

Original Research Article

The Role of Innovation Spaces towards the ~~Youths~~ Youth's Engagement in Entrepreneurship; a Case of Innovation Spaces in the Iringa Region

ABSTRACT

Aims: This research carefully assessed the role of innovation spaces towards the ~~youths~~ youth's engagement in entrepreneurship, with independent variables; entrepreneurship training, funding, co-working ~~spaces~~ space, and entrepreneurship competition.

Study design: ~~The design of this study is c~~Convergent parallel design.

Place and Duration of Study: ~~The study was carried at~~ Kiota hub, Tatua hub and Rlabs in the Iringa region, between November 2022 and September 2023.

Methodology: Data, both quantitative and qualitative, were collected from 90 respondents (87 youth entrepreneurs, 3 hub managers), utilizing closed-ended questionnaires and semi-structured interviews. Quantitative data underwent descriptive and inferential analyses whereas qualitative data were ~~analysed~~ analyzed thematically.

Results: All 90 respondents participated successfully, hence a response rate of 100%. The correlation coefficient and *P*-values for the role of entrepreneurship training, funding, co-working space and entrepreneurship competition are (.703, *P*=.000), (.738, *P*=.000), (.511, *P*=.000) and (.698, *P*=.000) respectively, confirming their statistical significances towards ~~the youths engagement~~ the engagement of the youth in entrepreneurship. Also, thematic analysis results ~~clearly~~ indicate that entrepreneurship training transforms mindsets and equips youths with entrepreneurial skills, funding is crucial for covering the startup costs, co-working spaces foster ~~a~~ co-creation culture and ~~networking~~ networking, and entrepreneurship competitions are natural motivators towards the ~~youths~~ youth's engagement in entrepreneurship.

Conclusion: Entrepreneurship training, funding, co-working space, and entrepreneurship competition play significant roles towards the ~~youths~~ youth's engagement in entrepreneurship. The findings of this research offer valuable insights for innovation spaces to work on the factors that truly contribute towards youths' entrepreneurship engagement; educational institutions to design learning models that inspire ~~the~~ application of knowledge and establish innovation spaces to promote youth entrepreneurship; and the government to review policies that hinder ~~the youths engagement~~ the engagement of the youth in entrepreneurship.

Keywords: Innovation; innovation spaces; youth entrepreneurship; hub; entrepreneurship.

1. INTRODUCTION

Innovation spaces have evolved from the preoccupation with style to be "slick or cool" to the singular ambition of helping youths flourish (Wagner ~~&~~ Watch, 2017). They are platforms

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where youth creativity and innovation flourish (Fuzi et al., 2015). Also, ~~where~~ youths obtain and share knowledge, ~~skills~~ and resources to effectively engage in entrepreneurship (Schmitt ~~&~~ Muyoya, 2020). They also provide youths with very low-cost office spaces, networking opportunities, and business advice for them to engage in entrepreneurship successfully. In the last decade, innovation spaces have aroused increasing interest in both industry and academia, triggering their establishment around the world (Delgado et al., 2020). Example, in the United States, Singapore, and Spain (Wagner ~~&~~ Watch, 2017); in Nigeria, Egypt, Botswana, and South Africa, due to the high-speed emergence of technology and growth in entrepreneurship (Cunningham ~~&~~ Cunningham, 2016); also, in Tanzania, Kenya, and Uganda due to technological and entrepreneurial growth and innovation-friendly environments created by governments (Cunningham et al., 2014). Moreover, Tanzania had one innovation space in 1997 (HDIF, 2018), to three innovation spaces in 2013 (Mtambalike, 2022). They have grown to over forty active innovation spaces in 2018, and the number is still increasing (HDIF, 2018).

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Tanzania recognizes innovation and entrepreneurship as key factors in supporting ~~socio-economic~~ socioeconomic development as part of the realization of the development vision 2025 (Cunningham ~~&~~ Cunningham, 2016). That is why it has been supporting the establishment of innovation spaces through several initiatives such as Dar Teknohama Business Incubator (DTBi), established in 2011 as a public-private partnership between InfoDev and the Commission for Science and Technology (COSTECH), Kinu hub, Buni hub and several living labs which were established during Tanzania Information and Communication Technology (TANZICT) project (Cunningham ~~&~~ Cunningham, 2016; Mtambalike, 2022). Private institutions have also realized the role of innovation spaces ~~toward~~ in the ~~youths~~ youths' engagement in entrepreneurship. That's why private universities like the University of Iringa, through the TANZICT project, established the Kiota hub in 2016 to help youths engage in entrepreneurship.

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Fundamentally, innovation spaces are established to help youths obtain and share knowledge, ~~skills~~ and resources to engage in entrepreneurship (Mtambalike, 2022; Schmitt ~~&~~ Muyoya, 2020). Also, they support co-working, facilitate networking, and are platforms for mentorship to support youths' startups through the tricky early stages (Cunningham ~~&~~ Cunningham, 2016). However, many innovation spaces in Tanzania have not been performing well in terms of helping youths to effectively engage in entrepreneurship as youth unemployment remains a major challenge in the country. ~~Because~~ Because our innovation ecosystem is still fragmented and dysfunctional ~~and~~ many innovation spaces are still financially struggling to run their operations (Cunningham et al., 2014; Mtambalike, 2022). This fundamental challenge was yet to be addressed, and if it continued, Tanzania would remain one of the world's poorest countries in terms of per capita income and continue facing an increasing rate of youth unemployment (Enabling Outcomes Ltd, 2017). Moreover, most Tanzanian youths are not even aware of their existence and others have negative mindsets towards these spaces (Mwandosya et al., 2016). Those who know about them, don't know the proper and effective usage of these spaces (Mtambalike, 2022). Therefore, this research was necessary to narrow the knowledge gap by assessing the role of innovation spaces towards the ~~youths~~ youths' engagement in entrepreneurship, using innovation spaces in the Iringa region as a case.

The research investigated four factors ~~namely~~ namely, entrepreneurship training, funding, co-working spaces, and entrepreneurship competition. It used the Iringa region as an area of the research ~~in order to~~ to easily access data as the region has ~~an~~ the advantage of having three ~~active~~ active innovation ~~spaces~~ spaces: Kiota hub, Rlabs and Tatua hub. It employed a mixed-methods approach, utilizing semi-structured interviews and closed-ended questionnaires with 90 respondents to collect both quantitative and qualitative data.

Quantitative data underwent descriptive and inferential analyses, whereas qualitative data were analysed thematically.

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2. METHODOLOGY

2.1 Area of the Research

Iringa region is geographically located in [the](#) southern part of Tanzania. It has a population size of 1,192,728 (574,313 males, 618,415 females), with 619,013 youths aged between 10-[and](#) 39 years, accounting for 51.9% of the total population (Census, 2022). It is one of the regions with most of its youths engaged in tomatoes and chili processing, milk processing and grain milling as their main entrepreneurial activities. Also, the region has the advantage of having Kiota hub, Tatua hub and Rlabs which are used by these youths for different entrepreneurial purposes. Therefore, the researcher selected the Iringa region as an ideal area for this research as it helped the researcher get the answers to research questions and meet research objectives.

2.2 Research Approach

The researcher adopted a mixed methods approach which allowed the merging of quantitative and qualitative data collection and analysis methods to get a unified understanding about the role of innovation spaces towards the [youths-youth's](#) engagement in entrepreneurship (Creswell [&and](#) Garrett, 2008).

2.3 Research Design

The researcher used [a](#) convergent parallel research design that helped him to concurrently use semi-structured interviews and closed-ended questionnaires to collect data. Both methods were weighed equally, [and](#) the data obtained were analysed separately, however, the results were interpreted together (Demir [&and](#) Pismek, 2018; Kelley, 2021).

2.4 Population and Sampling Procedures

2.4.1 Population

Population refers to the entire group of people, events, or things of interest that the researcher wishes to investigate (Sekaran, 2003). Youth entrepreneurs and innovation space managers were an ideal population for this research as they had valid data on stated factors contributing to the [youths-](#)engagement in entrepreneurship. This research targeted 100 active innovation space users and managers from [the](#) Kiota hub, Rlabs and Tatua hub in the Iringa region.

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2.4.2 Sampling Strategies

A parallel sampling strategy was adopted, which enabled the researcher to select two research samples for qualitative and quantitative research phases but both samples were drawn from the same population (Govindan, 2014). Simple-random sampling was effectively employed to select a quantitative sample, while non-probability sampling, specifically purposive sampling was used to select a qualitative sample (Saunders et al., 2009).

2.4.3 Sampling Frame

Sekaran (2003) defines a sampling frame as a listing of all the elements in the population from which the sample would be drawn. This research sampling frame comprised a list of all active innovation space users and innovation space managers from the Kiota hub, Tatua hub and Rlabs and was obtained from these spaces' user databases provided by their managers.

2.4.4 Sample Size

A sample is a subset of the population (Sekaran, 2003). This research had two sample sizes: a quantitative sample comprised of 80 active innovation space users obtained by using the following formula: $n = N / (1 + N(e)^2)$, where n: quantitative sample size, N: population size (100), and e: acceptable sampling error (0.05). Thus, $n = 100 / (1 + 100(0.05)^2) = 80$. The qualitative sample size was 10 (7 innovation space users, 3 innovation space managers). Hence, the total sample size was 90.

2.5 Types of Data

Data are facts to be collected in the fulfilment of research objectives. (Sekaran, 2003; Zohrabi, 2013). This research used both primary and secondary data. Primary data were collected through semi-structured interviews and closed-ended questionnaires. Secondary data were collected from published papers, articles, journals, textbooks and government reports accessed online and from the University of Iringa's library.

2.6 Data Collection Methods

There are several data collection methods, depending on the nature of the research (Sekaran, 2003; Zohrabi, 2013). The researcher self-administered closed-ended questionnaires to 80 youth entrepreneurs and interviewed 7 youth entrepreneurs and 3 innovation space managers from the Kiota hub, Rlabs and Tatua hub.

2.7 Data Analysis

Data should be analysed according to the outline laid down during research plan development (Kothari, 2004). The researcher analysed data separately; quantitative data were analysed using a Statistical Package for Social Sciences V.20, both descriptively and inferentially (Sekaran, 2003); qualitative data were analysed thematically using the Braun and Clarke's guide (Namey et al., 2012 as cited by Kisawike, 2015).

2.8 Validity Analysis

Validity is concerned with whether the research is believable and true and whether it has evaluated what it was supposed to evaluate (Mahadi, 2016; Zohrabi, 2013). The validity of this research was measured in terms of content, and internal and external validity (Zohrabi, 2013). Also, through factor analysis by Kaiser-Meyer-Olkin (KMO) and Bartlett's Test as shown in Table 1.

The KMO and Bartlett's Test of Sphericity indicates that data variables obtained after the data reduction process were significant (.000) to measure the dependent variable as the P-value is less than 0.05. Furthermore, the KMO value (0.887) is meritorious (excellent). Additionally, after removing less than 0.50-factor loading variables, the research model remained with 25 variables extracted to 5 factors as shown in Table 2. This

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means that Principal Component Analysis was appropriate. Hence, this research's findings truly represent what was supposed to be measured.

Table 1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.887
Bartlett's Test of Sphericity	Approx. Chi-Square 978.653
	Df 300
	Sig. .000

Source: Researcher (2023)

Table 2: Rotated Component Matrix

	Rotated Component Matrix ^a Matrix				
	ET	FU	CS	EC	YEE
ET1	.573				
ET2	.573				
ET3	.516				
ET4	.805				
ET5	.756				
FU1		.584			
FU2		.783			
FU3		.781			
FU4		.840			
FU5		.818			
CS1			.576		
CS2			.528		
CS3			.558		
CS4			.614		
CS5			.642		
EC1				.584	
EC2				.787	
EC3				.792	
EC4				.762	
EC5				.741	
YEE1					.704
YEE2					.743
YEE3					.735
YEE4					.534
YEE5					.699

Extraction Method: Principal Component Analysis.
 Rotation Method: Varimax with Kaiser Normalization.
 a. Rotation converged in 12 iterations.

Source: Researcher (2023)

Note: ET: Entrepreneurship Training, FU: Funding, CS: Co-working Space, EC: Entrepreneurship Competition, YEE: Youth Engagement in Entrepreneurship.

2.8.1 Content Validity

Content validity measures different elements, ~~skills~~ and behaviours of research samples (Zohrabi, 2013). The researcher consulted his supervisors to review data collection tools ~~and~~ revised all unclear questions and reworded all complex items, as per their comments (Zohrabi, 2013). Also, the questions used to collect data were face-validated by supervisors (Zohrabi, 2013). Therefore, content validity was enhanced.

2.8.2 Internal Validity

Internal validity is concerned with the congruence of the research findings with reality (Zohrabi, 2013). The researcher applied several methods recommended by Merriam (1998) as cited by Zohrabi (2013), to boost internal validity. He collected data using closed-ended questionnaires and semi-structured interviews. Results were taken back to the participants to be validated (Zohrabi, 2013). Also, the researcher visited ~~the~~ Kiota hub, Rlabs and Tatua hub several times to get the intended information. The research data and findings were carefully reviewed by the supervisors. The researcher involved most of this research's participants in doing this research (Lynch, 1996: p. 62 as cited by Zohrabi, 2013). Moreover, the researcher collected, ~~analysed~~ and interpreted data fairly, openly and faithfully and reported the findings honestly (Zohrabi, 2013).

2.8.3 External Validity

External validity is concerned with the applicability of the findings in other settings and with other respondents (Zohrabi, 2013). The whole research process was carefully observed as detailed in this methodology section. Also, two sampling strategies were applied to enhance external validity.

2.9 Reliability Analysis

Reliability deals with consistency, dependability and replicability of results obtained from the research (Nunan, 1999: p. 14 as cited by Zohrabi, 2013). Reliability was measured as follows; the researcher explained this research's processes; used closed-ended questionnaires and semi-structured interviews to collect data and conducted an audit trial describing in detail how data were collected, analysed, themes were ~~derived~~ and results were obtained (Lincoln and Guba, 1985 and Merriam, 1998 as cited by Zohrabi, 2013). ~~Reliability~~ The reliability of quantitative data was measured using the Cronbach's Alpha Coefficient test (Chakrabarty, 2013), yielding a strong Cronbach's Alpha Coefficient value of 0.863 as shown in ~~table~~ Table 3. Table 4 shows Cronbach's Alpha Coefficient test results after being calculated for each of the composite ~~variables~~ stem, in which Cronbach's Alpha Coefficients for all factors are above 0.7 (showing strong reliability) and all Corrected Item-Total Correlation Coefficients are above 0.3. Hence, the results of this research are strongly consistent, ~~dependable~~ and replicable (Hair et al., 2007).

Table 3: Reliability Statistics for all Variables in Quantitative Data

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.863	.878	25

Source: Researcher (2023)

Table 4: Cronbach's Alpha Reliability Test Result for each Variable

Factors	Measured Variables	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Number of Items
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Entrepreneurship Training	ET1	.691	.859	5
	ET2	.798	.857	
	ET3	.542	.855	
	ET4	.695	.855	
	ET5	.685	.853	
Funding	FU1	.620	.858	5
	FU2	.604	.874	
	FU3	.648	.860	
	FU4	.566	.867	
	FU5	.531	.870	
Co-working Space	CS1	.610	.852	5
	CS2	.594	.852	
	CS3	.505	.855	
	CS4	.575	.853	
	CS5	.652	.850	
Entrepreneurship Competition	EC1	.688	.849	5
	EC2	.569	.856	
	EC3	.575	.856	
	EC4	.586	.861	
	EC5	.582	.859	
Youth Engagement in Entrepreneurship	YEE1	.650	.852	5
	YEE2	.581	.857	
	YEE3	.730	.861	
	YEE4	.601	.858	
	YEE5	.732	.860	

Source: Researcher (2023)

Note: ET: Entrepreneurship Training, FU: Funding, CS: Co-working Space, EC: Entrepreneurship Competition, YEE: Youth Engagement in Entrepreneurship.

3. RESULTS AND DISCUSSION

3.1 Results

3.1.1 Response Rate

In this research, a sample size of 90 was used; a quantitative sample size of 80 and a qualitative sample size of 10. All 90 respondents responded positively and agreed to be involved in collecting data. Hence, the overall response rate was 100% as shown in table 5.

Table 5: Response Rates of both Qualitative and Quantitative Research Samples

Sample Size Expected	Sample Size Responded	Response Rate
90	90	100%

Source: Field data (2023)

3.1.2 Demographic Results of the Respondents

3.1.2.1 Gender

The researcher successfully collected data from 30 female and 60 male youth entrepreneurs and innovation space managers from the Kiota hub, Rlabs and Tatua hub as shown in table 6. Results reveal that more male youths are engaged in entrepreneurship than

female youths. This suggests that gender may play a significant role to youths' entrepreneurship engagement.

Table 6: Gender of Research Respondents

		Gender			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	60	66.7	66.7	66.7
	Female	30	33.3	33.3	100.0
	Total	90	100.0	100.0	

Source: Field data (2023)

3.1.2.2 Ages

Data were collected from youths within the age groups of 18-23, 24-29 and 30-35 years. Table 7 shows the percentage distribution of the respondents' age groups. Results show that youths aged between 18 and 23 years engage more in entrepreneurship than youths aged between 30 and 35 years, suggesting that age is a significant factor towards the youths' engagement in entrepreneurship.

Table 7: Age of Research Respondents

		Age			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-23	73	81.1	81.1	81.1
	24-29	14	15.6	15.6	96.7
	30-35	3	3.3	3.3	100.0
	Total	90	100.0	100.0	

Source: Field data (2023)

3.1.2.3 Education

The researcher collected data from youth entrepreneurs and innovation space managers with different education levels. Table 8 clearly shows the percentage distribution of the respondents' education levels. The research found that youths with higher education levels from diploma and above were more likely to engage in entrepreneurship activities than those with secondary education and those who didn't go to school. These findings suggest that education level may be a determinant of the youths' engagement in entrepreneurship.

Table 8: Education Levels of the Research Respondents

		Education levels of the Respondents			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Didn't go to school	5	5.6	5.6	5.6
	Secondary	5	5.6	5.6	11.2
	Diploma	13	14.4	14.4	25.6
	Degree	46	51.1	51.1	76.7
	Masters	19	21.1	21.1	97.8
	PhD	2	2.2	2.2	100.0
	Total	90	100.0	100.0	

Source: Field data (2023)

3.1.2.4 Districts

The researcher collected data from respondents from rural, peri-urban, and urban areas of the Iringa region. Table 9 clearly shows the percentages distribution of respondents' locations. This research revealed that youths living in urban areas of the Iringa region, particularly the Iringa Municipal, are engaged more in entrepreneurship than those from rural and peri-urban. These findings suggest that access to entrepreneurship training, funding opportunities, co-working spaces, and entrepreneurship competitions may be more readily available in urban areas, as most innovation spaces like Kiota hub, Rlabs and Tatua hub are established in urban areas, particularly in the Iringa Municipal.

Table 9: Districts of Residency of the Research Respondents

		Location of Respondent			
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Urban	72	80.0	80.0	80.0
	Peri-urban	3	3.3	3.3	83.3
	Rural	15	16.7	16.7	100.0
	Total	90	100.0	100.0	

Source: Field data (2023)

3.2 Discussion

The researcher presents the findings on the bivariate relationship between each independent variable; entrepreneurship training, funding, co-working space, entrepreneurship competition and dependent variable; youth engagement in entrepreneurship, adhering to rules of thumb (table 10) using Pearson's Correlation Coefficient test results as shown in table 11 and results produced by thematic analysis.

Table 10: Rules of Thumb about Correlation Coefficient

Coefficient Range	Strength 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 11: Pearson's Correlation Coefficient Test Results

		Correlations				
		ET	FU	CS	EC	YEE
Entrepreneurship Training	Pearson Correlation	1				
	Sig. (2-tailed)					
	N	80				
Funding	Pearson Correlation	.599**	1			
	Sig. (2-tailed)	.000				
	N	80	80			

Co-working Space	Pearson Correlation	.292**	.389**	1		
	Sig. (2-tailed)	.009	.000			
	N	80	80	80		
Entrepreneurship Competition	Pearson Correlation	.467**	.536**	.311**	1	
	Sig. (2-tailed)	.000	.000	.005		
	N	80	80	80	80	
Youth Engagement in Entrepreneurship	Pearson Correlation	.703**	.738**	.511**	.698**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	80	80	80	80	80

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

Source: Field data (2023)

Note: ET: Entrepreneurship Training, FU: Funding, CS: Co-working Space, EC: Entrepreneurship Competition, YEE: Youth Engagement in Entrepreneurship.

3.2.1 Entrepreneurship Training and the Youths-Youth's Engagement in Entrepreneurship

Entrepreneurship training plays a moderate-moderately significant role towards the youths youth's engagement in entrepreneurship as their correlation coefficient value is .703, and $P=.000$. Also, thematic analysis results reveal that youths are likely to engage in entrepreneurship after they have been trained by innovation spaces. This is also revealed in data collected during interviews from the Kiota hub, RLabs and Tatua hub as shown in table Table 12. The present findings show that entrepreneurship trainings-training offered by these spaces inspireinspires youths' mindset transformation and equip-equips them with knowledge and skills to successfully engage in entrepreneurship. Mohamed (2014) strongly supports these findings in that entrepreneurship trainings-training are is very crucial for the entrepreneurship growth and important tools-tool for changing attitudes and transferring skills to youths. Also, Din et al., (2016) strongly support the present findings in that the entrepreneurship program offered by Universiti Utara Malaysia was very effective in enhancing the students' entrepreneurial skills and reducing youth unemployment. Also, Yin and Wang (2017) support these findings in that college students' entrepreneurial capabilities were improved as a result of because of strengthening entrepreneurship education. They are, furthermore, supported by Waweru (2012) who found that access to entrepreneurship education during startup and growth phases positively affected many young entrepreneurs.

Table 12: Entrepreneurship Training Data of Kiota Hub, RLabs and Tatua Hub

Name of Innovation Space	Number of Trainings Organized	Average Youth Participation /Training	Hours/ Training	Startup Founded / Training Cohort	Average Number of Active Startups
Kiota Hub	21	350	8	280	170
RLabs	35	500	6	350	220
Tatua Hub	15	130	3	80	55

Source: Field data (2023)

3.2.2 Funding and the Youths-Youth's Engagement in Entrepreneurship

Funding plays a high-highly significant role towards the youths youth's engagement in entrepreneurship as their correlation coefficient value is .738, and $P=.000$. Also, thematic analysis results reveal that youths are more likely to successfully engage in

entrepreneurship activities when they are provided with financial resources (funds) in different forms such as loans, angel money, seed funds and/or grants through entrepreneurship projects organized by innovation spaces. This is also shown in data collected during interviews from [the Kiota hub](#) and RLabs ([the Tatua hub](#) doesn't provide funding) as shown in [table Table 13](#). The present findings clearly show that funding accessed through innovation spaces' projects plays a very huge role towards the [youths youth's](#) engagement in entrepreneurship by covering key costs incurred in establishing and running entrepreneurship ventures. Agnes (2016) supports the present findings in that funding [influence-influences](#) the [youths-youth's](#) participation in entrepreneurship. Also, they are strongly supported by Mohamed (2014) who found that funding is an important factor in influencing youths to engage in entrepreneurship. Moreover, they are supported by Waweru (2012) who found that [the majority of most](#) youths had poor funding access, mainly from financial institutions which hindered their engagement in entrepreneurship, suggesting that funding plays a major role towards the [youths-youth's](#) engagement in entrepreneurship.

Table 13: Funds Disbursed to the Youths Entrepreneurs by Kiota Hub and RLabs

Name of Innovation Space	Total Funds Disbursed to Youth Entrepreneurs (TZS)	Number of Youths Given Funds	Type of Fund
Kiota Hub	170,000,000/=	135	Grant
RLabs	22,176,000/=	75	Grant

Source: Field data (2023)

3.2.3 Co-working Space and the [Youths-Youth's](#) Engagement in Entrepreneurship

Co-working space plays a [moderate-moderately](#) significant role towards the [youths youth's](#) engagement in entrepreneurship as their correlation coefficient value is .511, and $P=0.000$. Also, thematic analysis results show that youths are likely to engage in entrepreneurship activities when they have access to innovation spaces where they can meet with their fellows to brainstorm and ideate innovative solutions to solve existing challenges in their societies. Also, [where](#) they can [use-be used](#) as offices for lower costs or [for free](#). This is also shown in data collected during interviews from [the Kiota hub](#), RLabs and [Tatua hub](#) as shown in [table-Table 14](#). The present findings reveal that co-working spaces provide youths with [a conducive](#) environment for them to create a culture of collaboration and flourish in their entrepreneurship activities. These findings are supported by Fuzi et al., (2015) who found that in recent years co-working spaces have been successfully developed in many areas, encouraging the establishment of entrepreneurship startups. They are also supported by Muth and Rauscher (2022) who found that co-working spaces help youth entrepreneurs feel more socially integrated and get social and professional support in their entrepreneurship activities. Furthermore, they are supported by Gazetov (2018) in that the introduction of co-working spaces in [Russia-Russian](#) towns, which was due to the development of high technologies, stimulated many youths to become entrepreneurs.

Table 14: Co-working Space Data of Kiota Hub, RLabs and Tatua Hub

Name of Innovation Space	Number of Youths Using it as a Co-working Space	Type of Support Provided/Amenities	Usage Rate
Kiota Hub	25	Facilitation, Wi-Fi, Stationeriesstationery , Meeting, Games, and Books.	Daily Basis
RLabs	40	Tea, Facilitation, Wi-Fi, Stationeries, MeetingMeetings ,	Daily Basis

Tatua Hub	15	and Books. Coffee, Facilitation, Wi-Fi, Stationeries, Meeting Meetings, Books, and Games.	Daily Basis
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Source: Field data (2023)

3.2.4 Entrepreneurship Competition and ~~the Youths~~ Youth's Engagement in Entrepreneurship

Entrepreneurship competition plays a ~~moderate~~moderately significant role towards the ~~youths~~ youth's engagement in entrepreneurship as their correlation coefficient value is .698, and $P=0.000$. Also, thematic analysis results reveal that youths are likely to engage in entrepreneurship when they are motivated to win a certain prize which can potentially boost them in their entrepreneurship activities. In turn, these entrepreneurship competitions boost the confidence levels of youth entrepreneurs which can help them to dare for more opportunities like, seeking funds, pitching to investors and/or engaging with their customers and partners. Moreover, they provide youth entrepreneurs with networking opportunities as they tend to bring together mentors, ~~judges~~judges, and many potential investors. Furthermore, entrepreneurship competitions stimulate youths to come up with unique ideas so that they can win competitions ~~but also~~and learn how to practically write winning business plans. This is also shown in data collected during interviews from ~~the~~ Kiota hub, RLabs and Tatua hubas shown in ~~table~~Table 15. The present findings reveal that entrepreneurship competitions motivate and provide youths with skills to excel in entrepreneurship. Gaspar (2008) strongly supports these findings in that entrepreneurship competitions have a natural affection on youths' attitudes towards entrepreneurship. Also, they increase youths' awareness ~~on~~of business ideas detection and development. These findings are supported by Wang et al., (2022) who found that entrepreneurship competitions had a significant positive predictive effect on entrepreneurship ~~competences~~competencies, leading to ~~the youths engagement~~the engagement of the youth in entrepreneurship.

Table 15: Entrepreneurship Competitions Data of Kiota Hub, RLabs and Tatua Hub

Name of Innovation Space	Number of Entrepreneurship Competition	Type of Entrepreneurship Competition	Prize	Type of Prize	Number of Youths Participated
Kiota Hub	8	Pitching, Birth-giving	Cash	Grant	750
RLabs	10	Idea Challenge	Certificate		250
Tatua Hub	10	Pitching	Cash	Grant	340

Source: Field data (2023)

4. CONCLUSION

[Please include limitations and proposed future studies.](#)

This research concludes that entrepreneurship training plays a ~~moderate~~moderately significant role towards the ~~youths~~ youth's engagement in entrepreneurship, as it helps youths learn business development skills and transform their mindsets towards engagement in entrepreneurship. Also, it concludes that funding plays a ~~high~~highly significant role towards the ~~youths~~ youth's engagement in entrepreneurship, as most youths consider it a very crucial factor when starting and running entrepreneurship ventures. This research further concludes that co-working space plays a ~~moderate~~moderately significant role towards the ~~youths~~ youth's engagement in entrepreneurship.

youth's engagement in entrepreneurship, as it inspires a co-creation culture among youths and ~~expose~~ ~~exposes~~ them to potential networking opportunities that play a vital role in their entrepreneurship activities. It finally concludes that entrepreneurship competition plays a ~~moderate~~ ~~moderately~~ significant role towards youths' entrepreneurship engagement, motivating them to win prizes that help them commercialize their creative entrepreneurship ideas.

This research's findings imply that innovation spaces still need to understand and work on factors that play significant roles towards the ~~youths~~ ~~youth's~~ engagement in entrepreneurship. Also, educational institutions such as universities and schools need to redesign learning models that will challenge students to apply their knowledge ~~into~~ ~~to~~ ~~real~~ ~~world~~ ~~real-world~~ situations. Moreover, they should build co-working spaces to inspire ~~a~~ ~~co~~ ~~creation~~ ~~culture~~ ~~and~~ have innovation departments that will conduct entrepreneurship trainings and ~~competitions,~~ ~~and~~ ~~competitions~~ ~~and~~ provide funding to youths. Also, it is time now for the government to review the policies that do not challenge and inspire the ~~youths~~ ~~youth's~~ engagement in entrepreneurship.

ETHICAL APPROVAL AND APPROVAL AND CONSENT

The researcher carefully considered the ethical principles to guide the research in navigating some ethical dilemmas likely to be of research concerns to research participants, whereby ~~a~~ ~~number~~ ~~of~~ ~~several~~ ethical principles were considered during the entire process of conducting this research as follows: the researcher avoided plagiarism by providing references to all sources of information used in the research as a way to acknowledge their works (Bassey and Owan, 2019). The researcher ensured that participants in this research were not connected to the research ~~of~~ ~~or~~ identifiable by name, address, or birthdate (~~Baez,~~ ~~2002~~ ~~as~~ ~~cited~~ ~~by~~ Nnachi, 2021). The researcher took time to fully inform the respondents about this research before they agreed to participate. This included information about the purpose of this research, procedures involved, risks and benefits of participating, and their rights to withdraw from this research at any time without a penalty (Bassey and Owan, 2019). All potential respondents were free to decide whether to take part or not and those who agreed were free to withdraw from this research at any time without penalty (Nnachi, 2021). Moreover, the researcher adhered to ethical and truthful collection of reliable data; the ownership and responsibility of collected data; and retained data and protected the privacy of participants by taking steps to ensure that their personal information ~~were~~ ~~was~~ kept confidential, as in, the researcher used secure data storage methods and avoided sharing of personal information with unauthorized individuals (Bassey and Owan, 2019). Finally, the researcher avoided any conflicts of interest that would have led to bias in the findings of this research, for example, disclosing any financial or personal interests that could affect the outcome of this research (Bassey and Owan, 2019).

REFERENCES

- Adom D, Hussein E, Adu-Agyem J. Theoretical and conceptual framework: Mandatory ingredients of a quality research. *International Journal of Scientific Research*. 2018; 7: 438-441.
- Agnes AS. *Factors influencing participation of youth in Entrepreneurship in Kenya: a case of youth Entrepreneurs in Kakamega central district, Kakamega County*. MA Thesis, University of Nairobi, Kenya; 2016.
- Baez B. Confidentiality in qualitative research: Reflections on secrets, power and agency. *Qualitative research*. 2002; 2(1), 35-58.
- Bassey BA, Owan VJ. Ethical issues in educational research management and practice. In P. N. Ololube & G. U. Nwiyi (Eds), *Encyclopedia of institutional leadership, policy,*

- and management: A handbook of research in honour of Professor Ozo-MekuriNdimele (pp. 1287 – 1301). Port Harcourt, NG: Pearl Publishers International Ltd; 2019.
- Blanchflower DG, Oswald AJ, Stutzer A. Latent entrepreneurship across nations. *European Economic Review*. 2001; 45(4–6). Elsevier BV: 680–691.
- Camp WG. Formulating and evaluating theoretical frameworks for career and technical education research. *Journal of Vocational Educational Research*. 2001;26 (1): 27–39.
- Chakrabartty SN. Best Split – half and Maximum Reliability. *ResearchGate*. Epub ahead of print July 1, 2013.
- Creswell JW, Garrett AL. The “movement” of mixed methods research and the role of educators. *South African Journal of Education* 28(3). Education Association of South Africa.2008;321–333.
- Cunningham P, Cunningham M. Innovation Spaces and Living Labs in IST-Partner Countries. Report, IIMC International Information Management Corporation Ltd, Ireland, January; 2016.
- Cunningham PM, Cunningham M, Ekenberg L. Baseline Analysis of 3 Innovation Ecosystems in East Africa. International Conference on Advances in ICT for Emerging Regions (ICTer). 2014; 156 -162
- Delgado L, Galvez D, Hassan A, Palominos P, Morel L. Innovation Spaces in Universities: Support for Collaborative Learning. *Journal of Innovation Economics & Management*. 2020; 31: 123-153.
- Demir SB, Pismek N. A convergent parallel mixed-methods study of controversial issues in social studies classes: A clash of ideologies. *Educational Sciences: Theory & Practice*. 2018; 18: 119–149.
- Din BH, Anuar AR, Usman M. The Effectiveness of the Entrepreneurship Education Program in Upgrading Entrepreneurial Skills among Public University Students. *Procedia - Social and Behavioral Sciences*. 2016; 224. Elsevier BV: 117–123.
- Enabling Outcomes Ltd. *The Entrepreneurship and Enterprise Growth Landscape*; Tanzania. Report for the Argidius Foundation; 2017.
- Fuzi A, Clifton N, Loudon GH. New spaces for supporting entrepreneurship? Co-working spaces in the Welsh entrepreneurial landscape. *ResearchGate*. Epub ahead of print June 18, 2015.
- Gaspar FC. The importance of entrepreneurship competitions to spread entrepreneurship spirit and to support startup creation: a survey in Portugal; 2009. Available at: https://www.academia.edu/57442068/The_importance_of_entrepreneurship_competitions_to_spread_entrepreneurship_spirit_and_to_support_startup_creation_a_survey_in_Portugal.
- Gazetov AN. Support for Youth (Start-Up) Entrepreneurship through the Development of Co-working Spaces: Accumulated Experience and Perspectives. *Journal of Applied Economic Sciences*. 2018; 13(58): 1021-1029.
- Govindan R. Sampling in Mixed Methods Research. International Journal of Advances in Nursing Management. Jan – Mar 2014. *ResearchGate*. Epub ahead of print March 1, 2014.
- Hair J, Money A, Samuel P, Page M. Research methods for business, New York: John Wiley & Sons, Inc; 2007.
- Human Development Innovation Fund. *Tanzania Innovation Ecosystem*; 2018.
- Kelley KL. A convergent parallel mixed methods study measuring the impact of Math-Economics cross curricular intervention; 2021. Available at: https://csuepress.columbusstate.edu/theses_dissertations/451/.
- Kisawike B. *How Country of Origin, Consumer Ethnocentrism and Consumer Xenocentrism Impact upon Risk and Involvement in the Malaria Medication Decision Making Process in Tanzania*. PhD Thesis, University of Hull, UK; 2015.

- Kothari CR. *Research Methodology*. Methods and techniques, Second revised edition: New Age international publishers; 2004.
- Lincoln YS, Guba EG. *Naturalistic inquiry*. Newbury Park, CA: Sage; 1985.
- Lynch BK. *Language program evaluation*. Theory and practice: Cambridge University Press; 1996.
- Mahadi M. Validity and Reliability of a measurement tool for knowledge sharing intention. *International Journal of Innovation and Applied Studies*. 2016; 11(4): 793-799.
- Merriam SB. *Qualitative research and case study applications in education*. San Francisco: Jossey-Bass; 1998.
- Mohamed NA. *The influence of Entrepreneurship training and financial grant on youth-owned enterprises: the case of Shardo youth enterprise development programme in Somalia*. MA Thesis, University of Nairobi, Kenya; 2014.
- Mtambalike J. *Diary of an African Hub Manager*. Lessons in Growing our Innovation Systems: Thomson Press India Ltd; 2022.
- Muth S, Rauscher SJM. *Coworking Spaces as Facilitators for Professional Coworker Development: A Study about Coworking Spaces in Mid-Sized Cities in Sweden*. MA Thesis, Jonkoping University, Sweden; 2022.
- Mwandosya G, Apiola M and Lahde K. Building the Innovation Ecosystem in Tanzania: Four Viewpoints to Technology Business Incubation; 2016.
- Namey G, MacQueen KM, Namey EE. *Applied Thematic Analysis*. Thousand Oaks, CA: SAGE Publications; 2012.
- Nnachi Robert Azu. The impact of the Youth Entrepreneurship Training programme (YETP) on Youths Quality of Life (QoL) in Nigerian Slums; 2021.
- Nunan D. *Research methods in language learning*. Eighth printing. Cambridge: Cambridge University Press; 1999.
- Othman S, Steen M, Fleet J. A sequential explanatory mixed methods study design: An example of how to integrate data in a midwifery research project. *Journal of Nursing Education and Practice*. 2020;11(2): 75-90.
- Saunders M, Lewis P, Thornhill A. *Research Methods for Business Students*. Fifth edition. Harlow: Prentice Hall Financial Times; 2009.
- Schmitt D, Muyoya C. Influence in Technological Innovation Spaces: A network science approach to understand innovation for Sustainability in the Global South. *Sustainability*. 2020; 12(5). Multidisciplinary Digital Publishing Institute: 1858.
- Sekaran U. *Research Methods for Business*. A skill building Approach. Fourth Edition: John Wiley & Sons, Inc; 2003.
- Tanzania People and Housing Census; 2022.
- Tariq MU. Operationalizing Variables in Theoretical Frameworks: A Comparative analysis. *ResearchGate*. Epub ahead of print February 20, 2015.
- Thumm A, Hartmann M. How do extrinsic factors influence the decision of young adults to become an Entrepreneur? Linnaeus University Växjö, Sweden and ICN Business School Nancy, France; 2018. Available at <http://www.divaportal.org/smash/record.jsf?pid=diva2%3A1210384&dswid=3815>
- Wagner J, Watch D. *Innovation Spaces*. The New Design of Work; 2017. Available at: www.brookings.edu/wpcontent/uploads/2017/04/cs_20170404_innovation_spaces_pdf.pdf
- Wang J, Guo Y, Zhang M, et al. The impact of entrepreneurship competitions on entrepreneurial competence of Chinese college students. *Frontiers in Psychology* 13. Frontiers Media; 2022.
- Waweru SW. *Factors Influencing the Development of Youth Entrepreneurship in Ongata Rongai Township, Kajiado County, Kenya*. MA Thesis, University of Nairobi, Kenya; 2012.

- Williamson G. Operationalizing Variables; 2016. Available at: www.slinfo.com/wp-content/uploads/2016/02/operationalizing-variables.pdf.
- Yin M, Wang Y. Effect of entrepreneurship education on college students' entrepreneurial capability. *Eurasia Journal of Mathematics, Science and Technology Education*. 2017; 13(9): 5805-5819.
- Young F. Group level pattern theory; 1971. Available at: https://books.google.co.tz/books?id=MkOhRshbhUC&pg=PA36&lpg=PA36&dq=Group+level+pattern+theory+by+young&source=bl&ots=oVadkbzRL1&sig=BIWuDdddAgVclJV56OK_NkrE&hl=en&sa=X&ved=2ahUKEwiywKnO0tffAhVHDmMBHckIBMUQ6AEwB3oECAIQAAQ#v=onepage&q=Group%20level%20pattern%20theory%20by%20young&f=false.
- Zohrabi M. Mixed Method Research: Instruments, Validity, Reliability and Reporting Findings. *Theory and Practice in Language Studies*. 2013; 3 (2): 254-262.

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