Entrepreneurship education as entrepreneurial agent for architecture profession b...

Business



Abstract

Purpose - Discussed the suitability of entrepreneurship education (EE) within the principles of facilities management (FM) thinking. Nevertheless, how it creates entrepreneurial employability opportunity for the architectural profession. Design/methodology/approach - This paper identifies two significant key themes. First, it focuses on entrepreneurship education within the context of reducing unemployment rates of the architect in the most competitive economy driven society it serves. Second, it elaborates the common understanding of entrepreneurship education and how it relates to the facility management principles as an intervention for job creation and diversification facilitator for the graduating and practicing architects. Findings - There was a creation of the links between EE and FM as agent of change. This era, architecture as a profession needs flexibility and diversification in order to sustain her relevance in the built environment. The connectivity of entrepreneurship education and facilities management presented, professional reorientation and new educational preparation for the new generation of architects in higher education institutes (HEIs). Originality - The uniqueness of this paper is the conceptualization connectivity of the concept of facilities management and entrepreneurship education for the sustainability of the architectural profession in the years ahead. The attraction is for the educational policy makers, researcher and practicing architects. Keywords: Entrepreneurship education, Facilities management intervention, employability, architectural professionPaper type: Conceptual paper

1. Introduction

Entrepreneurship is an essential tool for developing new ideas, creating new ventures and nurturing the economy to promote employment opportunities for unemployed graduates in many nations. Indeed, academicians, politicians and policymakers all accept the importance of entrepreneurship to an economy (Matlay, 2005). Entrepreneurship is still regarded as a nebulous concept, but it is a means of changing the economic development of many nations. Tessema (2012) and Jones (2010) noted that the most challenging issue related to entrepreneurship is the lack of a clear understanding and general acceptance of the principles and concepts affecting entrepreneurial skills in various HEIs, which generates debate in terms of programme performance and implementation. The current paper, however, attempts to broaden the scope of EE within the contextual relationship to FM thinking and employability initiatives embedded in both bodies of knowledge for the architecture profession. The paper is structured into three sections. Firstly, it examines the potential contribution of EE to graduates' employability. Secondly, it outlines the fundamental characteristic of EE in wealth creation. Thirdly, it establishes the suitability of EE purposes within the concept of FM as a proposition for architects in practice and as related to the paradigm shift on the perception of the scope of the FM domain.

What Is Entrepreneurship?

The field of entrepreneurship has attracted a strong group of researchers and scholars through a large number of organized conferences, seminars and workshops with recognized academic and professional journals. The popularity of entrepreneurship has expanded worldwide because of its

potential contribution to the economic development of many nations (Nabi & Holden, 2008). Cheng et al. (2009) noted that regardless of the popularity of the field, a common definition of entrepreneurship has still not been achieved. Indeed, the definitions of various scholars have been remarkably inconsistent, even though certain words—such as opportunity recognition, innovation and risk-taking capacity—are commonly used. However, a proposed resolution by Hisrich et al. (2005) provides all the relevant keywords: creating a new business, modernizing an existing venture by taking financial and social risks for personal gain and affecting society in general. Therefore, entrepreneurship may be defined in simpler terms as starting a new business or adding modern value to an existing business to gain a monetary reward and contribute economically to the development of society. In the same respect, several scholars agree on the important benefits of entrepreneurial activities: job creation; economic growth; and the development of competition, which encourages self-sufficiency, self-reliance and self-satisfaction (Fayolle, 2007; Galloway, 2010; Matlay, 2008; Rae et al., 2012; Reynolds et al., 2004; Yusof et al., 2010). Self-realization, freedom and financial benefit are all valuable rewards of entrepreneurial success (Jones, 2012; Matlay, 2006, 2008). In addition, Li and Liu (2011) recommend entrepreneurship as a path to academic and professional survival for future graduates given the current uncertain economic climate. Nevertheless, the rise in the unemployment rates of graduates in many countries remains a problematic issue. Essentially, EE could be taken as an agent of job creation for the young graduates of any given society.

3. Entrepreneurship education

The prime of EE emphasized in government policy as a resourcefulness training that develop and bring new business idea for the benefit of every society (Matlay and Carey, 2007; Rae & Woodier-harris, 2012). The relevant of EE task is to direct students on how to commercialize their ideas for job creation and develop competitive advantage needed for survival in the real world (Sanz-Velasco, 2006). Fayolle et al., 2006, noted that the scientific and technological knowledge taught to students in the academic communities' needs embodiment of a combination of expertise, knowledge of markets and customer for its favourable impact on society. In the nutshell, vital advantage is to be driven from enterprise education as a whole. Madhavaram, et al., (2011) outlined some positive influence of the EE on the graduating students of HEIs: 1. Self-confidence in students as a facilitator to start a business; 2. It enhances student capacity in financial and management of business; 3. It increases the desire of graduating student to start their own business and add value to them by increase their employability qualities and, 4. Serves as an attitudinal agent of change in their desire to become self-employed, self-reliance and self-fulfilled. However, the positive claims of the benefits of EE are far reaching and well supported by several commentators and renowned scholars (Galloway and Brown, 2002; Peterman and Kennedy, 2003). Thus, it is beyond any reasonable doubt that EE serves as a stimulus for graduating students of HEIs making self-employment as a positive career choice after graduation. Consequently, we can deduce that EE is an agent of change which can facilitate an entrepreneurial attitudinal shift for students' entrepreneurial

intents toward business start-up intentions. Therefore, need to re-evaluate the current position of the EE program in HEIs, examine how well is impacting on the students' business reality awareness, change management, and competitive value added for reality after school. The next section of this concept paper is to see how the aim of EE fits within the FM principles for the purpose of creating employability benefit in the architectural profession.

4. The need for entrepreneurship education in the architecture profession

Apprehension about the future of the architecture profession is growing in recent years (Jann, 2010). Several authors challenged the current models of teaching and practice of the architecture profession, on it is appropriate for future sustenance of practitioners and the profession in general (Pugnale and Parigi, 2012). According to Carey and Matlay (2010), the profound change in the current civilization suggests a high level awareness and flexible changes in all ratification of the technical profession. The practice and teaching of architecture ought to experience more innovation than her current state of professional practice. He further stressed, the success of the profession ought to depend on quality of graduating students and their knowledge on services oriented practice and information technology innovation of this era (Taleghani, Ansari & Jennings, 2011). Drucker, 1992 further noted that population growth, the information knowledge revolution, changing sociocultural realities and globalization of the economy, all pose unique challenges to the architectural profession. In the nutshell, surviving the new reality will require a different and unique set of personal and professional

skills, which far different from the traditional pride of design skills, architects have championed in the built environment. In fact, providing the solution to the issues that can reduce the relevance of the profession locally and globally in the years ahead is the critical issue. Therefore, the era of the new reality is now and thus requires a need to develop a serious understanding of market forces by of developing entrepreneurship curriculum structure in architectural education. Russell (2004) and Piper (2006), noted that only one of every ten jobs in the built environment today, is a new project commissioning. This implies that the era of rebranding and refocusing is now. How well does the architectural education tackle the problem and develop an entrepreneurial opportunity in the current economic volcano eruption? Treating the current issue with the pencil sketch of an architectural design tool, instead need more detailed innovative CADD strategic approach for the way forward. Else the profession may be gradually consumed by other allied professional gladiators in the built environment. Therefore, the integration of EE in HEIs is crucial, now that universities continue to roll out graduates that are hardly self-reliant but solely dependent on white collar jobs for sustenance. Consequently, need to engage the youths to avoid unhealthy alternatives for this group of generation in the future. With all Malaysian government entrepreneurship initiatives in the HEIs. The increase in the rate of unemployment figure among graduates of HEIs is of a critical concern (see fig. 1). Figure 1. Graduate unemployment for the period of 2008 - 2011 in Malaysia. Especially architecture graduate whose supposed to use their creative imaginative ability to socio-economically impact the society? The most surprising of the finding is that architecture profession is

not among the leading professions with the highest rate of employment in Malaysia today (see fig. 2). The profession needs to understand and experience necessary steps to avoid a similar unhealthy situation of 13.9% unemployment rate in the American Architectural profession (CBACS, 2010; BLS, 2012). Figure 2: Employed graduates by selected fields of specialization in Malaysia (MOHE, 2011). The empirical study of Karissa (2012) published by the Georgetown University Centre on Education and Workforce State claimed that graduates of architecture are experiencing the highest rate of unemployment (see fig. 3). Comparably, the 13. 9% of architecture graduates is significantly higher than other graduates in Health (8, 9%), Agriculture (7%) and Education degree holders are among the disciplines with the least rate of unemployment (5%). Figure 3: Professional discipline unemployment rates of graduates (CBACS, 2010 and BLS, 2012). The positioning of the profession against the current challenges and years ahead, dictates development of entrepreneur architect, who can be regarded as an artist, a business expert, social reformer, and user's advocate (Watson, 2010). In addition, Architect requires viewing an architectural design team as a business organization whose provide services in the marketplace. The persistent economic uncertainties of international trade influence the local economic performance of many nations may be a contributing factor. In the same light, the constant exposure of architectural practice to market forces has gradually reduced the role of the architect as a team leader. The Global interdisciplinary consultants cited in Robinson, et al., (2010) RIBA document, stressed that economic uncertainty will shape the architectural profession in the future. Bermudez (1999) stated that the growing rate of the

specializations and increasing importance of managing expertise needed in the construction industry (project and facilities management skills) were factors constantly threatening the primary leadership role of architect in the family of other allied professionals in the construction industry. Therefore, what role would future architect play in the built environment and how prepare is the profession for the contest ahead? It is the key question. The reality is that the future might witness more practitioners involves in a diverse interdisciplinary specialization, creative businesses that are far different from the conventional training the young architects are currently receiving in the various HEIs. To survive hurdles, the future poses are by paying more attention to the business reality in the current training of the new generation of architects. Therefore, integration of more entrepreneurship education into Architects training may be one of the survival channels for the future economic earthquake.

5. Entrepreneurship education in the architecture profession in Malaysia

In Malaysia, today, the architectural profession has developed and still growing to serve and contribute to the nation interest of Malaysian government. The professional bodies have made appreciable progress in line with global sustainable development (Singhaputtangkul, et al., 2011). The challenges facing the profession are quite similar to architectural practice in many other nations across the globe. In the present technological age, the profession challenged with the question of its own survival and sustainability (Robinson, et al., 2010). According to Deamer (2012) called for diversification by way of specialization in the architectural profession and he

was critical about his prediction that the profession should be more diverse(s) or become less relevant in the present economic driven society we operate today. The pronouncement and incorporation of the New Economic Model by the Malaysian government in March 2010 (Malaysian Vision 2020) emphasizing the prime of entrepreneurship in the economy for the next decade. This is an initiative to control the current challenges of unemployment and economic development advancement for the nation (Malaysia 2006a). The brilliant aspect of the initiatives, it's targeted at the empowerment of graduates of HEIs. The program projected that developing greater percentage of graduates becoming entrepreneurs will produce a multiplying effect on the economy (MOHE, 2010). The study of Amuseghan, et. al., (2009), revealed that in order to get to the root of the graduate unemployment problems there is a need to reassess some fundamental issues in education structure in HEIs. Some of the suggestions made are, curriculum development by way of encompass multi-skills and multidiscipline system. The skills in human resources management and enhancement of education-industry partnership recommended. In addition, career assistance programs to ease the transformation of graduates from school-to-work, the placement department in institutions to facilitate employment with well established job seeker network. In fact, diversification in the professional disciplines and establishment of workshop, seminars and career talk are important considerations for both graduating students and practicing architects. The aforementioned discussion, we can conclude that they are all parts and components of entrepreneurship education development principles, which serves as a re-confirmatory test on the importance of

entrepreneurship in employment creation towards self-employment and selfreliance for graduates in HEI. The Malaysian government commitment on education of her citizen has impacted the growing rates of the public and private colleges/universities. As a result of this, more students are graduating every year (Suzana, 2011). This consequently creates additional pressure on the employment market. The current trends require adequate measures. Because, this trend poses serious challenges to the peace and the harmonious existence of every citizen in the society. Nevertheless, there is a critical need in every sector of the national development for resourcefulness and innovation called for entrepreneurship in all unique talents and professional expertise across all fields of passion to solve the problem and foresee it through visionary, viable and worthy solutions (Karissa, 2012; Kaplan (2010). At this junction, most architecture schools predominately train their students to become designers not entrepreneur architect. Architectural profession is facing more challenges compare to any other profession in the construction industry and above all is the survival of the young generation of architects' life after school (Kaplan, 2010). The survival and relevance of any architect today majorly depends on his or her adaptability and flexibility in the current dynamic economic driven society (Oluwatayo & Amole, 2012). The adaptability and flexibility are in the context of intellectual ideology, creativity and imagination, problem solving and result oriented, verbal and oral communication skill and practical knowledge of economic and management for a sustainable architectural practice (General, 2002). Currently the majority of young graduates of architecture still sees the profession from the traditional approach of design

and construction. This essentially the primary cause of limited employment opportunities for graduating architects. There is the need to discover various entrepreneurial opportunities embedded in the profession. There is a need to identify new opportunities against all the challenges and threat by way of incorporating entrepreneurship into the architectural curriculum structure. Entrepreneurship education needed to develop and refocus the creative capability and analytical problem solving mind of architects into commercialization. Piper (2006) noted diversification is the key for the creation of more jobs and subsequent contribution to national development. In this regard, entrepreneurship education in schools of architecture could be an outline for professional diversification, to create employment opportunities. This can be a channel for professional sustainability, professional relevance; professional flexibility and adaptability and selfemployment for financial freedom and job satisfaction. All the above are the qualities of being able to facilitates achievement and accomplishment as a professional.

6. Overview of FM

The operation of every organization depends on a mix of functions and services in providing the essential support for productivity of business core operations. FM core value is to ensure equitable distribution of support needed for the organisation within the right production cost (Abdullahi et al., 2009). In essence, Elmualim, et al., (2010) noted that FM is about taking control, set the organizations to perform at optimum production while the facilities managers ensured production and operational efficiency for both man and machines in an organization. However, it is essential to establish https://assignbuster.com/entrepreneurship-education-as-entrepreneurial-

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the evolutionary development of FM. Jones (2000), expressed that the concept of FM developed in United State of America, around early 1970's and identified two fundamental events which set the evolutionary course of facility management: The development of open design in an office environment. This constituted development of the use of independent free standing office partition. The technological advancement and introduction of computer workstation gadgets facilities. Kamaruzzaman and Zawawi, (2010) acknowledged, in the past that most facility managers were members of other associations and the first progressive move toward the development of FM as a specialized organization occurred in 1978 after a conference in Michigan. The three initiators of the National Facility Management Association (NFMA) are George Graves, Charles Hitch and David Armstrong. By 1980, it became the International Facility Management Association (IFMA) after the collaboration of more European countries. Graves, et al., (2010) stated that the article by Peter Barrett in 2000, established the core value of FM with the development of a conceptual framework "People, Process and Place' model (fig. 4). Figure 4: Facility Management Model (Barrett, 2000)The realization of the importance of the facility management contribution to the effective operational functioning of both public, private organizations and national economic development facilitated the spread of FM worldwide. 6. 1Definitions and practices of FMThe progressive interpretation of FM started by The Facility Management Institute described FM as managing, coordinating and controlling positive interaction challenges between " people, process, and place" and effective functioning within the organization (Teicholz, 2001). In the same light, Lee (2006) defines FM as "the integration

of different disciplines within the built environment and the enhancement of their impact on people and workplace". The International Facility Management Association also offers a similar focus "FM is a profession that encompasses multiple disciplines to ensure functionality of the built environment by integrating people, place, process and technology". Alexander (1996) defines FM as process in nature and benefits are to facilitate strategic objectives of the organization in changing economic uncertainty. In fact, focus on meeting customers' needs, workers welfares, ensuring product quality, reduce risk and add value for money is all requirements of the facility manager. Major organizations worldwide use FM as their strategic tool for repositioning and change to develop a competitive edge. Spedding (1999) stressed the practice of FM is a way of coordinating the physical workplace, people and performance. The integration of the principles of business management, architectural practice, behavioural education and engineering skills, is all within the FM operational expertise. This explains the concept of unity in diversity that is necessary for organizations achieving efficiency. This depends on the hands of various professionals' skills and capacity. Within the context of interpretation of FM, Hassanien and Losekoot (2002) also identified six primary areas of operation that FM needs to consider in practice. This comprises of strategic, asset, services, people, information and change management. The implications of all these definitions are as a result of differences in the background of FM practitioners and the possibility of FM will continue to develop as the research sphere expands. The varied distinctness of the FM illustration shows that it is an evolving profession whose coverage of practice is all

around positive and flexible. This has portrayed FM as an encompass and powerful tool that should normally be an aspect of the organization structure of any innovative organization. Kasim & Hudson (2006) and Hardy (2004) stressed that FM is also a strategic tool that could be deployed to improve the management capacity and transformation of the organization for a sustainable future. In the nutshell, from all the aforementioned definitions highlighted above, we can conclude that FM is a domain that is still evolving with future employment opportunities for every professional in the built environment to explore. Therefore, there is a lot of entrepreneurial potential reality for architects in the domain of FM.

7. ORole of FM in organizational transformation

Basically the primary function of FM is to sustain the organisations need of tangible assets and provide intangible services in short and long term (Chotipanich & Lertariyanun 2011; Hassanien and Losekoot 2002). In Barrett's model, FM theoretically comprises of a set of two characteristic practice of FM as identified in Barrett's model are: strategic and operational practices. The strategic practice of FM covers every aspect of long-term sustainability of the organization objectives, and the later incorporated every aspects of delivering service enhancement to everyday needs of an organization. Atkin and Brooks, (2005) noted that the role of FM is far beyond. 7. 1FM as agent of change management: One of the basic principles of FM is change management. The success of FM relies on the optimum balance mix of business and technical competence of facilities manager in an organization's operation. According to Alexander (1996) identified future FM manager as "Hybrid managers" whose will require both business,

management and technical skills to manage and control the facilities teams within the organization. The ways those skills benefit the organization's mission, its business and its assets and how organizations cope with the complexity and future changes determine the worth of the facility manager as agents of change management. It is the responsibility of facilities manager to use his tactical skills to develop and manage change and envision its consequences. Subsequently, this will determine the efficiency of the organization operation in the future. Grimshaw (2003) noted that FM is broader in the context in term of social, economic and political changes, which impact on, the current international trades. He was of the opinion that, the core of FM relates to managing the changes that originate within organizations with the consideration of the influence of external forces. The author stressed that FM impact on the development of facilities and use appropriate strategies to manage external influence on the organization mission and vision. In addition, Nutt (2000) identified the rapid technological revolution of the internet facilities as a crucial factor challenging the business structure. The increase virtual organization operation in the information driven sector is a revolutionary transformation which influences business environment of the future. Furthermore, FM responsibilities are to evaluate the SWOT analysis of the organization as it relates to marketing, innovation trends and implication of such innovation. Therefore, business, people, property and information are the determinant of the future enterprise opportunities in the FM. 7. 2FM as an enabler: FM is all about enabling organizational success. It is referred to as providing support to business efficiency and ability to effect change according to societal

demand. The definition of FM is an enabling process which responds to the evolving needs of business in relation to internal and external demand in a given environment. The challenge for any organization is making the right decisions at the right time for the right purpose. In this current dynamic and competitive environment in which businesses and the company operate, at the same time managing change is a business success requirement, forecast change is the perfect opportunity enabler to move the organization to a new level. 7. 3FM as a service provider: It is clear from the above that, FM is far more than just easy operation and maintenance of buildings. It covers all aspects of strategic planning for effective provision of services. Consequently, FM gives opportunities to increase market share, customers and workers satisfaction, efficiency, effectiveness, competitive advantage in the organizational development and onward contribution to the national development. 7. 4FM as a value creation: Several scholars outlined the FM value creation in an organization as comprising of all operational infrastructure created to sustain the survival and project the corporate image of the organization (Roulac, et al., 2006; Tay, & Ooi, 2001). Value creation occurs in several functional areas of an organization. Arge and Hjelmbrekke (2010) outlined some the FM value creation on the organization productivity. Firstly, the creation of adequate space for the various operational needs and effective utilization of the space created for sustainable working efficiency outlined. Secondly, the technological innovation to sustain efficient communication, marketing operation, and support services to satisfy customers, users and workers were all emphasized. Finally, the operational infrastructure offer for capacity building

and reliability of organizational efficiency are all value created for the corporate image of the organization (Kasim and Hudson 2006). 7. 5FM as a real business reality: The dynamic character of FM in enhancing the organizational efficiency has long been renowned (Elmualim2010; Aouad, 2010; Drucker, 1982). The FM department can serve as engines room through which the business objectives, productivity and economic development of a striving company can be attained. However, the responsibility and relationship of FM defined in connection with the business core value. The success of the organization business determined by the facilities enhancement FM provides in achieving significant business objectives in the competitive economy. Therefore, FM demands adaptability and flexibility for the sustainable future in every organization. Essentially, the business reality is holistic. It covers a wide range factor needed to provide value added to customers which resultantly impact the organization. Grimshaw and Cairns (2000) define business reality in an organization as a strategic approach - almost practical realistic force - that exists in an organization. This can only be created by the innovative facility managers who see opportunity and drives value creation against future challenges.

8. 0Connectivity fitness of FM principles and EE objectives in HEIs

There is no noticeable model connecting FM and EE in the academic domain, but there is some interrelation between their core principles. For the benefit of robust academic and professional advancement, FM needs to be connected into the theoretical and current architectural profession challenges of the issues of graduate's unemployment in most developed

nations. This section of the article explains the essential link between the conceptual purpose of the two bodies of knowledge, EE and FM. The fundamental argument is that FM, as a practice that facilitates efficiency and productivity of an organization by way of coordinating the operational and strategic management between employees and employers towards organization corporate objectives via the physical workplace. The contribution of the EE, as a process that facilitate the entrepreneurial development for graduates employability for professional sustainability, through using modern creative and innovative teaching process to impact both science and business components of entrepreneurial initiative could be seeing in the context of FM thinking. The concept of FM is that it provides a framework of the complexity of social interactions between place, people and process. Grimshaw (2003) noted that flexibility and innovation determine the survival of an organization and achievement of creative initiative directly depends on the change process if allowed in the design and management of the working environment. From the above, we can postulate number of propositions on establishing a link between FM and EE as a medium for: i. The management of change in the working environment in an organization and academic environment are both primarily an interaction ground for social and team work collaboration, ii. The organizational physical infrastructure is same as an educational infrastructure in an academic environment. The creation of such infrastructures is to add value and impact on both the graduates and workers for social interaction. iii The service provides by FM focused on motivation and productivity of workers in an organization. In the same respect, entrepreneurship education aimed at

development and enhancement of graduate employability and productivity for their career sustenance and contribution to national economic development, iv. FM makes a positive contribution to human fulfilment and self-esteem by promoting a physical environment that stimulates creativity and innovation in an organization. While the main purpose of EE is to encourage and motivate graduating students toward self-realization and selffulfilment in their future endeavours. v. The fundamentally correlation and position of EE has a sub-sector in the principles of FM is that both are humanist in approach and are targeted as facilitator, enabler, value creation, change management and business reality both are to enhance the future competitiveness and sustainability of both works and graduating students whose will become an employer and employee of the future organization. In addition to above ideology, if facilities are the infrastructure that supports business and work productivity is key objectives of the FM. Consequently: EE core objectives centered on the graduating student employability. This implies that FM and EE are both agents of change for national economic development. FM enhances productivity through the provision of appropriates workspace, technology, and physical environment and also it enable organizational flexibility, task-oriented activities and user customization. This simply means it is a mechanism for production of highbreed and committed organization of the current uncertain economic driven society. Hence, the value of EE is a hypothetical parallel meaning of FM. As earlier discussed, EE is to develop the special - breed and dynamic graduates whose can strive to survive in the highly competitive world - fast changing customer economic driven society they are expected to practice and impact.

The figure 5 graphically illustrated the dynamic concept of parallelism of EE and FM.

" Process"

Agent of change

WorkersOrganisation environmentDynamic organisation withFlexible and committed workersAdaptable flexible formsFMEERigid solid formsStudents of HEIsAcademic environmentDynamic fast changing withFlexible and task oriented graduatesFigure 5: Parallelism of FM and EE objectivesThe EE is the process of managing a group of students with complex and interrelated background orientation and diverged personality traits with a precise goal of building entrepreneurial initiatives for purpose of their employability, that can be achieved in the course of synergetic and coordinated efforts within a predefined period of time and with a correct quantity of human and financial resources. In the same way, the FM performs a coordinated and integrated management of services that can be exactly classified as complex and interrelated activities toward a precise goal and time duration. Thus, the facility manager handles projects that have a beginning and an end through strategic and operational decisions supported by human and financial resources. A FM's company works through multi-directional strategies where the goal is to maximize the "organization profit" which is same for EE " employability profit", this suggests and emphasizes the integration concept. Therefore, figure 6 illustrates the reality of the EE uses the typical FM approach.

Fm principles

(INTERVENTION)

Future movementOpportunity recognition management. Profess. diversificationInnovationCreativityProfess. Challenges

Conventional Architect

Space management. Problem solvingMaster builderCreativity

Entrepreneurship Education in HEIs

Enabler

Facilitator

Value creation

Business reality

Change management

Competitiveness & sustainability

Entrepreneur Architect

Where architecture start is where facilities management start. Fig. 6: Integration of FM entrepreneurial intervention and architecture profession

9. 0FM entrepreneurial intervention in architecture profession

There exist a clear relationship between the contemporary architectural practice and the current practice of FM. All the multidirectional definition of FM shows that parts of the FM core value directly dependent on the architectural profession expertise. The most momentous is to establish compelling opportunities, in connecting the two bodies of knowledge at this

present time that master builder (Architects) seen as an endanger spices as a result of increase in unemployment issue after the global economic recession in the architectural profession (Hughes 2010). There has been a long relationship existence in the FM and architectural practice because FM evolves from the architectural and engineering profession. According to Devetakovic & Radojevic (2007) noted that an architect gets his glory when the architectural design project successfully completed. However, after commissioning a new project, this opens a new phase of long and complex life cycle which needs FM capacity. The conceptual idea is for architects to note the potential employment opportunity embedded in this long and complex building Lifecycle. This new project life cycle is the ways the architectural entity will be use, maintain, alter, renovate and finally destroy for recycling (see fig. 7). In the nutshell, effective utilization, appropriate maintenance, post occupancy evaluation and client having value for their property all called for Facilities management. RecycleLine of building lifecycle processRenovate

Time (t)

MaintainUseBuildDesignAverage of 60 to 80 years of maintenanance and restructuringAverage of 5years

0

Design & buildingstageExploiting stage: Use, change of use, reorganization, modernization, increase and decrease of valueFacilities management (FM) servicesArchitectural servicesFig. 7: Entrepreneurial building Lifecycle processThe fact is, FM activities developed out of the need to sustain the

product of an architect (Architectural entity). Hence, there is also need for architects to extend their influence and tentacles into the building Lifecycle beyond the stages of designing and construction execution (Franck and Bianca, 2000). The significant of FM for the architectural profession, especially at this trying period of unemployment challenges of the profession is to explore and develop entrepreneurship skills by rechanneling their creative abilities into diverse specializations. The ideological integration and need for the current trend shift toward FM by widening the scope of architectural practice. In summary, entrepreneurship education should be seen within the FM thinking, as a facilitator and motivator for diversification and specialization. Entrepreneurial nurture the foundation for architecture students would enable them to realize their success potential in other associated fields. The employment opportunity toward self-employment would create self-reliance, self-sustenance and most importantly value creation to the profession.

Conclusion

FM is a new trend that challenges future architectural practice. It enable, provide, facilitate business reality and value creation for the architect to participate in decision taking not only the building's structure conceptual development and generation of geometric form and spatial functional organization of spaces, but the flexibility of possible alteration and remodelling and the building's response to them. The contextual focus of FM is on the organizational restructuring is to meet efficiency, effectiveness and optimum productivity while, in the case of EE, the organization structure is the academic environment in which graduating students operate and the

focus of EE is to adding value and increase their employability qualities. Also, the important needs of FM increase awareness is to change the organization's way of existence from a conventional hierarchical system of management to dynamic fast cross-functional collaboration teamwork orientation organization for efficient and effective operation and to improve productivity. In this respect EE is also an agent of change from conventional architects to dynamic innovative entrepreneur architects, who are adaptable and flexible in a highly competitive economy. The professional adaptability and flexibility is inevitable. It is advisable for the architectural educator to develop a new generation of architects with the following qualities: flexibility, versatility, resilience, convertibility, changeability, adjustability, modifiability, adapts and vision to identify opportunity. Thus, type of architect that can survive the present economic dispensation are dynamic entrepreneurial architects who use their creative capability in respect of available recourses. In conclusion, both EE and FM are tailored to achieve the same purpose and objective and contribution to national economic development. Better understanding of the FM concepts by architects, as an interesting component of architecture and as a transitional market with potential endless opportunities, all for the future green opportunities and professional sustainability. The fundamental conclusion of this paper, however, is that the link between FM and EE is new thinking and this can provide further avenues of research in pre- and post-graduation of architect employability.