

Entrepreneurial University: Applying the HEInnovate guiding framework to Makerere University.

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Abstract

The role of the entrepreneurial university is increasingly being seen as important for finding new ways to compete and succeed in uncertain and unpredictable environments. How universities create the pathways and strategies to reflect and respond entrepreneurially to their changing environments need a holistic approach. However, HEInnovate frame work' and other such analytical frameworks enable universities to explore where they have opportunities to further develop. For this reason, this research paper analyzes: the concept of entrepreneurial university; and how HEInnovate Frame work-EC-OECD (2012) is applicable to Higher Education Institutions (HEIs) using the context of Makerere University-Uganda. The research paper combines a literature review with findings of mixed methods approaches. The study engaged 150 participants who include; 50 members of Makerere University academic staff, 80 student leaders, 4 policy makers (University Council members), 6 University top administrators, 10 middle managers (deans and principals). Purposive sampling was employed to select the key respondents, who are members of policy makers and top management. Cluster and purposeful sampling was adopted in selecting members of academic staff and student leaders. Interviews were used to collect views from the key respondents, while data from academic staff and students' leaders was collected using a questionnaire and analyzed using the Statistical Package for Social Scientists (SPSS). Established in the study is that; holistic application of HEInnovate frame work was unsatisfactory, therefore, Makerere University needs to create the pathways and strategies for successful implementation of entrepreneurial activities. Future direction of the study is; promotion of entrepreneurship at Makerere University using the lenses of "Complex adaptive systems and complexity theory" to explain how the institution can succeed in highly turbulent and unpredictable environments.

Key words: Entrepreneurship; Entrepreneurial University, HE Innovate Framework

1.0 Background

Higher education Institutions (HEIs) for the last three decades have faced uncertain and unpredictable environments, economic volatility, reduction of public financial resources and whims of knowledge economy. As such, the entrepreneurship is increasingly seen as a pathway and strategy for HEIs to succeed in uncertain and unpredictable environments (Clark, 2015; Gibb, 2012; Gibb & Haskins, 2014; Hanon, 2013). How universities create the pathways and strategies to reflect and respond entrepreneurially to their changing environments need a holistic approach. However, HEInnovate framework (2012) and other such analytical frameworks and models enable universities to explore where they have opportunities to further develop. Several analytical frameworks and models of entrepreneurial universities (EU) are underscored in literature. EU models (see Clark 1998; Etzkowitz 2004; Guerrero, & Urbano, 2012; Kirby 2005; O'Shea et al., 2008), and EU frameworks (see, EC & OECD, 2012; Guerrero et al., 2011; Markuerkiaga et al., 2014). However, the journey of applying EU models and framework begun in many universities across Europe. What makes the study interesting, there is scarce information on application of EU models and frameworks in HEIs of the African economies. This presents knowledge gap and generates skepticism on the phenomena.

The analytical and conceptual framework underpinning the study is the HEInnovate framework (2012), a guiding framework for entrepreneurial universities. HEInnovate framework was collaboratively developed by the European Commission (EC) and the Organisation for Economic Cooperation and Development (OECD) in 2012 (EC-OECD, 2012), for innovative and entrepreneurial Higher Education Institutions (HEIs). The choice of the HEInnovate framework is that; it has had wide, and satisfactory performance in different higher education systems and thus,

assumed to be valid and reliable. This is illustrated through consecutive OECD/EC evidence-based reports in 2017 and 2018 on Supporting Entrepreneurship and Innovation in Higher Education in Poland, Ireland, and Hungary (OECD/EC, 2017a; 2017b; 2017c and 2018).

In regard to the arguments indicated above, this research paper analyzes: the concept of entrepreneurial university; and how HEInnovate Frame work (2012) is applicable to Higher Education Institutions (HEIs) using the context of Makerere University-Uganda. Makerere University was chosen because it is one of the flagship universities in Africa, oldest in establishment with relatively growing enrolment and infrastructure. Therefore, the university is assumed to typify other universities in the region. Results from the study are hoped to inform policy on how HEIs in developing African economies, Uganda and at Makerere University may respond entrepreneurially to their changing environments. The rest of the paper is structured as follows: study objectives, related literature, methodology, findings and discussions, conclusion, limitations and future research.

2.0 Study Objectives

This study has two specific objectives;

1-To analyzes the concept of entrepreneurial university.

2-To assess how HEInnovate Frame work-EC-OECD (2012) is applicable to Higher Education Institutions (HEIs) using the context of Makerere University-Uganda.

2.0 Related Literature

2.1 Entrepreneurial University

The notion of EU in the academic literature tends to be diverse and ambiguous (Audretsch, 2012; Fayolle & Redford, 2014 and Kirby et al, 2011). A broad literature explains the concept of EU in diverse meanings, and identities including, inter alia; "enterprising universities" (Williams, 1992), "entrepreneurial and innovative universities" (Clark, 1998, 2001, 2004), "adaptive universities" (Sporn, 1999), "self-reliant and successful universities" (Shattock, 2003). Various EU scholars have explained further the context of EU depending on nature of activities and varied ecosystems as explicated in the following paragraphs. Kirby (2005) defines EU as a driver of competitive environments with a common strategy oriented to being the best in all its activities, and tries to be more productive and creative in establishing links between education and research. Guerrero and Urbano (2010) describes entrepreneurial university as a university which can meet the current requirements of the society through developing its organizational potentials, innovation, creating and identifying opportunities, team work and risk taking.

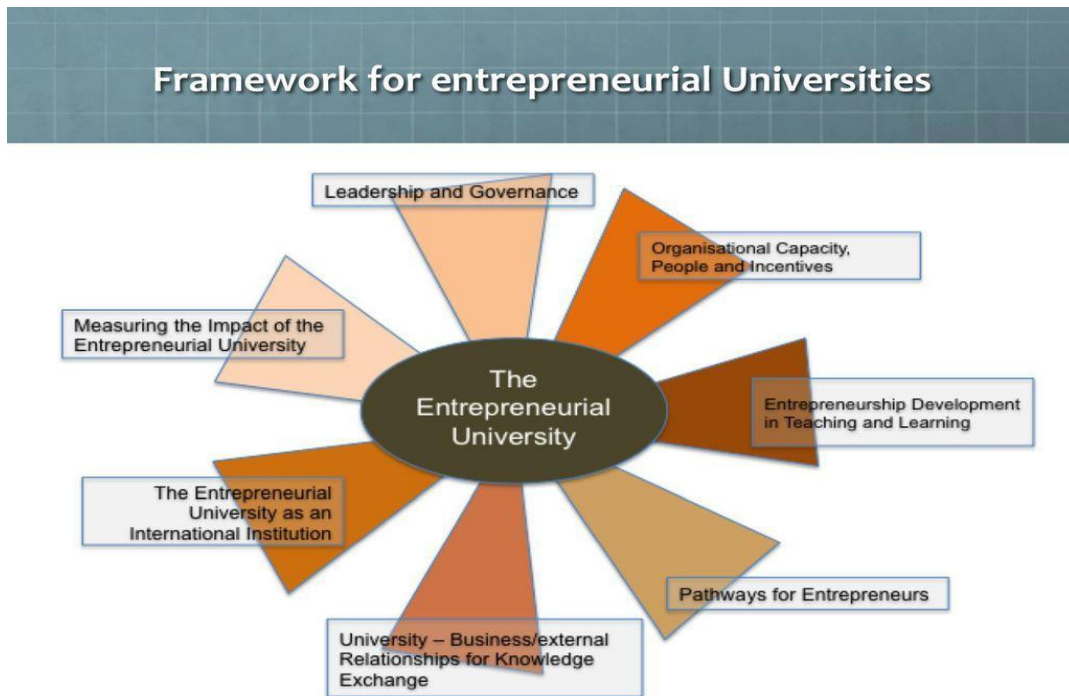
As explained by Urbano and Guerrero (2013), entrepreneurial university needs to become an entrepreneurial organization, its members need to become entrepreneurs, and its interaction with the environment needs to follow an entrepreneurial pattern'. This is intended to find collaboration, and interactions with the aim of linking education, research and activities with technological, social and economic development (Guerrero & Urbano, 2012). Kalenyuk & Dyachenko, (2016) elucidates that EU as a higher education, is an establishment that safeguards knowledge transfer and commercialization of innovative business initiatives between universities, stakeholders, the

government and enterprises with financial and organizational economic criteria. In a nutshell, EU is an academic HEI with an integrated entrepreneurial culture that provides support structures in order to fulfill its strategic goals (Donna Fernández-Nogueira, et al, 2018). This definition by Donna Fernández-Nogueira, et al, (2018) is best suited for this study. Makerere university to be able to promote the entrepreneurial and innovation agenda, needs a holistic approach. A reason why HEInnovate frame work for EU is necessary as discussed in next sub-section.

3.0. Applying the HEInnovate guiding framework to higher education institutions

This section presents analytical and conceptual analysis of applicability of the HEInnovate framework [with its seven dimensions] as illustrated in figure 1 below:

Figure: 1 The HEInnovate framework with its seven dimensions.



Source: EC & OECD (European Commission & the Organization for Economic Co-operation and Development). (2012). *A Guiding Framework for Entrepreneurial Universities*.

From Figure 1 provides a conceptual framework for HEIs like Makerere University, which seek to organize themselves as entrepreneurial, to design and appraise their entrepreneurial efforts, and be able to succeed in uncertain and unpredictable environments. This section explains seven pillars Of HEInnovate frame work as applied to HEIs.

3.1.1 Leadership, Governance and Entrepreneurship

Governance and leadership of universities determine the nature of entrepreneurship in an institution (O'Connor, 2012). Hannon (2013) asserts, for the development of entrepreneurial culture in an institution, there should be good governance and strong leadership. Abesi, Esfandabadi, & Esfandabadi, (2016) explain that strong leadership and good governance are crucial to developing institutions as enterprises, developing institutional entrepreneurs and overall entrepreneurial culture within a HEI. The assertion of Abesi, etal. (2016) and Hannon (2013) is supported by the (OECD/EU, 2018) report which established that strong leadership and governance can stimulate innovation of all kinds in an organization that is held together by a shared vision, mission and culture.

According to Urbano and Guerrero (2013), good leadership and governance guide the process of entrepreneurship through inducting stakeholders to take on entrepreneurial efforts in relation to a university's strategic direction. Shattock (2010) writes in concurrence, contend that strong leadership is supposed to be reflected in the strategic direction of universities and that the leadership of a university must promote institutions entrepreneurship agenda. This implies, good entrepreneurial leadership and governance enhances an environment that contributes to, and provides for entrepreneurial thinking, innovation and opportunity recognition, processing and

growth (Al Mamun, et al., 2018; Honig, & Hopp, 2016). Thus, in order for Makerere University and any other HEIs to develop in innovativeness and entrepreneurial culture, strong leadership and governance are crucial (Cova & Solcan, 2018). The author agrees with suggestion by (O'Connor, 2012) who opine that governance structure of a university should be integral to the nature of that university's entrepreneurial vision and mission and also be integral to a country's mission and vision.

3.1.2 Organizational Capacity, People and Incentives for Entrepreneurship

Entrepreneurial HEIS continuously aim at developing their organisational capacity (Haskins, & Robertson, 2012). As reported by the (OECD/EC, 2018), organisational capacity of a HEI drives organisation's ability to deliver on its strategy. OECD/EC further observes that, for a HEI to succeed in carrying out entrepreneurial activities, and to be able to support its strategic objectives, then key resources such as funding and investments, people, expertise and knowledge, and incentive systems need to be in place to sustain and grow its capacity for entrepreneurship (OECD/EC, 2018). Many scholars (e.g. Bryan, 2011; Gibb, Haskins, & Robertson, 2012; Guerrero, et al., 2014; Wagner-Rundell, 2015) have written in respect of organization capacity's linkage to governance structures of the university. The afore mentioned scholars indicate that the level of entrepreneurial development in an organization can be determined by the strength of the Organization capacity.

According to Graham (2014), universities are entrepreneurial when they start to maximize their potential, develop human resource capacity, diversify funding sources and reduce their dependency on state public funding. In concurrence, Budyldina (2018) and Guerrero, Cunningham

and Urbano (2015) contend that, the success of university's entrepreneurial activities depends on the use of a sustainable financial strategy. Reyes (2017) associates several finance and autonomy issues in relation to managing an entrepreneurial university. However, Reyes (2017) raised the idea that funding from other sources may result in additional demands and expectations from stakeholders. However, many universities, including Makerere University, continue to rely on government subventions albeit which are continuously reducing (Kasozi, 2017). In Uganda, the Government controls public university finances as attested in (Kasozi, 2017; Kasozi & Mamdani, 2016). Government controls of public university finances, coupled with government red tapes, may affect universities autonomy in planning for entrepreneurial activities hence the poor performance of the enterprises.

Entrepreneurial universities ought to have an effective reward system and formal policy for career development for all staff, which addresses the entrepreneurial agenda and is tailor made for their own key goals and objectives (Allison & Eversole, 2008; Ankrah & Al-Tabbaa, 2015). The EC-OECD (2017a) suggested that encouraging and rewarding entrepreneurial behaviour in all staff reinforces commitment to developing as an innovative University. At Makerere university, incentives and rewards to staff are established in the Makerere University Human Resources Manual of 2009 (Makerere, 2009). However, due to the fact that Makerere University, has had a record of industrial actions by the university academic staff on issues of incentives and rewards (Rwendeire,2016), suggests further study on effectiveness of rewards and incentives in enhancing entrepreneurial culture at the university.

3.1.3 Entrepreneurship Development in Teaching and Learning

Entrepreneurial teaching and learning involve exploring innovative teaching methods and finding ways to stimulate entrepreneurial mindsets (Hanon,2013). Quality Assurance Agency (QAA) (2012) defines this education as the process of developing students in a manner that enhances their capacity to generate ideas and the behaviours, attitudes and competencies they need to be innovative. Several scholars (see, Zhang, Duysters, and Cloudt, 2014; Fayolle, Gailly Potter, 2008; Fayolle, & Lassas-Clerc, 2006) observe that entrepreneurial education is an important determinant of entrepreneurial intentions and has to be integrated in universities' mission. Integrating entrepreneurship in universities' mission compels them to work towards transformation of traditional teaching and research universities towards being entrepreneurial (Arnaut, 2010).

A study by (Samuel, & Rahman, 2018) identified various methods of teaching that can promote entrepreneurship to include; case studies, business plan creation, problem-solving, group discussions, and seminars. This suggest that Makerere university has to create courses based on practical education and diversify teaching approaches as suggested by (Lackéus, Lundqvist, & Middleton, 2015; Samuel, & Rahman, 2018). However, these activities would be more meaningful if facilitated at the unit level, and learning outcomes validated at the institutional level (O'Connor, 2012). This means that, universities are to create departments that manage entrepreneurial activities within the institution, and put structures to monitor performance of entrepreneurial activities need to be in place.

However, the [Uganda] National Council Higher Education (NCHE) and the, Universities and Other Tertiary Institutions Act (UOTIA) 2001 as amended in 2006, does not clearly spell out

entrepreneurship intentions for HEIs (Government of Uganda,2001). On the other hand, entrepreneurship in teaching and learning at Makerere University is supported by Makerere University Learning and Teaching Policy (2017) (Makerere, 2017). The policy is anchored in the Makerere University strategic plan (2008/9 - 2018/19) (Makerere,2008). Despite the availability of national frame work and institutional policy on teaching and learning, there is need for engagement and collaboration with external stakeholders for success of entrepreneurial intentions.

3.1.4 Pathways for Entrepreneurs

Entrepreneurial University, is the university in which entrepreneurs can be made and nurtured through formal and informal educational practices (Savetpanuvong, & Pankasem, (2014). Byrnes, Paez, Blacker, Jackson, & Dwyer, 2010). As asserted by (Byrnes, Paez, Blacker, Jackson, & Dwyer, 2010), for HEIs to be entrepreneurial, they should facilitate those who aspire to be entrepreneurs including; staff and students. In literature, (Clark, 2015; EC-OECD, 2012; Hanon, 2013; OECD/EC, 2017a, b, &c) agree that, Universities have potential entrepreneurs, and for universities to become entrepreneurial, they need to support enterprising staff and students on the latter's pathway to becoming an entrepreneur. EU need to mobilize their staff and students for entrepreneurial careers, enhancing their entrepreneurial skills, and providing support for business start-up (OECD/EC, 2017a, b, & c). HEIs can therefore, provide this support directly themselves or refer potential entrepreneurs to specialized start-up support services within the (local) entrepreneurship ecosystem.

In this regard, the United Nations Conference on Trade and Development (UNCTAD) (2015) suggests that, entrepreneurship policy should be at the heart of entrepreneurship. This would help

in building the skills necessary for successful entrepreneurship (UNCTAD, 2015). Universities are, therefore, expected to support the entrepreneurs' choice through multiple initiatives that are designed to spread entrepreneurial culture. Scholars (e.g. Bae, et. al, 2014; Fayolle & Gailly, 2015; Fini, et. al, 2012; Gurrueal et.al, 2015; Hofer & Potter, 2010) suggest, the spirit of entrepreneurship can be achieved when universities raise awareness of the importance or value of generating entrepreneurial abilities among students and staff. This implies that universities are to provide opportunities and facilities to act on ideas developed by students and staff. For example, university entrepreneurs can be supported through the creation of start-ups, offering courses, formal training, workshops, and business plan competitions. At Makerere University, so many teaching and learning activities take place, what is not clear is how the varied activities are tailored for entrepreneurial support and development, this may necessitate further study to this effect.

3.1.5 External Relationships for Knowledge exchange and entrepreneurship

Knowledge exchange is in recognition of the fact that universities do not hold a monopoly on knowledge and indeed have much to learn from external sources (Phillipson, Lowe, Proctor & Ruto, 2012). Gibs (2012) views knowledge exchange for entrepreneurship as the formal and informal transfer of discoveries and innovations resulting from scientific research conducted at universities to the commercial and non-commercial sector for public benefit. According to (Guerrero & Urbano, 2012), an EU is committed to knowledge exchange, and collaboration with public sectors and society. Collaboration and partnership should be integrated into the institutional policies of a university to manage relationships with all sectors (Guerrero & Urbano, 2012).

Leavy (2014) and Ramaswamy & Ozcan (2013) contend that knowledge exchange is an important catalyst for organizational innovation, the advancement of teaching and research and local development. Gibb, (2013) clarifies that an EU has the capability to recognize opportunities for collaboration and need for stakeholder engagement. However, in order to assure active engagement of key external stakeholders in the university's strategy, it is essential to develop a good engagement plan as part of a broader educational and learning activity (Redford and Fayolle, 2013).

The most innovative knowledge exchange outcomes are those that cross knowledge and organisational boundaries (OECD/EC, 2018). However, a HEI to succeed in this issue, need institutional autonomy to succeed in society engagement. Moses (2005) on discussion of institutional autonomy, and Watson (2008) giving an overview of the engagement of HEIS with society, observed that, HEIs are complex pluralistic organisations. Each department and discipline face different stakeholder environments with varying degrees of complexity (Watson, 2008). This suggests the importance of shared research facilities rather than department or university centric facilities. Interesting example for knowledge exchange is Sandpits in Netherlands HEIs (OECD/EC,2018). OECD/EC describes sandpits as; intensive discussion forums where free thinking is encouraged to delve into the problems on the agenda to uncover innovative solutions (OECD/EC,2018).

According to Thorp and Goldstein (2010), many knowledge intensive structures surround universities such as incubators and science parks. Therefore, universities should have a system in place that allows the cross-fertilization of knowledge and ideas from science and business parks

by providing open spaces for collaborations. Staff and students should have the opportunity to engage more extensively with the external environment across a range of entrepreneurial activities (Thorp and Goldstein, 2010). This is achieved when universities fully support knowledge exchange mechanisms and collaboration with the external environment (Abduh et al, 2012). This can take place by formal means such as part of an active curriculum and internships, or informally through other activities and means.

Reyes (2017) argue that there is need to put mechanisms in place by which the university can absorb information and experience from the wider ecosystem. For instance, in teaching, this may be in the form of internships, nominated business chair positions or guest lecturers or teaching opportunities. Similarly (Abreu & Grinevich, 2013; Abduh et al, 2012) point out that in research this may be in the form of collaborative partnerships, contract work or new knowledge from the teaching agenda. Although entrepreneurial universities are meant to have clear mechanisms for exploiting entrepreneurial opportunities with commercial and industrial partners, how it is done at Makerere University is not appropriately recorded.

3.1.6 Internationalization and Entrepreneurship

Internationalization is a crucial component of an entrepreneurial strategy of a university education (Gibb, Haskins, & Robertson, 2013). Internationalization includes integration of global and intercultural dimension into delivery, functions, and purpose of the university. Internationalization supports international mobility of the students and staff (Gibb, etal, 2013). Gibb, etal, elucidates, internationalization is done by attracting international students and staff and supporting its local students to participate in international activities (Gibb, etal, 2013). In addition, Hawawini, (2011) posits that internationalization is a process of integrating an international dimension into the

teaching, research and service functions of institutions. It includes integrating the institution and its key stakeholders (i.e., students and staff) into a globalizing world.

Scholars (e.g, Abreu & Grinevich, 2013; Gib, 2012; Gibb &Haskins, 2014; Hawawini,2011 and Reys, 2017) have put forward worthwhile activities and processes involved in university as an international institution. The activities include; university having the capacity and practice of international networks, international faculty, international students, international cultural dimensions in curriculum, international institutional agreements, research collaboration, visiting scholars, international development projects, joint degrees, joint extra –curriculum activities, developing multi -lingual capacity and campuses abroad. Tadaki &Tremewan (2013) declare that internationalization has become a mantra in higher education, what requires further study is how internationalization can facilitate universities like Makerere to succeed in entrepreneurial efforts amidst uncertainty and unpredictable environments.

3.1.7 Measuring impact of Entrepreneurship

The concept of an entrepreneurial university combines institutional self-perception, external and internal reflection with perceptions of external stakeholders on an evidence-based approach (OECD/EC,2018). This also applies measuring impact of university entrepreneurship. As postulated by (Gibb, 2012), the aim of impact measurement is to ascertain excellence as perceived through the eyes of all ‘legitimate’ stakeholders and whether this is reflected in [the university's] vision, mission, strategy and process (ways of doing things)”. However, findings from OECD/EC systemic assessment review reports of 2017-2018 in Bulgaria, Poland, Hungary, Ireland, and Netherlands, established that impact measurement in HEIs remains underdeveloped (OECD/EC,2017; 2018). The reports revealed impact measurements focused on the quantity of

spin-offs, the volume and quality of intellectual property generation and research income generation, rather than graduate entrepreneurship, teaching and learning outcomes, retaining talent, the contribution to local economic development or the impact of the broader entrepreneurial agenda.

The OECD/EC (2017a, b, & c) reports states that, the Entrepreneurial University need to understand the impact of the changes brought by monitoring and evaluation of their activities. Furthermore, scholars (e.g. Abreu & Grinevich, 2013; Ankrah & Al-Tabbaa, 2015; Budyldina, 2018; Reyes, 2017 and Stockholm, 2018) have emphasized need and values of monitoring and evaluation of entrepreneurial activities in universities. Grandien and Johansson (2012) argue that, for internal measurements this may include the number of start-ups and spins offs, patents, new research ideas and new relationships. For external measurements it should include the perceived value and impact of the university on the wider stakeholder environment. It is important to monitor and evaluate start-up support activities closely to ensure that they are providing the type and quality of support that is needed and to ensure that these activities are delivered in the most effective manner (Andersson, & Evers, 2015 and Grandien & Johansson, 2012).

At Makerere University, the Self- Assessment Reports (2017 and 2013), the strategic plan (2008/9-2018/19), and various policies such as Makerere University Learning and Teaching Policy (2017) and Makerere University Human Resource Policy (2009) conform to views by the fore mentioned scholars. The reports and policies subscribe to the need for the University like any other HEI for example: to set clear intended outcomes/impacts related to its entrepreneurial agenda, collect evidence of the outcomes/impacts of the entrepreneurial agenda and use the evidence of the outcomes/impacts as a tool for reflection and review of the strategy and mission of the institution.

4.0 Methodology

The study was carried out using mixed method approaches and the exploratory case study design. The exploratory, case study design option was used because of its valuable characteristic of enabling a holistic review of the case, supporting a holistic understanding and interpretation of the systems of action (Yin, 2009). This is congruent with the objective of examining Makerere University's characteristics to reach value judgments on the applicability of the HEInnovate framework. Different sources and methods for data collection were used. With regard to secondary data, the researcher relied on surveying the literature relevant to the topic, publications by reports on supporting innovation and entrepreneurship in HEIs, journal articles and editorials. Purposive and cluster sampling were used to select 150 participants who include; 50 members of Makerere University academic staff, 80 student leaders, 4 policy makers (University Council members), 6 University top administrators, 10 middle managers (deans and principals). Data collection instruments were self-administered structured questionnaires (SAQs) and in-depth interview guides. Data from SAQs administered on academic staff and students was analyzed using SPSS software to generate descriptive statistics and data from IIGs administered on policy makers and top management was transcribed for qualitative analysis, findings triangulated with results from qualitative data analysis.

4.0 Study findings and analysis

In this section, study findings are presented according to aspects tailored to each of the seven pillars of HEInnovate framework.

Findings

Leadership and Governance	Mean	Std. Deviation	N
I am aware of the departments' entrepreneurial strategy.	2.07	0.89	68
I am given autonomy to act on entrepreneurial initiatives.	3.26	0.94	68
I promote entrepreneurial development in the community (outside the university).	2.52	0.78	68
Organizational Capacity, People and Incentives			
I am aware of recent policies or new developments in driving the "spirit" of entrepreneurship at the university.	4.20	1.22	68
My entrepreneurial objectives are supported by a wide variety of funding sources that are outside the university.	4.48	1.10	68

In the study findings it was disagreed that respondents were aware of the departments' entrepreneurial strategy in the university (mean=2.07). This supposes that respondents had inadequate knowledge about the entrepreneurial strategies that are used by their respective departments at the university.

In the study, it was disagreed that employees are given autonomy to act on entrepreneurial initiatives (mean=3.26) within the university. This explains the fact that employees in universities believe that employees are not given autonomy to act on entrepreneurial activities within the university, employees may therefore not be able to initiate and innovate number entrepreneurial activities.

In the study, it was disagreed that employees promote entrepreneurial development in the community (outside the university) (mean=2.52). Findings in the study reveal that employees in the university do not actually promote entrepreneurial development in the community outside the university. Findings further revealed that respondents agreed that they are aware of recent policies or new developments in driving the spirit of entrepreneurship at the university in their respective departments (mean =4.20). This implies that the university is usually making an effort to disseminate information on entrepreneurship in respective departments.

Findings also revealed that respondents agree that entrepreneurial objectives are supported by a wide variety of funding sources that are outside the university (mean=4.48). This confirms that the university has had known funding prospects from outside sources to support university entrepreneurial objectives. However, this has not led to full functionalization of the university entrepreneurial activities.

	Mean	Std.	N
Entrepreneurship development in teaching & learning		Deviation	
My teaching (including supervision) stimulates the development of entrepreneurial mindsets in my students.	2.25	1.21	68

I participate in entrepreneurial training programs at the university	2.41	0.95	68
Pathways for entrepreneurs			
I raise awareness about the value of developing entrepreneurial abilities amongst my students.	2.11	0.81	68
I am supported in translating my entrepreneurial ideas into action.	3.72		68
The University facilitates me to access private financing for my entrepreneurial activities.	1.81	0.73	68

Study findings revealed that respondents disagreed that teaching (including supervision) stimulates the development of entrepreneurial mindsets in students (mean=2.25). This indicates that the teaching in itself and supervision does not necessarily stimulate the development of an entrepreneurial mind set among students and prospective entrepreneurs in the university. In the study, respondents disagree that they participate in entrepreneurial training programs at the university (mean= 2.41). This shows that staff members do not participate in entrepreneurial training, this could be as a result of many factors that fail staff members to attend entrepreneurial training.

In the study, it was disagreed that university employees raise awareness about the value of developing entrepreneurial abilities amongst students (mean=2.11) and supported in translating my entrepreneurial ideas into action (mean=3.72). This infers that employees do not raise

awareness about value of entrepreneurial training among students. Also, there is difficulty in translating enterprising activities into action that is implementable activities. From the findings it was disagreed that the university facilitates staff to access private financing for my entrepreneurial activities (mean=1.81). This indicates that the university does not facilitate its employees to access private financing for the university entrepreneurial activities.

University-business or external relationships for knowledge exchange	Mean	Std. Deviation	N
I am committed to collaboration with external stakeholders (e.g. industry, society and the public sector).	3.86	0.86	68
Makerere university has strong links with incubators, science parks and other external initiatives, creating opportunities for dynamic knowledge exchange.	3.71	0.91	68
The University gives me opportunities to take part in entrepreneurial activities with external stakeholders (e.g. business organizations).	3.82	0.73	68
The Entrepreneurial University as an internationalized institution	2.87	0.69	68

I consider internationalization as a key part of my work
(i.e. teaching, research and community engagement).

The University has supported my international mobility (e.g. participation in staff exchange programs).	2.7	0.85	68
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Makerere university seeks and attracts international and entrepreneurial staff.	2.1	0.81	68
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Study findings revealed that respondents agree that university staff members are committed to collaboration with external stakeholders like industry, society and the public sector) (Mean=3.86). This suggests the university staff members have the commitment to do all collaborations of entrepreneurship with external players. It was however disagreed that the university has strong links with incubators, science parks and other external initiatives, creating opportunities for dynamic knowledge exchange (mean=1.71). This implies that where entrepreneurial links exist, the university has the chance and ability to use these links to gather entrepreneurial a support. This has however not been made since strong linkages have not yet been established so far.

Findings revealed that the University provides opportunities to take part in entrepreneurial activities with external stakeholders (business organizations) (mean=3.82). This implies that the university gives employees chance take part in entrepreneurship activities with external stakeholders. The findings revealed that respondents disagreed that consider internationalization

as a key part of my work for example teaching, research and community engagement) (mean=2.87). This implies that employees do not consider internationalization in terms of research, teaching and community member engagement.

In the study it was revealed that respondents disagreed that university has supported all employee's international mobility (mean=2.7) and was further disagreed that Makerere university seeks and attracts international and entrepreneurial staff (mean=2.1). This implies that actually university does not fully support all staff members to participate in exchange programs. Also, it was disagreed that the university seeks and attracts international entrepreneurship international staff members to promote entrepreneurial activities in the university

5.0 Discussion of Findings

The entrepreneurial strategies are expected to be known and implemented at the respective departments of the university (Urbano and Guerrero, 2013). The confirmation by employees that they are not given autonomy to act on entrepreneurial initiatives (mean=3.26) within the university, implies that entrepreneurial strategies in place are less known by university staff members in different departments of the university. This is in line with Urbano and Guerrero (2013) who assert that an entrepreneurial university needs to become an entrepreneurial organization, its members need to become entrepreneurs, and its interaction with the environment needs to follow an entrepreneurial pattern.

When employees are given autonomy to initiate entrepreneurial innovative activities, they are able to initiate and innovate number entrepreneurial activities that improve the applicability of entrepreneurial university. This relates to Esmer & Dayi, (2016) who assert that entrepreneurial

leaders are expected to be innovative and able to take risks and seize opportunities. They are expected to provide expert attention, have strong problem-solving focus, and ability to administer the institution with trust and openness. For these leaders to be successful, they need the support of effective and efficient governance.

Employees in the university do not actually promote entrepreneurial development in the community outside the university. This is associated with issues of governance and leadership (Kasozi & Mamdan, 2016). It is further related to Shattock (2010) who assert that in concurrence, contend that strong leadership is supposed to be reflected in the strategic direction of universities and that the leadership of a university must practice entrepreneurial traits. Strong leadership and good governance are crucial to developing an entrepreneurial and innovative culture (Cova & Solcan, 2018).

The teaching in itself and supervision does not necessarily stimulate the development of an entrepreneurial mind set among students and prospective entrepreneurs in the university. This has greatly affected the full applicability of the entrepreneurial university model at Makerere University. This is related to Fayolle and Redford (2014) who argues that Universities need to be entrepreneurial in terms of their organizational capacity, actions, orientation, education, structures, practices, and culture. Making universities think and act entrepreneurially is a challenge, which is compounded by the lack of consensus about the concept of an entrepreneurial university as opined in literature by (Audretsch, 2012; EC-OECD, 2012) and Fayolle & Redford, 2014). Thus entrepreneurial university is presented differently by different people depending on activity, circumstances in a given environment.

Staff members do not participate in entrepreneurial training, this could be as a result of many factors that fail staff members to attend entrepreneurial training. This has affected the applicability of university entrepreneurial model. This is related to Bikse, Lusena-Ezera, Rivza, Volkova, (2016) who assert entrepreneurship education considers teaching general knowledge of concepts related to entrepreneurship. A practical approach to provide entrepreneurial knowledge and skills (Guerrero, Cunningham, & Urbano, 2015) is questionable. Thus, academic institutions have to create courses based on practical education (Lackéus, Lundqvist, & Middleton, 2015; Rasmussen & Sørheim, 2006).

Employees do not raise awareness about value of entrepreneurial training among students. Also, there is difficulty in translating enterprising activities into action. That is implementable activities to effective effecting the university entrepreneurial university model. This is related to Küttim et al. (2014) who assert that entrepreneurship education has been shown to contribute to the development of entrepreneurial intentions. However, the university does not adequately facilitate its employees to access private financing for the university entrepreneurial activities. This has affected the actual applicability of the university HEInnovate framework to Makerere University. This is related to Budyldina (2018), who assert that fulfillment of the entrepreneurial activities depends on an institution's effectiveness, which is largely dependent on the adequacy of funding.

University staff members must have the commitment to do all collaborations of entrepreneurship with external players that may be used to successfully implement the entrepreneurial university model more efficiently and effectively. This is related to Phillipson, Lowe, Proctor & Ruto, (2012) who explain that Knowledge exchange is in recognition of the fact that universities do not hold a monopoly on knowledge and indeed have much to learn from external sources. Gibs (2012) views

knowledge exchange for entrepreneurship as the formal and informal transfer of discoveries and innovations resulting from scientific research conducted at universities to the commercial and non-commercial sector for public benefit.

Entrepreneurial links exist, the university has the chance and ability to use these links to gather entrepreneurial support. This has however not been made since strong linkages have not yet been established so far. This relates to Leavy (2014) and Ramaswamy & Ozcan (2013) who contend that knowledge exchange is an important catalyst for organizational innovation, the advancement of teaching and research and local development. Therefore, entrepreneurial universities need to establish knowledge intensive structures to support Knowledge exchange activities.

The university gives employees chance to take part in entrepreneurship activities with external stakeholders. Therefore, employees at the university are given opportunity to take part in entrepreneurship activities, though implementation of such entrepreneurial activities is always a problem and this affects the applicability of university entrepreneurial model. This is further explained by Thorp and Goldstein (2010), who explain that knowledge intensive structures surround universities such as incubators and science parks.

Employees do not consider internationalization in terms of research, teaching and community member engagement. This largely relates to Anderson, & Evers, (2015) postulation that access to new ideas for teaching and learning in the international environment can increase universities' ability to compete in the international market. Therefore, Universities should have a teaching and learning environment tailored to a more global audience. This should include classroom-based activities with a universal dimension, studying abroad, international exchanges and internships

University does not fully support all staff members to participate in exchange programs. Also, it was disagreed that the university seeks and attracts international entrepreneurship international staff members to promote entrepreneurial activities in the university and ensure effective applicability of entrepreneurial university model. This is related to Songkaeo & Yeong, (2016) who explain that an entrepreneurial university ought to have foreign branch campuses. Altbach (2015) and Wilkins, (2016) view an international branch campus as an off-shore entity of a higher education institution, operated by the institution or through a joint venture in which the institution is a partner in the name of the foreign institution.

6.0 Conclusion

The entrepreneurship is increasingly seen as a pathway and strategy for HEIs to succeed in uncertain and unpredictable environments (Clark, 2015; Gib, 2012; Gibb &Haskins, 2014; Hanon,2013). How universities create the pathways and strategies to reflect and respond entrepreneurially to their changing environments is analyzed through conceptual frameworks. The HEInnovate frame work (2012) and other such analytical frameworks enable universities to explore where they have opportunities to further develop. Makerere University has potential for entrepreneurship development, supported by external partners. Despite the potential for entrepreneurship development at Makerere University, there is scarce information on how develop the entrepreneurship agenda guided by HEInnovate framework. This is attested by the university academic staff responses little is known of the entrepreneurial strategies that are used by their respective departments. This is also reflected in the fact that employees in the university do not adequately promote entrepreneurial development in the community outside the university. The teaching in itself and supervision does not necessarily stimulate the development of an entrepreneurial mind set among students and prospective entrepreneurs in the university. Majority

of the staff members do not participate in entrepreneurial training. Employees do not consider internationalization in terms of research teaching and community member engagement. Following established fact that there are some shortfalls in development of entrepreneurship at Makerere University, alongside variety of interdependent, yet autonomous actors. future studies may consider how to promote entrepreneurship at Makerere University using the lenses of “Complex adaptive systems and complexity theory”.

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