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THE INFLUENCE OF ENTREPRENEURIAL ORIENTATION AND PERFORMANCE OF STARTUPS IN NAIROBI CITY COUNTY.

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Abstract

The need for the establishment of influencing mechanisms for nurturing new ideas into actual business, especially on new technological platforms necessitates entrepreneurial orientation, to secure networks that guarantee growth. The study sought to establish whether entrepreneurial orientation, influence performance of startups in Nairobi City County, Kenya. The specific objective was to establish the influence of entrepreneurial orientation on performance of startups in Nairobi City County. The study adopted a positivist research philosophical reasoning to exploring new knowledge through verification of observable evidence. This approach enabled the researcher to derive information logically from empirical data using scientific method thereby testing the hypotheses about the constructs under theoretical underpinnings. This study followed a cross-sectional survey design because it assured similar data collection procedure and precise verification across many respondents at a particular point in time. It further provided the researcher with an opportunity to record population characteristics and test the hypotheses appropriately. The study successfully obtained 210 responses from startups who had used the services of any of the five business incubators situated within Nairobi City County. This study applied Structural Equation Method (SEM) to analyse data and deduce conclusions. The study findings indicate that entrepreneurial orientation explains significantly the performance of start-ups in Nairobi City County (β=.7876, P=0.000) holding other factors constant. The study thus recommends for the need of pro-activeness in entrepreneurial orientation by business owners as a demonstration of a characteristic of forward-looking to upcoming opportunities that provide business an advantage. The government at national and county level ought to develop policies that will ensure young entrepreneurs are trained by establishing functional institutions that nurture ideas and hatch them into business. Such move will enhance transmission of ideas, information, networking and research to the market. This will be supported by establishing operational framework that increases awareness on risk mitigation, innovative behavior and pro-activeness characteristics which must be present to ensure startup survival, better financial health and increase employment opportunities. The theory of entrepreneurship suggest that entrepreneurship has a rare ability to mobilise resources and therefore mitigates the risk elements in undertaking new

businesses. Since entrepreneurs undertake socially economic engagements that are outside their routine tasks and sometimes resisted by environmental dynamics there is an urgent need to encourage and protect them by reducing the risks they take (Leach, Stirling & Scoones, 2010).

Key Words: *Entrepreneurial Orientation, Performance of startups in Nairobi City County, Kenya.*

Introduction

The clamour for the successful establishment and growth of start-ups in Kenya has recently gained remarkable momentum among policymakers. This is because the impulse for entrepreneurial orientation does not only galvanise start-ups but also encourages the conversion of brilliant ideas into actual businesses. The need for the establishment of an influencing mechanism for nurturing new ideas into actual businesses, especially on new technological platforms fits the definition of entrepreneurial orientation in terms of its characteristics of innovativeness, risk-taking, and pro-activity. According to Kiprotich (2017) and Munene (2018), the successful creation and growth of start-ups is a precursor to social, economic, and political stability.

The definition of entrepreneurial orientation has evolved over time since Miller's time (1983) to date. Most recent scholars like Olaolu and Obaji (2020), define entrepreneurial orientation as corporate behaviour in firms where there is deliberate policy to manage products or service through innovations, risk-taking and proactiveness in all business decisions. Dess and Lumpken (2005) explain entrepreneurial orientation concept as an observed behaviour at firms where the managers adopt a culture of generating strong impetus for innovations, risk-taking, autonomy and aggressiveness in their pursuit to new venture creation. The impetuses are the desirable observable characteristics whose level of availability is the measure of the firm's entrepreneurial orientation.

Top on the list of entrepreneurial orientation characteristics is innovativeness. Dess and Lumpkin (2005) define innovativeness characteristic as an inclination toward generating new and better business ideas. The ideas are implemented through a simple process. Early on, Salamzadeh, 2015 asserts that innovation is exhibited differently including firms level preparedness for new product lines or master the use of new technology. Innovative behaviour amongst entrepreneurs is a very significant attribute of entrepreneurial orientation (Wiklund, 2005). Shepherd, (2005) noted that entrepreneurs operate under an environment which may or may not support experimentation, new ideas or new solutions to emerging problems and develop processes that are creative and innovative.

Pro-activeness in entrepreneurial orientation is a characteristic of forward-looking to upcoming opportunities that provide business an advantage. An organisation chooses to adopt a way to act whenever there is opportunity to take charge of situations. It is sometimes referred to as an attitude that firm owners or managers have (Leboi, 2019). They are on the lookout for future markets and capable of predicting demand changes and swiftly changing course of action. The firm's spirit of pro-activeness is also noticed in the manner in which a firm designs its administrative structures, processes, policies and operational procedures. According to Jelenc et al. (2015) the firm's administrative structures, processes, policies and operational procedures are coordinated in a manner

depicting responsiveness to changes in the upcoming markets.

Entrepreneurial orientation is three-factor comprising risk taking, innovation and proactiveness. Covin and Miller (2014) claimed that entrepreneurial businesses must take risks, be inventive, and take the lead in reaching their consumers under this structure in order to be labelled entrepreneurial. The point is that any firm that alters its technology, methods and product line by copying others through is not considered innovative (Covin & Slevin, 2011; Kusumawardhani et al., 2013). There is still another view (Miller's,1983) that entrepreneurial orientation is explained by five-factor characteristic comprising of competitive aggression and autonomy as addition to dimensions.

Startup performance

Start-up performance refers to the commercial effectiveness and ability to optimally deliver the product or service in a manner that meets the expectations. The term performance may also refer to successful management of strategic activities into action (Hrebiniak, 2013). Startups across the globe face business challenges in their pursuit to attain excellence in performance. According to Gerschewski et al. (2015) two -thirds to three-quarters of new firms have performance execution challenges. Therefore, it is a primary aim in any organization to be evaluated either independently or as the end product of internal procedures. Some indicators of an organization's or a company's overall effectiveness include its ability to remain in business, its reputation, how well it is seen to be doing generally and the results it achieves.

According to Wairimu and Mwilaria (2017), one-third of start-ups in Kenya collapse within the first 3 years of inception and 80% of those that survive fail to get to their fifth anniversary. The failure is attributed to the existence of inadequate strategies as cited by Akaeze and Akaeze (2017). Odongo and Wang (2016) asserts that the owners of start-ups develop strategies to overcome constraints but still meet obstacles due to lack of mentorship support mechanisms.

Nairobi City County has a lot of economic activities and is home to a number of headquarters for many companies. According to Forbes (2013) Nairobi leads in digital infrastructure in the region and has the best entrepreneurial ecosystem where a sizable amount of the capital, businesses and talent flow freely in and out of the country. Furthermore, the presence of world class universities makes Nairobi resourceful for conducting business incubation and acceleration services.

The objective of the study to establish the influence of entrepreneurial orientation, on the performance of start-ups in Nairobi City County. The study findings provide direction for policy guidelines to support start-ups. The results contribute to the new knowledge on start-up survival, job creation, and financial performance for young entrepreneurs. Using a structural equation method to analyse data, the study established existence of relationship between entrepreneurial orientation, and performance of start-ups in Nairobi City County.

Literature Review

Theoretical Review

This review is underpinned on the exposition of the theory of entrepreneurship as provided by Schumpeter (1991) who asserts that an entrepreneur is a person who creates a new business to produce a new service or product or changes an old service or product into new. The initial argument advanced by Schumpeter (1934) in his theory of economic development was that innovations originate with the new and small firms but later changed his mind that even large enterprises may enjoy monopolistic advantage in the short run. He further claims that technology reduces the risk of involvement in copying another people's work. Under the circumstances perfect competition is a most likely phenomena responsible for the establishment of start-ups but to a lesser degree (Conner, 1991).

The theory of entrepreneurship tends to suggest that entrepreneurship has a rare ability to mobilise resources and therefore mitigates the risk element in undertaking new business. Since entrepreneurs undertake socially economic engagements that are outside their routine tasks and sometimes resisted by environmental dynamics there is an urgent need to encourage and protect them by reducing the risks they take (Leach, Stirling & Scoones, 2010). Entrepreneurial risk and uncertainty are reduced through training, planning and improved performance.

The theory of entrepreneurship focuses on creating value and employs a two-level framework to validate the internal entrepreneurial process. From the first stage of enterprise implementation, the entrepreneur, motivated by an entrepreneurial behavior or an aspiration for entrepreneurial reward, identifies an external opportunity which is then leveraged by the entrepreneur's current resources through an effectuation mechanism (Oftedal, Iakovleva & Foss, 2017). The entrepreneurial opportunity is redesigned in order to cultivate entrepreneurial ability, hence creating an asymmetric benefit for the entrepreneur.

Empirical Review

In China, Shan, Song and Ju (2016) studied the effectiveness of entrepreneurial orientation on firm performance. The study employed descriptive survey design applying both qualitative and quantitative methods. The study targeted a population of 265 start-ups in the manufacturing sector and employed stratified sampling techniques in collecting data. Questionnaires were used to gather primary data, which was analysed using descriptive statistics and correlation and regression analysis to determine the association. The research findings indicated a significant association between entrepreneurial orientation and performance of start-ups drawing conclusions that management of small and large organisations should adopt modern entrepreneur orientation that enhances division of labour to enhance skills.

Kusumawardhani (2013) applied structural equation method (SEM) method to study the part of entrepreneurial orientation in the performance of start-ups in Indonesia's furniture sector. The study sampled 13 respondents on a personal interview and confirmed that entrepreneurial dimension of pro-activeness is significantly related to

performance of start-ups than innovativeness and risk taking. In a systematic study, Wiklund et al. (2005) sampled 51 out of a population of 134 articles about the influence of entrepreneurial orientation on performance of start-ups in Finland and established that start-ups performed well in growth and profitability significantly.

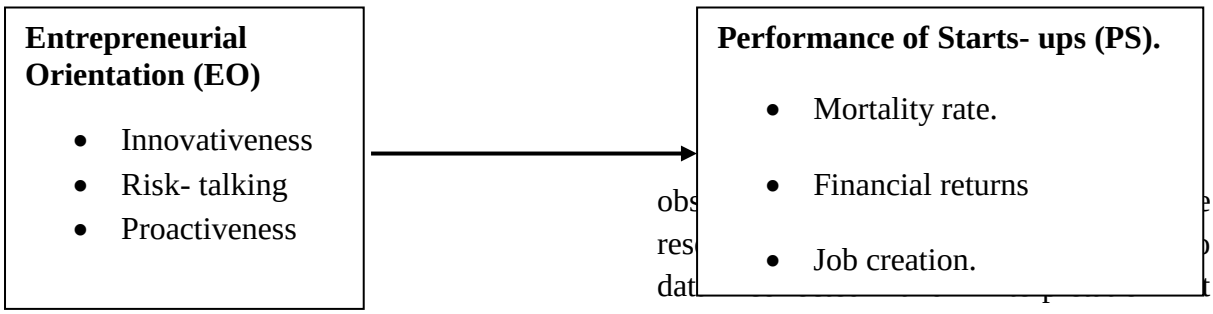
Frare et al. (2021) investigated the influential interrelationships between the three elements of entrepreneurial orientation, education and age of the entrepreneur on the decision to launch an international entrepreneurial business venture (IEBV). The data was gathered from a sample of 539 respondents who were working at dynamic, internationally oriented firms in South Africa. Multiple discriminant methods were used to analyse and examine new decisions using IEBV new entry decision metric. Findings indicate that the decision to start a business is directly correlated to the risk-taking and proactiveness elements of an entrepreneurial orientation, as well as the age of the lead entrepreneur, and that the decision to start a business is negatively related to the lead entrepreneur's education.

Specifically, the study sought to answer the question; what is the relationship between entrepreneurial orientation and performance of start-ups in Nairobi City County?

To address the above research question, the study tested the null hypothesis below.

H_0: There is no relationship between entrepreneurial orientation and performance of startups in Nairobi City County.

The hypothetical relationships were as presented in Figure 1.



Methodology

This study adopted positivist research philosophy to exploring new knowledge through verification of observable evidence. This approach enabled the researcher to derive information logically from executed data using scientific method thereby testing the hypotheses about the constructs under theoretical underpinnings. Positivism research philosophy beliefs that only factual knowledge gained through objectively. In other words, the researcher ensured that no personal influence played on the data collected. Positivism research philosophical reasoning is intended to ensure research findings are strictly observable and quantifiable in nature. In positivism approach observations were translated into quantifiable indices and

analysed. Crowther and Lancaster (2008) argue that studies of positivism nature adopt the approach to deductively discover knowledge and through concentration on facts finding.

This study followed cross-sectional survey design because it assured similar data collection procedure and clear verification amongst myriad respondents at any given time. The target population of this study comprised incubates of business incubators within Nairobi City County. Specifically, the young entrepreneurs who have an operational business started during the last five year and have received some kind of incubational services. This study focused on business owners and their created and are active for the last five years and have used the services of any of the five business incubators situated within Nairobi City County who comprised 715.

Yamane (1967) specified the formula for the determination of sample size with the assumption that attributes under consideration were normally distributed. The start-up owners were randomly sampled and a total of 257 were requested to respond. Galvin (2015) defined sample size as a random number of target respondents placed on equal chance of being selected (Muthén and Muthén (2002) posited that different guidelines are available for the determination of adequacy of sample size when using SEM in the research. According to Yamane (1967) the following formula should be applied when using SEM.

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

Where;

n = sample size,

N = the number of incubatees (known population),

e = error term (desired precision or confidence level) and in this case = 95%

N/{1+N(e^2)}

Given the population size of 715 at 95% confidence level, the number of respondents should be 257 obtained as follows:

715/{1+715(0.05^2)}=715/2.7875=257

The targeted distribution of population amongst the Business Incubators in Nairobi City County is represented on table 1 below.

Table 1: Population and Sample Size Distribution

	Name of Business Incubator	**Population size**	**Percent (%)**	**Sample Size**
1	ihub	164	23	59
2	Strathmore University	212	30	76
3	C4Dlab (University of Nairobi)	105	14	38
4	Chandaria - BIIC (Kenyatta University)	148	21	53
5	Nairobi Industrial and Technological Park	86	12	31

	Totals	**715**	**100**	**257**

Source: Author (2021)

Entrepreneurial orientation was considered as latent variable where propensity for taking risks, Innovativeness and proactiveness were tested. Each responded was given one questionnaire containing at least three questions to measure each sub-construct. Innovativeness tested required the respondent to state the firm's ability to take innovative initiatives that influence startup performance on survival, financial and job creation. Similar approach was used to test risk-taking initiatives and proactiveness dimensions of entrepreneurial orientation. All were evaluated on a 5- point Likert scale where; 1= strongly disagree, 2= disagree, 3= Indifferent (neither agree nor disagree), 4 = agree, and 5= strongly agree.

Table 2 Constructs' Measures

Variable	**Indicators**	**Measures**
Entrepreneurial orientation	Innovative	The firm's ability to influence performance on survival, financials and job creation through innovative initiatives, evaluated on a 5-point Likert scale where; 1= strongly disagree, 2= disagree, 3= Indifferent (neither agree nor disagree), 4 = agree, and 5= strongly agree
	Risk taking	The firm's ability to influence performance on survival, financials and job creation through risk taking activities. Evaluated on a 5-point Likert scale. where; 1= strongly disagree, 2= disagree, 3= Indifferent (neither agree nor disagree), 4 = agree, and 5= strongly agree
	Pro-activeness	The firm's 1st moves in the market characteristics. Evaluated on a 5-point Likert scale. where; 1= strongly disagree, 2= disagree, 3= Indifferent (neither agree nor disagree), 4 = agree, and 5= strongly agree
Performance of startups	Startup survival rate	The ability of a startup to survive during creation due to the influence of entrepreneurial orientation, business incubation and business strategy. Evaluated on a 5-point Likert scale. where; 1= strongly disagree, 2= disagree, 3= Indifferent (neither agree nor disagree), 4 = agree, and 5= strongly agree

	Startup financial returns	The ability of a startup to perform well financially due to the influence of entrepreneurial orientation, business incubation and business strategy. Evaluated on a 5-point Likert scale. where; 1= strongly disagree, 2= disagree, 3= Indifferent (neither agree nor disagree), 4 = agree, and 5= strongly agree
	Job creation	The ability of a startup to create employment due to the influence of entrepreneurial orientation, business incubation and firm strategy. Evaluated on a 5-point Likert scale. where; 1= strongly disagree, 2= disagree, 3= Indifferent (neither agree nor disagree), 4 = agree, and 5= strongly agree

Performance of start-ups variable was tested using three subconstructs namely, start-up survival rate, financial performance and job creation. The literature Shibia and Barako (2017), established that young entrepreneurs tend to start a business with limited experience and lack strategies to overcome constraints that hinder business survival within the first years of operations. The influence of entrepreneurial orientation, was observed through start-up performance in survival rate, financials and job creation. Evaluated on a 5-point Likert scale. where; 1= strongly disagree, 2= disagree, 3= Indifferent (neither agree nor disagree), 4 = agree, and 5= strongly agree.

Operationalization of Study Variables

Cronbach's alpha index scale was utilised to test reliability and was evaluated using that ranges from 0 to 1, with the acceptable range being between 0.5 and 0.8. In addition, sampling adequacy was tested using KMO and Bartlett's test.

Table 3: Reliability Test

Item	**Observations**	**Alpha**	**Decision**
Entrepreneurial Orientation	210	0.557	Reliable
Performance of Start-ups	210	0.701	Reliable
Overall Test Scale		0.715	Reliable

The study preferred Shapiro-Wilk test over KMO in the test for normality. The significance of the normality test is shown by values exceeding 0.05 at 95% confidence level (Collis & Hussey, (2009) Consequently, if the findings are below the benchmark of 0.05, the data significantly differ from a normal distribution (Krishnan, 2006).

The study also tested for the presence or absence of heteroscedasticity via the Breusch-Pagan test. If the p_{value} is less than 5% level of significance, then it can be deemed to be present whereas if it was more than 5% level, then it may be deemed present.

The data analysis sought to test the existence of direct effects of latent and observed variables. In the framework model entrepreneurial orientation, is a predictor of performance of start-ups. The EO → BIN→ FS relationship is that of explanatory variables. The use of Statistical Package for Social Sciences (SPSS) and STATA software to analyse data were preferred.

The procedure involved converting the study theoretical framework into STATA graphics and analysing the data. The measurements of latent constructs were validated using confirmatory factor analysis (CFA) procedure. To demonstrate the relationships in the study model, structural equation modelling (SEM) was used for analysis.

Table 4: Summary of Data Analysis and Hypothesis Testing and Interpretation of Results

Objective	**Hypothesis**	**Analysis Techniques**	**Interpretation**
Objective one: Determine the influence of entrepreneurial orientation on performance of start-ups	**H_{01}:** There is no relationship between entrepreneurial orientation and performance of start-ups.	Structural Equation Modelling (SEM Analysis)	Chi Square (df) Prob P < 0.05 GFI (Goodness-of-Fit Index) ≥ 0.90 RMSEA (Root Mean-Square Error of Approximation) ≤ 0.05 is good ≤ 0.08 is adequate CFI (Comparative Fit Index) and TLI (Tucker-Lewis Index) > 0.90 - Good model fit

Data analysis and interpretation.

According to Yin (2017) a response rate category of 50% is satisfactory, 60% is good, and above 70% is a very good category. In this study, the response rate was 81.71%, which means the data is in the "very good" category.

Entrepreneurial Orientation construct was assessed for descriptive statistic by breaking it into its three dimensions or sub-constructs namely the innovative, risk-taking, and proactiveness dimensions. Each subconstruct contained three questions for responses. The items for the respective sub constructs were explored in terms of their mean and the standard deviation to show the distribution. Each of the results for innovative, risk taking and proactive dimensions are presented to the

respondents on tables 5, 6 and 7 respectively and the interpretations thereafter.

Innovative Dimension of Entrepreneurial Orientation

This study sought to determine the influence of Innovative dimension of entrepreneurial orientation on performance of start-ups. Three questions were supplied to each of the 210 respondents where each contained three start-up performance variables of survival rate, financials and lastly job creation. The respondents were required to use a scale of 1 to 5 where: 1 meant strongly disagree, 2, disagree, 3, Indifferent (neither agree nor disagree), 4, agree, and 5, strongly agree. The objective of the study was to establish the influence of entrepreneurial orientation on performance of start-ups Nairobi City County. Field data was collected and analysed for the mean and standard deviation as presented on table 5.

The findings conform with the findings of Wiklund et al. (2005) in Finland on the establishment of start-up performance, growth and profitability. As well Kropp, Lindsay and Shoham (2008) studied the role of management in setting up start-ups with an objective to set up firm control system that will influence of entrepreneurial orientation as basis for firm performance. The study findings indicated positive correlation between entrepreneurial orientation and managerial decisions in starting a new business.

Table 5: Innovative Dimension

Innovative dimension	N	Mean	Std
Our firm/startup survival performance is influenced by innovative characteristic of entrepreneurial orientation.	210	3.55	.57
Our firm/startup financial performance is influenced by innovative characteristic of entrepreneurial orientation.	210	3.8	.53
Our firm/startup performance on job creation is influenced by innovative characteristic of entrepreneurial orientation.	210	3.96	.57
Aggregate value for the innovation dimension	210	3.83	.39

Source: Field Data (2022)

Risk-taking Dimension of Entrepreneurial Orientation

Risk taking is one of the dimensions of entrepreneurial orientation. The presence of risk taking characteristics. Risk-taking dimension of entrepreneurial orientation is demonstrated when a firm makes a bold decision to either take business into new territories or invest huge sums of money on ventures with unpredictable returns (Wiklund & Shepherd, 2005). Starting a new business is the best example where risk taking decisions are demonstrated. Persons with no business experience are unlikely to start a new business unless they have entrepreneurial orientation. Start-ups face unpredicted pressure from mature and more experienced firms across the world.

The current study findings conform with the findings of Wiklund et al. (2005) in Finland on the acceleration of start-up performance, growth and profitability. As well Kropp, Lindsay and Shoham (2008) studied the role of management in setting up start-ups with an objective to set up firm control system that will influence of entrepreneurial orientation as basis for firm performance. The study findings indicated positive correlation between entrepreneurial orientation and managerial decisions in starting a new business.

Table 6: Risk Taking Dimension

Risk taking dimension	N	Mean	Std
Our firm/startup survival performance is influenced by risking dimension of Entrepreneurial Orientation.	210	3.31	.83
Our firm/startup financial performance is influenced by risking dimension of Entrepreneurial Orientation.	210	3.32	.85
Our firm/startup performance on job creation is influenced by risking dimension of Entrepreneurial Orientation.	210	3.32	.81
Aggregate value for Risk taking dimension	210	3.77	.31

Source: Field Data (2022)

Pro-activeness Dimension of Entrepreneurial Orientation

Proactiveness dimension of entrepreneurial orientation is characterized by tendency to anticipate and act on future needs rather than reacting to events after they unfold. An organization is perceived to be proactive hence entrepreneurial orientation if it adopts an opportunity seeking behaviour. The purpose of this assessment was to establish the influence of entrepreneurial orientation on performance of start-ups Nairobi City County using proactive dimension. The study applied a scale of 1-5 questionnaire where respondents rated 1 to meant strongly disagree, 2, disagree, 3, Indifferent (neither agree nor disagree), 4, agree, and 5, strongly agree. The purpose of the assessment was to establish the influence of entrepreneurial orientation on performance of start-ups Nairobi City County.

The current study findings conform with the findings of Wiklund et al. (2005) in Finland on the acceleration of start-up performance, growth and profitability. As well Kropp, Lindsay and Shoham (2008) studied the role of management in setting up start-ups with an objective to set up firm control system that will influence of entrepreneurial orientation as basis for firm performance.

The study findings indicated positive correlation between entrepreneurial orientation and managerial decisions in starting a new business.

Table 7: Proactiveness Dimension

Proactiveness dimension	N	Mean	Std
Our firm/startup survival performance is influenced by pro-active dimension of Entrepreneurial Orientation.	210	3.32	.99
Our firm/startup financial performance is influenced by pro-active dimension of Entrepreneurial Orientation.	210	3.28	.66
Our firm/startup performance on job creation is influenced by pro-active dimension of Entrepreneurial Orientation.	210	2.93	.67
Aggregate value for Entrepreneurial Orientation	210	3.59	.27

Source: Field Data (2022).

The hypotheses for this study was;

H_0: There is no relationship between entrepreneurial orientation and performance of start-ups in Nairobi City County.

Alternative hypothesis

H_1: There is a significant relationship between entrepreneurial orientation and performance of start-ups in Nairobi City County.

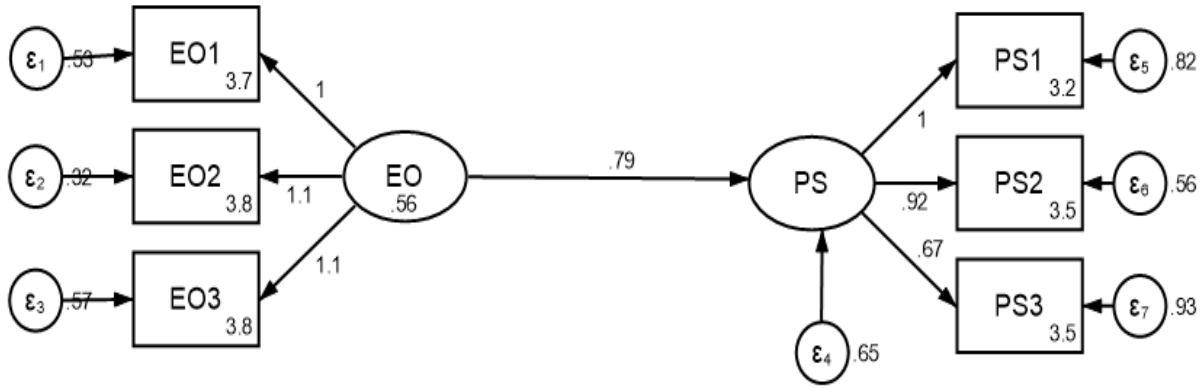
For the purpose of testing entrepreneurial orientation, the concept was broken down into sub constructs of Innovativeness, risk-taking and proactiveness. Performance of start-ups was also conceptualized as down start-up survival, financial performance and job creation. The initial analysis was to ascertain the correlation between entrepreneurial orientation and performance of start-ups via path analysis in Structural Equation Model (SEM). After testing for the influence of entrepreneurial orientation on the three start-up performance observables of survival, financial and job creation, the conclusion was made to reject or uphold the null hypothesis.

Figure 1 indicates the findings of the link between entrepreneurial Orientation and Performance of start-ups in Nairobi City County. The study established a strong positive relationship with coefficient of 0.7876 between entrepreneurial orientation and performance of start-ups in Nairobi City County. From the fit indices computed, as depicted in table 8, Likelihood-ratio ichi-squared statistic, Root Mean Squared Errori of Approximation (RMSEA) statistic, information Criteria statistics and baseline comparison statistics were evaluated. Likelihood-ratio chi-squared test evaluates the best model between two models (nested models). RMSEA measures how

far an hypothesised model is from a perfect model.

Information criteria (Akaike Information Criterion - AIC and the Bayesian Information Criterion (BIC) provide measures of model performance that account for model complexity (Xia & Yang, 2019). AIC and BIC combine a term reflecting how well the model fits the data with a term that penalises the model in proportion to its number of parameters (Xia & Yang, 2019). Further, baseline comparison (Comparative Fit Index - CFI and Tucker-Lewis Index - TLI) compare the fit of a hypothesised model with that of a baseline model. According to Hu and Bentler (1999), an RMSEA smaller than .05 and a CFI and TLI greater than .90 indicate a relatively good model–data fit.

Figure 2 Influence of entrepreneurial orientation on performance of start-ups



Source: Field Data (2022)

From table 7 above, Likelihood-ratio chi-squared statistic was 28.747 with a pvalue of 0.000 (model versus saturated) and 415.240 with a pvalue of 0.000 (baseline versus saturated), RMSEA statistic was 0.111 with pvalue of 0.011, AIC was 3528.094, BIC was 3591.598, CFI was 0.948 and TLI was 0.903. Since the likelihood ratio chi-square statistic was significant (pvalue =0.000), RMSEA pvalue was smaller than .05 and a CFIi and TLIi are greater than .90, then the structural equation model developed was a relatively good model that fitted the data used.

Table 8: Fit Indices

Fit statistic	Value	Description
Likelihood ratio		
chi2_ms(8)	28.747	model vs. saturated
p > chi2	0.000	
chi2_bs(15)	415.240	baseline vs. saturated
p > chi2	0.000	
Population error		
RMSEA	0.111	Root mean squared error of approximation
90% CI, lower bound	0.069	
upper bound	0.157	
pclose	0.011	Probability RMSEA <= 0.05
Information criteria		
AIC	3528.094	Akaike's information criterion
BIC	3591.598	Bayesian information criterion
Baseline comparison		
CFI	0.948	Comparative fit index
TLI	0.903	Tucker-Lewis index

Source: Field Data (2022)

These results are summarised in Table 9 with clear indication that entrepreneurial Orientation significantly influences performance of startups with p_{value} of 0.0004 being than 0.05 level of significance. The result further confirms thati the model fit is appropriate for this data since the chi-square was 28.75 and overall pvalue of 0.0004 was less than 0.05 significant level.

From the model, Entrepreneurial Orientation increases performance of start-ups in Nairobi City County at 5% level of significance by 0.7876 holding other factors constant. In general, it can therefore be inferred that entrepreneurial orientation explains significantly the performance of start-ups in Nairobi City County resulting in the rejection of the null hypothesis and hence adoption of the alternative hypothesis that there exists a significant influence of entrepreneurial orientation on performance of start-ups in Nairobi City County. The study further explored how entrepreneurial orientation influenced performance of start-ups which was measured through survival rate, financial performance and job creation.

Table 9: Structural Equation Model Summary

Performance of Start-ups	**Coefficients**	**Std error**	**z**	**p>z**	**Confidence Interval**	
Entrepreneurial Orientation	0.7876	0.1381	5.70	0.000	.517	1.0583
LR test of model vs. saturated: Chi2(8) = 28.75, Prob > chi2 = 0.0004						
Coefficient of determination (R squared) = 0.1706						

Source: Field Data (2022)

Entrepreneurial Orientation on Start-ups Survival performance

The study explored how entrepreneurial orientation influences performance of Startups which was measured through survival rate. The composite index for survival rate was developed from the sub-items. The findings are as indicated in

Table .

Based on the above analysis of entrepreneurial orientation and start-ups survival rate, the model in table 8 revealed

a significant direct influence of entrepreneurial orientation and Start-ups' survival rate. This implies that the influence was significant. The study found that there exists a significant relationship between entrepreneurial orientation (Innovation dimension, risk taking dimension and proactiveness dimension) and Start-ups' survival rate (p value =0.000). Individually, innovation dimension (EO1) had a non-significant direct influence (β1=.0055, p value =0.960), risk taking dimension (EO2) had a significant direct influence (β2=.5083, p value =0.000) and proactiveness dimension (EO3) had a non-significant direct influence (β3=.0275, p value=0.792) start-ups' survival rate. This finding is in line with those by Shan, Song & Ju (2016) who found a direct relationship between Entrepreneurial orientation and survival rate of firms in China. However, thei study by Wolff, Pett and Ring (2015) depicted a contrary result.

Table 10 Entrepreneurial Orientation and Survival rate.

Source	SS	df	MS	Number of obs	=	209
				F(3, 205)	=	12.08
Model	56.9644734	3	18.9881578	Prob > F	=	0.0000
Residual	322.126436	205	1.57134847	R-squared	=	0.1503
				Adj R-squared	=	0.1378
Total	379.090909	208	1.82255245	Root MSE	=	1.2535

PS1	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
EO1	.0055057	.1090645	0.05	0.960	-.2095262	.2205376
EO2	.5083245	.1146463	4.43	0.000	.2822875	.7343615
EO3	.02747	.1042828	0.26	0.792	-.1781343	.2330742
_cons	1.148627	.3783644	3.04	0.003	.4026427	1.894612

Source: Field Data (2022)

Entrepreneurial Orientation on Start-ups' Financial Performance

The study further explored how entrepreneurial orientation (innovation dimension, risk taking dimension and proactiveness dimension) influence performance of start-ups which was measured through financial performance. The composite index sub-constructs for start-up financial performance were developed. The respondents were required to cast their opinion on whether their firm/start-up financial performance was influenced by entrepreneurial orientation, business incubation or business strategy.

Based on the results of analysis, the entrepreneurial orientation and Start-ups' financial performance, the model in table 5.4 was constructed thereby revealing significant direct influence of Entrepreneurial Orientation on Start-ups' financial performance. Given these results, the study found that there exists a significant relationship between Entrepreneurial Orientation (Innovation dimension, risk taking dimension and proactiveness dimension) and Start-ups'

financial performance (p_{value}=0.000). Individually, Innovation dimension (EO1) had a non-significant direct influence (β_1=.1404, p_{value} = 0.118), risk taking dimension (EO2) had a significant direct influence (β2=.5851, p_{value} = 0.000) and proactiveness dimension (EO3) had a non-significant inverse influence (β3=-.0965, p value = 0.261) on Start-ups' financial performance.

These findings are in tandem with those by Kantur (2016) who found the positive relationship between Entrepreneurial Orientation and financial and non-financial performance creating a link in the relationship. On the other hand, Arzubiaga et al. (2018) found an inverse relationship between Entrepreneurial Orientation and financial performance and survival of family SMEs

.Table 11: Entrepreneurial Orientation and Financial performance

Source	SS	df	MS	Number of obs	=	209
				F(3, 205)	=	24.30
Model	77.1056598	3	25.7018866	Prob > F	=	0.0000
Residual	216.798646	205	1.05755437	R-squared	=	0.2623
				Adj R-squared	=	0.2516
Total	293.904306	208	1.41300147	Root MSE	=	1.0284

PS2	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
EO1	.1403977	.0894743	1.57	0.118	-.0360102	.3168055
EO2	.5850796	.0940535	6.22	0.000	.3996434	.7705158
EO3	-.0964832	.0855515	-1.13	0.261	-.2651568	.0721904
_cons	1.195267	.3104026	3.85	0.000	.5832762	1.807258

Source: Field Data (2022)

Entrepreneurial Orientation on Start-ups' Job Creation

The study further explored how Entrepreneurial Orientation (Innovation dimension, risk taking dimension and proactiveness dimension) influence performance of start-ups which was measured through job creation. The composite index for job creation was developed from its sub-items. The findings are as indicated in Table 2.

Based on the above analysis of Entrepreneurial Orientation and Start-ups' job creation, the model in table 5. 5 revealed a significant influence of Entrepreneurial Orientation and Startups' job creation. This implies that the influence was significant.

From this result, the study observes that there exists a significant relationship between entrepreneurial orientation (innovative dimension, risk taking dimension and proactiveness dimension) and start-ups' job creation (p_{value} =0.0001). Individually, Innovation dimension (EO1) had a non-significant inverse influence (β_1=-.1040, p_{value} =0.289), risk taking

dimension (EO2) had a significant direct influence (β2=.3785, p_{value} =0.000) and proactiveness dimension (EO3) had a non-significant inverse influence (β3=-.0752, p_{value}=0.422) on Start-ups' job creation.

These findings are in line with those by Koe (2016) which found the positive relationship between Individual Entrepreneurial Orientation and job creation. Thus, proper Individual Entrepreneurial Orientation increased job creation by improving reactiveness and innovation hence job creation. On the contrary, a study by Rezaei and Ortt (2018) found an inverse relationship between Entrepreneurial Orientation and firm performance in terms of job creation and innovation.

Table 12: Entrepreneurial Orientation and Job Creation

Source	SS	df	MS		
Model	28.8033336	3	9.60111121	Number of obs	= 209
Residual	259.30193	205	1.26488746	F(3, 205)	= 7.59
				Prob > F	= 0.0001
Total	288.105263	208	1.38512146	R-squared	= 0.1000
				Adj R-squared	= 0.0868
				Root MSE	= 1.1247

PS3	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
EO1	-.1040341	.0978527	-1.06	0.289	-.2969609	.0888927
EO2	.3785267	.1028607	3.68	0.000	.1757261	.5813273
EO3	.0752318	.0935626	0.80	0.422	-.1092365	.2597001
_cons	2.147375	.3394689	6.33	0.000	1.478077	2.816673

Source: Field Data (2022)

Individually, Entrepreneurial Orientation (EO) had a significant inverse influence (β1=-.0972, pvalue =0.384) on survival, non-significant direct influence (β1=.0333, pvalue =0.710) on financials and non-significant inverse influence (β1=-.1677, pvalue =0.124) on employment creation (refer table 13 below)

Table 13: Summary matrix of hypothesis testing for Entrepreneurial Orientation

Construct	Sub-construct	Innovative	Risk-taking	Pro-activeness
EO	Survival	(β1=.0055, pvalue =0.960),	(β2=.5083, pvalue =0.000)	β3=.0275, pvalue=0.792
		+ve non-significant	+ ve significant	+ve non-significant
	Finances	(β1=.1404, pvalue = 0.118),	(β2=.5851, pvalue = 0.000)	(β3=-.0965, pvalue = 0.261)
		+ve significant	+ ve significant	-ve significant
	Employment	(β1=-.1040, pvalue =0.289),	(β2=.3785, pvalue =0.000)	(β3=-.0752, pvalue=0.422)

		-ve significant	+ ve significant	-ve significant
	Risk taking dimension of EO leading in significant influence on performance of startups			

The null hypothesis H_0 that there is no relationship between entrepreneurial orientation and performance of startups in Nairobi City County was rejected and alternative hypothesis H_1 that there is a significant relationship between entrepreneurial orientation and performance of startups in Nairobi City County upheld.

Conclusion

From the objective that sought to establish the influence of entrepreneurial orientation on performance of start-ups in Nairobi City County, the study concludes that entrepreneurial orientation positively and significantly influences performance of start-ups in Nairobi City County. On the respective indicators for performance of start-ups in Nairobi City County with respect to the indicators for entrepreneurial orientation, innovation and proactiveness did not have a significant influence while risk-taking had a significant influence on start-up survival rate, financial performance and job creation.

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