



BEYOND SURVIVAL: HOW DOES ORGANISATIONAL SUPPORT MEDIATE BETWEEN INTRAPRENEURIAL STRATEGIES AND PERFORMANCE OF PUBLIC UNIVERSITIES IN KENYA?

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ABSTRACT: *Intrapreneurship is critical for public universities as it helps the universities obtain a competitive advantage. For intrapreneurship to thrive, it should be inculcated in the public university culture, mission, obligations and goals. Studies posit that management support, reward systems, social relationships, knowledge-sharing and work discretion spur intrapreneurial activities in an organisation. It is against this backdrop that this study sought to establish the mediating effect of organisational support on the relationship between intrapreneurial strategies and the performance of public universities in Kenya. The research was guided by the resource dependency theory and utilised a positivist philosophy. A combination of descriptive and explanatory research designs was used. The unit of analysis was 20 public universities, and the unit of observation was 400 participants. A semi-structured questionnaire was used to collect primary data. With the help of SPSS Version 23, quantitative data was analysed, using descriptive and inferential statistics. Qualitative data was analysed using content analysis and the findings were expressed guided by the objectives of the study. Multiple regression models were used to test the association between variables, and the results obtained were presented using figures and tables. A statistically significant ($\beta=0.760$, $p=0.000<0.05$) and partially mediating influence of organisational support on the relationship between intrapreneurial strategies and the performance of public universities in Kenya, was observed. The study concluded that organisational support mediates the relationship between intrapreneurial strategies and the performance of public universities in Kenya. Therefore, the study recommends that public university vice-chancellors create an enabling environment for the adoption of intrapreneurial strategies.*

KEYWORDS: Intrapreneurship, Intrapreneurial Strategy, Organisational Performance, Organisational Support



INTRODUCTION

Intrapreneurship relates to economic value creation, self-renewal and adapting to changes proactively, and technology transfer in a risk-taking environment, all embedded in a public university workplace and interrelated to everyone. Sometimes resources in public universities are inefficiently utilised, as the universities are unaware of the existence of the resources and how to realise better returns from them (Ronoh, Mumiukha & Sang, 2013). Intrapreneurial public universities need to conduct a thorough evaluation of the existing marketing opportunities for value-creation, education and research, while efficiently utilising available resources. This relates to improved marketing, teaching and research (Ronoh et al., 2013).

Intrapreneurial activities in public universities are characterised by top management support, degree of proactive engagement to risk ratio, universities' ability to withstand risk and employee support (Almasri & Ahmad, 2020). Globally, public institutions undertake intrapreneurial strategies to cater for the deficit in state funding. For instance, public universities in the USA have responded to budget cuts by pro-actively reducing faculties and courses offered, and in some cases, closing campuses that are non-profitable (Mitchelle, Leachman & Saenz, 2019).

Organisational support (OS) is a fundamental element of intrapreneurial development. OS describes the extent to which the public university provides a suitable atmosphere for potential intrapreneurs to come up with and execute inventive ideas and projects to improve the university's performance (Abou-Moghli, 2015). Flourishing intrapreneurship activities require suitable organisational support and policies that promote appropriate managerial practices and behaviours to pioneer innovativeness in the public university's activities (Biswas & Kapil, 2017). Appropriate policies such as rewards or incentives, collaborations/linkages/knowledge sharing, co-worker support and/or social relationships, and university policies, will act as building blocks for this study.

Organisational support entails dynamics inside the public university that encourage or hinder the accomplishment of intrapreneurial activities. These dynamics are closely related to administration ability, work discretion, time availability and organisational limits. The public university's management support relates to the encouragement of new endeavours and incorporating intrapreneurial activities in the university's systems and processes. The university management imparts workers with skills and information that positively impact intrapreneurial behaviour (Biswas & Kapil, 2017).

The management and supervisors commit and dedicate adequate resources to improve decision-making standards in the public university. Work discretion relates to the capability delegated to employees to make knowledgeable deductions regarding how paramount it is for them to manage tasks proficiently (Nagappan, Balakrishnan & Saini, 2019). Intrapreneurs flourish on authorisation, which arouses their instinctive longing to make discoveries. Intrapreneurial organisations inspire and give freedom to their personnel to cultivate their concepts and ideas (Nagappan et al., 2019).

The availability of time for employees to engage in intrapreneurial strategies encourages employees to attain both temporary and long-term objectives. In intrapreneurial public universities, employees are less burdened with everyday workloads but are given time to engage in novel strategies that create benefits for the university. There should be development



of managerial behaviour whereby new opinions from such employees are included, selected and followed up for success (Nagappan et al., 2019).

In considering these studies (Alpkan, Bulut, Gunday, Ulusoy, & Kilic, 2017; Soetanto & Geenhuizen, 2018; Okangi, 2019; Isichei, Agbaeze, & Odiba, 2020) which used organisational support as the mediating variable between intrapreneurship and organisation performance, this research established that intrapreneurship strategies and public university's performance are mediated by organisational support.

PROBLEM STATEMENT

In Kenya, the public university sector faces a myriad of challenges which include; high enrolment, inadequate funding, poor governance, academic fraud, poor examination supervision, inadequate teaching and learning resources, acute shortage of professors, graduate unemployment, low research output, and political infiltration. There has been a massive expansion in student enrolment against a declining number of professors. Professors should engage in extensive research and publications and generate numerous research grants. As the enrolment increases with margins of over 31%, the number of students to professor ratio has reduced by over 27%. One professor teaches 563 students every year, as compared to 275 students per professor in South Africa (Kibirango & Munene, 2016; Mwanthi, 2018; Wakindiki, 2023). Additionally, Kelechi and Vera (2020) argue that a decent figure of Kenyan alumnae is not productively employed, with a good number being out of employment. There has been a decline in state funding to public universities over the years. Donors have persistently shunned away from funding Kenyan public universities. The challenges can be addressed through the adoption of intrapreneurship in the form of innovativeness, pro-activeness, risk-taking and self-renewal, in public universities (Odhiambo, 2018). Organisational support (OS), is linked to the adoption of intrapreneurship concepts in an organisation (Mwanthi, 2018; Moghaddas, 2019). Studies posit that management support, reward systems, social relationships, knowledge-sharing and work discretion spur intrapreneurial activities in an organisation (Kurtessis et al., 2017; Mwanthi, 2018; Moghaddas, 2019; Imran & Aldaas, 2020).

Research Objectives

The study was guided by the following objectives: -

- I. To examine the effect of innovativeness on the performance of public universities in Kenya.
- II. To assess the effect of risk-taking on the performance of public universities in Kenya.
- III. To analyse the effect of pro-activeness on the performance of public universities in Kenya.
- IV. To investigate the effect of self-renewal on the performance of public universities in Kenya.
- V. To determine the mediating effect of organisational support on the relationship between intrapreneurial strategies and the performance of public universities in Kenya.



LITERATURE REVIEW

This section presents the theories and empirical literature that guided the study.

Theoretical and Conceptual Background

The theories utilised in the study were: Resource Dependency, Opportunity-Based Entrepreneurship, Schumpeter Innovation and Entrepreneurial Event.

Resource-Dependency Theory

The Resource-Dependence Theory explains how organisations behave. "Behaviour" is used here to refer to a broad range of activities, including both actions and decision-making as well as "non-decision-making" (Baratz-Snowden, 1993), and the outcomes of actions and decision-making, such as organisational structures that support intrapreneurship. Organisational disparities in behaviour can be linked to variations in management choices. Greater organisational support results in efficient control of resources and enhanced intrapreneurship. Arguably, the resources possessed by public universities will determine their performance in the industry.

Opportunity-Based Entrepreneurship Theory

Every greatness is because of opportunity, which attracts innovativeness, pro-activeness, taking a risk on the opportunity, and continuous self-renewal (Abioye, 1996). Employees need space to exploit the opportunities for the benefit of the organisation. The creative ones are given a chance to grow and initiate overall business change. Therefore, there is a need for pro-activeness and self-renewal in every aspect of an organisation, so as to remain productive. Pro-active employees go beyond their job descriptions and engage in ideas that are futuristic, by observing current trends and anticipated changes (Almasri & Ahmad, 2020).

Schumpeter Innovation Theory

Continuous adaptation to small external changes absorbed through company routine behaviour is what he termed as innovation. The Schumpeter Innovation Theory explains the economic development that takes place through adaptation to the changes such as the presentation of a novel quality product, production method and/or a supply source for raw materials (Hagedoorn, 1996). According to Schumpeter, one has to either innovate or perish, and the reward for intrapreneurship is profit. He insists there should be the urge to overcome, the instinct to fight, and the ability to demonstrate superiority to others for the sake of success (Mehmood, Alzoubi, Alshurideh, Al-gasaymeh & Ahmed, 2019).

Entrepreneurial Event Theory

The movement from comfort to the establishment of the business will bring a change in behaviour, which will lead to the uptake or dismissal of the business idea (Shapero & Sokol, 1982). This is the Entrepreneurial Event, where apparent viability, desirability and tendency to act towards an idea, affect the purpose and behaviour of an intrapreneur to start a business (Davids, 2017). Shapero and Sokol (1982), claim that intrapreneurship relies on insights of attractiveness, viability, and the tendency to act upon a business idea. Entrepreneurial Event Theory is therefore founded on two principles, which is the attractiveness and feasibility of the business idea (Ramayah, Rahman & Taghizadeh, 2019).



Empirical Review and Hypothesis Development

This segment presented the pragmatic study based on innovation, risk-taking, pro-activeness, self-renewal, organisational support and operational environment.

Innovativeness and Performance of Public Universities

The first objective of the study was to investigate the effect of innovativeness on performance of public universities in Kenya. The objective hypothesis was as follows:

H₀₁: Innovativeness has no significant effect on the performance of public universities in Kenya

Public universities are faced with increasingly dynamic environments (Handoko, Smith & Burvil, 2012). In these environments, there exists challenges of resource constraints, the massification of education with an expectation to meet the aspirations of learners and the public, and the development of necessary skills for global markets. The challenge of making core activities within a university affordable, effective and sustainable also exists in this environment. Regardless of these challenges, the universities are tasked with the provision of educational value to the society. This is done with due consideration to external issues such as management of relationships with stakeholders (Klofsten et al., 2019).

Innovativeness has proven to be a crucial factor in dealing with challenges facing an organisation. Innovativeness is characterised as a psychological trait or a precondition that exists to guide the intentions of any organisation. Innovativeness exploits the constraints in the environment and uses the constraints as opportunities towards organisational success (Gozukara & Colakoglu, 2016).

Risk-Taking and Performance of Public Universities

The second objective of the study investigated the impact of risk-taking on performance of public universities in Kenya, and the objective was hypothesized as follows: -

H₀₂: Risk-taking has no significant effect on the performance of public universities in Kenya.

Risk-taking is the propensity of the organisation's administration to take business-related perils in an uncertain commercial setting. Business persons usually categorise the situations in business as extremely or less risky (Kreiser, 2013). Risk-taking behaviour includes enormous resource commitment (Shihab, Wismiarsi, & Sine, 2011), but results in greater monetary benefit (Le Roux & Bengesi, 2014). Tang and Murphy (2012) argue that public universities fail to undertake risky ventures that are innovative due to fear of failure while, however, those that are able to take risks, improve their businesses holistically (Fadda, 2018). In addition, public universities even imitate others in the same industry to obtain some benefits and improve performance. This suggests that risk-taking behaviour is unquestionably related to a public university's performance. Anlesinya, Eshun, and Bonuedi (2015) established a noteworthy association between success and risk-taking behaviour.

The ability to take risks enabled public universities to access resources in the marketplace. Karaoglu et al. (2013) and Muthee-Mwangi and Ngugi (2014), affirm that intrapreneurial risk-taking behaviour increases an organisation's success. However, a public university's beliefs affect its risk-taking behaviour and consequently, its success (Brettel, Chomik, & Flatten,



2014). Additionally, the risk-taking behaviour of a public university emphasises the establishment of healthy human relationships in the organisation. This brings about shared beliefs, which in turn improves risk-taking behaviour and the university's overall success. Risk-taking in a public university is expressed through decision-making, risk-taking proclivity and boldness (Gibb, 2010).

Pro-activeness and Performance of Public Universities

The third objective of the study was based on the premise;

H₀₃: Pro-activeness has no significant effect on the performance of public universities in Kenya.

Pro-activeness enables public universities to become early movers of products and services, thus gaining a competitive advantage in the marketplace. Pro-activeness is the attitude and desire by the university to be the leader in the industry, and not just be a follower of its competitors (Oladimeji, Sanjo, Abosede, Julius, Ezo & Uchenna, 2019). The propensity of public universities to anticipate and act towards changes greatly constitutes pro-activeness (Gauthier, Cohen & Meyer, 2021). Pro-activeness is seen in the motivation and engagement of a public university's stakeholders by committing resources and improving personal relationships (Ness *et al.*, 2020).

Self-renewal and Performance of Public Universities

The fourth objective of the study was hypothesised as follows: -

H₀₄: Self-renewal has no significant effect on the performance of public universities in Kenya

Many authors recognise the importance of self-renewal. A study by Kumar and Parveen (2020) on the effect of self-renewal on employee intrapreneurial behaviour in India found that self-renewal promotes superior organisational performance. The study also influenced the need for organisational support as a driver for self-renewal. Management support in organisational elements and technology prospects had a good and significant effect on intrapreneurship.

Moghaddas (2019) studied the effect of self-renewal on entrepreneurship in university libraries in Iran. The results of the study exposed that the self-renewal and organisational enabling aspects of intrapreneurship were not embraced in university libraries, despite the fact that the influence on organisational performance by self-renewal was confirmed. Skarmeas *et al.* (2016) evaluated the impact of self-renewal on the performance of 1271 Portuguese export producers and concluded that self-renewal had a noteworthy consequence on the performance of Portuguese export producers.

Mediating Effect of Organisational Support

Organisational support refers to employees' insight into organisational strategies and practices. It portrays the employees' feelings, activities, approaches and other work customs. A favourable organisational climate enables staff to be innovative, and proactive and to take risks. Additionally, employees can inter-relate and trust each other, without the fear of being judged (Tokareva, Smirnova & Orchakoya, 2019).



The type of leadership, to a very great extent, affects the implementation of intrapreneurship. Transformational leaders can persuade their employees/assistants to perform tasks. This facilitates the smooth division of labour, thus improving organisational performance. Intrapreneurial success requires leaders who support knowledge and open communication (Ablooshi, Shamsuzzaman & Haridy, 2021).

Moghaddas's (2019) empirical study acknowledged organisational support as a complement to intrapreneurship in Iran. Studies have established that organisational support provides the necessary internal climate to facilitate organisations to spur intrapreneurial activities, such as starting new enterprises in strategic and organisational planning to achieve faster growth of the organisation, introducing innovative products, services, processes and technologies, and performing organisational self-renewal.

Farrukh and Ramzani (2017) found out that when leaders are compassionate to their employees, the organisation achieves improved performance. Razavi and Aziz (2017) considered transformational management as a mediator on entrepreneurship orientation and intrapreneurship intention in the Iranian research and development sector. The study findings concluded a mediating effect of transformational leadership on the association between risk-taking, innovativeness and pro-activeness with the intrapreneurial objective.

The link between organisational support and intrapreneurial behaviour was examined by Chouchane et al., (2021) and the regression outcomes showed that perceived organisational support had an indirect effect on intrapreneurial behaviour. The effects of organisational support and social wealth on the innovation performance of 184 Turkish manufacturing enterprises were also examined by Alpkan et al. (2010). The study considered the enterprises' support for the creation of novel business concepts, the effectiveness of organisational arrangement, enticements and prizes, and leniency on failure in situations of the execution of risky projects. The study findings pointed out that OS as indicated by management support for the development of novel thoughts and broad-mindedness for risk-taking had an optimistic effect on the firm's innovative performance. However, the use of performance-based reward systems and the allocation of free time did not affect innovation.

In Jordan, Abou-Moghli (2015), conducted a survey on the role of OS in enhancing the performance of Jordanian maritime transport firms. The research found that OS had a statistically significant role in enhancing employees' performance and firm performance. Another study in Malaysia to determine the influence of organisational support on the performance of SMEs confirmed that OS and entrepreneurial leadership positively and significantly predicted the organisational performance of SMEs (Imran & Aldaas, 2020).

Table 1: Summary of Literature Review

Author (Date)	Subject	Variables	Methods	Findings
Wambua and Wairimu, (2023)	Intrapreneurship Factors and the Growth of Insurance Companies in Kenya	Innovativeness, pro-activeness, Insurance Companies, Performance	Regression Model	Innovativeness and pro-activeness had a noteworthy consequence on growth of insurance



				companies in Kenya.
Ronoh & Rempei, (2022)	Analysis of entrepreneurship ecosystem (EEE) of three institutions in Kenya	Innovativeness, pro-activeness, self-renewal Risk-taking	Actiotope Model	entrepreneurship education is much theoretical and relies on traditional forms of education.
Abebaw et al., (2022)	Assessed key elements influencing Ethiopia's public universities' innovation ecosystem, with emphasis on motivation for innovation and research output.	public universities' innovation ecosystem motivation	Multiple Regression	university age, the amount of worldwide university partnerships, exploration backing, the quantity of PhD programmes, and the amount of completed exploration assignments, impact on research output, qualifications of employees and impact on innovation.

Source: Otolu, Muathe & Kimencu, (2024)

RESEARCH AND METHODOLOGY

The study used two of the research designs - the descriptive and the explanatory. According to Musau, Muathe and Mwangi, (2018), the descriptive research design is used to explain in-depth the characteristics of the study variables, while the explanatory research design establishes a correlation between the study variables. The descriptive research design was used in the study to explain in-depth the intrapreneurial strategies, organisational support, operating environment and performance of public universities in Kenya; while the explanatory research design was used to confirm the causal association between the various study variables - intrapreneurial strategies, organisational support, operating environment and performance of public universities in Kenya.

The study unit of analysis was the 36 public universities spread across several counties in Kenya, hence it was challenging to obtain a sampling frame. This is because the study population was scattered and the geographical area under study was vast. This necessitated the use of multi-stage random sampling as argued by Muathe, (2010). According to Chauvet (2015), the multi-stage sampling approach is more feasible in a scattered population, as it saves



both costs and time during primary data collection. Simple random sampling was utilised in the first step to ensure that each member had the same right to be selected. From the sampling technique, a total of 20 public universities were obtained. In stage two, the sampling approach was utilised to decide the number of departments from each public university in Kenya. This provided the departments from the 20 universities. From these 20 universities, Slovin's formulae helped to acquire a sample size of 400 respondents.

Slovin's formula was utilised as it permits a high degree of accuracy and helps to promote sample adequacy (Awino, Kilika & Muathe, 2022). The formula is stated below.

$$n = \frac{N}{1 + Ne^2}$$

Where, n = sample size

N = Population

e = Margin of error

In this case our population is 3600 which gives a sample size of 400.

The study utilised primary data from the sampled public universities in Kenya. The data was collected using a self-administered semi-structured questionnaire which consisted of a 5-likert scale with 8 sections. The sections had information regarding university background, innovativeness, risk-taking, pro-activeness, self-renewal, and public university performance respectively.

Prior to data collection, a pilot study was conducted at Meru University of Science and Technology. The researcher ensured face and content validity by subjecting the questionnaire to grammar and double checks and seeking professional judgement from the two supervisors and experts in the field of entrepreneurship. This is in line with recommendations from Muathe, (2010). Reliability was checked using two steps. The researcher utilised the items in the literature of previous studies which have been utilised in the current study. Secondly, the Cronbach Alpha was used to estimate the internal consistency reliability (Muathe, 2010).

The obtained data was properly cleansed and coded. The STATA 23.0 tool was used to analyse the data. Descriptive statistics in the form of mean scores, standard deviation and percentages were computed to allow a meaningful description of how scores were spread through the application of a few indices. To establish the relationship between intrapreneurial strategies without the mediator, multiple regression was utilised. The equation is given below.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon \dots \dots \dots \text{Equation 1}$$

Where:

Y = Performance of Public Universities

β_0 = Constant

$\beta_1 - \beta_4$ = Beta Coefficient



X₁-X₄ =Intrapreneurial Strategies variables (Innovativeness, Risk-taking, pro-activeness and Self-Renewal)

ε = Error Term.

The four-step casual path analysis proposed by Baron and Kenny (1986) was utilised in the study to examine the statistical mediation of organisational support on the association between intrapreneurial strategies and the performance of public universities.

This methodology was used because it evaluates the linear effect of the association amid variables. Conducting a regression and evaluating the significance of the coefficients was necessary for each of the four steps. It was determined that a coefficient was significant when P <0.05, and vice-versa.

$$Y = \beta_0 + \beta_1 X_1 * Z + \beta_2 X_2 * Z + \beta_3 X_3 * Z + \beta_4 X_4 * Z + \epsilon \dots \dots \dots \text{Equation 2}$$

Where:

Y= Performance of Public Universities

β₀ = Constant

β₁- β₄ = Beta Coefficient

X₁-X₄ =Intrapreneurial Strategies variables (Innovativeness, Risk-taking, Pro-Activeness and Self-Renewal)

Z= Coefficient of Mediating Variable (Organisational Support)

ε = Error Term.

FINDINGS AND DISCUSSION

This section presents a summary of the diagnostic test, regression results and discussions.

Diagnostic Results

According to Wainana, Bula and Wambua (2022) who also used multiple regression, any regression model must fulfil the conventions of multiple regression. Therefore, several tests were done in the current study in a bid to fulfil this necessary condition: sample adequacy test, confirmatory factor analysis, outliers test, linearity, multi-collinearity and homoscedasticity for the variables.

Table 2: Diagnostic Tests Results

S.No	Test	Method	Decision criteria	Results	Decision
1.	Sample Adequacy Test	Kaiser-Meyer-Olkin (KMO)	0.5 threshold	All variables	Sample adequate



				surpassed 0.5	
2.	Confirmatory Factor Analysis	Eigen Values and Communalities	Eigen values >1 Communalities >0.4	Variables met threshold	No variables were removed. All utilised for the study
3.	Outliers Test	Cook's Distance	0 to 1 with values above 1 considered outliers	<1 values obtained	No outliers
4.	Linearity Test	Pearson Correlation Coefficient	Values should fall between -1 and 1.	All variables exceeded the 0.05 confidence level set.	Presence of linearity
5.	Normality Test	Shapiro-Wilk Test	Threshold between 0 to 1 P values greater than 0.05	All conditions met	Data is normally distributed
6.	Multi-collinearity	Variance Inflation Factor	1 to 10	All variables below 10	Absence of Multi-collinearity
7.	Homoscedasticity	Breusch-Pagan test	P values greater than 0.05	Values had p value of 0.50 > 0.05	Absence of heteroscedasticity

Source: Research Data (2023)

Regression Analysis

This section presents the regression results and discussions.

Model One: Regression result without the Mediator (organisational support)

The study sought to determine the influence of intrapreneurial strategies on performance of public universities in Kenya. The regression of the compound index of the independent variable measures (innovativeness, risk-taking, pro-activeness and self-renewal) on the performance of public universities in Kenya, was done. The results are presented in Table 2.

Table 3: Intrapreneurial Strategies on Performance of Public Universities

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.758 ^a	.575	.569	.4705050



a. Dependent Variable: Public university performance

b. Predictors (Constant) : composite index of intrapreneurial strategies (innovativeness, risk-taking, pro-activeness, self-renewal)

Source: Research Data (2023)

The results in Table 1 show that the adjusted coefficient of determination R square is 0.569, meaning the model explains 56.9% of the variations in performance of public universities. These results are in line with Chamba and Chazireni, (2023), who did a study that examined the influence of intrapreneurial capabilities (ICs) on organisational performance of State-Owned Enterprises in Zimbabwe. A qualitative research design with interviews being the main data collection technique was utilised. It was concluded that intrapreneurial strategies have a significance and positive influence on performance. Greater agility promoted greater delivery of public value, thus improved service provision, customer satisfaction, social and financial impact.

In the 21st century, state-owned and public organisations should realise the role of intrapreneurship in steering performance. If organisations desire sustained competitive advantage and superior performance, they need to realise the potential of intrapreneurship. Most public organisations are failing to provide the services to which they were established, hence the need for adopting intrapreneurial tactics in these institutions to promote efficient and effective service delivery (Chamba & Chazireni, 2023).

Wambua and Wairimu, (2023) recognise intrapreneurship as a company's sustainability approach that promotes creativity and improved performance. They recognise intrapreneurs as secret weapons in any business. Indeed, valuable human capital enhances performance in the midst of crises. They emphasise that intrapreneurship motivates firms to be innovative, proactive, risk-taking and renewing themselves in a bid to improve performance.

Table 4 ANOVA^a

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	85.402	4	21.351	96.445	.000 ^b
Residual	63.092	285	.221		
Total	148.494	289			

a. Dependent Variable: University Performance

b. Predictors: (Constant): Innovativeness, Risk-taking, Pro-activeness, Self-renewal

Source: Research Data (2023)

ANOVA results in Table 4 are significant (F=96.445, sig <.05). Arguably, intrapreneurial strategies have a statistically noteworthy relationship with performance of Kenyan public



universities. The coefficient results for intrapreneurial strategies on the performance of public universities are shown in Table 4.

Table 5: Coefficients^a for intrapreneurial strategies on performance of public universities

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.741	.193		3.844	.000
Innovativeness	.146	.059	.144	2.493	.013
1 Risk-taking	.065	.067	.048	.971	.032
Pro-activeness	.163	.071	.162	2.293	.023
Self-renewal	.446	.066	.480	6.801	.000

a. Dependent Variable: University Performance

Source: Research Data (2023)

The study variables were predicted as shown in equation 4.1

$$y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon \dots \dots \dots \text{Equation 3}$$

Where;

Y = University Performance composite index

X1 = Innovativeness

X2 = Pro-activeness

X3 = Self-renewal

X4 = Risk-taking

B₀ = Constant or intercept

βI = Beta Coefficient for relevant variables

E = Error Term (residual or disturbance factor or values not captured within the regression model)

The prediction model for the study variables is as shown in Equation 4.2:

$$y = 0.741 + 0.146 X_1 + 0.065 X_2 + 0.163 X_3 + 0.446 X_4 \dots \dots \dots \text{Equation}$$

The findings indicate a constant term of 0.741, implying that holding all other variables at a constant (0), improvement in public university performance would be at 0.741. The 0.259 deficit can be attributed to other factors not taken into account by this study.



The first objective of the study was to establish the influence of innovativeness on the performance of public universities in Kenya. The hypothesis was as follows:

H₀₁: Innovativeness has no significant effect on the performance of public universities in Kenya.

The regression coefficient for innovativeness is ($\beta=0.146$, $p=0.013<.05$), indicating that holding all other independent variables constant, an increase in the innovativeness variable by one unit results in an increase in university performance by 0.146. The results on the innovativeness variable are reinforced by theories utilized in this study. One of the theories is Schumpeter's Innovation Theory, which postulates that the existence of opportunities in the business processes leads to the adoption of intrapreneurship. The available opportunities are utilised efficiently through the provision of adequate and timely information. The availability of information enables organisations to make decisions on choices that build better performance. The trial and error aspects advocated by risk-taking are highly acceptable, and in turn promote better performance (Callegari & Nybakk, 2022; Gullmark, 2021; Schumpeter, 1934).

Kadariusman and Rosyafah, (2022) identify innovativeness as a culture that supports experimentation, new ideas, products, and technologies and the tendency of a particular organisation to introduce new processes into their activities. When doing this, the aim of an organisation is to achieve a greater competitive advantage in the marketplace. This culture of innovations has considered customers as part of the reason for a firm existence, therefore, better performance is achieved in the long run.

The subsequent objective of the study investigates the association between risk-taking and the performance of Kenyan public universities. The hypothesis was as follows:

H₀₂: Risk-taking has no significant effect on the performance of public universities in Kenya.

The coefficient of regression for risk-taking is ($\beta=0.065$, $p 0.032<.05$), illustrating that holding all other independent variables constant, an increase in a single unit in risk-taking variable results in an increase in the performance of public universities by 0.146. Therefore, risk-taking was statistically acceptable in predicting the performance of public universities in Kenya. This is supported by Theresa and Hidayah, (2021) who studied owners of Micro, Small and Medium Enterprises (MSMEs) in North Jakarta and found a positive and significant relationship between risk-taking and the performance of SMEs.

Ajamobe, (2021) highlights that with the looming burden of unemployment of graduates in the world, there is a need to adopt risk-taking in universities to expose students to more real-life issues. He further notes that the establishment of new ventures calls for a great amount of risk-taking. Most organisations around the world have collapsed due to the risk averseness nature of their management. Organisations should take risks in a bid to improve their performance (Wimmer & Keestra, 2020).

The most courageous leaders in an organisation take risks that benefit that particular organisation. When decisions are made with a higher probability of failure than success, the risk culture is maximised. The higher the level of risk in an organisation, the higher the level of information sharing, and this helps the organisation to achieve and maximise returns at a higher pace than rivals. The higher the risk-taking levels in an organisation, the higher the



performance (Kadariusman & Rosyafah, 2022). Gomez-Mejia, Neacsu and Martin, (2019) recognise that risk-taking is key in most businesses as it attracts better returns. They did a study that established a significant positive relationship between risk-taking and wealth creation.

The third objective of the study was to assess the relationship between pro-activeness and performance of public universities in Kenya. The hypothesis of the objective was as follows:

H₀₃: Pro-activeness has no significant effect on the performance of public universities in Kenya.

The regression coefficient for pro-activeness is ($\beta=0.163$, $p=0.023<.05$) indicating a positive relationship between proactiveness and the performance of public universities in Kenya. A unit change in pro-activeness, while holding all other independent variables at zero, public university performance increases by 0.163. Therefore, pro-activeness was statistically acceptable in predicting the performance of Kenyan public universities. This is in the same school of thought as Huang, Huang and Soetanto (2023), who did a configurational study on 110 UK SMEs and established a positive significant association between proactiveness and performance of SMEs.

Being a first-mover in the marketplace is more grounded on the pro-activeness tendency of an organisation. The posture adopted by organisations that anticipates changes, and acts on future needs and wants in a marketplace gives the firm a competitive edge and promotes superior performance (Galbreath et al., 2019). This is supported by Adomako, Ning and Adu-Ameyaw, (2020) who did a study in Ghana to examine the conditions under which a proactive environmental strategy drives firm performance and found that firm performance is dependent on pro-activeness tendency in an organisation.

When organisations perceive and anticipate future needs in an industry, they are said to be proactive. There is an urgent need for public entities to anticipate future needs and business situations, so that they create organisational value, continuously scan the environment and improve their performance. Further, there is a need to aggressively get rid of the unproductive segments in an organisation. This is supported by Kadariusman and Rosyafah, (2022) who studied organisation learning as a mediator on the effect of pro-activeness, innovation and risk-taking on the performance of fashion sub-sector SMEs in East Java and found a significant positive association amid pro-activeness and performance.

The Opportunity-Based Entrepreneurship Theory supports this study, where Drucker, as a proponent, defines entrepreneurship as the search for change, and responding to the change as an opportunity. The reforms in the education sector are opportunities that, if well exploited will promote better performance for the public universities. There is proactive change management and self-renewal in this theory. On a constant, the public university sector should focus on continual improvement and performance through intrapreneurial strategies.

Baah, Opoku-Agyeman and Abdoulaye (2020), found that pro-activeness positively and significantly influences the performance of organisations. This improvement is in the aspects of environmental and productivity metrics. Pro-activeness has been advocated in business crises as it stimulates growth and performance. Additionally, Yang, Chen, Zhao and Hua, (2019) found out that pro-active individuals have a creative and transformative personality that helps build knowledge and skills in the organisation, which ultimately improves performance.



They argue that pro-activeness is embedded in responsibility and constructive organisational change which is attributed to the desire to change the status quo.

The fourth objective of the study was to establish the relationship between self-renewal and the performance of public universities in Kenya. The study hypothesis was as follows:

H₀₄: Self-renewal has no significant effect on the performance of public universities in Kenya

The coefficient for self-renewal is ($\beta=0.446$, $p=0.000<.05$) indicating that holding all other independent variables constant, a unit change in self-renewal, results to a change in public university performance by 0.446. Therefore, self-renewal was statistically acceptable in predicting the performance of public universities in Kenya. This is supported by a study by Aina and Solikin, (2020), who recognise self-renewal as business and corporate revitalisation, aimed at improving firm performance. They further recognise self-renewal as a transformational behaviour that creates flexibility and high adaptability for changes in the organisation. Organisational renewal is a critical concept that enhances the performance of the organisation.

Shin and Pérez - Nordtvedt, (2020), express that self-renewal incorporates the desire and will of an organisation to acclimatise to environmental changes. It does not necessarily incorporate the major changes in organisational strategy but is more grounded on minor adjustments in the activities of an organisation that ultimately breed superior performance. They emphasise that this process incubates in an environment where learning is acceptable, new knowledge is developed and repetitive patterns are avoided.

Aina and Solikin (2020), recognise that self-renewal is a transformational behaviour that determines how the organisation reacts to changes in the marketplace. They further recognise self-renewal as a key aspect that improves corporate performance. In the new industrial era, there is a need for organisations to develop transformative behaviour in order to deal with competition. Self-renewal is recognised as an adaptive response to most of the changes in the operating environment (Aina & Solikin, 2020).

Consequently, intrapreneurial strategies had a prediction model as shown in Equation 5:

$$y = 0.741 + 0.146 X_1 + 0.065 X_2 + 0.163 X_3 + 0.446 X_4 \dots\dots\dots \text{Equation 5}$$

The findings indicate a constant term of 0.741, implying that holding all other variables at a constant (0), improvement in public university performance would be at 0.741. The 0.259 deficit can be attributed to other factors not taken into account by this study.

The fifth objective of the study was to establish the mediating effect of organisational support on the relationship between intrapreneurial strategies and the performance of public universities in Kenya.

H₀₅: Organisational support has no mediating effect on the relationship between intrapreneurial strategies and the performance of public universities in Kenya.

The Four-Step Approach for the mediation effect recommended by Baron and Kenny (1986) was utilised in this study. In the initial step, the combined index for the indicators of intrapreneurial strategies was regressed on the performance of public universities as shown



below. The results of the analysis revealed a relationship between intrapreneurial strategies and public university performance that can be mediated.

Public University Performance = 0.786 + 0.82 Intrapreneurial Strategies..... Equation 6

In the second step, organisational support was regressed on intrapreneurial strategies as shown in Table 6a.

Table 6a: Model Summary for Organisational Support on Intrapreneurial Strategies

	Test Statistic	p-value	
Adjusted R-squared	0.635		
R-squared	0.641		
F-Statistic (2, 292)	292.34	0.000**	
Regression Results			
	Coefficients	t-statistic	p-value
Organisation Support	5.372	14.34	0.000**
Constant	7.983	0.872	0.000**
Keys. ** significant at 5 percent and *** significant at 1 percent			
Predictor variable (constant):			
Organisational Support			
Dependent variable: Intrapreneurial Strategies			

Source: Research Data (2023)

The estimated regression model in Table 6a revealed that intrapreneurial strategies are statistically significant at $\beta=5.372$; $F=292.34$; $p=0.000$. At a 95% confidence level, organisational support has a positive influence on intrapreneurial strategies. Additionally, holding all other factors constant, an increase in organisational support results in an increase in intrapreneurial strategies with a value of 5.372. Therefore, the study concludes that there is a relationship between organisational support and intrapreneurial strategies.

The adjusted R^2 in Table 6a is 0.635. Additionally, the result also specifies that the regression model is statistically noteworthy at $F(96.445) = 292.34$ and calculated probability = 0.000. Therefore, the sample data fit well with the regression model. This, therefore, means at a 95% confidence level, intrapreneurial strategies explain 63.5% of the variation in the performance of public universities in Kenya.

In step three, organisational support was regressed on the performance of public universities in Kenya. The results are depicted in Table 4b.

Table 6b: Results for Organisational Support Regressed on Performance of Public Universities

	Test Statistic	p-value	
Adjusted R-squared	0.535		
R-squared	0.583		
F-Statistic (2, 292)	192.34	0.000**	
Regression Results			



	Coefficients	t-statistic	p-value
Organisational Support	0.543	13.84	0.000**
Constant	5.983	8.72	0.000**

Keys. ** significant at 5 percent and *** significant at 1 percent
Predictor variable (constant): Organisational Support
Dependent variable: performance of public universities

Source: Research Data (2023)

Table 6b shows an adjusted coefficient of determination of 0.535. Additionally, the result also indicates that the regression model is statistically significant at $F(192.34) = 192.34$ and calculated probability = 0.000. Therefore, the proposed regression model fits the sample data well. This, therefore, means at a 95% confidence level, organisational support explains 53.5% of the variation in performance of public universities in Kenya.

Public University Performance = 5.983 + 0.543 Organisational Support.....Equation 7

Organisational support is significant at $\beta=0.543$; $t = 13.84$; $p = 0.000$. At a 95% confidence level, organisational support positively affects the performance of public universities. Nonetheless, when organisational support is held to zero, the performance of Kenyan public universities would be at 5.983. Also, an increase in a single unit of organisational support contributes to a performance increase with a value of 0.543. The study establishes a relationship between organisational support and performance of public universities in Kenya

In the fourth and last step, intrapreneurial strategies and organisational support were regressed on the performance of public universities and the results are shown in Table 4c.

Table 6c: Coefficients Results for Mediation

	Test Statistic	p-value	
Adjusted R-squared	0.658		
R-squared	0.633		
F-Statistic (2, 292)	172.34	0.000**	

Regression Results

	Coefficients	t-statistic	p-value
Intrapreneurial Strategies	0.620	23.84	0.000**
Organisational Support	1.37	18.72	0.000**
Constant	2.318		

Keys. ** significant at 5 percent and *** significant at 1 percent
Predictor variable (constant): intrapreneurial Strategies, Organisational Support
Dependent variable: performance of public universities

Source: Research Data (2023)



Table 6c indicates an R^2 of 0.633; therefore, intrapreneurial strategies and organisational support account for 63.3% of the variation in the performance of Kenyan public universities. The p-value for the model is = 0.000, which is lower than the 0.05 threshold, making the model significant in determining the relationship between intrapreneurial strategies and organisational support. These results are supported by Kiziloglu, (2022) who did a study on the effect of organisational culture on organisational performance: the mediating role of intrapreneurship and found that there exists a significant relationship between organisation culture, support and intrapreneurship. Further, he emphasises that the presence of organisational support promotes the performance of organisations. Organisational support helps to promote the commitment and dedication of employees, thus promoting the adoption of intrapreneurship (Kiziloglu, 2022).

Performance = 2.318 + 0.620 intrapreneurial strategies + 1.37 Organisational Support.....Equation 7

In addition, intrapreneurial strategies are significant at $\beta=0.620$; $t = 23.84$ $p = 0.003$, therefore, at a 95% level of confidence, intrapreneurial strategies have a positive relationship with the performance of public universities. Furthermore, it is evident that organisational support is statistically significant at $\beta=1.37$; $t = 18.72$; $p = 0.000$ and has a positive influence on the performance of public universities at a 95% level of confidence.

Table 6d: Summary of Mediating Results

Outcome	Conclusion
β_1 significant in model 2	Partial Mediation
β_1 significant in model 3	
β_1 significant in model 4	
β_1 significant and β_2 significant in model 4	

Source: Research Data (2023)

The results in Table 4d have beta coefficients that were statistically significant at a 95% confidence level. β_1 in model 2 confirms partial mediation of organisational support in the association amid intrapreneurial strategies and performance of public universities. The study concludes that organisational support partially mediates the association between intrapreneurial strategies and the performance of public universities in Kenya.

It is worth noting, that the current study findings resonate with those of a study done by Maan, Abid, Butt, Ashfaq and Ahmed, (2020), on selected manufacturing sectors found out a partial mediating effect between organisational support and pro-active and innovative behaviours of employees in an organisation. The study utilised time-lagged cross-sectional data collected from 936 employees working in various manufacturing and service sectors.

These findings agree with those of a study in West Sumatra on private universities by Ridwan, Mulyani and Ali (2020), who recognized organisational support as a key contributor to the improvement of private universities. Inclusivity of employees in organisational decision-making and inclusive leadership stimulates positive employee behaviour, which in turn promotes performance in an organisation (Qi, Liu, Wei & Hu, 2019). Schumpeter Innovation Theory recognises compensation, communication, autonomy in decision-making and delivery of tasks, management support and resources as critical aspects for the adoption of intrapreneurial strategies, which leads to better performance of the organisation.



It is very hard to identify intrapreneurs in organisations. These hidden talents remain hidden since no mechanisms to identify them exist. Sometimes they manage to be spotted, however despite spotting these talents; they rarely get the support that can help make a difference. Organisations should focus on employees to revitalise themselves and perform well since intrapreneurship aims to create innovative, proactive, risk-taking and self-renewal behaviours that ultimately attract a culture that boldly faces uncertainties in the environment and bolsters performance (Tende, Onuoha & Alagah, 2022).

The intrapreneurial culture created amidst innovativeness, risk-taking, pro-activeness and self-renewal encourages organisations to respond quickly and in a creative manner to internal and external changes. This intentional behaviour has been empirically found to improve performance. This is through improved communication, dynamic capabilities for marketing and dispensation of knowledge (Sun, Wang & Yuan, 2023).

Additionally, the Entrepreneurial Event Theory recognises that the tendency to identify, and the will to act towards an idea considered feasible, needs intensive organisational support. Treating employees fairly, giving them support, enhancing their human practices through human resource development, and improving overall working conditions improves the satisfaction of employees, and this inspires them to offer improved service delivery, which in turn results to better performance (Eisenberger, Shanock & Wen, 2020).

A study conducted by Fee and Gray, (2022), posits that the organisational support theory emphasises that employees are able to understand better when employers appreciate their input and supports their initiatives. Organisational support relieves stress, establishes resources and increases obligation towards improved firm performance. Further, the study which was conducted on 214 expatriates in 21 countries, established that to achieve improved performance, there is a need to enhance organisational support, which mainly stems from effective leadership.

Retaining and achieving maximum output from a skilled workforce is a key feature in most organisations. Talent is a key armoury tool in organisations that should be safeguarded. The aspects of safeguarding employees depict the appreciation and concern offered to the employees by the organisation. The greater the organisational support perception in employees, the greater the performance of organisations as perceived organisational support enhances employee creativity (Arasanmi & Krishna, 2019).

CONCLUSION

The study sought to establish the mediating effect of organisational support on the relationship between intrapreneurial strategies and the performance of public universities in Kenya. Based on this objective, the researcher concluded that organisational support partially mediates the relationship between intrapreneurial strategies and the performance of public universities in Kenya.

The majority of public universities were found to support members of staff through various incentives and rewards, encourage staff to propose changes for consideration for the benefit of the university, empower staff to perform tasks based on their knowledge and skills, provide resources and formulate policies that are supportive to staff.



Policy Implications

The study findings can be used by policymakers and Vice-Chancellors in public universities to promote the establishment of a policy that encourages inter-dependence amongst departments and transparency, accountability, fairness and objectivity in the treatment of staff. The policy should create an internal organisational environment that is conducive and abundant for the growth of all employees without discrimination or favouritism. Collaboration amongst university departments, empowerment and encouragement of employees by offering social support, positively improves performance. The heads of sections in the university who are in direct contact with the employees, should ensure that the policy is implemented without discrimination.

The Deputy Vice-Chancellors in consultation with the Head of Human Resources should always offer psychosocial support to employees. The establishment of committees that support employees is crucial for psychological or physical challenges (like drug abuse, and grief) that affect staff and students towards the establishment of a conducive organisational support environment.

Other similar institutions can use the study findings to ensure that training and retooling of staff is done on a continuous basis as this helps them implement roles successfully. Arguably, staff should be encouraged to undertake their activities outside the box to promote creativity, risk-taking, self-renewal and innovation. With this, a reward system should also be developed to stimulate more likely behaviour.

LIMITATIONS AND FUTURE RESEARCH

There exists scarce current local research and empirical evidence on intrapreneurship. Therefore, the researcher utilised findings and studies conducted in developed and developing countries. This raised economic, social and political challenges. Public universities are very few and are quite knowledgeable of each other. This made the respondents reluctant to provide information. Additionally, there exist a vast number of parameters for public university performance and the current study focused on a few of them.

The study focused on the mediating influence of organisational support on intrapreneurial strategies on the performance of public universities in Kenya. It is recommended that the study be replicated in other service sectors in Kenya and in other countries to establish whether the results agree or disagree.

The study utilised four entrepreneurship theories that are Schumpeter, opportunity-based entrepreneurship, Resource Dependency and Entrepreneurial Event theory. Future research can consider other theories in the area of entrepreneurship. The current study utilised a positivism philosophy and multiple linear regression models to test the relationship between variables. Future research can incorporate other research philosophies and methodologies to test the relationship between variables. The study used a multi-stage sampling technique and a cross-sectional survey. Future research can be done in a time-lagged manner and can also incorporate the entire population.

The results indicated that the variables used in this study to explain the influence on performance explained only 57.5% of the variations. 42.5% of the variations can be elucidated



by other aspects not used in the study. Future research can fill this gap by investigating other intrapreneurial strategies, performance factors, mediators and moderators.

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