this regard, universities have contributed significantly in promoting market research, development and educating entrepreneurship to students. However, there are multi-layer problems that still persist in entrepreneurship education, such as:

- The lack of balance between passive and active teaching methodology. In passive methodology, students are blank and faculties are able to equip them with theoretical knowledge through seminars and lectures, which makes the students only focus towards theoretical aspects of business (Wright et al., 1994). On the other hand, active method focuses only upon practicality without systematic approach, leading to random outputs (Abereijo, 2014).
- The current structure and content of academic programs institutions such as MBA, MSc, MCOM are focused towards specialization rather than generalization that indirectly leads students in becoming specialized towards task specific job-oriented individuals, rather than a generalist that entrepreneurial administration requires. Thus, most graduate schools end up creating more administrators than entrepreneurs (Chusimir & Leonard, 1988).
- The lack of balance between commercial and academic interests as students are required to have balanced academic and entrepreneurial careers as there is a financial burden on entrepreneur’s education and have to balance their academic careers as well (Nicolaou & Birley, 2003).
- The unidimensionality and typicality of entrepreneurship programs or certifications that do not incorporate the balance between conventional and unconventional business knowledge and practices, since their underlying structure are based on conventional style of learning (Dutta et al., 2011; Bontis et al., 1999; Wong, 2005).

As mentioned, these multi-layered problems holistically lie under the academic structure of universities that are unable to achieve the balance through careful and holistic solution incorporation addressing different parameters, stakeholders and their concerns (Freeman, 1983; Venkatraman, & Camillus, 1984). The overall problem of it is that multilayer holistic problems are being addressed with specific and stiff solutions rather than holistic solutions.

Theories suggest that entrepreneurs are required to be generalist rather than being specialist, because specialist people end up working for others. It should also be noted that most of the individuals are not pre equipped with the skills required to do the business however, these skills can be instilled in them. Thus, there must be a difference in human capital investment patterns for entrepreneurs and specialist employees. An entrepreneur is required to be a jack of all trades and single skill expertise is not required for entrepreneurs. Therefore, entrepreneurs are required to be multi skilled and to be good in those multiple skills (Lazear, 2004; Marr, Gray & Neely, 2003; Brooking, 1996; Guthrie, 2001; Mouritsen et al., 2000; Roos, Edvinsson, & Dragonetti, 1997).

Unfortunately, if we look at the current structure of institutions, the programs (such as MBA, MSc, MCom) offered by these institutions are more focused towards specialization and lack in instilling a variety of skills required to be an entrepreneur This is the reason why business universities are creating more employees than startups. We believe that a more balanced program should be offered to students that strives towards creating a balance between variety of skills required to be an entrepreneur. After analyzing both the methodologies one can determine that both the methodologies are on extremes one is completely theoretical and managerial while the other is mostly practical (Kohli, & Jaworski, 1990). Therefore, we believe that a more balanced methodology for teaching entrepreneurship is required to encompass various (Lazear, 2004; Marr, Gray & Neely, 2003; Brooking, 1996; Guthrie, 2001; Mouritsen et al., 2000; Roos, Edvinsson, & Dragonetti, 1997).

ENTREPRENEURIAL APPROACH TOWARDS ENTREPRENEURIAL PROGRAM

Entrepreneurial Approach towards Entrepreneurial Program

Shook (2003) suggests that the venture creation process is defined by the following sequence of steps: (i) expression of entrepreneurial intent, (ii) opportunity search and discovery, (iii) decision to exploit the opportunity by new venture creation, and (iv) opportunity exploitation activities (through managing the venture). If entrepreneurs are to be successful in creating and operating new ventures, they must not only develop an entrepreneurial intention but also be successful at discerning opportunities where others (i.e. non-entrepreneurs) fail to notice or ignore, and then exploit these opportunities in a timely and effective manner. This is where entrepreneurship education plays a critical role in orienting and developing future entrepreneurs, by providing them with the requisite mix of knowledge, skills and aptitude to launch and operate new spin-out business ventures through universities (Lockett, & Wright, 2005; Dutta et al., 2011; Bontis et al., 1999; Rasmussen, & Borch, 2010; Shane, 2004; Wright, 2007; Wong, 2005).

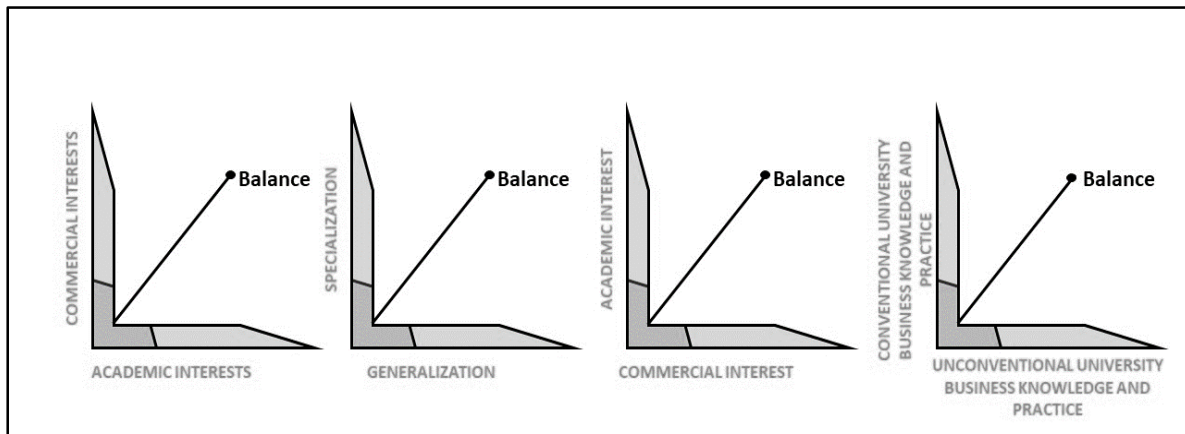


FIGURE 1
DEPICTING A NEED OF BALANCE BETWEEN VARIOUS DIMENSIONS

The Figure 1 illustrates a brief view of multiple dimensions and their extremes to be considered while developing an Entrepreneurship program.

Well Balanced Relationship between Teaching Methodologies

A study by Mwasalwiba (2010) highlighted 26 teaching methods from 21 articles, after detailed analysis these methods were summarized in 13 most important methods. After an in-depth observation it has been identified that most of the authors have bifurcated these methodologies in two groups, these can be regarded as “*traditional methods*” (includes contemporary lectures) and “*innovative methods*” (based on actions) (Li, 2011).

Compared with passive methods, active methods according to Bennett (2006) are those that require the instructor to facilitate learning, not to control and apply methods that enable students' self-discovery. The three most used methods are: lectures, case studies, group discussions. These are actually the same methods used in other business-related courses, which according to Bennett (2006) are passive and less effective in influencing entrepreneurial attributes. Fiet (2001a; 2001b) explains that instructors rely on lecture-based methods because they can be easily accomplished, and also because they require less investment. Other methods used, but not as common as the previous group, include: business/computer or game emulations, video and filming, role models or guest speakers, business plan creation, project works. Also used were games and competitions, setting of real small business ventures, workshops, presentations and study visits. This latter category of methods is termed “*active*” and is said to be more appropriate for nurturing entrepreneurial attributes among participants (Carland et al. 1984; Mwasalwiba, 2010; Gulbro, 2000; Scuotto, & Morellato, 2013).

The importance of active learning methods cannot be ignored and there is still a need to identify such strategies that ensure entrepreneurship programs to be more engaging, however it is also important to know the basic essence of entrepreneurship. Therefore, a successful entrepreneurship program must ensure a balance between different methodologies (Fayolle, 2018; Mirani, & Yusof, 2016).

Well Balanced Relationship between Specialization and Generalization

As per the findings of Lazear (2004) in contrast to salaried workers an entrepreneur is required to have a balance between strategies. It was identified that the degree of specialization was much lesser in people who become entrepreneurs, these results are in accordance with the presumption that the people who tend to be entrepreneurs are equipped with more general investment profile. After an in-depth observation it was hypothesized that entrepreneurs are not required to be excellent in one skill rather they are required to be journalist perusing a wide verity of skill set (Lazear, 2004; Marr, Gray & Neely, 2003; Brooking, 1996; Guthrie, 2001; Mouritsen et al., 2000; Roos, Edvinsson, & Dragonetti, 1997).

Well Balanced Relationship between Commercial and Academic Interests

Sanjay et al., (2009) identified the implications of adopting a more commercially focused identity by academicians. It was highlighted that modification in the experimenter's role has also been taken place because of their engagement with commercialization. Individuals need to adapt hybrid identities and roles in order to create balance between academic self and commercial personality (Jaina et al., 2009). By looking at the different roles required to be an entrepreneur it is an important aspect to balance up commercial and academic interests (Mirani, & Yusof, 2016).

Well Balanced Relationship between Conventional and Unconventional University Business Knowledge and Practices

As a general conception it is believed that traditional methods are not much effective in order to encourage entrepreneurial abilities. On contrary conventional practices often end up preparing a student to do a job for an entrepreneur (Arasti et al., 2012). Kirby (2004a & 2004b) highlights that most of educators end up to teach about the entrepreneurship. In contrast best way to learn entrepreneurship is through some sort of apprenticeship. It should be noted that traditional methods are also required to develop a commercial foundation of their entrepreneurial actions. But the experience to question, investigate, discuss and converse can only be gained through practical experiences. Such practices not only equip students with right set of knowledge and skills but also stimulates attitudes required for being an entrepreneur. However, if we look over the practical world most of the active teaching methods are considered as costly and thus don't align with the conventional environment of universities (Carland et al. 1984; Mwasalwiba, 2010; Gulbro, 2000; Scuotto, & Morellato, 2013). Therefore, it is suggested that balance between conventional and modern teaching practices is required for to run a successful entrepreneurship program.

A progression towards an entrepreneurial university is context-dependent and might not fit for evert university. As the structure of universities vary. Therefore, a standard "*one size fits all*" approach might not be applicable. Thus, every university is required to identify such an entrepreneurial path that aligns with existing capabilities of the university and it also fit with its unique characteristics and operating context (Philpott et al., 2011; Rasmussen, & Borch, 2010; Shane, 2004; Wright, 2007). Hence, in order to for an entrepreneurial program to be successful a balance between conventional and unconventional practices is needed.

FRAMEWORK FOR DEVELOPING A WELL-BALANCED ENTREPRENEURSHIP PROGRAM

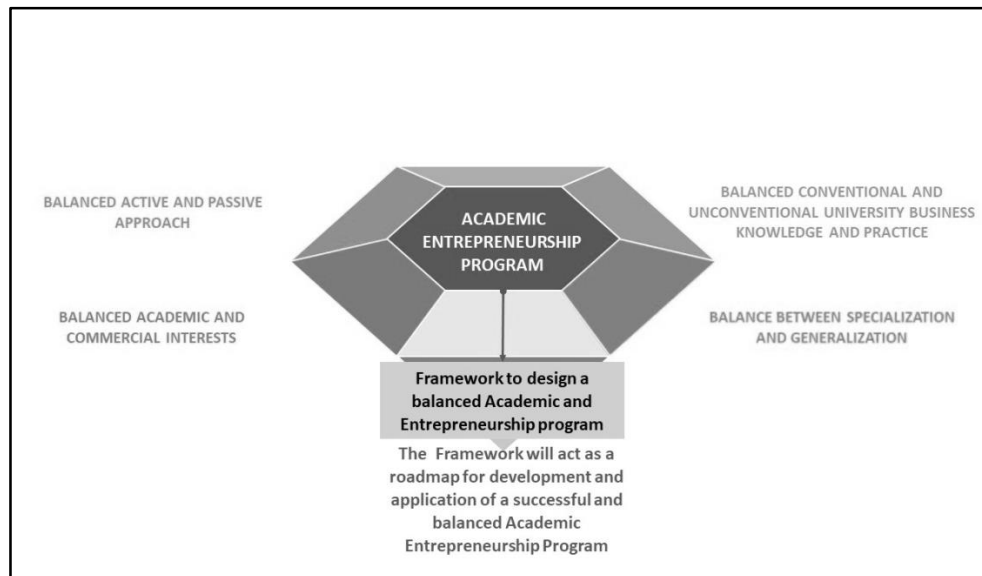


FIGURE 2
PROPOSED FRAMEWORK TO ALIGN AND ENTREPRENEURSHIP PROGRAM

The Figure 2 is based upon the theoretical grounding developed by extensive literature analysis and review. The above proposed conceptual framework can act as a tool to design a well-balanced and effective Entrepreneurship Program that does not only ensures coverage all the dimensions but also acknowledges a balance amongst various extremes.

DESIGNING OF THE BASIC FOUNDATIONS FOR THE PROPOSED ENTREPRENEURSHIP PROGRAM AT INSTITUTE OF BUSINESS MANAGEMENT (IOBM)

Entrepreneurship Education in Pakistan

As the universities play an important role in the development of any country, therefore, in order to achieve such objectives universities strives for technological transfers and entrepreneurship. Similarly, Pakistani universities are also striving to be commercially viable along with the academics.

Mirani & Yusof (2016) evaluated 6 different Pakistani engineering universities in different type of entrepreneurship activities and examined five main categories:

- Training and consultancy
- Formation of companies by university
- Formation of companies by academics
- Collaboration with industry
- Basic research and teaching

It was highlighted even though Pakistani universities are involved in entrepreneurial activities, However there is a bit of inconsistency that needs to be fixed as there is wide range of variance in practices by every university (Mirani & Yusof, 2016).

About Institute of Business Management

Institute of Business Management (IoBM) also known as CBM was established as a not for profit organization in 1994 and was registered in accordance with the Societies Registration Act of 1860. Subsequent to the approval of bill by the Sindh Assembly in 1998 IoBM received the status of a private sector university.

At present, the Institute has four constituent colleges, the College of Business Management (CBM), the College of Computer Science & Information Systems (CCSIS), the College of Economics & Social Development (CESD) and the College of Engineering and Sciences (CES). Since 2006, IoBM has regularly been ranked as one of the best private sector universities by the Higher Education Commission of the Federal Government and the Sindh Provincial Government.

IoBM has also been recognized and honoured as a prestigious university by international institutions and have received awards such as EDUNIVERSAL Palms given for meritorious evaluation and certification of educational institutions around the world. IoBM is also associated with International Association of Universities (IAU), Association to Advance Collegiate Schools of Business (AACSB) and other international and national organizations (IoBM, 2018).

Introduction of an Entrepreneurship Program at Institute of Business Management

In 2017 Entrepreneurship department at IoBM decided that a semiformal and structured entrepreneurship program was required that should incorporate a proper balance amongst different dimensions. Based on this realization academic management of CBM and Entrepreneurship department introduced a BS Entrepreneurship Program in 2017.

In order to operationalize and execute a balanced program. The multilayer balanced methodology framework proposed in Figure 2 was super imposed at IoBM. This conceptual framework was applied to ensure development of such a program structure that is consistent and balanced in accordance with the multiple dimensions required for a successful entrepreneurship program.

It initial stages it was a challenge to apply the proposed conceptual framework and was a daunting task to develop such a multi-dimensional program structure, as we had to consider multiple parameters at hand such as regulatory requirements for Higher Education Institutions and conventional university practices.

Following were the major considerations while designing of the program structure:

- A minimum 4 year Bachelors program had to be introduced as per the requirement of Higher Education Commission of Pakistan (HEC)
- As per the requirement of HEC a 4 year Bachelors program must have 144 credit hours comprising 3 credit hours per course. This accounted for 48 courses in total
- These 48 courses had to be divided in 8 semesters, therefore student had to opt 2 semesters per year

ESTABLISHMENT OF A PROGRAM SKELETON TO ENSURE PROPER DESIGNING AND PLANNING

In order design the structure of program following parameters were considered:

- Courses
- Projects
- Semesters
- Domains

		General Traditional Business Domains (X) based on Academic Interest						
		0	0	0	0	0		
Specialized Entrepreneurial Process (Y) divided into 8 semesters	A	1	2	3	4	5	6	Active & Non Conventional Semester wise Projects (Y1) based on Commercial Interests
	B	7	8	9	10	11	12	
	C	13	14	15	16	17	18	
	D	19	20	21	22	23	24	
	E	25	26	27	28	29	30	
	F	31	32	33	34	35	36	
	G	37	38	39	40	41	42	
	H	43	44	45	46	47	48	
		Passive Modified Courses (X1)						

To plan and design the project structure the main issue was to create a balance between multiple teaching methodologies practices and domains, in order to avoid problems related to the design of entrepreneurship program from managerial perspective (Nielsen, 2014; Obasan, 2014; Seikkula-Leino, 2011; Kohli, & Jaworski, 1990). Therefore, Table 1 was developed as a skeleton of the program. The core purpose of developing this program skeleton was to enable proper designing of courses and semesters in order to ensure a balance between multiple dimensions. Based on the program skeleton later program structure was designed.

The following skeleton divides the program in four different sections:

- (Y) represents 8 semesters. These semesters are based upon the entrepreneurial process that is (Ideation, Networking, Experimentation, Execution, Break Even, Growth, Investment and Global)
- (X) of the program skeleton comprises of 5 Business Domains in which courses are divided. These domains represent the conventional business practices and are focused towards academic interests
- (X1) incorporates 40 courses equivalent to 120 credit hours. These courses are designed in order to ensure passive learning aspects
- (Y1) consists of 8 Projects one at each end of every semester. These 8 projects are equivalent to 24 credit hours. The projects are focused towards active learning and encourages non-conventional learning practices

Table 2
MATRIX BASED PROGRAM SKELETON (REPRESENTATION OF THE MAJOR DOMAINS AND SEMESTERS)

		General Traditional Business Domains (X) based on Academic Interest						
		Marketing & strategy	Valuation and finance	Leadership & management	Society and economy	Design and technology		
Specialized Entrepreneurial Process (Y) divided into 8 semesters	A Ideation	1	2	3	4	5	6	Active & Non Conventional Semester wise Projects (Y1) based on Commercial Interests
	B Networking	7	8	9	10	11	12	
	C Experimentation	12	13	14	15	16	18	
	D Execution	17	18	19	20	21	24	
	E Breakeven	21	22	23	24	25	30	
	F Growth	26	27	28	29	30	36	
	G Investment	31	32	33	34	35	42	
	H Global	37	38	39	40	41	48	
Passive Modified Courses (X1)								

The Table 2 represents the partial completion of the program structure through incorporation of Semesters and domains in which the courses have been planned to be divided:

The 48 courses were primarily constructed with the idea that the first four semesters would be centered mainly on internal entrepreneurship and the last four would be centered on external entrepreneurship. The main component of entrepreneurial education can be classified as self-oriented entrepreneurship, internal entrepreneurship, and external entrepreneurship. Internal Entrepreneurship largely relies on entrepreneurial and enterprise behavior (Seikkula-Leino, 2011; Kyrö 1997; Kyrö, & Ripatti, 2006). External Entrepreneurship however deals with innovation and the actual conduct of business (Kyrö, & Ripatti, 2006). Designating the divisions of semesters on the basis of these components of entrepreneurial education allows for a structured approach that allows to cover wider curricula. The semesters were then further bisected on the basis of design and innovation techniques mainly stemming from ideation, networking and tools for launching which can be attributed as the initial concepts of business or the innovation techniques stemming from execution and experimentation which are relative concepts of immediate action for business (Jelinek, 1979; Hansen, Sondergard, & Meredith, 2002; Ferreira, & Otley, 2009). Nambisan (2009); Nambisan, & Baron (2013) attributed execution and experimentation as two of the three platforms for a mixture of conventional and social innovation (Hudson et al., 1999; Pistrui, & Fahed-Sreih, 2010). It was then analyzed that the tools for launching a business is an inherently similar concept to execution and experimentation, therefore the four semesters were conceptualized to Ideation, Networking, Experimentation and Execution. The remaining 8 courses were then designed on the basis of conventional entrepreneurship stages. These latter semesters were cantered on the conventional stages for launching a business. The life cycle for launching a business can thus consist of preparation and planning, launching through breakeven, then achieving and maintaining profitability and the growth stage e, reinvention and decline (McEneny, & Strutton, 2015). However, after an analysis it was observed that there was an overlaps in the conceptual differentiation of each element and the stage, the content was therefore divided on customized stages as per our requirements and the 8 stages for the entrepreneurial process of the program

were designed (Table 3). The 8 semesters were since based on the 8 stages of an entrepreneurial process had eight course each from the five designated domain as shown in the grid:

Semesters (y)	Domains (X)					Projects (Y1)
	Marketing & strategy	Valuation and finance	Leadership & management	Society and economy	Design and technology	
	Courses (x1)					
A	Ideation					
B	Networking					
C	Experimentation					
D	Execution					
E	Breakeven					
F	Growth					
G	Investment					
H	Global					

In order to apply a multilayer balance along with HEC requirements and parameters the program skeleton was amalgamated and restructured into a more simplified version for better understanding.

- As discussed before there were 8 semesters therefore the semesters were based on the entrepreneurial process
- The 144 credit hours were divided in courses and projects, this bifurcation ensured a balance between active and passive methodologies and acted as to balance between conventional and non-conventional university practices.
 - The courses have father been divided between multiple domains such as:
 - Marketing & strategy
 - Valuation & finance
 - Leadership & management
 - Society & economy
 - Design & technology

This division ensured application of balance between specialization and generalization.

PROGRAM STRUCTURE AND FEATURES

Experiential Learning: Learning by doing via PBL; Project based learning and Problem Based Learning. Eight thematic projects on real life entrepreneurial process. Projects are exploratory and descriptive during the earlier part of the program and prescriptive and implementation oriented during the later semesters.

Course Design: Courses designed around PBL sub-projects with deliverables requiring application, analysis/evaluation and creation levels of Bloom's Taxonomy to complete entrepreneurial process.

Pedagogy: Faculty members are project supervisors, facilitators, mentors rather than lecturers.

Field Work: The program consists of extensive research based field work, visits, surveys and experiential projects.

Design of the Program: It requires completion of 144 credit hours of course work in a total of 8 semesters or 4 years. Student's graduation with CGPA of 2.5 automatically qualifies for MBA program offered by CBM.

The program is based on a step wise transition of thematic semesters containing courses and projects that facilitate the entire entrepreneurial process. Each semester reflects a stepping milestone having embedded courses from various business domains that revolve around an underlying project (Table 4).

IDEATION-SEMESTER 1: Startup Garage I: Business Model and Business Research with supportive courses.

NETWORKING-SEMESTER 2: Startup Garage II: Affordable Design Project with supportive courses.

EXPERIMENTATION-SEMESTER 3: Startup Garage III: Test Phase Project with supportive courses.

EXECUTION-SEMESTER 4: Lean Launchpad I: Launch Phase Project with supportive courses.

BREAKEVEN-SEMESTER 5: Lean Launchpad II: Mitigation Phase Project with supportive courses.

GROWTH-SEMESTER 6: Lean Launchpad III: Expansion Phase Project with supportive courses.

INVESTMENT-SEMESTER 7: Capstone I: Pitch and Win Investors Project with supportive courses.

GLOBAL-SEMESTER 8: Capstone II: International Market Reach Project with supportive courses.

Table 4						
MATRIX APPROACH TO EXPERIENTIAL AND PROJECT BASED FINALIZED PROGRAM STRUCTURE						
Semesters (Y)	Domains (X)					Projects (Y1)
	Marketing & strategy	Valuation and finance	Leadership & management	Society and economy	Design and technology	
	Courses (X1)					
A Ideation	Idea Generation and Opportunity Recognition	Statistics and Mathematics	Systems, Disruptive and Exponential thinking	Islamic Conception of Business and Entrepreneurship	Human-Centered Design Thinking	Startup Garage I: Business Model and Business Research
B Networking	Guerrilla Strategies in Business	Business Communication: Survey of Investors	Psychology and Behavior of Entrepreneurs	History and Survey of Pakistani Entrepreneurship	Design Methods in Industry	Startup Garage II: Affordable Design
C Experimentation	Idea Prototyping and Market Alignment	Lean Accounting and Finance	Effectuation Method	Business Economics	Design Strategy	Startup Garage III: Test
D Execution	Marketing Management	Cost Accounting	Human Capital Management	Gig Economy and Strategy	Web development and Social Media Integration	Lean Launchpad I: Launch
E Breakeven	Thought Leadership and Customer Acquisition	Financial Management	Team Building and People Operations	Sustainable Family Business	Process Optimization	Lean Launch Pad II: Mitigation

F Growth	Advanced Competitive Strategies	Legal Business Structure	Supply Chain Management	Family Business Growth Strategies	Lean Analytics	Lean Launchpad III: Expansion
G Investment	Attracting Investors: Marketing Approach	Angel and Venture Capital: Growth Partnerships	Negotiation skills	Crowd Funding	Technology Investment	Capstone I: Pitch and Win Investors
H Global	Dynamic Entrepreneurial Strategy	International Valuation: International Auditing standards	Global Acceleration and Co-Creation	Foreign Language	Exponential Organizations	Capstone II: International Market Reach
THEMATIC SEMESTERS	CATEGORY WISE COURSES SUPPORTING EACH SEMESTER THEME OF THE ENTREPRENEURIAL PROCESS (Based on the conceptual framework proposed in Figure 2)					
*Course names evolve over time and may slightly different at the time of publication						

CONCLUSION

Therefore, it can be stated that our proposed framework successfully targets and provides an insight into the entrepreneurial course procedure of Institute of Business Management with the aim to present a layout that covers a 360 overview of all the dimensions that are necessary for an entrepreneurship program. As elaborated after a detailed understanding of entrepreneurship literature and current market requirements, framework for experiential project-based entrepreneurship education program was developed. This proposed framework can act as a tool to design a well-balanced and effective Entrepreneurship Program that does not only ensures coverage of all the dimensions but also acknowledges a balance amongst various extremes and deliver a comprehensive road map for societal and economic betterment.

The program conceptual skeleton, which was amalgamation of various gaps, provided the foundation for construction of 48 meaningful courses in the curriculum. Through rigorous restructuring of educational program nature, it was understood that educational programs can be made flexible and productive through simultaneous conceptual working by using matrix approach with an incorporation of experiential project-based learning. Such an integration gave 8 thematic entrepreneurial processes to contextualize 8 semesters within 4 years of educational program that can work in combination with 5 underlying business domains consisting of 40 conceptual courses with applied characteristics, while having 1 full-fledged project-based section having complete 8 hands-on semester wise overarching courses to work as foundation for each thematic semester and each course per thematic semester.

With all of the mentioned characteristics and its simultaneous working, this program can serve as the academia-industry linkage that has been concern of debate since ages, due to its simultaneous nature of combinatorial working and its tendency for in-program venture creation, management, development and several other business skills and acumen, rather than waiting for graduation and typically waiting for employment for the skills to be known or used. It provides opportunity for both academicians and practitioners to see results with immediate effects and improve upon the course of action, which may minimize isolation that both academicians and practitioners feel due to lack of conceptual commonality and working between both forms of intelligentsia. Students will be able to see their brainchild grow within their years of continuous learning into a healthy entity that may provide them lifetime living, earning or survival skills to thrive in competitive world. It provides dynamic personality development ranging from venture

creation traits to intrapreneurial traits of industry (Shook, Priem, & McGee, 2003; Timmons, Spinelli, & Tan, 2004).

This literature has provided extensive meaningful arrangement of the factors that contributed towards the designing of the curriculum, themes, domains and an entire Bachelors of Entrepreneurship Program at IoBM. However, this paper is limited to qualitative intrapreneurial understanding and conceptualization of entrepreneurship education program at IoBM and would require several years to evidence its growth and acceptance in various spheres. Albeit, this paper opens up future avenues for program development in the area of entrepreneurship education by providing the ground work for future research that can be inherently quantitative.

ABOUT THE CONTRIBUTORS OF THE DISCUSSED 4-YEAR BS ENTREPRENEURSHIP PROGRAM

Noman Mahmood

He is currently Senior Lecturer & Coordinator of BS Entrepreneurship Program at Institute of Business Management (IoBM). He designed and developed the entire BS Entrepreneurship program with matrix approach through incorporation of experiential and project-based learning for simultaneous working of conceptual and practical requirements of market-based knowledge and skills, as mentioned in the paper. He also materialized the program into a workable entity at Institute of Business Management (IoBM) that may pave way for the aspiring entrepreneurs, intrapreneurs, change agents and strategic business unit (SBU) managers.

Dr. Omar Javaid

He is currently Assistant Professor at Institute of Business Management (IoBM). He played a supportive role in the development of BS Entrepreneurship Program through his entrepreneurial facilitation experience.

Dr. Irfan Hyder

He is currently Rector at Institute of Business Management (IoBM). He played a mentoring role in the development of BS Entrepreneurship Program through his change management & educational leadership experience.

REFERENCES

- Abereijo, I.O. (2014). Developing Entrepreneurial Competences in University Lecturers: Obafemi Awolowo University Experience. *KCA Journal of Business Management*, 6(1), 30-42.
- Arasti, Z., Falavarjani, M.K., & Imanipour, N. (2012). A Study of Teaching Methods in Entrepreneurship Education for Graduate Students. *Higher Education Studies*, 2(1), 2-10.
- Barringer, B.R., & Harrison, J.S. (2000). Walking a Tightrope: Creating Value Through Interorganizational Relationships. *Journal of Management*, 26(3), 367-403.
- Başçı, E.S., & Alkan, R.M. (2015a). Entrepreneurship Education at Universities:. *Procedia - Social and Behavioral Sciences*, 195, 856-861.
- Başçı, E.S., & Alkan, R.M. (2015b). Entrepreneurship education at universities: suggestion for a model using financial support. *Procedia-Social and Behavioral Sciences*, 195, 856-861.
- Baumol, W. J. (1993). Formal entrepreneurship theory in economics: Existence and bounds. *Journal of Business Venturing*, 8(3), 197-210.

- Bennett, R. (2006). Business lecturers' perceptions of the nature of entrepreneurship. *International Journal of Entrepreneurial Behavior & Research*, 12(3), 65-188.
- Bontis, N., Nicola, D.C., Kristine, J., & Göran, R. (1999). The knowledge toolbox:: A review of the tools available to measure and manage intangible resources. *European management journal*, 17(4), 391-402.
- Marr, B., Gray, D. and Neely, A. (2003), Why do firms measure their intellectual capital?, *Journal of Intellectual Capital*, 4(4), 441-464.
- Brooking, A. (1996). Intellectual Capital Core Asset for Third. Boston: *Millennium enterprise*.
- Chusimir, L. H. (1988). Entrepreneurship and MBA Degrees: How Well Do They Know Each Other? *Journal of Small Business Management*, 26(3), 71-74.
- Siegel, D. S., & Wright, M. (2015). Academic entrepreneurship: time for a rethink?. *British Journal of Management*, 26(4), 582-595.
- Dutta, D.K., Li, J., & Merenda, M. (2011). Fostering entrepreneurship: impact of specialization. *International Entrepreneurship and Management Journal*, 7(2), 163-169.
- Fayolle, A. (2018). *A Research Agenda for Entrepreneurship Education (Elgar Research Agendas)*. Edward Elgar Pub.
- Ferreira, A., & Otley, D. (2009). The design and use of performance management systems: An extended framework for analysis. *Management Accounting Research*, 20(4), 263-282.
- Fiet, J.O. (2001a). The theoretical side of teaching entrepreneurship. *Journal of business venturing*, 16(1), 1-24.
- Fiet, J.O. (2001b). The pedagogical side of entrepreneurship theory. *Journal of business venturing*, 16(2), 101-117.
- Freeman, E.R. (1983). Strategic management: A stakeholder approach. *Advances in strategic management*, 1(1), 31-60.
- Gulbro, R.S. (2000). Are small manufacturers failing the quality test? *Industrial Management & Data Systems*, 100(2), 76-80.
- Guthrie, J. (2001). The management, measurement and reporting of intellectual capital. *Journal of Intellectual Capital*, 2(1), 27-41.
- Hall, R. (1989). The management of intellectual assets: a new corporate perspective. *Journal of General Management*, 15(1), 53-68.
- Hansen, O., Sondergard, B., & Meredith, S. (2002). Environmental innovations in small and medium sized enterprises. *Technology Analysis & Strategic Management*, 14(1), 37-56.
- Harper, E.D., Castrucci, B.C., Bharthapudi, K.P., & Sellers, K.D. (2015). Job Satisfaction: A Critical, Understudied Facet of Workforce Development in Public Health. *Journal of Public Health Management and Practice*, 21(6), 46-55.
- Hudson, M., Bennett, J., Smart, A. & Bourne, M. (1999). Performance measurement for planning and control in SMEs. *IFIP International Conference on Advances in Production Management Systems*, 219-225.
- IoBM. (2018). *IoBM Catalog 2018-2019*. Karachi: Institute of Business Management.
- Jaina, S., Georgeb, G., & Maltarich, M. (2009). Academics or entrepreneurs? Investigating role identity modification of university scientists involved in commercialization activity. *Research Policy*, 38(6), 922-935.
- Jelinek, M. (1979). *Institutionalizing innovation, a study of organizational learning systems*. New York: Praeger.
- Kirby, D. A. (2004a). Entrepreneurship education: can business schools meet the challenge?. *Education+ training*.
- Kirby, D. A. (2004b). Entrepreneurship education and incubators: pre-incubators, incubators and science parks as enterprise laboratories. In *14th Annual IntEnt Conference* (pp. 4-7).
- Kyrö, P. (1997). Forms and role of entrepreneurship in the transformation of time . Dissertation. Jyväskylä Studies in Computer Science, Economics and Statistics, 38. University of Jyväskylä.
- Kyrö, P. , & Ripatti, A. (2006). New winds of entrepreneurship education . In: P. Kyrö & A. Ripatti, New winds of entrepreneurship education. Entrepreneurship Education Publication Series 4/2006 . Hämeenlinna : University of Tampere School of Economics .
- Kohli, A.K., & Jaworski, B. J. (1990). Market orientation: the construct, research propositions, and managerial implications. *Journal of Marketing*, 54(2), 1-18.
- Lazear, E.P. (2004). Balanced skills and entrepreneurship. *The American Economic Review*, 94(2), 208-211.
- Lockett, A., & Wright, M. (2005). Resources, capabilities, risk capital and the creation of university spin-out companies. *Research policy*, 34(7), 1043-1057.
- McEnany, R., & Stratton, D. (2015). Leading the (r) evolution: Succession and leadership rules for re-entrepreneurs. *Business Horizons*, 58(4), 401-410.

- Mirani, M.A., & Yusof, M. (2016). Entrepreneurial Engagements of Academics in Engineering Universities of Pakistan. *Procedia Economics and Finance*, 35(1), 411-417.
- Mouritsen, J., Per, N.B., Heine, T.L., Gitte, H., Benedikte, S., Gustav, J., Lars, H.N. (2000). *A guideline for intellectual capital statements-a key to knowledge management*. Ministry of Trade and Industry, Danish Agency for Trade and Industry.
- Nambisan, S. (2009). Platforms for collaboration. *Stanford Social Innovation Review*, 7(3), 44-49.
- Nambisan, S., & Baron, R. A. (2013). Entrepreneurship in innovation ecosystems: Entrepreneurs' self-regulatory processes and their implications for new venture success. *Entrepreneurship Theory and Practice*, 37(5), 1071-1097
- Nicolaou, N., & Birley, S. (2003). Academic networks in a trichotomous categorisation of university spinouts. *Journal of Business Venturing*, 18(3), 333-359.
- Nielsen, S.L. (2014). The Wicked Problem of Design Management: Perspectives from the Field of Entrepreneurship. *The Design Journal*, 17(4), 560-582.
- Obasan, K.A. (2014). Impact of human resources management on entrepreneurship development. *Acta universitatis danubius. Economica*, 10(1), 83-93.
- Philpott, K., Dooley, L., O'Reilly, C., & Lupton, G. (2011). The entrepreneurial university: Examining the underlying academic tensions. *Technovation*, 31(4), 161-170.
- Pistrui, D., & Fahed-Sreih, J. (2010). Islam, entrepreneurship and business values in the Middle East. *International Journal of Entrepreneurship and Innovation Management*, 12(1), 107-118.
- Rasmussen, E., & Borch, O. J. (2010). University capabilities in facilitating entrepreneurship: A longitudinal study of spin-off ventures at mid-range universities. *Research Policy*, 39(5), 602-612.
- Roos, J., Edvinsson, L., & Dragonetti, N. C. (1997). *Intellectual capital: Navigating the new business landscape*. Springer.
- Mwasalwiba, E. S. (2010). Entrepreneurship education: a review of its objectives, teaching methods, and impact indicators. *Education+Training*, 52(1), 20-47.
- Scuotto, V., & Morellato, M. (2013). Entrepreneurial knowledge and digital competence: Keys for a success of student entrepreneurship. *Journal of the Knowledge Economy*, 4(3), 293-303.
- Seikkula-Leino, J. (2011). The implementation of entrepreneurship education through curriculum reform in Finnish comprehensive schools. *Journal of Curriculum Studies*, 43(1), 69-85.
- Shane, S.A. (2004). *Academic entrepreneurship: University spinoffs and wealth creation*. Edward Elgar Publishing.
- Shook, C.L., Priem, R.L., & McGee, J.E. (2003). Venture creation and the enterprising individual: a review and synthesis. *Journal of Management*, 29(3), 379-399.
- Sveiby, K.E. (1997). *The new organizational wealth: Managing & measuring knowledge-based assets*. Berrett-Koehler Publishers.
- Timmons, J.A. (1978). Characteristics and Role Demands of Entrepreneurship. *American Journal of Small Business*, 3(1), 5-17.
- Timmons, J. A., Spinelli, S., & Tan, Y. (2004). *New venture creation: Entrepreneurship for the 21st century* (Vol. 6). New York: McGraw-Hill/Irwin.
- Venkatraman, N., & Camillus, J. (1984). Exploring the concept of fit in strategic management. *Academy of Management Review*, 9(3), 513-525.
- Wright, L.K., Bitner, M.J., & Zeithaml, V.A. (1994). Paradigm shifts in business education: Using active learning to deliver services marketing content. *Journal of Marketing Education*, 16(3), 5-19.
- Wright, M. (2007). *Academic entrepreneurship in Europe*. Edward Elgar Publishing.
- Wong, K. Y. (2005). Critical success factors for implementing knowledge management in small and medium enterprises. *Industrial Management & Data systems*, 105(3), 261-279.