Entrepreneurial Eco-system and Building a university based Entrepreneurial Eco-system

Stella-Maris Kamanzi (PhD) Student

- Makerere University

kamanzistellamaris@gmail.com

Abstract

The spirit of New Frontiers in Entrepreneurship that runs through this paper is connecting thinking and practice, using the lens of exploring factors that influence the success of EE and development of University-based entrepreneurial ecosystems(U-BEEs). The study objectives are to: assess the role of entrepreneurial: surrounding environment; interacting actors; and culture and attitudes in building a University based entrepreneurial ecosystem at Makerere University. Exploratory case study design, with purposive and cluster sampling technique were used to select 315 out of 1500 members of Makerere University academic staff, while simple random sampling was used to select 36 out of 40 student's faculty leaders of academic year 2017/2018. Sample size was determined using Krejcie and *Morgan* (*1970*) *table of determining sample size for research activities. Quantitative approaches were used and data was collected by use of a self-administered questionnaires (SAQs). Collected data was analysed using Statistical Package for the Social Sciences (SPSS***)** *software to obtain descriptive statistics. The study established that; Makerere University has potential investors, partner organizations and individuals to support entrepreneurial activities. The university also has a culture of startups, but this has not led to developing a successful entrepreneurial eco-system at the institution. The regression model results show that any changes in entrepreneurial surrounding environment would lead to 23% chance change in entrepreneurial Eco-system success. It was therefore recommended that there is need to create a conducive environment that enables the flourishing of Entrepreneurial Eco-system, and have direct research on how best Entrepreneurial Eco-system can be improved. The limitations of this study include use of quantitative methods which did not clearly give in-depth understanding of the study. Future researchers can focus on longitudinal study and use qualitative methods for in-depth knowledge on other factors that influence success of EE and building UBEE in a broader way.*

Key words: *Eco-system, Entrepreneurship, Entrepreneurial Eco-system and University-Based Entrepreneurial Ecosystem*

1.0 Background

Ecosystems have been appropriated from the natural environment to other forms of environments (Stam 2015; Stam and Spigel 2017). Ecosystems have gained popularity in policy circles (Mack and Qian 2016; Spigel 2015), economic geography (Delgado, Porter, & Stern, 2010), business and economic development (Feld, 2012; Isenberg, 2014), academia and nonacademic audiences (Isenberg 2010, 2011; Graham,2014) leadership (Stam and Spigel, 2017) and entrepreneurship (Stam 2015). The study underscores entrepreneurship ecosystems (EE), although EE is growing in popularity, EE remains loosely defined because there is no consensus on its notion (Stam, & van de Ven, 2018). Cohen, (2006) defines EE as interconnected group of actors in a local geographic community committed to sustainable development through the support and facilitation of new sustainable ventures. Vogel, (2013) contextualizes EE as an interactive community in a geographic region, composed of different and interdependent actors and factors that evolve over time and whose actors and factors coexist and interact to promote the creation of new firms. Stam (2015) refers to EE as a set of interdependent actors and factors coordinated in such a way that they enable productive entrepreneurship. In a university context, **(**Brush, 2014) explains that EE constitutes entrepreneurial activities which focus on the development of entrepreneurship at the university level. The definition of EE adopted for the study is by (Mason and Brown, 2014), is defined as a set of interconnected entrepreneurial actors, entrepreneurial institutions and entrepreneurial processes which formally and informally coalesce to connect, mediate and govern the performance within the local entrepreneurial environment.

Several models explain different factors and actors responsible for building a successful entrepreneurial ecosystem (see Isenberg, 2011; Koltai, 2012; Khattab and Al-Magli, 2017) and

the Economic Forum (WEF) EE model (WEF, 2013); Foster et al., (2013) and HEInnovate (2012). Isenberg identified six domains within the entrepreneurial system: a conducive culture, enabling policies and leadership, availability of appropriate finance, quality human capital, venture friendly markets for products, and a range of institutional supports (Isenberg, 2011). Similar to Isenberg's approach, is the Six + Six Entrepreneurship Ecosystem Model (Koltai,2012). Koltai model composes of six pillars and six types of actors. The six pillars are: Identify, Train, Connect & Sustain, Fund, Enable, Celebrate, and the six types of actors involved in the ecosystem activity are: None Governmental Organisations (NGOs), Foundations, Academia, Investors, Government, and Corporations. Koltai's strategy for entrepreneurship development rests on the premise that no single factor alone moves entrepreneurship forward (Kolati, 2012).

The World Economic Forum (WEF) EE model (WEF, 2013) presents EE pillars as; accessible markets, Human Capital Source, Support Systems and Mentors, Funding and Finance, Government and Regulatory Framework, Education and Training, Major universities as catalysts and Cultural Support. Khattab and Al-Magli, 2017) proposed Integrated Model of Entrepreneurship Ecosystem which include; Media organisations, education and training institutions, government agencies, financial institutions, corporations and business organisations. Foster et al., (2013) EE model identifies eight factors as the main pillars for entrepreneurship development; accessible market, funds and finance, government and regulatory framework, major universities as catalysts, human capital source, support systems and mentors, education and training and cultural support. The author deduces, entrepreneurs thrive when multiple sectors and actors consciously work together to develop a supportive environment for entrepreneurship.

Related model for EE and UBE in the context of higher education institutions (HEIs) is the HEInnovate (2012) cited in (Brush, 2014).

According to (Brush, 2014), HEInnovate (2012) provides a structure for building a University Based Entrepreneurial Ecosystems (U-BEEs). The U-BEE structure deduced from HEInnovate frame work includes several individual levels (student, faculty, staff, administration), groups (faculty, students), organizations (incubators, centers), community events and stakeholders (government, founders) (Brush, 2014). Scholars (see, Greene, Rice, and Fetters, 2010; Fetters, Greene, & Rice, 2010; Graham, 2014 and Rice, Fetters, Greene, 2014), have articulated that heart of a U-BEE is a university and have emphasized the effective EE in building U-BEE. U-BEE is defined by Greene, etal., as a multidimensional enterprise that support entrepreneurship development through a variety of initiatives related to teaching, research and outreach (Greene, etal.,2010). Universities are therefore expected to promote entrepreneurial thinking, and act through various activities and initiatives which go beyond the institutions (Volkmann, 2009), by emulating robust model of the successful EE.

Robust models for success of EE have been particularly marked in key entrepreneurial growth nodes such as Silicon Valley and Boston (Saxenian, 1994; Lee, 2000), Boulder Colorado (Feld, 2012), the Copenhagen pharmaceuticals cluster (Mason and Brown, 2014), Oxford, UK (Lawton-Smith et al., 2008; Mason and Brown, 2014), Waterloo ecosystem (Ensign, & Farlow, 2016) and San Diego (Walshok, Furtek, Carolyn Windham, 2002). The aforementioned discourse illustrate the realities on development of EE and U-BEEs mostly in developed countries such as in North America and Europe. There is scarce information on development of

EE and U-BEEs realities in developing economies of Africa such as Ugandan higher education sector. Secondly, despite EEs wide attention and interest in interactions and interdependencies, the factors that influence success of EE and development of U-BEEs have raised concerns. This makes the study highly relevant and furthers the knowledge to fill up this gap. The study provides useful insights for policymaking and managerial practice in developing successful EEs and building U-BEEs. The rest of the paper is structured as follows: The objectives of the study, analysis of factors that influence success of EE and development of U-BEEs, methodology, data presentation and analysis of study findings, and discussions, conclusion, limitations and future research and ethical considerations.

2.0 Objectives

The objectives of the study were to;

i-assess the role of entrepreneurial surrounding environment in building a University based entrepreneurial ecosystem at Makerere University.

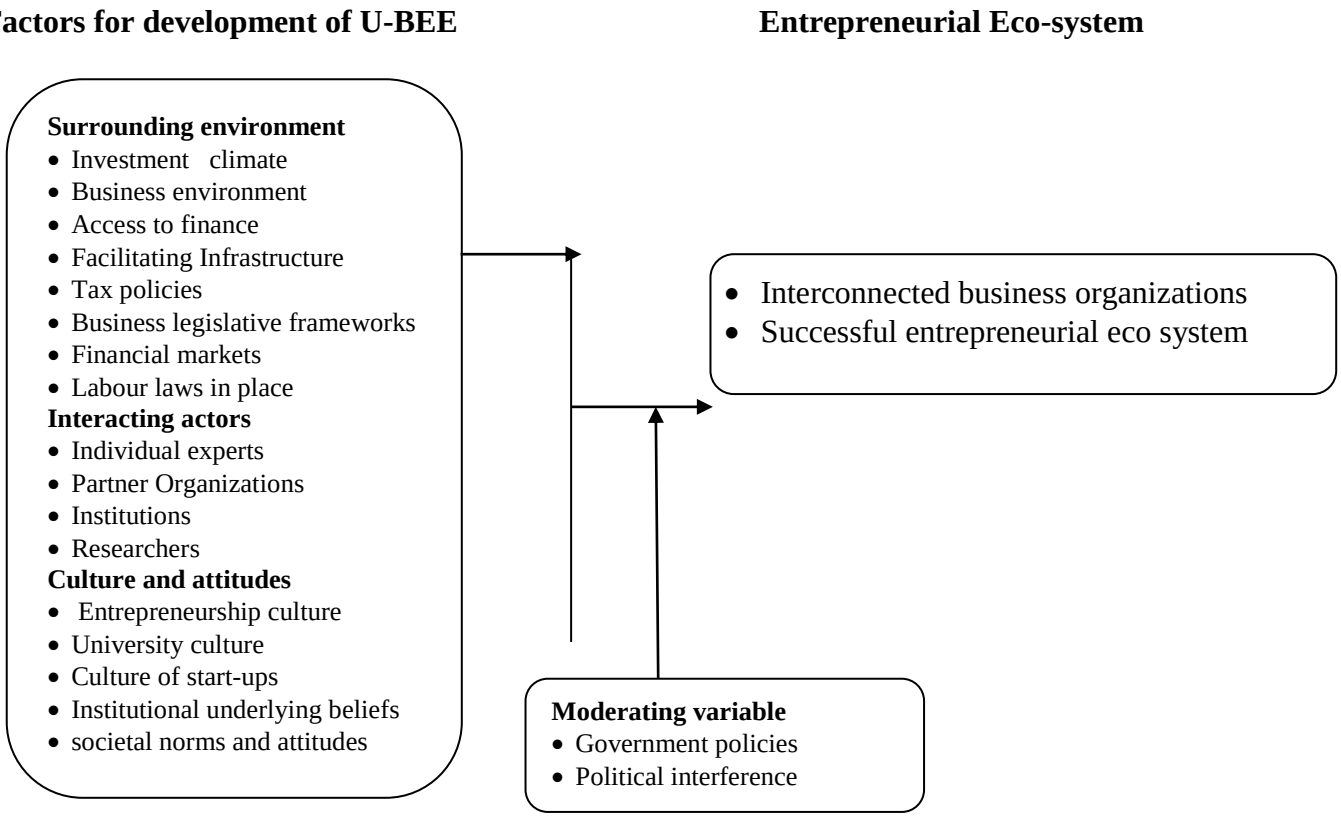
ii- assess the role of entrepreneurial interacting actors in building a University based entrepreneurial ecosystem at Makerere University.

iii- assess the role of culture and attitudes in building a University based entrepreneurial ecosystem at Makerere University.

3.0 Factors that influence success of EE and development of U-BEEs

This subsection analyses factors that influence success of EE and development of University-based entrepreneurial ecosystem. They include; surrounding environment, Interacting actors and Culture and attitudes.

3.1 Conceptual model of factors that influence development of University-based entrepreneurial ecosystem



Source: Author

3.1.1 Surrounding Environment

The business surrounding environment is a complex of policy, legal, institutional and regulatory conditions that govern business activity within an entrepreneurial ecosystem (Stam, 2015). It includes the administration and enforcement mechanism established to implement government policy, as well as the institutional arrangements that influence the way key actors operate (Mason

and Brown, 2014). As Delgado, Porter, & Stern, (2010) argue, entrepreneurial ecosystem requires a conducive business environment and investment climate. However, Delgado, Porter, & Stern, (2010) asserts that, for an organization to succeed in EE, there is need to consider a broader view of a country's competitiveness. As part of the investment climate there is need for financial markets (Feldman, 2014), economic predictability (Parker, 2013), favorable political situation, and effective labour markets, (Christopher, Harrison, & van Hoek, 2016). This implies, for a university to succeed in EE and building UBEEs, there is need to into account existing policy, rules and regulations as suggested by (Cohen & Fields 2010; Isenberg and Brown2014). This is expounded in the World Economic Forum's (WEF) (2013) report that national and international regulatory frameworks and the broader investment climate are among antecedents for success of EE.

3.1.2 Interacting actors

An EE provides a stage for a variety of actors that influence the conduciveness of a place towards entrepreneurship by different means (Anyadike-Danes et al., 2015). This is why many ecosystem mapping approaches look at the actors and their roles in the ecosystem (Fernandez, 2017). The actors can be individuals such as business founders, other organizations and model universities with longstanding and stable patterns of behaviour which guide humans (Lerner, 2010). However, (Lee, Sameen, & Cowling, 2015) suggests, in mapping approaches, it is important to know which actors either constrain or foster entrepreneurial activity. This is important for university management to consider relevant actors in promoting institutional entrepreneurial activities.

Business actors' need incubation to ensure effective implementation of entrepreneurial business ecosystems in an institution (Malecki, 2012). Malecki defines business incubator as a legal entity created to support small businesses at the stage of their development, by providing premises and equipment; organizational, legal, financial, consulting and information services (Malecki, 2012). Interactors' help business-incubators interact with large businesses as with potential investors, which will fund spin-off companies of university faculty. Business-accelerators can provide a space for entrepreneurs at the initial stage of their business operations (Sullivan and Ford, 2014). This indicates that University management, staff and students need to be attuned to the success of EE and be responsive to entrepreneurial opportunities within the business community.

Grilli and Murtinu, (2014) suggests that there is need for strong university leadership, who actively promote a clear and prominent entrepreneurial agenda that is heard and understood by staff, students and the regional community. Grilli and Murtinu, further recommends that university leadership are required to put priority in establishing a market for the university's innovative output, developing an approach that is responsive to regional constraints and opportunities (Grilli and Murtinu, 2014). University departments help the academic culture to acknowledge, support and rewards entrepreneurial activities within a cross-disciplinary context (Audretsch, 2015). It is therefore important to promote University-led entrepreneurial activities, distribute responsibility for entrepreneurial delivery across multiple university agencies, with a range of support services to promote entrepreneurial growth.

3.1.3 Evolving culture and attitudes

Entrepreneurial culture has been defined as the attitude, values, skills, and power of a group or individuals working in an institute or organization to promote entrepreneurial activities (Danish, Asghar, Ahmad, & Ali, 2019). Danish, etal., further describes that entrepreneurial culture in an organization consists in encompasses the organization's; vision, values, norms, systems, symbols, language, assumptions, beliefs and habits that are harmonized for the survival of the organisation (Danish, etal., 2019). Therefore, for a university like Makerere to survive, entrepreneurial culture culture has to be enhanced across all university faculties (Spigel,2017), for the formation of a positive attitudes towards entrepreneurship activities at the institution.

However, Aoyama (2009) points out that regional cultures influence entrepreneurial activities "by shaping acceptable entrepreneurial practices and norms. For example, Saxenian's (1994) comparison of Silicon Valley and Boston famously showed how cultural attitudes toward entrepreneurship and risk taking led to radically divergent economic and entrepreneurial paths. Cultural beliefs normalize outlooks about entrepreneurship, making it seem a standard part of a person's career path or as something to be undertaken only when no other options are available (Kibler, Kautonen, & Fink, 2014; Spigel, 2017). This helps create a milieu surrounding the entrepreneurship that supports firm creation and encourages others to support risky entrepreneurial endeavors.

Feld, (2012) noted that having an entrepreneurial attitude is important for startups to be successful. On the other hand, Fogel, (2006) opine that, given the hierarchical nature of universities, entrepreneurial culture may represent a significant obstacle to achieving the goals

entrepreneurial projects. There strong entrepreneurial attitude is important in shaping up successful ecosystems at the university. Isenberg indicates that cultural traditions have been recognized as a key component of successful entrepreneurial ecosystems (Isenberg, 2011). For example, Brad Feld's (2012) work on entrepreneurship in Boulder, Colorado stressed the importance of an inclusive positive entrepreneurial culture as a key factor in the success of this ecosystem. In conclusion, the author acknowledges, it is important for all stake holders to understand of the role that the culture of entrepreneurialism can play as a factor of the entrepreneurial ecosystem as was first discussed in Isenberg (2010) and extended by Autio et al. (2014).

4.0 Methodology

The study used exploratory case study design, with quantitative approaches. Purposive and cluster sampling technique were used to select 315 out of 1500 members of Makerere University academic staff (Makerere,2018) who had served the university for five years and above. They were taken to be more knowledgeable on University entrepreneurial activities. Selection was further purposively done across the ten constituent colleges of Makerere University for holistic representation of all university faculties. Simple random sampling was used to select 36 out of 40 student's faculty leaders of academic year 2017/2018. This gave each student leader a chance to be selected. Sample size for both academic staff and students' leaders was determined using Krejcie and Morgan (1970) table of determining sample size for research activities.

Data was collected by use of a self-administered questionnaires (SAQs), and handled according objectives of the study. All the measures used in the study consisted of items with five-point

Likert scales ranging from 1 = strongly disagree to 5 = strongly agree. Statistical Package for the Social Sciences (SPSS**)** software was used for entry, processing and analysis. Data processing involved checking the questionnaires to ensure they are properly filled, followed by coding, entering them in the computer and transforming data. Data was then analysed using both descriptive and inferential methods. Descriptive analysis involved computation such as: relative frequencies (percentages) and means. In establishing the relationships among variables Pearson correlation and regressions were used to ascertain the magnitude of effect the dependent variable has on independent variable. The level of significance was P=0.05.

5.0 Data presentation and analysis of study findings

Presentation data and analysis of findings were done according to study objectives.

5.1.0 Surrounding Environment

	Mean	Std. Deviation	N
There is a conducive investment climate to allow entrepreneurial activities to flourish in this university	1.11	.633	320
The business environment favors entrepreneurial growth in this university	2.22	.727	320
Access to finance opportunities by innovators favors entrepreneurial activities in this university	1.60	.621	320
The university has appropriate infrastructure to facilitate entrepreneurial activities in this university	1.34	.615	320

The tax policies in this country favor entrepreneurial activities in this university	1.91	.621	
Business legislative frameworks in the country favor entrepreneurial activities in this university	2.05	.601	320
The Labour laws in place favor entrepreneurial activities in this university	4.22	.741	320
Valid N (list wise)			320

Findings in the study revealed that majority respondents disagreed that there is a conducive investment climate to allow entrepreneurial activities to flourish in this university (mean=1.11) and also disagreed that the business environment favors entrepreneurial growth in this university (mean=2.22). Whereas, the investment climate exists at Makerere University, findings reveal that the business environment has not so favored entrepreneurship to achieve an effective and fully functional entrepreneurial eco-system within the university. A few startups and innovations have been initiated at Makerere university but have not fully evolved facilitate a successful and functional entrepreneurial ecosystem.

Findings in the study revealed that respondents disagreed to the statement that access to finance opportunities by innovators favors entrepreneurial activities in this university (mean=1.60) as other participants disagreed that the university has appropriate infrastructure to facilitate entrepreneurial activities in this university (mean=1.34). The study established that the university does not have adequate infrastructure to ensure a functional entrepreneurial eco-system in the university.

In the study, it was revealed that majority of respondents disagreed that the tax policies in this country favor entrepreneurial activities in this university (mean=1.91) and others disagreed that business legislative frameworks in the country favor entrepreneurial activities in this university (mean=2.05). This implies that whereas, there are tax policies in place to ensure that businesses grow and succeed especially in the country, there are no tax policies that favor university start ups and innovations. It was however agreed that the labour laws in place favor entrepreneurial activities in this university (mean=4.22). This implies that there are labor laws in place which could favor startups with in this university. Despite the existence of this favorable factor, other factors have not favored the full functioning of an entrepreneurial eco-system in the university.

5.1.2 Correlation between environment and entrepreneurial ecosystem success

Correlations

		Surrounding Environment	**Entrepreneurial Eco-system success**
Surrounding Environment	Pearson Correlation	1	.480**
	Sig. (2-tailed)		.000
	N	320	320
Entrepreneurial Eco-system success	Pearson Correlation	.480**	1
	Sig. (2-tailed)	.000	
	N	320	320

****. Correlation is significant at the 0.01 level (2-tailed).**

There is a positive significant relationship between Surrounding Environment in the entrepreneurial eco-system and entrepreneurial Eco-system success with in the university. The correlation coefficient of .480(**) with a significance value of .000 that explain the nature of the relationship between the two variables. Since the p.value is 0.000 higher than 0.01 the relationship is significant. This implies that the nature of entrepreneurial surrounding environment in place significantly influence entrepreneurial Eco-system success in Makerere University, this is applicable to other HEIs in the region.

5.1.3 A single regression surrounding Environment and entrepreneurial Eco-system success in this university

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.480[a]	.230	.215	.39158

a. Predictors: (Constant), Surrounding environment

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.785	.430		4.156	.000
	Surrounding environment	.480	.110	.480	4.345	.000

a. Dependent Variable: Entrepreneurial Eco-system success

The results of the regression analysis in the table above indicate the coefficient of determination R^2=0.230 which shows that 23% variation in Entrepreneurial Eco-system success is explained by changes in Surrounding environment. This suggests that any changes in entrepreneurial surrounding environment would lead to 23% chance change in entrepreneurial Eco-system success. The results also show that surrounding environment is significantly related with improved entrepreneurial Eco-system success (β =0.480, p<0.01). This means that improvement in surrounding environment that involve investment climate, business environment, access to finance, facilitating Infrastructure, tax policies, business legislative frameworks, financial markets and labour laws in place, is significantly and positively associated with improved entrepreneurial Eco-system success in the university.

5.2.0 Interacting Actors

	Mean	**Std. Deviation**	**N**
Makerere university has business investors who have supported entrepreneurial activities in the university	4.11	.722	320
The university has individual experts to offer expert advice on entrepreneurial activities in this university	3.81	.801	320
There are partner organizations that have supported entrepreneurial activities in this university	4.30	.702	320
Makerere university has previously involved partner institutions to develop entrepreneurial activities in this university	4.41	.813	320

The university researchers have played a great role in developing entrepreneurial activities in this university	1.91	.556	
There are strong synergies among different actors to develop entrepreneurial activities in this community	1.34	.821	320
Valid N (list wise)			**320**

Findings revealed that Makerere university has business investors who have supported entrepreneurial activities in the university (mean=4.11) and that the university has individual experts to offer expert advice on entrepreneurial activities in this university (mean=3.81). This implies that the university has potential investors who have supported entrepreneurial activities. The university also has a great number of experts who may be essential in offering expert advice on best practices of improving entrepreneurial activities in the effort to ensure Eco-system success at Makerere University.

It was also agreed that there are partner organizations that have supported entrepreneurial activities in this university (mean=4.30) and that Makerere university has previously involved partner institutions to develop entrepreneurial activities in this University (mean=4.41). This confirms that the university has partner organizations and individuals who have supported entrepreneurial activities. This ha however not led to building a successful entrepreneurial eco-system. Findings, revealed that participants disagree that the university researchers have played a great role in developing entrepreneurial activities in this university (mean=1.91) and they also disagreed that there are strong synergies among different actors to develop entrepreneurial

activities in this community (mean=1.34). This suggests the need for more research on developing entrepreneurial activities in this university.

5.2.1 Correlation between Interacting actors and entrepreneurial Eco-system success

Correlations

		Interacting actors	**Entrepreneurial Eco-system success**
Interacting actors	Pearson Correlation	1	.570**
	Sig. (2-tailed)		.000
	N	320	320
Entrepreneurial Eco-system success	Pearson Correlation	.570**	1
	Sig. (2-tailed)	.000	
	N	320	320

****. Correlation is significant at the 0.01 level (2-tailed).**

Study findings revealed a positive significant relationship between entrepreneurial Interacting actors and entrepreneurial Eco-system success. The correlation coefficient of .570(**) with a significance value of .000 explain the nature of the relationship between the two variables. Since the p.value is 0.000 higher than 0.01 the relationship is significant. This indicates that entrepreneurial interacting actors who include organizations, individuals and institutions play a

key role in ensuring that there is an effective entrepreneurial eco-system successfully built in the institutions.

5.2.3 A single regression analysis between interacting actors and Entrepreneurial Eco-system success

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.570[a]	.324	.313	.36319

a. Predictors: (Constant), Interacting actors

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.651	.403		4.098	.000
	Interacting Actors	.551	.099	.570	5.562	.000

a. Dependent Variable: Entrepreneurial Eco-system success

From the table above, regression results were obtained with a coefficient of determination R^2= .324 which shows that 32.4% variation in Entrepreneurial Eco-system success is explained by changes in entrepreneurial interacting actors. This infers that any changes in entrepreneurial interacting actors would lead to 32.4% chance change in Entrepreneurial Eco-system success at

Makerere University. In the study results confirm that entrepreneurial interacting actors is significantly related to Entrepreneurial Eco-system success at Makerere university (β =0.570, p<0.01). It can be deduced that, in the event that entrepreneurial interacting actors are effectively functional as reflected in terms of individual, organization individual experts, partner Organizations, institutions and researchers, then there is likelihood that entrepreneurial Eco-system success at Makerere University will significantly improve.

5.3 .0 Culture and attitudes

	Mean	**Std. Deviation**	**N**
The university has a strong entrepreneurship culture that supports entrepreneurial activities in the university	4.11	.611	320
The university culture is strong to support entrepreneurial activities at Makerere university	1.21	.782	320
The university has the culture of a start-ups that supports entrepreneurial activities in this university	4.10	.612	320
The institutional underlying beliefs supports entrepreneurial activities in this university	2.40	.723	320
The outside societal norms and attitudes support entrepreneurial activities in this university	1.11	.616	
Valid N (list wise)			320

Study findings revealed that Makerere University has a strong entrepreneurship culture that supports entrepreneurial activities in the university (mean=4.11), and the university has the culture of a start-ups that supports entrepreneurial activities in the institution (mean=4.10). This implies that the university has a strong entrepreneurial culture that supports entrepreneurial activities in the university. Although it was agreed that the university has a culture of startups, on the other hand, the existent culture of startups has not been able to ensure entrepreneurial Eco-system success at Makerere University. The university culture is strong to support entrepreneurial activities at Makerere university (mean=1.21) and the institutional underlying beliefs supports entrepreneurial activities in this university (mean=2.40). This indicates that there is a strong culture of entrepreneurship that support entrepreneurial activities in the university, and underlying beliefs that support such activities. It was however revealed that participants disagreed that the outside societal norms and attitudes support entrepreneurial activities in this university (mean=1.11). This infers that the societal values and norms do not specifically lead to a successful university entrepreneurial eco-system model.

5.3.1 Correlation between culture and attitudes and Entrepreneurial Eco-system success

Correlations

		Culture and attitudes	**Entrepreneurial Eco-system success**
Culture and attitudes	Pearson Correlation	1	.569**
	Sig. (2-tailed)		.000
	N	320	320
Entrepreneurial	Pearson Correlation	.572**	1

Eco-system success	Sig. (2-tailed)	.000	
	N	320	320

****. Correlation is significant at the 0.01 level (2-tailed).**

Study findings revealed a positive significant relationship between entrepreneurial culture and attitudes and Entrepreneurial Eco-system success. The correlation coefficient of .572 (**) with a significance value of .000 explain the nature of the relationship between the two variables. Since the p.value is 0.000 higher than 0.01 the relationship is significant. Therefore, in a situation where there is effective entrepreneurial culture and attitudes, there is likelihood that Entrepreneurial Eco-system success will be achieved at Makerere university in the entrepreneurship process.

5.3.3 A single regression analysis between

Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.445 [a]	.198	.185	.41745

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.445	.121		7.789	.000
	Culture and attitudes	.194	.036	.569	5.320	.000

Dependent Variable: EE success

From the table above, regression results were obtained with a coefficient of determination R^2= .198 which shows that 19.8% variation in Entrepreneurial Eco-system success is explained by changes in entrepreneurial culture and attitudes. This suggests that, any changes in entrepreneurial culture and attitudes would lead to 19.8% chance change in the Entrepreneurial Eco-system success. In the study results confirm that Culture and attitudes are significantly related to Entrepreneurial Eco-system success (β =0.445, p<0.01). This construes that, in event where there is improvement in; University Entrepreneurship culture, start-ups, institutional underlying beliefs and societal norms and attitudes, then there is likelihood that Entrepreneurial Eco-system success will significantly improve.

6.0 Discussion of Findings

Discussion of study findings is done according to study objectives.

6.1 Surrounding Environment

The study established that there is a positive significant relationship between Surrounding Environment in building the entrepreneurial eco-system and entrepreneurial Eco-system success with in the university (r=.480, r=0.000). This implies that the nature of entrepreneurial surrounding environment in place significantly influence entrepreneurial Eco-system success in this university. This confirms Feldman, (2014) assertion that a conducive business environment and investment climate which include domains of; financial markets, access to finance, financial regulations, the rule of law, and legal rights influences entrepreneurial Eco-system success.

In a model analysis, 23% variation in Entrepreneurial Eco-system success is explained by changes in Surrounding environment. This implies that any changes in entrepreneurial

surrounding environment would lead to 23% chance change in entrepreneurial Eco-system success. The results also show that surrounding environment is significantly related with improved entrepreneurial Eco-system success (β =0.480, p<0.01). This means that improvement in surrounding environment that involve investment climate, business environment, access to finance, facilitating Infrastructure, tax policies, business legislative frameworks, financial markets and labour laws in place, is significantly and positively associated with improved entrepreneurial Eco-system success in the university**.** This relates to Stam, (2015) who explain that the business surrounding environment is a complex of policy, legal, institutional and regulatory conditions that govern business activity within an entrepreneurial ecosystem. It includes the administration and enforcement mechanism established to implement government policy, as well as the institutional arrangements that influence the way key actors operate (Mason and Brown, 2014; Spigel, 2015).

The study established that whereas Makerere University has a conducive business environment and investment climate for an entrepreneurial university ecosystem to be successful, study findings reveal that business environment and investment climate at the university has not favored entrepreneurship to achieve an effective and fully functional entrepreneurial eco-system within the university. This is illustrated in a few startups and innovations initiated at Makerere university, but have not fully evolved facilitate a successful and functional entrepreneurial ecosystem. As suggested WEF, for an entrepreneurial ecosystem to be successful and functional, it has to take into account existing policy, rules and regulations and other factors that influence levels of competitiveness (WEF, 2013).

6.2 Interacting Actors

The study established a positive significant relationship between entrepreneurial Interacting actors and entrepreneurial Eco-system success at the university. This is confirmed by correlation coefficient of (r=.570, p=.000). This implies that entrepreneurial interacting actors who include organizations, individuals and institutions (Koltai,2012) play a key role in ensuring that there is an effective entrepreneurial eco-system successfully built in the institutions. This relates to Anyadike-Danes et al., (2015) who explain that an entrepreneurial ecosystem provides a stage for a variety of actors that influence the conduciveness of a place towards entrepreneurship by different means. This is why many ecosystem mapping approaches look at the actors and their roles in the ecosystem as argued by (Stam,2015). However, it is important to know which actors either constrain or foster entrepreneurial activity and whether there are any relevant actors missing.

The regression model shows that 32.4% variation in entrepreneurial Eco-system success is explained by changes in entrepreneurial interacting actors. This implies that any changes in entrepreneurial interacting actors would lead to 32.4% chance change in Entrepreneurial Eco-system success at Makerere University. As put forward in Koltai's (2012) Six + Six Entrepreneurship Ecosystem Model suggests, in the event that entrepreneurial interacting actors are effectively functional as reflected in terms of individual, organization individual experts, partner Organizations, institutions and researchers then there is likelihood that entrepreneurial Eco-system success at Makerere University will significantly improve. This further corroborates with Lee et al., (2015) assertion that in entrepreneurial development at university, the actors can be; individuals, such as business founders, organizations, other institutions, which are in a

sociological sense longstanding and stable patterns of behaviour which guide humans (Lerner, 2010). As observed by Koltai's model in the Six + Six model of EE, no single factor alone moves entrepreneurship forward (Kolati, 2012). Therefore, Makerere University has to be open to changes and be responsive to conditions that fevour growth of EE.

The study established that the university has potential investors who have supported entrepreneurial activities, has a great number of experts who may be essential in offering expert advice on best practices of improving entrepreneurial activities in the effort to ensure Eco-system success at Makerere University. This finding relates to Schreiber and Pinelli, (2013) who explain that rather than merely finding out whether all types of actors are present in an ecosystem and whether they engage, enable or hinder entrepreneurs, there is need to analyze their capacities and their interconnectedness. Whereas some individuals and organizations are interconnected through collaboration, mutual support or other relationships, others solely coexist or are unaware of each other's existence (Miller and Bound, 2011).

There are many researchers in the university researches, however few have been directly involved in doing research towards improving entrepreneurial activities in the university to build a successful entrepreneurial Eco-system based in the university. This is related to North et al., (2013) who explain that collaboration among individuals, organizations and institutions depends on various factors, including; benefits, all cooperating partners expect a benefit for themselves, transaction costs, the results achieved by the cooperation cover the associated costs, synergy; the cooperation partners are able to create new potential for all by using their individual strengths.

6.3 Culture and attitudes

There is a relationship between entrepreneurial culture and attitudes and Entrepreneurial Eco-system success (r=.572, p=0.00). This implies that in a situation where there is effective entrepreneurial culture and attitudes, there is likelihood that Entrepreneurial Eco-system success will be achieved at Makerere University in the entrepreneurship process. This is related to Giunta et al. (2016) who explain that the culture of a society has a large impact on the entrepreneurial ecosystem. As suggested by Isenberg in his model of EE, efforts to improve entrepreneurial culture and attitudes enhances EE success (Isenberg, 2011). Therefore, Makerere University may need to encourage all faculties to support entrepreneurial activities vis-à-vis promotion of EE at the institution.

In the regression model, 19.8% of the variation in Entrepreneurial Eco-system success is explained by changes in entrepreneurial culture and attitudes. This suggests that any changes in entrepreneurial culture and attitudes would lead to 19.8% chance change in the Entrepreneurial Eco-system success. Hence, in event of improvement in entrepreneurial culture and attitudes in terms of Entrepreneurship culture, university culture, culture of a start-ups, institutional underlying beliefs and societal norms and attitudes, there is likelihood that Entrepreneurial Eco-system success will significantly improve. This relates to Acs et al. (2013) who explain that in development co-operation, it is increasingly recognized that culture and attitude, alongside social protection schemes, are important factors that determine a country's level of entrepreneurship.

The university has a strong entrepreneurial culture that supports entrepreneurial activities in the university. Also, it was agreed that the university has a culture of startups though such has not

been able to ensure entrepreneurial Eco-system success at Makerere University. This is further explained by Fogel, (2006) who explain that institutional culture particularly the hierarchical structures can impede development of EE and may affect success of EE. Given the hierarchical nature of universities, entrepreneurial culture represents a significant obstacle to achieving the goals entrepreneurial projects. The mismatch between the culture of the university and the culture of a start-up business can hinder the transition of a project from the academic realm to the commercial realm (Samsom & Gurdon, 2003).

In light of the above, there is need of training for both administrators and researchers towards reshaping entrepreneurship culture in organizations as opined by (Van Burg et al., 2008). This is in agreement with propositions of HEInnovate (EC-OECD,2012) which are augmented in the in the study by (Brush, 2014) that, for a University to succeed in developing EE several actors are to embrace the culture of development of EE at the University. are to embrace the culture of development of EE at the University. The actors identified include; individual levels (student, faculty, staff, administration), groups (faculty, students), organizations (incubators, centers), community events and stakeholders (government, founders) (Brush, 2014). Indeed, this approach grows out of, and leverages, universities' principal role as educational institutions, if students can be given skills in development of EE across all University faculties, there would be a likelihood of enhancement of entrepreneurial success. However, (Brown et al, 2014) notes that a university culture should be an integral part of business cultures of a region and a country, if the university is to succeed in EE. The author concludes that, an institutional culture serves as a basis for the ecosystem on which all the other elements are based.

7.0 Conclusion

The aim of the study was to explore factors that influence the success of EE and development U-BEEs. The study objectives are to: assess the role of entrepreneurial: surrounding environment; interacting actors; and culture and attitudes in building a University based entrepreneurial ecosystem at Makerere University. The study established that, there is a constant interplay between the business environment and investment climate and the actors, which determines both the exact framework's design as well as the actors' interactions; therefore, all actors are mutually dependent. Culture and attitudes, constantly resonates with the business environment and investment climate and the actors' interaction (Krueger, 2007). The entrepreneurship investment climate exists at Makerere University for an entrepreneurial university ecosystem to develop. However, the prevailing surrounding environment has not been effective in ensuring a successful university entrepreneurial university eco-system. The university has interacting actors' in form of partner organizations, institutions, researchers and individuals who have supported entrepreneurial activities in the university.

On the other hand, the interacting actors have not been specific to the development of an entrepreneurial eco-system for Makerere University. This has not led to building a successful entrepreneurial eco-system at the university. The university has a strong entrepreneurship culture that supports entrepreneurial activities in the university, but this culture has not been very effective in building a successful entrepreneurial eco-system for Makerere University. The entrepreneurship culture has not been effectively molded to have a successful entrepreneurial eco-system model for the university.

8.0 Limitations and Future Research

The study was limited by various factors. First and foremost, the use of quantitative methods did not clearly give in-depth understanding of the study. Future researchers can focus on longitudinal study and use qualitative methods for in-depth knowledge on other factors that influence success of EE in a broader way. Secondly, the study focused only; on the role played by entrepreneurial surrounding environment; interacting actors; and culture and attitudes for success of EE and building EE, yet there are a number of other factors such as socioeconomic, institutional, political, organizational factors which could be explored in future.

9.0 Ethical considerations

In the study, the author considered the conventional research code of ethics for example, sources of literature were acknowledged. Use of the SAQs helped to maintain anonymity and confidentiality of respondents, and respondent's participation was voluntary. The findings were reported in aggregate forms, thus not endangering any body's privacy and confidentiality.

References

Acs, Z. J., Audretsch, D.B. and Lehmann, E.E. (2013), "The knowledge spillover theory of entrepreneurship", *Small Business Economics*, Vol. 41 No. 4, pp. 757-774.

Ács, Z. J., Szerb, L., Autio, E., 2013. Global Entrepreneurship and Development Index", Edward Elgar Publishing, Chelthenham, p. 352.

Autio, E., Kenney, M., Mustar, P., Siegel, D., & Wright, M. (2014). Entrepreneurial innovation: The importance of context. Research Policy, 43, 1097–1108.

Anyadike-Danes, M., Hart, M., & Du, J. (2015). Firm dynamics and job creation in the United Kingdom: 1998–2013. *International small business journal*, *33*(1), 12-27.

Aoyama, Y. (2009) Entrepreneurship and regional culture: the case of Hamamtsu and Kyoto, Japan. *Regional Studies* 43(3): 495–512.

Audretsch, D. B. (2015). Everything in its place: Entrepreneurship and the strategic management of cities, regions, and states. Oxford, U.K.: Oxford University Press.

Audretsch, D. B., & Belitski, M. (2017). Entrepreneurial ecosystems in cities: establishing the framework conditions. *The Journal of Technology Transfer*, *42*(5), 1030-1051.

Audretsch, D. B., & Belitski, M. (2016). Entrepreneurial ecosystems in cities: establishing the framework conditions. The Journal of Technology Transfer. doi:10.1007/s10961-016-9473-8.

Borissenko, Y., & Boschma, R. (2016). A critical review of entrepreneurial ecosystems: towards a future research agenda, No 1630. Section of Economic Geography: Utrecht University.

Brown, R. and Mawson, S. (2014) The Geography of Growth in High Growth Firms: The Implications of 'Growing Abroad', School of Management Working Paper, University of St Andrews.

Brown, R., Mawson, S., & Mason, C. (2017). Myth-busting and entrepreneurship policy: the case of high growth firms. Entrepreneurship & Regional Development. doi:10.1080 /08985626.2017.1291762.

Brown, Ross, and Colin Mason. 2017. "Looking Inside the Spiky Bits: A Critical Review and Conceptualisation of Entrepreneurial Ecosystems." *Small Business Economics* 49 (1): 11–30.

Brush, C. G. (2014). Exploring the concept of an entrepreneurship education ecosystem. In *Innovative pathways for university entrepreneurship in the 21st century* (pp. 25-39). Emerald Group Publishing Limited.

Christopher, M., Harrison, A., & van Hoek, R. (2016). Creating the agile supply chain: issues and challenges. In *Developments in logistics and supply chain management* (pp. 61-68). Palgrave Macmillan, London.

Cohen, B. (2006). Sustainable valley entrepreneurial ecosystems. *Business Strategy and the Environment*, *15*(1), 1–14. doi:10.1002/bse.428.

Danish, R. Q., Asghar, J., Ahmad, Z., & Ali, H. F. (2019). Factors affecting "entrepreneurial culture": the mediating role of creativity. *Journal of Innovation and Entrepreneurship*, *8*(1), 1-12.

Delgado, M., Porter, M. E., & Stern, S. (2010). Clusters and entrepreneurship. *Journal of Economic Geography*, *10*(4), 495–518. doi:10.1093/jeg/lbq010

OECD-European Commission Guiding Framework for Entrepreneurial Universities (2012) Retrieved from ttp://www.oecd.org/site/cfecpr/ECOECD%20Entrepreneurial%20Universities%20Framework.pdf.

Ensign, P. C., & Farlow, S. (2016). Serial entrepreneurs in the Waterloo ecosystem. Journal of Innovation and Entrepreneurship, 5, 20.

Feld, B. (2012). *Startup Communities: Building an Entrepreneurial Ecosystem in Your City*. Hoboken, NJ: John Wiley & Sons.

Feldman, M.P. (2014). The character of innovative places: Entrepreneurial strategy, economic development, and prosperity. *Small Business Economics,* 43(1), 9–20.

Feldman, M., Francis, J., & Bercovitz, J. (2005). Creating a cluster while building a firm: Entrepreneurs and the formation of industrial clusters. *Regional Studies, 39*(1), 129–141.

Fernandez, C. (2017). Mapping connections flourishes across city ecosystems. New York: Global Entrepreneurship Network.

Ferriani, S., Garnsey, E., & Lorenzoni, G. (2012). Continuity and change in a spin-off venture: the process of reimprinting. *Industrial and Corporate Change*, *21*(4), 1011-1048.

Fetters, M., Greene, P. G., & Rice, M. P. (Eds.). (2010). *The development of university-based entrepreneurship ecosystems: Global practices*. Edward Elgar Publishing.

Foster, G., Shimizu, C., Ciesinski, S., Davila, A., Hassan, S., Jia, N., & Morris, R. (2013, September). Entrepreneurial ecosystems around the globe and company growth dynamics. World Economic Forum (Vol. 11).

Fogel, K. (2006). Institutional obstacles to entrepreneurship. Stern School of Business, New York.

Gertler,M. S. (2010). Rules of the game: the place of institutions in regional economic change. Regional Studies, 44(1), 1–15.

Graham, R. (2014). Creating university-based entrepreneurial ecosystems: evidence from emerging world leaders. *Massachusetts Institute of Technology*. Available on line at :

https://www.rhgraham.org/resources/MIT:Skoltech-entrepreneurial-ecosystems-report-2014-.pdf. Accessed October,10th.2019.

HEInnovate (2012), The Entrepreneurial Higher Education Institution: A Review of the Concept and its Relevance Today. Retrieved from https://heinnovate.eu/intranet/tef/downloads/HEInnovate_Analytical%20paper.pdf.

Isenberg, D. (2010). How to start an entrepreneurial revolution. Harvard Business Review, 88(6), 40–50.

Isenberg, D. (2011). The entrepreneurship ecosystem strategy as a new paradigm for economic policy: Principles for cultivating entrepreneurship, invited presentation at the Institute of International and European Affairs, Dublin, Ireland, May 12.

Isenberg, D. (2014). What an entrepreneurship ecosystem actually is. Harvard Business Review blog, May 12.

Isenberg, D. and Brown, R. (2014) For a booming economy, bet on high-growth firms, Not Small Businesses. Babson Entrepreneurship Ecosystem Project. Retrieved from http://blogs.hbr.org/2014/02/for-a-booming-economy-beton-high-growth-firms-not-small-businesses/.

Isenberg, D., & Onyemah, V. (2016). Fostering scaleup ecosystems for regional economic growth. Innovations, 11(1–2), 60–79.

Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert scale: Explored and explained. *British Journal of Applied Science & Technology*, *7*(4), 396.

Khattab, I., & Al-Magli, O. O. (2017) Towards an Integrated Model of Entrepreneurship Ecosystem. *Journal of Business & Economic Policy Vol. 4, No. 4, December 2017.*

https://www.jbepnet.com/journals/Vol_4_No_4_December_2017/9.pdf. Accessed on October 14th. 2019.

Kibler, E., Kautonen, T., & Fink, M. (2014). Regional social legitimacy of entrepreneurship: Implications for entrepreneurial intention and start-up behaviour. *Regional Studies*, 48(6), 995–1015.

Koltai,(2012). *Entrepreneurship Ecosystem Analysis*. Koltai & Company, LLC. Available on line at: http://valuventures.ca/media-kit/. Accessed on; October 14th. 2019.

Kozhakhmetov, A., Nikiforova, N., & Maralbayeva, S. (2016). Entrepreneurial Ecosystem at Universities: Formation and Development. Available on line at: *https://www.academia.edu ›* Accessed on 14/09/2019.

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and psychological measurement*, *30*(3), 607-610.

Krueger, N. F. (2007). What lies beneath? The experiential essence of entrepreneurial thinking. *Entrepreneurship Theory and Practice*, 31(1)**,** 123-138.

Lawton Smith, H. (2013, November). Oxfordshire: key drivers of an entrepreneurial ecosystem. In *Presentation to OECD LEED Programme Workshop on Entrepreneurial ecosystems and Growth-oriented entrepreneurship, The Hague* (Vol. 7).

Lawton Smith, H. (2016). Entrepreneurial regions in theory and policy practice. In R. Shearmur, C. Carrincazeaux, & D.Doloreux (Eds.), Handbook on the geographies of innovation (pp. 334–350). Cheltenham: Edward Elgar.

Lee, C. M. (2000). *The Silicon Valley edge: A habitat for innovation and entrepreneurship*. Stanford, CA: Stanford University Press.

Lee, N., Sameen, H., & Cowling, M. (2015). Access to finance for innovative SMEs since the financial crisis. *Research Policy, 44*(2), 370–380.Lerner J. (2010) The future of public efforts to boost entrepreneurship and venture capital, *Small Business Economics*, 35, 255-264.

Lerner, J. (2010). The future of public efforts to boost entrepreneurship and venture capital. *Small Business Economics, 35*(3), 255–264.

Mack, E. A., & Qian, H. (Eds.). (2016). *Geographies of Entrepreneurship. Routledge studies in human geography*. New York, NY: Routledge.

Makerere University. (2017*). Makerere University 2016-2017 factbook*. Kampala, Uganda: Planning and Development Department.

Makerere University. (2018*). Makerere University 2017-2018 factbook*. Kampala, Uganda: Planning and Development Department.

Malecki, E. J. (2011). Connecting local entrepreneurial ecosystems to global innovation networks: Open innovation, double networks and knowledge integration. *International Journal of Entrepreneurship and Innovation Management, 14*(1), 36–59. doi:10.1504/IJEIM.2011.040821.

Malecki, E. J., & Spigel, B. (2017). Innovation and entrepreneurship. In H. Bathelt, et al. (Eds.), Elgar companion to innovation and knowledge creation. (pp. 625–637). Cheltenham: Edward Elgar.

Mason, C., & Brown, R. (2014). Entrepreneurial ecosystems and growth-oriented entrepreneurship. *Final Report to OECD, Paris, 30*(1), 77-102.

Miller, P., and Bound, K., 2011. "The Startup Factories: The Rise of Accelerator Programmes to Support New Technology Ventures." Nesta.

Moore, J. F. (1993). Predators and prey: A new ecology of competition. Harvard Business Review, 71(3), 75–86.

Motoyama, Y., & Knowlton, K. (2017). Examining the connections within the startup ecosystem: A case study of St. Louis. Entrepreneurship Research Journal, 7(1). https://doi.org/10.1515/erj-2016-0011.

North, D., Baldock, R., & Ullah, F. (2013). Funding the growth of UK technology-based small firms since the financial crash: are there breakages in the finance escalator? Venture Capital, 15(3), 237–260.

Parker, S. C. (2013). Do serial entrepreneurs run successively better-performing businesses? *Journal of Business Venturing*, *28*(5), 652-666.

Rice, M. P., Fetters, M. L., & Greene, P. G. (2010). University-based entrepreneurship ecosystems: Key success factors and recommendations. In M. L. Fetters, P. G. Greene, M. P. Rice, & J. S. Butler (Eds.), *The development of university-based entrepreneurship ecosystems: Global practices* (pp. 177–196). Cheltenham: Edward Elgar.

Rice, M. P., Fetters, M. L., & Greene, P. G. (2014). University-based entrepreneurship ecosystems: A global study of six educational institutions. International Journal of Entrepreneurship and Innovation Management, 18, 481–501.

Saxenian, A (1994) *Regional Competitive Advantage: culture and competition in Silicon Valley and Route 128*. Harvard University Press: Cambridge, MA.

Spigel, B. (2015). The relational organization of entrepreneurial ecosystems. *Entrepreneurship Theory and Practice*. Published online first DOI: 10.1111/etap.12167.

Spigel, B. (2017). The relational organization of entrepreneurial ecosystems. *Entrepreneurship Theory and Practice, 41*(1), 49-72.

Stam, E. (2015). Entrepreneurial ecosystems and regional policy: A sympathetic critique. *European Planning Studies*, *23*(9), 1759–1769. doi:10.1080/09654313.2015.1061484.

Stam, E., & Spigel, B. (2016). Entrepreneurial ecosystems and regional policy. In R. Blackburn, D. de Clercq, J. Heinoen, & Z. Wang (Eds.), SAGE Handbook for entrepreneurship and small business. Thousand Oaks, CA: SAGE Publications.

Stam, F. C., & van de Ven, A. (2018). Entrepreneurial Ecosystems: A Systems Perspective. *USE Working Paper series*, *18*(06).

Stuetzer, M., Obschonka, M., Brixy, U., Sternberg, R., & Cantner, U. (2014). Regional characteristics, opportunity perception and entrepreneurial activities. Small Business Economics, 42(2), 221–244.

Sullivan, D. M., & Ford, C. M. (2014). How entrepreneurs use networks to address changing resource requirements during early venture development. *Entrepreneurship Theory and Practice*, *38*(3), 551–574.

Vaillant, Y., & Lafuente, E. (2007). Do different institutional frameworks condition the influence of local fear of failure and entrepreneurial examples over entrepreneurial activity? Entrepreneurship and Regional Development, 19, 313–337.

Vogel, P., (April 18, 2013). The Employment Outlook for Youth: Building Entrepreneurship Ecosystems as a Way Forward *Conference Proceedings of the G20 Youth Forum, 2013.* Available at SSRN: https://ssrn.com/abstract=2357856 .

Walshok, M L.; Furtek, E L, Carolyn W.B.; Windham, P H (2002) Building regional innovation capacity: The San Diego experience, *Industry and Higher Education,* 16 (1), 27-42.

World Economic Forum [WEF]. (2013). Entrepreneurial ecosystems around the globe and company growth dynamics: Industry agenda. Geneva: World Economic Forum.

World Economic Forum. (2014). *Entrepreneurial ecosystems and around the globe and early-stage company growth dynamics—an entrepreneur's perspective*. Davos: World Economic Forum.http://www3.weforum.org/docs/WEF_II_EntrepreneurialEcosystems EarlyStageCompany_Report_2014.pdf.

Bio-data

Stella-Maris Kamanzi is a PhD student in the East African School of Higher Education and Development at Makererere University. She holds a Master's Degree in Public Administration and Management of Makerere University, and a Bachelor's Degree in Education of Kyambogo University. Academic research area is; funding higher education in Africa. Dissertation topic is: "The Applicability of Entrepreneurial University Model to flagship Universities in Africa; focusing on Makerere University, Uganda". She is a Mentee of CODESRIA college of mentors. A Member of Council for the Development of Social Science Research in Africa (CODESRIA), and *African Studies Association of Africa* (*ASAA).*