The Contribution of Innovation Spaces Processes on The Performance ofEarly-Stage Enterprises in Iringa-Tanzania

ABSTRACT

This study examines the relationships between crowdsourcing, ideation, and business plan competitions to evaluate the effect of innovation spaces on early-stage enterprises' performance. One hundred fifty participants were chosen for the study via convenience sampling from hubs in Iringa like SIDO TLED Hub, RLabs, Kiota Hub, and Agriedo Hub. Three goals were pursued: determining the impact of crowdsourcing on performance, examining the influence of ideation, and evaluating the contribution of business plan competitions. Factor analysis evaluated validity, while Cronbach's Alpha verified dependability. Both multiple regression analysis and Pearson correlation were used to analyze the data. Results reveal that ideation, crowdsourcing, business plan competition, and performance correlate positively. Recommendations: Early-stage companies should partner with spaces for resources and growth; innovation spaces should improve processes and support enterprises.

Keywords: crowdsourcing, ideation, and business plan competitions

1. INTRODUCTION

The business environment is increasingly competitive, agile, and rapidly evolving, which creates a demand for firms and entrepreneurs to remain innovative (Chesbrough, 2003; Tidd & Bessant, 2014). The emergence of global markets and technological advancements further intensifies competition, putting pressure on entrepreneurs to fully exploit their resources and competencies to foster innovation (Dodgson et al., 2018; Teece, 2018). Open innovation is a relatively new strategy for achieving this, which involves collaboration with other businesses and entrepreneurs, knowledge sharing, and collective intelligence creation (Chesbrough, 2003; Dahlander& Gann, 2010).

This study explores the potential of innovation spaces as a strategy to empower entrepreneurs by providing Business Support Services (BSS) for innovation and business growth. Innovation spaces offer guidance and support to entrepreneurs in their vulnerable start-up phase, thus nurturing the growth of entrepreneurial firms (Roy, 2011).

The concept of innovation spaces is relatively new in Tanzania, with the first spaces, including Bun Hub, Kinu Co-create Hub, and Mara Space, opening in Dar-Es-Salaam in 2011. Kiota Innovation Hub at the University of Iringa, where this study is conducted, was the first innovation hub to open in the Iringa region in 2016. Despite the emergence of more innovation spaces in Tanzania, the country still has a relatively small number of such spaces in the global innovation ecosystem (Dahmen &Schwittay, 2021; OECD, 2019).

Innovation spaces, also known as innovation hubs, are physical or virtual environments that foster collaboration between various stakeholders, such as industry, government, researchers, entrepreneurs, and end-users, to develop new solutions together

(Bretschneider et al., 2021). These spaces offer a communal, collaborative, and adaptive atmosphere for innovators to develop, test, and bring new products and services to the market (McGahan et al., 2020). Innovation spaces utilize various approaches, including innovation jams, hackathons, pitches, challenges, competitions, and brainstorming sessions to engage and support young entrepreneurs and businesses (Butter, 2019).

Moreover, innovation spaces promote community building and intensive collaborative innovation by enabling co-location, co-working, crowdsourcing, co-creation, design thinking, and open innovation practices (Schaffers et al., 2020). The provision of Business Support Services (BSS) by innovation spaces is based on the fact that many young entrepreneurs lack the necessary resources and factors for business success (Shane et al., 2018; Ratten et al., 2019). Establishing sustainable and successful enterprises by young entrepreneurs is crucial for creating additional employment and promoting county development. According to a recent report by the Kauffman Foundation (2019), new firms in the United States create the majority of employment, and public policies have been actively promoting new business establishments. Similarly, in Tanzania, there is a need to promote entrepreneurship and support new business owners.

Start-up entrepreneurs often face challenges related to inadequate access to business support services (BSS) during the early stages of business development (Baines & Wheelock, 2018). These challenges can include insufficient initial capital, limited access to financial sources, shortages in managerial and technical skills, lack of access to technical assistance and market information, time pressures, and a dynamic business environment (Storey, 2016).

Innovation spaces are a type of BSS that can address the needs of new start-up businesses and support their initiation, survival, and growth in entrepreneurial ways. Innovation spaces provide office space, flexible lease terms, access to technology, financing, and technical support such as marketing, finance, legal, human resources, and other business development services (Lerner et al., 2020). By offering these services, innovation spaces can play a crucial role in resource utilization, knowledge elevation, and skills transfer, both formally and informally (Woolley & Stacey, 2019).

Provision of business support services (BSS) to entrepreneurs can be achieved through innovation spaces, which act as a support mechanism and vital resource to meet the needs of Small and Medium Enterprises (SMEs) (Alakbarov, 2010). Due to the changing innovation landscape, internal R&D has often needed to be improved to create enough innovative ideas to gain a competitive advantage in ever-more competitive and changing markets. Consequently, firms and entrepreneurs are increasingly turning towards open innovation, a strategy of innovative activities that involves decentralized collaborations with external partners, including universities, peer firms, suppliers, and competitors. Furthermore, SMEs, frequently formed by entrepreneurs, have been cherished as a critical strategy in any county's economic growth and development (Ferguson & Olofsson, 2004).

To ensure the creation and survival of the business, BSS offered by innovation spaces should be accessible with the slightest conditions, such as fair entry and exit policies. Inadequate BSS (usually obtainable and accessible by innovation spaces) are among the most cited reasons for the failure to survive of numerous firms (MIT, 2003).

Although the government of Tanzania and development allies made various interventions to ensure up-and-coming business establishment, growth, and development, most entrepreneurs still need more access to BSS (Olomi & Issack, 2020). To safeguard the performance of early-stage enterprises and SMEs growth in Tanzania, this study becomes

necessary to assess the innovation space processes in boosting early-stage enterprises' performance.

1.2 Statement of the Problem.

The role of early-stage enterprises in shaping the world's economy is clear (Lovell, 2017). Young entrepreneurs are essential assets for the economic, political, and social life of our communities (Montgomery, 2001). Throughout history, young people have actively pursued to bring social, political, and economic change to their countries. Early-stage enterprises are today's and tomorrow's visionaries, educators, innovators, health professionals, and political and civic leaders vital to economic growth and well-being (Montgomery, 2001). Globalization, technological advances, and the spread of social networking offer new opportunities for youth entrepreneurs to connect and become more active participants in development (Clinton, 2012).

In the initial stages of their business development, enterprises often need more access to Business Support Services (BSS) (Ratten, 2015; Baker & Nelson, 2005). These BSS inadequacies comprise limited initial capital and financial resources, a lack of business management and technical know-how expertise, and a need for more access to technical assistance and market information. Early-stage enterprises also face challenges associated with time pressure and an unpredictable business environment (Shepherd & Shanley, 2015; Van Auken, 2009).

Furthermore, early-stage enterprises in countless sectors in Tanzania are faced with a range of challenges, from business creation survival and growth. Several students, graduates, and entrepreneurs are enthusiastic to start their businesses. Nonetheless, they have a partial capability of undertaking that creatively and innovatively, inconveniencing their ideas' scaling up.

This suggests a need for entrepreneurship promotion programs such as innovation spaces through which the accurate set of resources (tangible and intangible are accessible by start-ups). In Iringa, the entrepreneurship and innovation ecosystem keeps growing. Innovation spaces such as Kiota Innovation Hub, SIDO TLED Hub, RLabs, and Agriedo Hub have been operating in the region for a while now. Although innovation spaces promote entrepreneurship and innovation through several processes and support services, more is needed to know about the processes and support services offered by the innovation spaces and their contribution to the performance of early-stage enterprises.

This motivates the researcher to conduct a study that assesses the innovation space's processes' contribution to the performance of early-stage enterprises in Iringa and fill the existing knowledge gap.

2. MATERIAL AND METHODS / EXPERIMENTAL DETAILS / METHODOLOGY

2.1 Study Area

The research was conducted in four innovation spaces in Iringa town: SIDO TLED Hub, RLabs Tanzania, Kiota Hub, and Agriedo Hub. These selected innovation spaces were considered suitable for the study, as they comprised a mix of incubators, co-working spaces, living labs, and innovation hubs, and they actively catered to different groups of entrepreneurs at various stages of start-up development. Additionally, the researcher found these innovation spaces convenient for the study, as they provided easy access to a diverse group of participants at a low cost. Therefore, including these four innovation spaces was

considered appropriate and relevant to the study's objectives.

2.2 The Research Approach

The research approach utilized in this study aligns with Kothari's (2004) classification of two fundamental research approaches: quantitative and qualitative. The primary objective of this study was to explore the contribution of innovation space processes on the performance of early-stage enterprises. Considering the nature of the research question, a quantitative approach was chosen. This approach involves collecting and analyzing numerical data to provide insights into the correlation between innovation space processes and the performance of early-stage enterprises. This quantitative approach systematically examines the relationship between variables through statistical analysis, contributing to a more objective understanding of the phenomenon under investigation.

2.3 Research Design

The research design employed in this study is a descriptive cross-sectional research design. As defined by Burns and Grove (2003), descriptive research design aims to provide an accurate portrayal of a situation as it naturally unfolds. This study specifically adopted a descriptive cross-sectional research design to facilitate the researcher's ability to generalize findings to a broader population. This design was selected due to its capacity to gather quantitative data that can be subjected to descriptive and inferential statistical analysis (Saunders et al., 2009).

The utilization of descriptive research in this study allows for an exploration of the contribution of innovation space processes to the performance of early-stage enterprises. This approach enables the examination of the current state of the phenomenon, shedding light on the extent to which innovation spaces contribute to the performance of these entrepreneurs. The descriptive cross-sectional research design aligns with the study's aim to capture a snapshot of the relationship between innovation spaces and early-stage enterprises' performance.

2.4 Population and Sampling Procedures

2.4.1 Population

As defined by Cooper and Schindler (2006), the term "population" encapsulates the entirety of elements around which a study intends to derive specific inferences. Within the scope of this research, the study population encompassed the youth beneficiaries of the various innovation spaces. Drawing from data collected across the three innovation spaces, the study population was comprised of a total of 240 beneficiaries. Among this group, 31 beneficiaries were associated with SIDO TLED Hub, 21 with RLabs, 100 with Agriedo Hub, and 88 with Kiota Hub.

2.4.2 Sampling Technique

The sampling technique is the method by which a researcher selects individuals to gather information from a studied population (Kumar, 2011). In the context of this study, which involves beneficiaries from three distinct innovation spaces, a stratified sampling approach was employed. As Kumar (2011) outlined, stratification involves a two-step process where the population is divided into distinct sub-groups, each possessing equal and independent opportunities for selection in the sample. Furthermore, Kothari (2004) expounded that the principle of equality signifies that the probability of selecting any given element within the population is uniform, meaning that an element's inclusion in the sample remains

uninfluenced by external factors such as personal preferences. Therefore, for this study, the utilization of stratified sampling was deemed appropriate due to the presence of beneficiaries from multiple innovation spaces.

2.4.3 Sampling Frame

The sampling frame has a close relationship with the population. It involves attributes from which the sample of interest is drawn (Cooper & Schindler, 2006). According to Babbie (2002), sampling frame means the list of elements in which a sample is selected under probability bases. In this study, the sampling frame was made of a list of beneficiaries of the four innovation hubs: SIDO TLED Hub, RLabs, Kiota Hub, and Agriedo Hub.

2.4.4 Sample Size

Sample size refers to the number of elements to be included in the study (Kumar, 2011). For any sample design, deciding upon the appropriate sample size depends on five key factors: (1) Margin of error or precision, (2) Amount of variability in the population, (3) Confidence level, (4) Population size, and (5) Proportion of the population. It is essential to consider these factors together to achieve the right balance and ensure that the sample objectives are met.

From the population size of 240, the sample size of 150 respondents will be used based on Yamane's (1973) sample size formula as follows;

Where:

$$n = \frac{N}{1 + N(e)^2}$$

n = Sample size

N = Population size

e = the level of precision, expressed as a decimal

$$\frac{240}{1 + 240(0.05)^2}$$

From the above formula, the required sample for this study was 150 respondents who were made of the youth beneficiaries from the four innovations spaces

2.5 Types of Data and Data Collection Techniques

2.5.1 Types of Data

According to Kothari (2004), there are two types of data, which are primary and secondary. Primary data are those which are collected directly for the field. On the other hand, secondary data are those that have already been collected by someone else and passed through the statistical process. Based on this study, the researcher used both primary and secondary data.

2.5.1.1 Primary Data

Primary data are the information gathered directly from participants (Mlyuka, 2015). Primary data for this research was obtained using questionnaires shared with respondents to assess the contribution of innovation space processes in providing business supporting services on the performance of early-stage enterprises.

2.5.1.2 Secondary Data

Secondary data analysis can be defined as second-hand information used for analysis that was either gathered by someone else, for some other purpose, or often a combination of the two (Bryman & Bell, 2011). Secondary data can be classified into two sources, which are electronic-based sources and paper-based sources. Based on this, the researcher used electronic and paper-based sources to get the secondary data needed for this study.

2.5.2 Data Collection Techniques

This segment explains the particulars of the instrument which used to conduct this study.

2.5.2.1 Questionnaire

A questionnaire consists of several questions printed or typed in a defined order to be sent to respondents (Kothari, 2004). In this study, 150 questionnaires were distributed to beneficiaries from the four selected innovation spaces. The questionnaires included closed-ended questions designed in a way that they would produce relevant, valuable data.

According to Kothari (2004), the Likert scale consists of several statements that explain either favorable or unfavorable attitudes, and the respondents are asked to respond to the statement with a degree of either agreement or disagreement, and there are three to seven degrees. As for this study, six degrees were used. Respondents were required to circle out one answer among (1) strongly disagree, (2) disagree, (3) somehow disagree, (4) strongly agree, (5) agree (6) somehow agree. Thus, in this section, a six-point Likert scale was used.

2.6 Data Analysis

In data analysis, some of the most common ways of simplifying data are calculating the mean, percentage distribution, frequency distribution, etc. The researcher used the Statistical Package for Social Sciences (IBM SPSS v.20) to process the quantitative data in this study. Data analysis begins after the data have been collected and processed. In this study, the researcher adopted several types of analysis to analyze the findings, such as frequency distribution, Pearson Correlation Coefficient for correlation, and Multiple Regression Analysis.

2.7 Validity and Reliability of Data

2.7.1 Validity Analysis

The researcher ensured that the questions or information sought in the instruments addressed all the study objectives. After collecting data, the researcher tested the validity of the data through Principal Component Analysis by factor analysis using the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's test of Sphericity.

According to the research model, four factors with 16 observed variables align with the effect of innovation space's processes on the performance of early-stage enterprises. After surveying, the researcher tested the validity of the data through Principal Component Analysis by factor analysis using the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's test of Sphericity. The extracted factors were rotated

using the variance maximizing method (Varimax) at a factor loading of 0.45, which enabled the process of excluding all misunderstood factors.

Table 1 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.732
Bartlett's Test of Sphericity	Approx. Chi-Square	1896.067
	Df	120
	Sig.	.000

Source: Analysis of survey data (2023)

According to Table 1, the KMO and Bartlett's Test of sphericity showed that the data variables obtained after the data reduction process were significant (0.000) to measure the dependent variable. Furthermore, the research model remained with 16 variables extracted to 4 factors after removing less-than-0.45 factor loading variables. It revealed that the KMO values of all factors were more significant than 0.7, and Bartlett's Test significance was smaller than 0.05 (.000). The result of factor analysis for 16 observed variables is shown in the table below. This meant that the observed variables correlated with each other, and PCA factor analysis was appropriate.

Table 2 Rotated Component Matrix

Rotated Component Matrix[a]

	Component			
	1	2	3	4
C1	.752			
C2	.787			
C4	.737			
C5	.710			
C6	.771			
I1			.793	
I2			.824	
I3			.840	
I6			.777	
BPC1		.884		
BPC2		.770		
BPC3		.797		
BPC4		.747		
PYE2				.811
PYE3				.853
PYE5				.677

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 5 iterations.

Total Variance Explained

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.421	40.130	40.130	3.270	20.439	20.439

2	2.188	13.672	53.802	3.205	20.033	40.471
3	1.864	11.649	65.450	3.152	19.698	60.170
4	1.425	8.904	74.354	2.269	14.184	74.354
5	.886	5.540	79.894			
6	.707	4.419	84.313			
7	.633	3.958	88.271			
8	.568	3.551	91.822			
9	.295	1.845	93.667			
10	.254	1.585	95.252			
11	.188	1.177	96.429			
12	.164	1.027	97.456			
13	.152	.950	98.406			
14	.102	.640	99.046			
15	.089	.556	99.602			
16	.064	.398	100.000			
Extraction Method: Principal Component Analysis.						

All Eigenvalues values are larger than 1, and the percentage of cumulative variance is 74.354% means that factors could explain 74.354% the variance of observed variables. The result of PCA showed that there were 3 factors underlying this construct in which each factor represented each independent variable in the research model. Therefore, Cronbach's alpha would be tested with final observed variables to ensure the reliability of using measurement scale.

2.7.2 Reliability Analysis

According to Bryman & Bell (2011), the reliability of measurement is established by examining the stability and consistency of the data. In this research, Cronbach's Alpha coefficient will be used for estimating the internal consistency and reliability for a set of two or more construct indicators. A computed alpha coefficient will vary between 1 (denoting perfect internal reliability) and 0 (denoting no internal reliability). The reliability test providing Cronbach's alpha that is less than 0.70 is considered to have poor reliability (Hair et al., 2010), and variables are acceptable when the corrected Item–total correlation coefficient is 0.3 or more.

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Table 3 Cronbach's Alpha Reliability Test Result

FACTORS	OBSERVED VARIABLES	CORRECTED ITEM-TOTAL	CRONBACH'S ALPHA	NUMBER OF ITEMS

		CORRRELATION	BASED ONSTANDARDIZED ITEMS	
CROWDSOURCING	C1	.521		
	C2	.451		
	C4	.449	.842	5
	C5	.669		
	C6	.527		
IDEATION	I1	.783		
	I2	.834	.887	4
	I3	.734		
	I6	.673		
BUSINESS PLAN COMPETITION	BPC1	.745		
	BPC2	.765		
	BPC3	.638	.874	4
	BPC4	.760		
PERFOMANCE OF EARLY STAGE ENTREPRISES	PYE2	.827		
	PYE3	.561	.827	3
	PYE5	.677		

325

Reliability Statistics for All Variables

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.890	.894	16

326 Since Cronbach's alpha coefficients of factors after adjusting by PCA were quite high (all
327 much more than 0.7) and Corrected Item-Total Correlation were all larger than 0.3.
328 Therefore, it was still meaningful and reliable.
329
330 ## 3. RESULTS AND DISCUSSION
331
332 ### 3.1 Descriptive Analysis

333 Descriptive analysis is a branch of analysis that focuses on the summarization and
334 description of data that was collected from the survey (Weiers, 2008). This part was used to
335 provide an analysis of the demographic characteristics of the respondents obtained from the
336 survey and used the analysis to make general observations on the data, such as gender,
337 age, and marital status.

338 **3.1.1 Respondent Demographic Profile**
339 The researcher had distributed 150 copies of the survey questionnaires and had
340 received a 100% response from respondents. Among the respondents, 69 were female
341 and 81 were male. Regarding age, the most were below 30, and the least were between
342 31- 40. Also, regarding the level of education, we had nine secondary-level respondents,
343 124 bachelor degree holder respondents, and 17 master degree holder respondents.
344 The researcher fully utilized and analysed the 150 copies of the survey questionnaires..
345

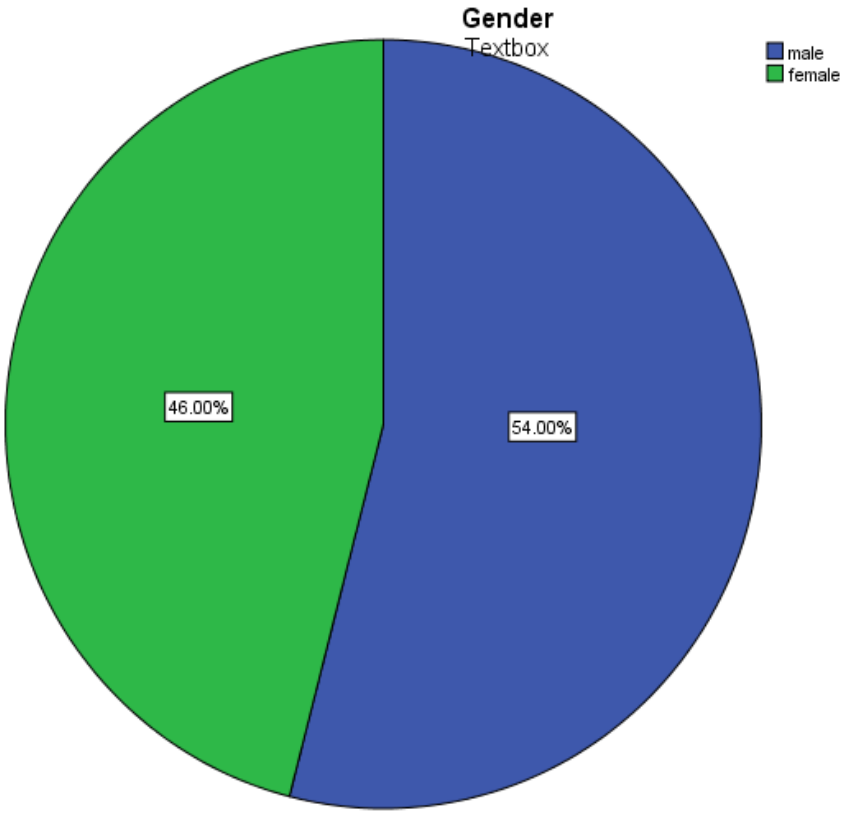

Figure 1 Respondents Gender

Figure1 shows that there were 150 respondents who participated in the survey questionnaires. The result of gender analysis consisted of 69 Female and 81 Male whose percentage was 46.0% and 54.0% respectively and the difference was 8%.

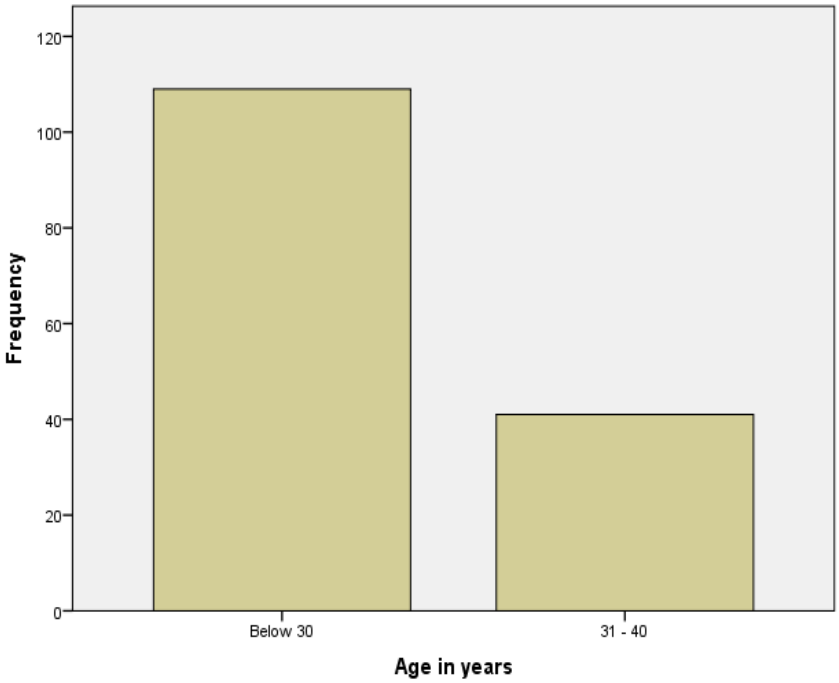

Figure 2 Respondents Age group.

Figure 2 above showed the respondents age groups. Based on the data collected, most of the respondents were below 30 years old, and very few ranked from 31-40 years of age.

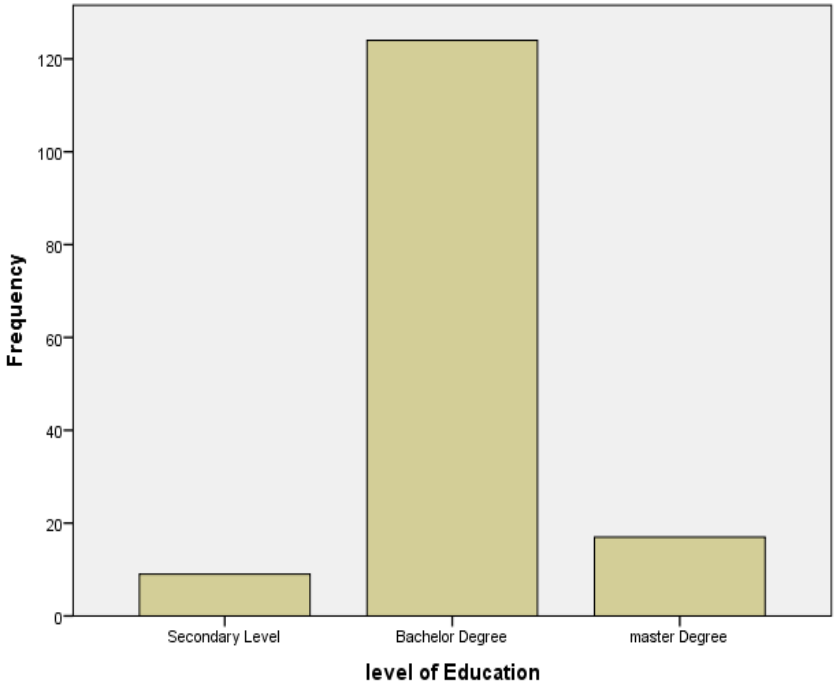

Figure 3 Level of Education

Figure 3 above shows that most of the respondents were bachelor degree holders. Master's degree holders were the second and secondary level were the least group.

3.2 Pearson Correlation Coefficient Test

Pearson Correlation Coefficient is a method that measures the strength of the linear relationship between two variables. Hair et al. (2007) noted that the Pearson Correlation Coefficient indicates the direction, strength and significance of the bivariate relationships among all the variables that were measured on an interval scale.

It also indicates the direction, the strength and significance of the relationship among all variables. The value of a Pearson's correlation can fall between 0.00 and 1.00. The value of 0.00 means there is no correlation whereas 1.00 means that is a perfect correlation. Ho is rejected when, P value <0.05, otherwise accepted.

Table 4 Rules of Thumb about Correlation Coefficient

COEFFICIENT RANGE	STRENGHTH OF ASSOCIATION
± 0.91 to ± 1.00	**VERY STRONG**
± 0.71 to ± 0.90	**HIGH**
± 0.41 to ± 0.70	**MODERATE**
± 0.21 to ± 0.40	**SMALL BUT DEFINITE RELATIONSHIP**
± 0.00 to ± 0.20	**SLIGHT, ALMOST NEGLIGIBLE**

Source: Hair, J., Money, A., Samuel, P., & Page, M. (2007). Research methods for business, New York: John Wiley & Sons, Inc.

Table 4: Correlations

		Crowdsourcing	Ideation	Business	Performance of Early stage enterprises
Crowdsourcing	Pearson Correlation				
	Sig. (2-tailed)				
	N	150			
Ideation	Pearson Correlation	.349**			
	Sig. (2-tailed)	.000			
	N	150	150		
Business	Pearson Correlation	.448**	.485**		
	Sig. (2-tailed)	.000	.000		
	N	150	150	150	
Performance of Early stage entreprises	Pearson Correlation	.288**	.476**	.478**	
	Sig. (2-tailed)	.000	.000	.000	
	N	150	150	150	150

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

3.2.1 Discussion of the Correlations Coefficients

Table 3.2 shows Pearson Coefficients Correlations between dependent variables (Performance of early stage enterprises) and each independent variable (Crowdsourcing, Ideation, and Business Competition).

3.2.3 Crowdsourcing and performance of early-stage enterprises.

Table 3.2 shows that there is a significant relationship between crowdsourcing and performance of early-stage enterprises. This is because the P-Value is equal to 0.000 and less than the alpha value 0.05. The value of the correlation coefficient, which is 0.288, falls under the coefficient range ± 0.21 to ± 0.40. As Hair et al (2007) addressed the strength of relationship between such coefficient ranges as small but definite, there is thus a small but definite relationship between crowdsourcing and performance of early stage enterprises.

3.2.4 Ideation and performance of early stage enterprises.

The table further indicates that as the P-Value is equal to 0.000 and less than the alpha value 0.05 which means there is a significant relationship between ideation and performance of early stage enterprises. Furthermore, the value of the correlation coefficient, which is 0.476, falls under the range ± 0.41 to ± 0.70 which Hair et al (2007) addresses such coefficient ranges as moderate. Thus, there is a moderate relationship between ideation and performance of early stage enterprises.

3.2.5 Business plan competition and performance of early stage enterprises.

Lastly, the table further indicates that as the P-Value is equal to 0.000 and less than the alpha value 0.05 which means there is a significant relationship between business plan competition and performance of early stage enterprises. Furthermore, the value of the correlation coefficient, which is 0.478, falls under the range ± 0.41 to ± 0.70 which Hair et al (2007) addresses such coefficient ranges as moderate. Thus, there is a moderate relationship between business plan competition and performance of early stage enterprises.

3.3 Multiple Regression Analysis

A multiple regression analysis is an analysis which involves one or dependent variable and two or more independent variables (Weiers, 2008). Zikmund et al (2010) further describes it as an analysis of association in which the effects of two or more independent variables on a single, interval-scaled dependent variable are investigated simultaneously.

Table 5: Model Summary

Model Summary				
	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.555a	.308	.293	.70312
a. Predictors: (Constant), Business, Crowdsourcing, Ideation				

Based on the table above, it shows that the value of correlation coefficient (Adjusted R square value) is 0.293 which indicates that independent variables could explain 29.3% of the variation in the dependent variable. However, it was still left 70.7% unexplained in the study.

Table 6: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	32.063	3	10.688	21.618	.000[b]

	Residual	72.179	146	.494		
	Total	104.242	149			

a. Dependent Variable: Performance of Early stage enterprises
b. Predictors: (Constant), Business, Crowdsourcing, Ideation

Table 6 shows that p-value (Sig 0.000) is less than alpha value 0.05. The alternative hypothesis of the two independent variables if significant explains the variance in the performance of early stage enterprises.

Table 7: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.660	.417		3.985	.000	.837	2.483
	Crowdsourcing	.038	.073	.041	.526	.599	-.105	.182
	Ideation	.246	.063	.312	3.905	.000	.121	.370
	Business	.358	.097	.308	3.677	.000	.166	.551

a. Dependent Variable: Performance of Early stage enterprises

Based on Table 7, coefficients show that: business plan competition is significant to predict the dependent variable. This is because its P-Values (0.000) are less than the alpha value 0.05.

Also, from Table 7, coefficients show that: Ideation is significant to predict the dependent variable. Because it's p-value (0.000) is less than the alpha value 0.05.

Again, from Table 7, coefficients show that: crowdsourcing has got negative significance to predict the dependent variable. This is because its p-values (0.599) are larger than the alpha value 0.05.
It is important to include the chi-square test of significance. It will add value to your results and discussion of the hypotheses

3.4 Discussion of Major Findings.

While the previous section of this chapter focused more onto the summary description of the entire descriptive and inferential analyses, this section is more specifically into the discussion on major findings in order to validate the research objectives as well as hypotheses.

3.4.1 Relationship between crowd-sourcing and the performance of early-stage enterprises.

Hypothesis 1 indicated that crowdsourcing had a significant influence on the performance of early-stage enterprises. The result showed that the P-value was 0.599 and the β-value was -0.105, which expressed that H1 was not supported. There was a significant impact between crowdsourcing and the performance of early-stage enterprises, and this is supported by Girdauskiene et al. (2015), who conducted a study on "Crowdsourcing as a Key Method for Start-ups Overcoming Valley of Death," which revealed the critical features of crowdsourcing that make a significant impact on start-ups performance.

"An article by Smith et al. (2013) titled 'How Can Entrepreneurs Motivate Crowdsourcing Participants' explores how entrepreneurs can motivate participants in crowdsourcing initiatives." At the same time, the author argues that technology entrepreneurs should consider crowdsourcing as a tactic to grow their technical community and get work done quickly, at low cost, and high quality.

Aburahma (2019) studied "Enhancing Entrepreneurial Abilities through Various Crowd-funding Models." The results showed an agreement from respondents on the importance of crowd-funding in enhancing entrepreneurs' abilities. Crowd-funding helps entrepreneurs obtain early-stage funding, connect with investors, and access investment for their enterprises.

3.4.2 Relationship between ideation and the performance of early-stage enterprises.

Hypothesis 2 indicated that ideation significantly influenced the performance of early-stage enterprises. The result showed that the P-value was 0.000 and the β-value was 0.121, which expressed that H1 was supported. The acceptance of this hypothesis supports the study of Mestrovic (2020), who revealed a significant favourable influence between ideation and overall SME performance.

Eesley (2014) conducted a study on “Entrepreneurial Ideation and Organizational Performance: Imprinting Effects,” which disclosed that enterprise ideas from Labs are well-engineered in a way that they align with a competitive market environment. Moreover, Kock (2014) studied “How Ideation Portfolio Management Influences Front-End Success.” The results revealed that ideation significantly contributes to the success of new products and enterprises.

3.4.3 Relationship between business plan competition and the performance of early-stage enterprises.

Hypothesis 3 indicated that business plan competition significantly influenced the performance of early-stage enterprises. The result showed that the P-value was 0.000 and the β-value was 0.166, which expressed that H1 was supported.

Acceptance of this hypothesis supports the study of Leimeister et al. (2009), who conducted a study on "Leveraging Crowdsourcing: Activation-Supporting Components for IT-Based Ideas Competition." The paper concluded that idea competitions contribute to enterprises' successful implementation and maintenance because they are primarily characterized by providing further support to develop promising innovative ideas.

Also, McKenzie (2015) conducted a policy-changing research paper on "Identifying and Spurring High-Growth Entrepreneurship: Experimental Evidence from a Business Plan Competition." The researchers launched a business competition to study different variables. At the end of the competition, they find that winning business competitions has substantial positive impacts on entrepreneurs looking to start new firms and those aiming to expand

existing enterprises. In addition, McKenzie (2015) finds this about competition winners: 37% start a business. 23% have a firm with ten employees.

Moreover, Thomas (2014) studied "Business Plan Competitions and Their Impact on New Ventures' Business Models." The study's findings suggested that participating in BPCs impacts the new ventures' business model.

Test of Significant

Hypothesis 1
H0: There is no significance relationship between crowd-sourcing and the performance of early stage enterprises.
H1: there is significance relationship between crowd-sourcing and the performance of early stage enterprises.

Reject H0, if p<0.05. For crowd-sourcing, the p-value is larger than 0.05 which is 0.000. Thus, H0 is not rejected. It indicates that the crowd-sourcing has got negative (-) influence on the performance of early stage enterprises.

Hypothesis 2
H0: there is no significance relationship between ideation and the performance of early stage enterprises.
H1: there is significance relationship between ideation and the performance of early stage enterprises.

Reject H0, if p<0.05. For ideation, the p-value is less than 0.05 which is 0.000. Thus, H0 is rejected. It indicates that ideation has got positive (+) influence on the performance of early stage enterprises.

Hypothesis 3
H0: there is no significance relationship between business plan competition and the performance of early stage enterprises.
H1: there is significance relationship between business plan completion and the performance of early stage enterprises.

Reject H0, if p<0.05. For business plan competition, the p-value is less than 0.05 which is 0.000. Thus, H0 is rejected. It indicates that the business plan competition has got positive (+) influence on the performance of early stage enterprises.

Table 4.6 Summary of Statistical Analysis

HYPOTHESIS	SIGNIFICANCE	CONCLUSION
H0: Crowd-sourcing has no significant relationship on the performance of early stage enterprises.	0.000	Supported
H1: Ideation has significant relationship on the performance of early stage enterprises.	0.000	Supported
H1: business plan competition has got a significance relationship on		

the performance of early stage enterprises.	0.000	Supported

4. CONCLUSION

This study's main goal was to first determine how crowdsourcing affected the success of early-stage businesses in Iringa. Second, look into how ideation affects the success of early-stage businesses in Iringa. The third goal is to determine how business plan competition affects early-stage enterprise performance. As a result, the researcher determined that ideation and business plan competitions and crowdsourcing had effects on early-stage enterprise performance. This study will help entrepreneurs and innovation spaces better understand how early-stage company performance is impacted by innovation space processes.

This study aimed to investigate the effect of innovation spaces' processes on the performance of early-stage enterprises in Iringa. The research focused on three critical factors: crowdsourcing, ideation, and business plan competition. The findings of this study shed light on the contributions of these factors to the performance of early-stage enterprises.

The research revealed that crowdsourcing, as an innovation spaces' process, had a positive influence on the performance of early-stage enterprises in Iringa. This suggests that relying heavily on crowdsourcing may be effective strategy for enhancing the performance of such enterprises in this region.On the other hand, ideation was found to have a significant positive impact on the performance of early-stage enterprises. This implies that encouraging creative idea generation within innovation spaces can play a crucial role in improving the overall performance of these enterprises.The study also highlighted the positive contribution of business plan competitions as an innovation spaces' process. This suggests that promoting entrepreneurial competitions and encouraging the development of robust business plans can be an effective strategy for advancing the performance of early-stage enterprises in Iringa.

The research underscores the importance of innovation spaces considering the factors of crowdsourcing, ideation, and business plan competitions as key drivers for enhancing the performance of early-stage enterprises in Iringa. These findings provide valuable insights for innovation spaces in Iringa and similar contexts, guiding them on where to focus their efforts in supporting and nurturing early-stage enterprises.

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AUTHORS' CONTRIBUTIONS

Angel Ezekiel Kiologwe designed the study, conducted statistical analysis, developed the protocol, and authored the initial manuscript draft. The analyses for the study were supervised by Drs. BlandikaKisawike and Haji Ngelenge.

ETHICAL APPROVAL

Ethics in research play a critical role in safeguarding the well-being and rights of research participants. in this study, ethical considerations were paramount, and several critical ethical principles were upheld to ensure that respondents did not suffer any adverse consequences due to the research. the study ensures that individuals clearly understand the study's purpose and voluntarily agree to participate. in this study, an introduction letter from the

postgraduate directory was used to request consent from organizations, aligning with the requirement for informed consent (World Medical Association, 2013). respondents were informed that their participation was voluntary, and there were no repercussions for those who declined to participate (American Psychological Association, 2017). in the study, participants were guaranteed to keep their information confidential, aligning with ethical standards (national institutes of health, 2018). the data collected was used solely for academic purposes and not for undisclosed or harmful intentions by ethical guidelines (CIOMS, 2016).

the researcher ensured that the whole research was ethically guided and that respondents had the privilege of refusing to answer the questions being asked if they thought that it was no longer included in their participation. lastly, any quotes and theories used by fellow researchers throughout the research report were accounted for by providing valid and genuine references of the researcher and source. this is to acknowledge the work of the researcher and the other contributors and thus avoid plagiarism.

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Definitions

Crowdsourcing

Refers to obtaining services, ideas, or content by soliciting contributions from a large group of people, usually via the Internet (Howe, 2008). Crowdsourcing involves harnessing the creativity and knowledge of a crowd to generate new ideas, solve complex challenges, or develop innovative solutions, often facilitated through online platforms (Brabham, 2008).

Ideation

This refers to generating, developing, and communicating new ideas (Cooper & Edgett, 2008). Ideation involves conceptualizing and creating innovative ideas through a blend of creativity and strategic thinking (Isaksen & Akkermans, 2011).

Business Plan Competition

A Business planning competition challenges participants to develop and present a business plan for a new venture. These competitions can be organized by universities, non-profit organizations, or private companies (Delmar & Shane, 2010).

ACRONYMS& ABBREVIATIONS

BPC: Business Plan Competition

BSS: Business Support Services

COSTECH: Commission for Science and Technology

ICT: Information and Communication Technology

IHs: Innovation hubs

KBV: Knowledge Based View

MFIs: Microfinance Institutions

RBV: Resource Based View

SIDO: Small Industries Development Organization

SMEs: Small and Medium Enterprises

UNDP: United Nations Development Program