
| RESEARCH ARTICLE

Cultivating Creativity and Entrepreneurship: Enhancing Strategic Innovation Management in Organisations

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| ABSTRACT

Innovation capability is increasingly important for companies in volatile, technology-led markets. There has been little research into the intersection of creativity and entrepreneurship and their role in strategic innovation management. This research focused on how companies in the information technology and digital services integrated these capabilities using the KENALPS 4E Framework. A pragmatism research philosophy and an abductive mixed-method approach were implemented. The quantitative data were collected by a survey and analysed using SPSS, and the qualitative data were collected via semi-structured interviews and analysed thematically using NVivo. The results suggested that creative and entrepreneurial behaviours were influenced by leadership, culture, and a commitment to innovation; however, innovation capability was hampered by a lack of resources and an environment characterized by operational and time pressures, hierarchical clearance, and erratic learning. While organisations expressed the ability to adapt to technology and market changes, the implementation of successful innovations was not consistently organisational-wide. Using the KENALPS 4E Framework, this research focused on the intersection of creativity and entrepreneurship and their role in strategic innovation management in the information technology and digital services, and offered theoretical and managerial insights.

| KEYWORDS

strategic innovation management; creativity; entrepreneurship; innovation capability; KENALPS 4E Framework; mixed methods; information technology

| ARTICLE INFORMATION

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1. Introduction

Modern companies must integrate innovation into their business strategies to re-main competitive. There is consistently fast evolution in customer demand, technology and competition [1]. Businesses need to be responsive and continuously create new, long-lasting, and valuable offerings and services [2]. Innovation, then, is no longer a strategic add-on for business growth and sustainability.

In the information technology and digital services space, creating sustainable in-novation requires a shift away from investments in purely technology and fosters spaces where creativity, entrepreneurship, and a culture of growth are encouraged [3]. Entrepreneurship and creativity are needed to sustain innovation. Creativity is required for novel and useful ideas. Entrepreneurship is needed to identify the valuable ideas and bring them to fruition [4]. Innovation requires a lot more than creativity. Structures, leadership, as well as the capability of an organisation to weave and normalize innovation into its business processes and practices also matter [5].

Despite valuable contributions of recent studies to the theoretical advancement of creativity, entrepreneurship, and strategic innovation as independent organisational constructs, these studies have an important limitation [6]. Most studies on these subjects have not focused on the interaction of these constructs and the ways in which they may complement each other to strengthen

the innovative capacity of an organisation, especially in the context of technologically advanced markets. Also, some studies have focused on the results of innovation, rather than the organisational practices that enable the transformation of creativity and entrepreneurial activities into continuous sustainable innovation [7]. Thus, there is a demand for studies that offer the possibility to integrate behavioural, organisational, and strategic dimensions, and consequently, derive a more holistic perspective on the phenomena of innovation management.

By using KENALPS 4E Framework (Examine, Envision, Enact and Evaluate), this study seeks to fill this gap by investigating the individual and collective roles of creativity and entrepreneurship in the management of strategic innovation in the Information Technology and Digital Services sector. The study adopts a practical re-search philosophy and an abductive mixed-methods design. The integration of quantitative and qualitative components in this study has provided a more comprehensive understanding of the innovation practices in the organisation. Moreover, the integration of the statistical component of the study with the qualitative accounts of the employees and managers has provided a comprehensive understanding of the organisational environment that enabled or constrained the innovative capacity of the organisation.

The findings indicated that the combination of supportive organisational culture, committed leadership, collaborative working environments, and systematic innovation practices enhanced the creativity and entrepreneurial behaviour of employees. It also noted the challenges posed by limited resources, competing operational needs, and irregular organisational learning that hindered the effective conversion of workplace innovations. Using the KENALPS 4E Framework, the study, by combining quantitative and qualitative data, provided an empirically based description of the ways in which creativity and entrepreneurship combine to reinforce the strategic management of innovation. The findings also provided organisations with ways to improve the capability to innovate by strengthening leadership, reforming practices, and fostering organisational learning at all levels.

Within dynamic, ever-changing, and rapid technology-driven environments, strategic innovation management is the organisational competency that allows organisations to maintain their competitive edge [8]. Rather than viewing innovation as a separate event that occurs with the advancement of technology, contemporary studies integrate innovation within a strategic framework, whereby organisations use innovation to sustain a competitive edge by continuously evolving and realigning resources, structures, capabilities, and business processes to meet the demands of the ever changing marketplace [9]. The aforementioned studies illustrate the change from traditional innovation management to an innovation capability framework. The competitiveness of the organisation in the long run will depend on the organisation's ability to recognize, gather, and convert innovative ideas into practice [10]. Therefore, innovation will be closely linked to the ability of an organisation to adapt, the renewal of its strategies, and the sustained advantage of being the most competitive, particularly in sectors that are knowledge-intensive and are characterized by rapid and continued change in technology.

Dynamic capability theory offers valuable insight into sustaining competitive advantage with respect to innovation capabilities [11]. The theory articulates that competitive advantage is gained through an organisation's ability to reconfigure resources and apply them in response to changing environments, rather than possessing resources that are highly valuable. Likewise, research in organisational innovation has argued that innovation capability is concerned with the development of culture, leadership, and structures that facilitate the sharing and growth of organisational learning, and improvement. These elements inform the strategic management of innovation, which is a multidimensional capability of the organisation that is concerned with the alignment of resources, structures, and strategic direction.

Creativity is an important precursor to innovation within the organisation. Creativity is concerned with the development of ideas that are both novel and useful, but the implementation of these ideas is crucial; innovative actions create organisational value [5]. This is an important distinction research has made within the framework of creativity and innovation. Organisations routinely demonstrate high levels of creative potential, but this often is coupled with an inability to implement innovative actions due to the structures and governance of the organisation. Creativity must be understood as a necessary, but insufficient, condition for innovation within the organisation.

To harness novel organisational outcomes from employee creativity, drawings of resource allocation, and opportunity recognition, creativity must link with entrepreneurship. Traditional entrepreneurship focused on the creation of new ventures. Contemporary entrepreneurship literature shifted focus to new venture creation and the entrepreneurial activities within already established businesses. Corporate entrepreneurship creates a structural mechanism that can convert creativity within the organisation into innovation capabilities. When positioned to harness both creativity and an entrepreneurial focus, organisations can gain and sustain a competitive advantage through the ability to quickly adapt to shifts in technology [22]. Research cites that organisations harnessing creativity and entrepreneurial orientation together, as opposed to one independently, can maintain a competitive advantage within an evolving technological sphere.

The growth of innovation management has not improved the understanding of the nexus of creativity, entrepreneurship, and the field of strategic innovation management. The majority of studies have focused on each separately. When viewed from a behavioural perspective, creativity and entrepreneurship are defined utilizing opportunity recognition, and innovation is viewed from either strategic or technological perspectives. While these studies have deepened theoretical frameworks, they have offered scant empirical examples of how these capabilities interact to bolster innovation capacity in dynamic markets. Furthermore, most studies have focused on the results of innovation instead of the processes through which ideas are generated, realized, assessed,

and institutionalized within organisations [9]. Because of this fragmentary view of the innovation processes, the field lacks research that, instead of grouping a number of unrelated activities, explores innovation as a dynamic capability of an organisation.

Moreover, the complexity of the fast-evolving digital business world has amplified the need to innovate management models that are systemic and comprehend the interrelatedness of the various capabilities of an organisation, instead of considering them in isolation [15]. Organisations in the information technology and digital services sectors need to integrate and sustain creativity and innovation with business management, leadership, and motivation, in addition to organisational learning and knowledge sharing [16]. However, there are still very few empirical studies within this field that cover all these areas. These studies are important to understanding how the different capabilities of an organisation interact in order to secure the innovation capacity of an organisation.

In light of this research gap, this study applied the KENALPS 4E Framework to strategically manage innovation. The KENALPS 4E Framework views innovation capability as an integrated organisational system built on four interconnected and complementary dimensions: Examine, Envision, Enact, and Evaluate. These dimensions do not present linear phases. Instead, they describe how organisations are able to discover the opportunity for innovation, define the strategic path, undertake innovative actions, and perpetually refine the state of organisational learning to enhance their innovation capability. The KENALPS 4E Framework adds to the extant literature on innovation management by integrating elements of creativity, entrepreneurship, implementation capability, and leadership and organisational learning into a single framework. This integration was wholly justified for this study due to the concomitant application of both qualitative and quantitative techniques within a single framework. The KENALPS 4E Framework directed the empirical research and explained the role of creativity and entrepreneurship in the management of innovation in the information technology and digital services sector.

2. Results

2.1 Quantitative Findings

A total of 100 valid questionnaires were analysed and the quantitative data were analysed using IBM SPSS Statistics. All respondents worked in IT and digital service sectors. The age group that completed most surveys was the 25-34 age group (32%). The next most frequent age group was 35-44 (24%). Table 1 (Gender Statistics) shows that 58% respondents were male, 36% were female. Respondents were of different seniorities, and were in different organisations, which created a good sample for the quantitative analysis.

The descriptive statistics indicated a generally positive outlook across the four aspects of KENALP's 4E Framework. In the results concerning the Examine dimension, participants responded positively regarding the perception of workplace psychological safety, organisational learning, and the sharing of knowledge. Most respondents, 44%, were of the opinion that their colleagues showed a willingness to create and work on innovative ideas, and actively sought novel ways to enhance the performance of the organisation. Respondents, 42%, reported that they were provided the necessary in-formation to support their work in innovative endeavours.

Table 1. Descriptive Statistics

Age				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 18-24 years	18	18.0	18.0	18.0
25-34 years	32	32.0	32.0	50.0
35-44 years	24	24.0	24.0	74.0
45-54 years	16	16.0	16.0	90.0
55+ years	10	10.0	10.0	100.0
Total	100	100.0	100.0	

Gender				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	58	58.0	58.0	58.0
Female	36	36.0	36.0	94.0
Prefer Not to Say	3	3.0	3.0	97.0
Other	3	3.0	3.0	100.0
Total	100	100.0	100.0	

Designation				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Front-level Associate	28	28.0	28.0	28.0
Executive	10	10.0	10.0	38.0
Middle Manager	24	24.0	24.0	62.0
Senior Manager	18	18.0	18.0	80.0
Supervisor	20	20.0	20.0	100.0
Total	100	100.0	100.0	

Experience				
	Frequency	Percent	Valid Percent	Cumulative Percent
Valid <1 year	8	8.0	8.0	8.0
1-3 years	22	22.0	22.0	30.0
4-6 years	26	26.0	26.0	56.0
7-10 years	20	20.0	20.0	76.0
>10 years	24	24.0	24.0	100.0
Total	100	100.0	100.0	

The results in the Envision dimension strengthened the positive results in the Examine dimension. 46% of respondents were in strong agreement that senior management articulated a distinct vision of innovation, while 40% believed that senior management provided support to innovation efforts by committing both resources and the whole organisation. The results also indicated that innovation was increasingly being aligned with the organisational strategy, while the responses regarding formalised collaboration and external partnerships indicated that there was still room for improvement.

According to Pearson's correlation results, notable positive correlations between study variables existed, among which a commitment to leadership and a support of innovation initiatives within the organisation showed the most robust correlation ($r = 0.719$, $p < 0.001$). Organisational strategy and creativity and entrepreneurship of the organisation also showed a considerable strong correlation ($r = 0.617$, $p < 0.001$). A moderate positive correlation was among employees' willingness to go beyond their prescribed duties ($r = 0.393$, $p < 0.001$) and organisational strategy. In addition, there was a weak but significant correlation ($r = 0.208$, $p = 0.038$) between structured idea generation and the successful scaling of innovation activities.

Table 2. Descriptive Statistics

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. Change	
1	.623 ^a	.388	.368	1.86054	.388	20.246	3	96	.000	1.830

a. Predictors: (Constant), Strategies, Organisational Support culture, Leadership

b. Dependent Variable: Creativity entrepreneurship

Results from the regression analysis showed that leadership, organisational strategy, and organisational support culture significantly influenced creativity and entrepreneurship. The regression analysis was significant ($F = 20.246$ and $p < 0.001$) and produced a correlation coefficient of 0.623, with $R^2 = 0.388$ and an adjusted $R^2 = 0.368$, indicating that the predictors accounted for 38.8% of the total variance of creativity and entrepreneurship. These results indicate that the presence of supportive leadership, strategically aligned support, and a flexible organisational culture directly correlates with the organisation's creativity and capability to undertake entrepreneurial ventures.

2.2 Qualitative Findings

These findings stem from the first-hand interviews, and were analysed using NVivo 14 to describe patterns, relations, and descriptions regarding the barriers and facilitators toward strategic innovation management. The results showed evident consistency among the participants and indicated that participants were likely to see in-novation as a priority for the organisation, and were likely to see operational barriers that limited the priority being given to innovation.

The first NVivo Word Cloud and Word Frequency Summary revealed that innovation (34 occurrences) and ideas (26 occurrences) were reported most frequently across the interviews. Other frequently reported terms were teams (13 occurrences), support (13 occurrences), operational (12 occurrences), learning (11 occurrences), leadership (8 occurrences), and constraints (8 occurrences). Participants linked innovation to barriers to collaborative, supportive, and learning-oriented operations.

Table 3. Keyword Frequency

Keyword	Frequency	Analytical Interpretation
Innovation	34	Central focus of organisational discussions
Ideas	26	Strong emphasis on creativity and idea generation
Teams	13	Importance of collaborative working practices
Support	13	Significance of managerial and organisational backing
Operational	12	Influence of operational pressures on innovation
Learning	11	Importance of organisational learning processes
Leadership	8	Role of leadership in innovation direction
Constraints	8	Presence of barriers affecting implementation

Then to find more relations among the clustered concepts, NVivo Tree Map was used to show the distribution of the concepts related to innovation across the inter-view data, and showed the concepts of innovation, leadership, learning, and supportive operations. Further coding showed that the respondents' interview data was distributed across the four dimensions of the KENALP 4E Framework and was not more focused on a single organisational concern.

The consolidated qualitative findings show that all four dimensions describe the presence of supportive conditions comprising collaborative work environments, committed leadership, innovation processes, and adaptable organisations. In addition, respondents identified persistent challenges related to knowledge sharing, operational implementation, scarce resources, innovation scaling, and organisational learning. These findings suggest that the participant organisations had most of the basic conditions to support innovation capability, but barriers to implementation and institutionalization continued to limit the effective use of innovative ideas to achieve lasting results for the organisation.

Table 4. Findings from KENALP 4E Framework

KENALPS Dimension	Key Findings	Principal Challenges
Examine	Positive innovation climate, collaborative teams, willingness to generate ideas	Inconsistent knowledge sharing and limited learning from failure
Envision	Strong leadership communication and clear strategic intent	Weak translation of innovation objectives into operational practice
Enact	Availability of tools, processes and idea generation mechanisms	Resource limitations, workload pressures and approval barriers
Evaluate	Evidence of adaptation, continuous improvement and digital transformation	Difficulties scaling innovation and embedding organisational learning

2.3 Integrated Findings

The combination of qualitative and quantitative findings allowed for a deeper analysis of the organisational elements affecting the management of strategic innovation. Following the convergent mixed-methods design, both findings were analysed independently and then integrated for the purpose of analysis. When applying KE-NALP's 4E Framework, a great deal of convergence was noted. The quantitative findings illustrated significant relationships between leadership, organisational strategy, innovation culture, and creativity. In contrast, the qualitative findings provided the context to these relationships by describing the participants' frustrations with the organisational gaps and the barriers to operationalizing these innovations.

The combined findings showed that organisations generally had good innovation climates, supportive leadership, and good innovation processes. However, the qualitative data pointed to significant operational challenges that the survey did not capture, and they included inconsistent knowledge sharing, resource gaps, workforce challenges, and challenges to scaling innovations within the organisation. While the participating organisations presented the foundational elements required for innovation capability, the institutionalization of innovation was limited by the mechanisms of implementation and organisational learning. The convergence of both datasets reinforced the validity of the findings and served as the basis for the following discourse on KE-NALP's 4E Framework and strategic innovation management.

3. Discussion

Applied to organisations in the information technology and digital services sector, the KENALP's 4E Framework allows us to examine the role of creativity and entrepreneurship in the context of strategic innovation management [24]. The integration of quantitative and qualitative findings demonstrated a high degree of convergence, revealing that the capability for innovation was influenced by the interdependent components of leadership, organisational strategy, creativity, entrepreneurial behaviour, and the continual learning of the organisation. The findings highlight the importance of viewing the strategic innovation capability of an organisation as the outcome of an interaction of diverse organisational elements, rather than result of a series of isolated activities focused on innovation. This perspective is in line with the multidimensional innovation framework of Crossan and Apaydin [5] and the position on dynamic capabilities of Teece [2].

3.1 Leadership and Strategic Direction as Enablers of Innovation

Of central importance in this study is the emergence of leadership and strategic direction as foundational elements that reflect the extent of innovation capability in organisations. From the quantitative findings, leadership had a strong positive association with the organisational support for innovation activities ($r = 0.719$, $p < 0.001$). The regression analyses confirmed the role of leadership, the organisational strategy, and the organisational support in explaining the variance for creativity and entrepreneurship. The qualitative findings were in agreement and showed that participants viewed good leadership as the presence of and/or facilitation of constructive feedback, the nurturing of a culture of risk-taking and the encouragement of idea generation. This was augmented by the fact that participants were more inclined to support and pro-pose new initiatives as well as promote organisational change. The above findings corroborate the views of Pisano [15], who noted that innovation-oriented organisations have disciplined leadership systems that constrain and/or direct organisational creativity, as opposed to allowing for the free reign of creativity. In the same vein, Amabile and Pratt [16], have described leadership as the main architecture for the organisational and the motivational systems which foster the genesis and the proliferation of organisational creativity and innovation. From the above findings, more importantly, the work of Kuratko et al. [17] is extended in that leadership systems foster a culture of entrepreneurship within organisations. Instead of treating leadership as a solitary managerial function, this study's findings suggest leadership acts as an integrating function that connects the elements of Examine, Envision, Enact, and Evaluate of KENALP's 4E Framework. In this regard, leadership enhances the organisation's innovation capability via the coordinated strategic elements of the frame-work.

3.2 Creativity and Entrepreneurship as Complementary Organisational Capabilities

The study identifies creativity and entrepreneurship as organisational capabilities and complementary processes that enhance the management of strategic innovation [25]. The quantitative analysis revealed strong positive correlation among organisational strategy, creativity and entrepreneurship ($r = 0.617$, $p < 0.001$), and the regression analysis showed that the presence of supportive organisational conditions positively affected the creative and entrepreneurial behaviour of employees. The qualitative re-search added more depth to the quantitative findings. Respondents viewed creativity as the first step to innovation, supporting the generation of new ideas, team-oriented solution development, and the refinement of work processes, while also appreciating that creativity is not sufficient for the achievement of desirable change in an organisation. Many interviewees indicated that new ideas need an entrepreneurial mind-set, plus the backing of management and a clearly defined process to bring the ideas to fruition. The research supports the analysis of Anderson, Potočnik, and Zhou [3], which views creativity as a precursor to organisational innovation and of Shane and Venkataraman [4], which asserts that entrepreneurship involves the creation of processes to complement the identification and assessment of opportunities. The results also sup-port the strategic entrepreneurship framework of Ireland, Covin, and Kuratko [18], in which innovation is the outcome of the combination of strategy and entrepreneurship as organisational capabilities. The integration across the KENALP 4E Framework was demonstrated whereby creativity assisted in the discovery of opportunities in the Ex-amine and Envision phases, and in the Enact and Evaluate phases, entrepreneurial behaviour was exhibited in the processes of implementation and of organisational learning.

3.3 Organisational Learning, Implementation Challenges and KENALP 4E Framework

Despite the quantitative results showing positive general perceptions of the organisation's capability to innovate, the qualitative results identified a number of challenges that limited the long-term sustainability of innovation efforts. Interviewees re-ported that their organisations fostered creativity and innovation and provided clear communication of organisational goals. However, interviewees also reported that there were consistent challenges of workforce and resource constraints, inconsistent sharing of information, resistance to change in the organisation, and difficulties of cross-functional integration of innovation efforts. This contrast sheds light on the value and advantage of the mixed methods approach [10]. While the quantitative results represented an overall positive assessment of innovation efforts, the qualitative results identified organisational constraints that impacted the implementation of innovation efforts.

These findings also show that psychological safety and open communication are the foundation of organisational learning, along with the sharing of ideas and a willingness to learn from the successes and failures of initiatives [23]. Likewise, O'Reilly and Tushman [20] argued that the reconfiguration of organisational resources in response to an evolving competitive landscape relies on dynamic capabilities. The implementation challenges found in this study reinforce Birkinshaw, Hamel, and Mol [21] in suggesting that, instead of individual initiatives, management innovation demands systems that embed new practices. Examining the four dimensions of E, E, E, and E gives a better picture of how organisations manage to retain their capability to innovate in response to changes in the business world. This, again, provides additional support for the practical and theoretical aspects of the study.

4. Materials and Methods

The study used a mixed-methods research design to examine the role of creativity and entrepreneurship in the management of strategic innovation in the information technology and digital services sector. A pragmatic research philosophy was used in this study, because it was shown that the use of quantitative and qualitative methods in unison is more informative regarding the organisation's innovation capability than the use of either method separately [17]. The research used an abductive strategy, so that both theory and practice were able to dominate [18].

A convergent, mixed-methods design was employed, where quantitative and qualitative data were collected, for the same phase of the research, and merged for the interpretation [19]. With this design, along with the breadth provided by statistical data, and the experiences of participants, the depth of understanding of the practices related to organisational innovations was captured. The findings were made even more robust from the integration of the datasets. With this design, the patterns revealed from the quantitative data were assessed with some qualitative commentary.

The mixed-methods design was appropriate here as organisational innovation is a complicated phenomenon, and the use of quantitative data alone is simply insufficient to understand this. The survey was useful in offering some form of measurement to the relational aspects of creativity, entrepreneurship, leadership, and innovation capability. However, the interviews were critical in allowing participants to discuss the organisational structures, and the contextual and execution barriers concerned with these relationships. The integration of both data collection strategies was useful in the assessment of the scope of barriers within the investigation [17].

A preformatted questionnaire was given to employees, supervisors, and managers in the information technology and digital services sectors as part of the quantitative segment. This questionnaire was used to identify respondents' perceptions of creativity, entrepreneurship, organisational support, leadership, and perceptions of innovation practices and the concept of strategic innovation management. The structured measurement scales used in the questionnaire were drawn from the existing literature [20]. The dataset was checked for completeness and consistency. Cronbach's alpha was used to assess the scales' measurement and reliability, and exploratory factor analysis was used to test the construct validity and confirm the appropriateness of the measurement tool.

Before applying inferential statistics to the quantitative data, the descriptive statistics were used to summarize the respondents and provide the perceptions of the organisation. The data were analysed with IBM SPSS Statistics. The descriptive statistics were first generated to summarize respondents' characteristics, followed by the reliability and validity assessments for the measurement tool. Correlation and multiple regression analyses were then used to assess the relationships among the study variables and the organisational factors that affect strategic innovation management [20].

The qualitative component consisted of semi-structured interviews of stakeholders with a variety of managerial and operational perspectives. These interviews provided an opportunity for participants to detail their perspectives on creativity, entrepreneurship, and the role of leadership, along with the support for the implementation of innovation and the learning process within the organisation [21]. Each interview was recorded, transcribed, and imported into NVivo. A thematic analysis was performed in order to detect patterns and relationships that described the experiences of the participating organisations and that met the requirements of the study.

The layers of the coding structure were created by repeatedly reviewing the transcripts to derive categories that described the intra-organisational experiences related to creativity and entrepreneurship, and the perceptions related to the support for the implementation of innovations and the learning process. Grouping of the codes was performed to reflect the broader themes detected in the interviews [22]. The qualitative findings presented in NVivo were organised with respect to the KENALPS 4E Framework. This aided the development of the qualitative findings with the expressions of the professional participants and proved the value of the qualitative findings.

During the interpretation stage, the quantitative and qualitative findings were integrated as a convergent mixed-method. The areas of convergence justified the findings, while the areas of divergence represented the contextual conditions of the organisation. The integration of qualitative findings derived from NVivo with the quantitative findings derived from SPSS matched the statistical relationships within the study and provided an enhanced understanding of the role of creativity and entrepreneurship on the management of innovative strategies.

Throughout all stages of research, ethical considerations remained a priority. Data collection was conducted through voluntary participation. Confidentiality and anonymity were maintained. Informed consent was obtained from all participants. These practices allowed the study to remain aligned with the principles of research ethics and preserved the integrity and trustworthiness of the findings, both qualitative and quantitative [23].

Table 5. Summary of Research Design

Component	Description
Research philosophy	Pragmatism
Research approach	Abductive
Research design	Convergent mixed methods
Quantitative method	Questionnaire survey
Qualitative method	Semi-structured interviews
Quantitative analysis	IBM SPSS Statistics
Qualitative analysis	NVivo thematic analysis
Integration	Convergent interpretation using the KENALPS 4E Framework

5. Conclusions

The study aimed to understand the role of creativity and entrepreneurship in the strategic innovation management of organisations in the information and digital services industries, using KENALP's 4E Framework. Through a convergent design, mixed-methods study, this research employed a quantitative approach through a structured survey, which was then augmented by qualitative research through semi-structured interviews.

The research found that the combination of leadership, strategic orientation, creativity, and entrepreneurial and organisational learning collectively enhanced the capability to innovate. In the quantitative portion of the study, these dimensions were shown to be related, and the qualitative portion offered additional understanding of the issues related to the dissemination of knowledge, the use of resources, and the implementation and embedding of innovation. The integration of both datasets corroborated that the sustainable innovative potential of an organisation relies upon the inter-action of constituent organisational capabilities, rather than a series of isolated initiatives that pertain to innovation.

This study enhances the literature on the strategic innovation management by identifying the practical relevance of KENALP's 4E Framework as an integrated construct for the innovation capability of knowledge-intensive organisations. From the perspective of management, this study demonstrates that organisations must create conditions within the organisation which are likely to create an environment that fosters creativity and entrepreneurial behaviours, as well as supportive, collaborative leadership and ongoing organisational learning. Together, these findings help strengthen innovation capability and provide organisations with practical tools to adapt to new challenges in evolving and highly competitive markets.

Businesses in knowledge-intensive sectors should place a high priority on leadership techniques that promote experimentation, cross-functional cooperation, and staff involvement in innovative projects. Organizational innovation performance may be further strengthened by investing in entrepreneurial capability development, continuous learning initiatives, and organized knowledge-sharing systems. Organizations should also implement methodical evaluation procedures to guarantee that innovative concepts are successfully converted into long-lasting innovation results. However, the study is limited to the organisations located within the IT and digital services sectors and is based on the collection of cross-sectional data at one point in time. Future studies may look at the application of KENALP's 4E Framework in other sectors, regions, and time frames to assess how organisational innovation capability develops and changes over time.

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