Dynamic Capabilities and Performance of Insurance Companies in Kenya

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Abstract

Purpose: The primary objective of the study was to investigate the effects of dynamic capabilities performance of insurance firms in Kenya. The specific goals was to establish the effects of integration, learning, sensing and technical and how they influence the performance of insurance industry in Kenya.

Methodology: The study adopted a descriptive research design with a target population of 677 senior management employees from 55 insurance firms in Kenya. Purposive sampling technique applied to select a sample size of 250 management level employees from the total population.. Data was sourced collected using a questionnaire and analyzed using descriptive and inferential statistics. SPSS Version 23 statistical package was applied as data analysis tool. Diagnostic test was conducted to ensure the assumptions of the linear regression model are not violated.

Findings: The study revealed the R^2 value of 0.565 implying that 56.5% of the variations in the perceived performance can be explained by the variations in the dynamic capabilities while factors not studied in this research contribute 43.5% of the variance in the dependent variable. Multiple regression results indicated that integration capability (P=0.000), learning capability (P=0.013), sensing capability (P=0.001), and technical capability (P=0.000) all have a significant positive effect on the performance of insurance firms in Kenya.

Unique Contribution to Theory, Practice and Policy: The study recommended that managers if insurance firms in Kenya should adopt technology integration partnerships with fintech firms to modernize their operations. The study recommends marketing and distribution strategies that involve coordination and utilizing one another's distribution networks to reach a larger audience. The study recommended that an insurance company in Kenya prioritize a culture of continuous learning, promote knowledge sharing, give access to resources, and guarantee leadership commitment in order to develop strong learning capabilities within the company. Lastly, the study found that credit dynamic capabilities explains 56.5 % of the performance of insurance firms in Kenya. This study therefore suggests that further studies be conducted on other factors affecting the performance of these insurance firms to establish the 43.5% of the factors affecting performance for insurance firms in Kenya.

Keywords: *Dynamic Capabilities, Performance, Insurance, Integration Capability, Learning Capability*

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Background of the Study

Dynamic capabilities have become increasingly central in enhancing organizational performance, especially in volatile and rapidly evolving business environments. While many organizations aim for operational excellence and competitive advantage, they often fall short due to unpredictable external factors such as regulatory changes, technological advancement, and shifting consumer preferences (Osisioma, Nzewi, & Mgbemena, 2016; Surmeier, 2020). To navigate these challenges, firms must develop dynamic capabilities, which are the ability to integrate, build, and reconfigure internal and external competencies to respond to changing environments.

These capabilities involve four key dimensions: sensing, learning, integration, and technical competence. They allow organizations to adapt by identifying opportunities, reallocating resources, and fostering innovation (Eisenhardt & Martin, 2017). Organizations that effectively employ dynamic capabilities are better positioned to provide superior products and services, thereby achieving enhanced performance and long-term competitiveness (Deya, 2016; Fainshmidt & Frazier, 2017).

Globally, dynamic capabilities are essential across different economic landscapes. In China, firms adjust internal resources and relational capital to navigate complex regulatory environments. Malaysian companies combine dynamic capabilities with market demand to maintain competitiveness (Rahim & Zainuddin, 2019). In Japan, firms use dynamic capabilities to tailor products to customer preferences, enhancing brand loyalty and enabling international expansion.

In Africa, while dynamic capabilities are acknowledged, their application remains underdeveloped. In Nigeria, mergers and acquisitions help firms respond to environmental shifts (Osisioma et al., 2016). South African companies utilize dynamic capabilities to adapt to economic stagnation and consumer uncertainty (Pasara & Garidzirai, 2020). Ethiopian businesses are shifting from traditional operations to innovative, market-oriented strategies (Abrate et al., 2020). However, in Rwanda, research on dynamic capabilities is limited, particularly among SMEs, who view the concept as applicable only to large firms (Trot et al., 2009).

In Kenya, dynamic capabilities are gaining attention, especially in the insurance sector, where innovation, adaptation, and risk management are critical (Bongo & Sikolia, 2015). Despite low insurance penetration, dynamic capabilities are being integrated into business strategies to improve performance (Kipkoech & Nzuki, Kitenga et al., 2020). Regulatory frameworks such as those by the Insurance Regulatory Authority (IRA) provide structure and standards that encourage firms to enhance competitiveness through strategic capabilities (Rita, 2023).

Statement of the Problem

The insurance industry plays a vital role in promoting financial security, investment, and economic sustainability globally (Aduwo & Deya, 2022). However, in Kenya, the sector has faced persistent performance challenges over the past decade. Reports by the Insurance

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Regulatory Authority (IRA) and Association of Kenya Insurers (AKI) show a steady decline in Return on Investment (ROI), dropping from 4.4% in 2014 to -1.6% in 2023—well below the industry benchmark of 13.9% (AKI, 2020; IRA, 2023). This decline has been attributed to harsh economic conditions, political uncertainty, and increased operational risks, leading to the collapse of several firms including BlueShield and Concord. To address these challenges, scholars advocate for the adoption of dynamic capabilities, specifically integrative, learning, sensing, and technical capacities, to enhance adaptability and strategic execution (Nyachanchu & Bonuke, 2017). These capabilities help insurers respond to technological, regulatory, and market disruptions. However, empirical studies on their effectiveness show mixed results. While some studies report a positive impact (Kirugumi et al., 2021), others show negative or no significant effect (Nyabuti et al., 2016). Furthermore, most prior research was conducted in different sectors or regions, highlighting a critical gap in understanding the role of dynamic capabilities within Kenya's insurance industry.

Objectives of the Study

i. To establish the effect of integration capabilities on the performance of insurance companies in Kenya

ii. To assess the effect of learning capabilities on the performance of insurance companies in Kenya

iii. To establish the effect of sensing capabilities on the performance of insurance companies in Kenya

iv. To determine the effect of technical capabilities performance of insurance companies in Kenya

Literature Review

Theoretical Framework

Complementarity Theory, introduced by Edgeworth (1881), posited that organizational practices generate higher returns when implemented together rather than in isolation. Complementarity occurs when the benefit of one activity increases with the implementation of another (Milgrom & Roberts, 1995). This theory emphasizes bundling organizational practices, social and technical systems to improve synergy and overall performance (Choi, Poon & Davis, 2008). However, critics argue the theory may overlook broader interdependencies within organizational elements (Cappelli & Sherer, 1991). Applied to insurance firms, it highlights the need to integrate internal and external strategies for superior outcomes. Second, Organizational Learning Theory, developed by Argyris and Schön (1978), focused on continuous learning as a source of competitive advantage. Firms improve performance by developing employee competencies that are hard to imitate (Armstrong & Taylor, 2014). Learning enables firms to adapt to dynamic environments, enhance customer satisfaction, and develop non-transferable human capital (Hatch & Cunliffe, 2012). The theory underscored the value of knowledge sharing and adaptation as key drivers of organizational resilience and growth. Dynamic Capabilities Theory, introduced by Teece, Pisano, and Shuen (1994),

emphasizes a firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments. It identifies core dynamic processes—sensing, seizing, and transforming—as essential for sustained performance and innovation (Teece, 2007). Despite criticisms regarding definitional clarity (Eisenhardt & Martin, 2012), the theory provided a foundation for understanding how Kenyan insurance firms can respond to market volatility and regulatory shifts by enhancing their dynamic capabilities. Lastly, the Knowledge-Based View (KBV) argues that knowledge, especially technical know-how, is the most strategic resource for achieving sustainable competitive advantage (Penrose, 1959; Grant, 1996). The firm is viewed as a repository of knowledge where unique, inimitable skills form the basis for performance differentiation. However, the theory is critiqued for being overly focused on technical knowledge while neglecting market forces (Conner & Prahalad, 1996). In Kenya's insurance industry, KBV supported the role of technical capabilities in influencing financial performance through the effective use and transfer of organizational knowledge.
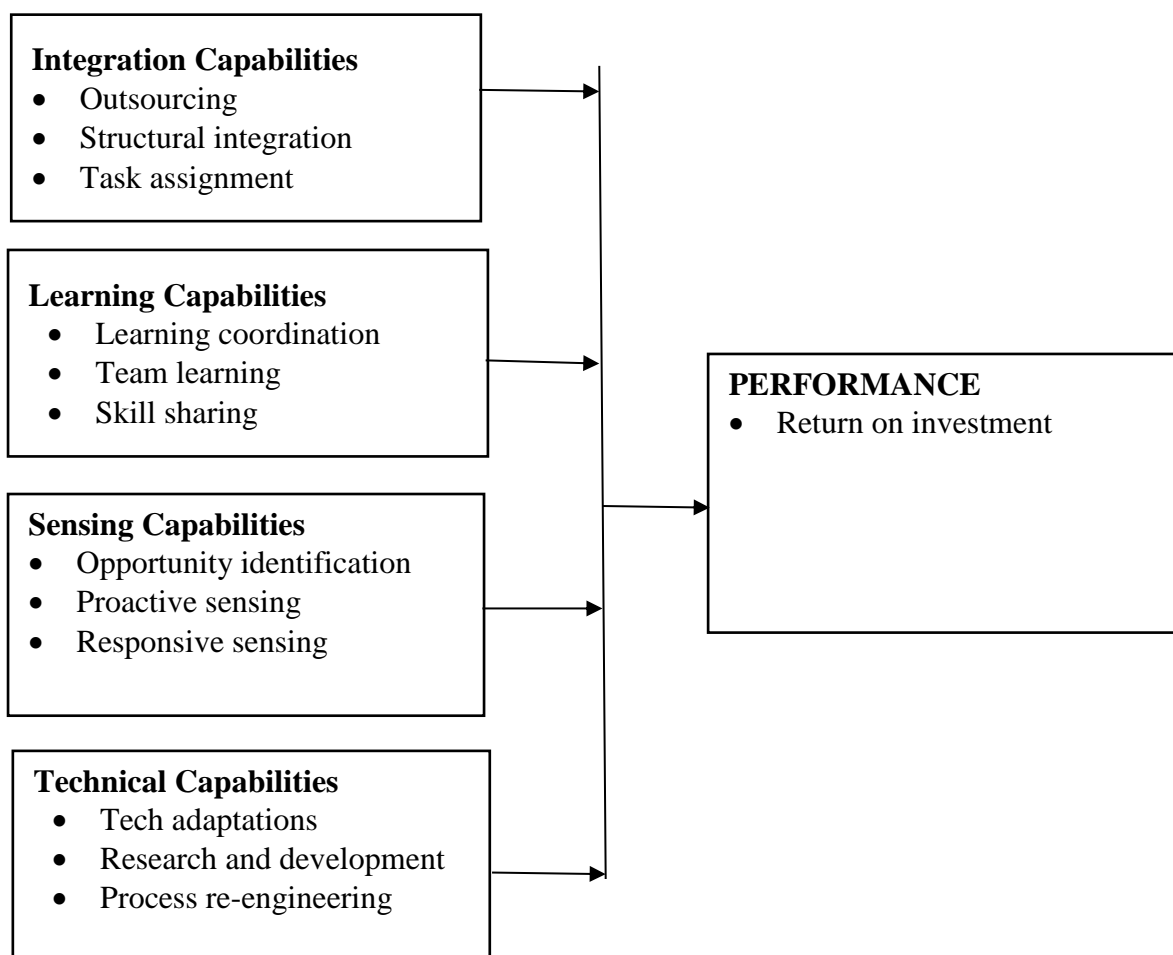

Figure 1: Conceptual Framework

Empirical Review

2.4.1. Integration Capabilities and Performance

Lettice, Zhang, Chan, and Nguyen (2018) investigated the relationship between firm performance and supplier strategic integration in Vietnamese manufacturing companies. Using structural equation modeling, the study experimentally examined the moderating effects of internal integration and trust on the effects of information, process, and strategic integration with suppliers on firm performance. Information was gathered from 261 Vietnamese manufacturing companies. The findings showed that the performance of the company was positively impacted by all three forms of supplier integration.

In Germany, Kaiser and Obermaier (2020) sought to study the effect of integration capability and firm performance in manufacturing firms in Germany. Data was gathered from 434 listed manufacturing enterprises in Germany, which comprised the total sample used in the study. The firms were listed between 1993 and 2013. The analysis of the secondary data included in the study was done using multiple regression analysis. The outcome showed that there is a strong negative correlation between integration strategies and the success of Germany's listed manufacturing companies.

Bamidele (2019) investigated the effects of integration strategies on growth of players in the insurance and banking sector in Nigerian. The research employed a descriptive survey approach, and information was gathered from a sample of 753 respondents who worked for twelve different banking and insurance companies in southwest Nigeria using a self-administered questionnaire. At the 0.05 level of significance, the product-moment correlation coefficient was used to test the hypothesis. The results showed that most Nigerian financial institutions have a substantial positive association between their strategic integration skills. Thus, the study recommended that Nigerian insurance and financial institutions improve the level of customization offered to their clients in order to retain current clients and draw in new ones. This study had a contextual gap since it was narrowly focused, examining just how integration tactics affected the performance of the insurance sector in Nigeria. Since Nigeria served as the study's base, Kenya's conditions may differ.

Nasambu (2020) conducted a study to investigate how integration strategies affects the firm efficiency of manufacturing enterprises in Kenya. Descriptive survey research design was used. The study's sample size comprised eight Kenyan cement production companies. Primary data was gathered through the questionnaire method, and inferential and descriptive statistics were used for analysis. The regression analysis's outcome demonstrated that integration strategies positively and significantly affects the financial performance of manufacturing companies in Kenya. However, the study only looked at eight Kenyan manufacturing companies.

2.4.2 Learning Capabilities and Performance

Gomes and Wojahn (2017) examined how organizational learning affected the productivity of small and medium-sized enterprises in Brazil. The study was carried out using a cross-sectional survey, a quantitative technique, and descriptive and causal analysis. The sample consisted of

ninety-two textile industry businesses. Structural Equation Modeling was the approach used to examine the data. The findings indicate that small and medium-sized businesses' creative performance is influenced by their organizational learning capability, but that this influence on organizational performance is not statistically significant. The study affirms these relationships and demonstrates their importance and positive effects in the context of small and medium-sized textile firms, an area where there is a lack of empirical research. Future research on contingency factors for inventive and organizational success is advised by the study. Further research could examine how the manufacturing and service sectors differ in terms of innovation.

In Nigeria,Salisu (2020) aimed to find out the role that learning capability played in mediating the interaction between relational, technological, and small- and medium-sized enterprise (SMEs) performance in Africa's developing economies. Data from Nigerian manufacturing SMEs' owners and managers was gathered using a quantitative survey design. The measurement's validity and reliability were assessed, and the hypotheses were tested, using the partial least square structural equation model. The statistical analysis shows that the performance of SMEs and technology and learning capability are positively correlated. Similarly, there is a strong and positive correlation between SMEs' learning capability and relational capability.

In Kenya, Orego & Wainaina (2019) sought to establish the link between strategic organizational learning capability and firm performance of Tourism Fund in Kenya. The study aimed to ascertain the impact of various organizational factors on the firm performance of Tourism Fund in Kenya. These factors included knowledge transfer, employee empowerment, dialogue, and risk-taking. Research designs that were cross-sectional and descriptive were employed in the study. An operational staff and managers from the Tourism Fund's Nairobi headquarters comprised 63 of the 75 respondents that were part of the intended demographic sample. Both inferential and descriptive statistics were used in the study's data analysis. For the inferential analysis, the linear regression model was utilized. According to the study, company performance is positively and significantly impacted by each of the strategic organizational learning capacities that were examined. The two main factors that predicted the strategic organizational learning capability components that had a significant impact on firm performance were knowledge transfer and organizational debate

Mairim (2022) carried out a similar investigation to examine the impact of dynamic learning skills on the financial performance of Kenyan oil marketing companies. The dynamic capability theory, the resource-based view, and the knowledge-based view served as the study's guiding theories. To help shape the study's conceptual framework, pertinent empirical research is reviewed. Quantitative methodologies were covered in a descriptive survey. The research used 105 oil marketing companies as the analytic unit and 440 respondents as the observation unit, with HR managers, financial managers, operations managers, and corporate affairs managers from each of these companies contributing to the analysis. A multi-stage sampling strategy was employed, beginning with the stratification of the firms and ending with the random sampling technique to select 210 respondents as the sample size using stratified random

sampling. Throughout 2020 and 2021, the study gathered primary data backed by a questionnaire and secondary data backed by a data collection sheet. According to the study's findings, oil marketing companies in Kenya's financial performance can be significantly predicted by their dynamic learning capacities. The study suggests that human resource managers employed by oil marketing companies should make investments in innovative techniques and frameworks for generating fresh insights during the recruitment procedure.

2.4.3. Sensing Capabilities and Performance

Rashidirad, Salimian and Soltani (2018) in the United Kingdom conducted a study to establish the effects of sensing capability and turbulence within the environment.The research utilized quantitative methods to examine the operations of telecommunication companies operating in the United Kingdom (UK). Multiple regression analysis was the analytical approach used, and it was essential in testing the proposed interaction between the research variables. The findings showed that turbulence in the environment is influenced by sensing capability. Since this study's focus is on OMFs, there is a contextual gap as the research was performed in the UK among IT-based enterprises.

In a study conducted by Sudrajata, Lasmyc, Herlinad and Syahcharie (2019) in Indonesia focused on sensing capability and its effects on financial performance at firm level in Indonesian logistics firms. The study adopted a quantitative methodology where 150 respondents were sampled covering the managers of the firms. The study's primary focus was on travel agencies that operate in Indonesia. A structured questionnaire was created and used to collect data, with structured equation modeling (SEM) being used for analysis. The study showed that the firm's financial performance is significantly impacted by its sensing capability. However given that the study was conducted in Indonesia, which is on a different continent from the current study that will concentrate on Kenya, the study has contextual gap.

Kankam-Kwarteng, Sarpong, Amofah and Acheampong (2021) sought to study market sensing capabilities and customer interaction orientation. The study was conducted among Ghanaian service-oriented enterprises. The study specifically focused on emerging markets, targeting and sampling a total of 122 people. Models of hierarchical multiple regression provided support for the analysis. SEM methods and AMOS version 21 were used in the study as analysis tools. It was found that the financial performance of Ghanaian service companies is significantly influenced by both market performance and market sensing capability. According to the study, market sensing ability does not considerably affect market performance, but it does have a major impact on the quality of market entry. The fact that this study concentrated on market sensing capabilities rather than general sensing capability expressly creates a conceptual vacuum. This investigation also generated a methodological gap as, in contrast to the current study, which would rely on ordinary least square (OLS), it used the AMOS tool for analysis and SEM as the technique.

Khalif, Deya & Noor (2022) sought to study the effects of sensing capability and performance of commercial state corporations in Kenya. The study's target population consisted of 216 HODs who were selected from 27 commercial state firms in Kenya. In this study, 111 HODs

were selected using stratified and simple random sampling. Using a questionnaire, primary data was collected from the employees. Questionnaires were utilized in this study to gather pertinent data. The mean, standard deviation, and frequencies were the descriptive statistical approaches used to analyze the quantitative data that was gathered. Additionally, the researcher used Pearson's inferential statistics. Multiple regressions and correlation analysis were used to demonstrate the links between the variables, and the significance of each independent variable was assessed at a 95% confidence level. The study discovered that strategic fit is a significant moderating influence on the link between sensing capability and performance of commercial state corporations in Kenya. Sensing capability and performance of commercial state businesses in Kenya are positively and significantly correlated. Therefore, the study suggests that commercial state enterprises enhance their capacity for sensing. This entails spotting shifts in the market, keeping tabs on competitive strategies and analyzing industry trends.

2.4.4. Technical Capabilities and Performance

In Malaysia, Rahim and Zainuddin (2019) aimed to ascertain the extent to which the technological innovation capabilities of Malaysian automotive manufacturers influence their competitive advantage and overall performance. The manufacturing, R&D, HR, and networking capacities were the dynamics that were taken into account in the study. The study used interviewing and surveying techniques to gather information from automobile firms. The partial least squares method was used to analyze the data with the aid of WarpPLS 6.0 software. The study's conclusions showed that the firms' performance and competitive advantage were enhanced by their networking and R&D capabilities. Capabilities in manufacturing and HR can only help companies become more competitive and perform better.

Candia, Jehopio, and Wesonga (2017) conducted a study in Uganda to examine the impact of technological capabilities on academic achievement among Makerere University students. After stratification, information from a sample was gathered for the May 2016 study using primary data. 312 students from Makerere University took part in the study. A self-reported questionnaire was the main tool used to collect data. The study focused on both male and female students enrolled in scientific and arts programs. Data analysis was done using a structural equation modeling approach. The findings demonstrated that while ICT-induced multitasking does not directly impair academic achievement, it does negatively damage many kids' ability to focus, stay focused, regulate their emotions, and self-harm. These factors all have a direct bearing on academic success. Due to its exclusive emphasis on Makerere-based university students, the study is limited. It is challenging to draw conclusions from the study because the constructs haven't been applied widely enough to allow for meaningful generalization.

Imbambi et al. (2017) carried out a study to evaluate the impact of technical competency on the competitive advantage of sugar companies in Kenya that operate in the Western area. The study recruited 727 managers from both senior and middle management levels, utilizing a combination of descriptive and corrective research designs. An 88-person sample was obtained using the Yamane sampling formula. The study's hypothesis was tested using correlation

analysis. The findings showed that the sugar companies' competitive advantage and technological capabilities had a positive relationship. The study recommended that the sugar firms concentrate on acquiring appropriate capabilities in technology-related sectors after the analysis revealed that the companies lacked key technological capabilities.

2.5. Critique of the Existing Literature

It is evident that the different reviewed studies as per each variable have to a good extent covered on dynamic capabilities and performance of insurance firms. Most of the researchers and scholars have outlined that dynamic capabilities have a positive effect on performance. However, the scope of studies conducted on dynamic capabilities of insurance firms in Kenya is still limited especially when it comes to discussing on the specific sub-constructs of dynamic capabilities such as integration capabilities and technical capabilities that will be used in the current study. The objectives of the studies under sensing capabilities and learning capabilities were also quite diverse in that the findings do not adequately describe the relationship between the outlined sub constructs of the dynamic capabilities and performance of insurance firms.

Moreover, most of these studies identified and examined more than one measure of financial performance including net profits, ROA and ROE. However, since the present study will focus on ROI, market share and customer satisfaction index as the measures of performance, this will provide more in-depth information and understanding on the relationship between dynamic capabilities and performance of insurance firms in Kenya. Further, all the theories described in this study generalized the discussion on dynamic capabilities and how they relatively contribute to the performance of organizations, but it fails to clearly breaks down the different types of dynamic capabilities. On the other hand, critics of the discussed theories argue on their simplicity and some unrealistic assumptions. Nevertheless, the different studies that have utilized these theories have established that most of the assumptions and principles of these theories have been widely employed in the field of strategic management, especially when organizations are making strategic decisions.

Research Methodology

The study adopted a descriptive research design to explore the relationship between dynamic capabilities and the performance of insurance firms in Kenya. This approach, as noted by Chu and Ke (2017), guided the data collection, measurement, and analysis process, enabling the researcher to describe characteristics and predict variable relationships effectively. It also supported data gathering through structured interviews and questionnaires, making it suitable for examining how dynamic capacities influence organizational performance (Cypress, 2018; Sekaran & Bougie, 2019). The target population comprised all 55 registered insurance companies in Kenya, including both general and life insurance firms. These companies were selected based on documented performance issues and their centralized operations within Kenya. Units of analysis were the firms themselves, while the units of observation included departmental heads in finance, marketing, operations, human resources, risk and compliance, and ICT (IRA, 2023). The sampling frame included a total of 677 respondents across these six departments. This frame ensured proper identification and representation of the target

population (Saunders et al., 2016). The study used purposive sampling, focusing on managers with relevant expertise to yield reliable data. To determine the sample size, the Yamane (1967) formula was applied, which is appropriate for populations of varying sizes and ensures representativeness and efficiency.

The formula is as follows;

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

Where:

n is the sample size

N is the target population (677)

e is the error margin (0.05)

$$n = \frac{677}{1 + (677)0.05^2} \qquad n = 250$$

The study collected primary data using structured questionnaires divided into five sections, including demographic and Likert-scale research questions. Both open and closed-ended questions were used to encourage detailed yet analyzable responses. Secondary data was sourced from AKI reports, newspapers, and other research materials. An introduction letter and NACOSTI permit were used to obtain access to respondents, and the drop-and-pick method ensured convenience and confidentiality. A pilot study with 26 managers was conducted to assess the tool's validity and reliability. Validity was tested through face, content, and construct validity using Exploratory Factor Analysis (EFA). Reliability was evaluated using Cronbach's Alpha, with a threshold of 0.7. Data was analyzed using SPSS v23. The influence of dynamic capabilities on the performance of insurance firms in Kenya was determined using a multiple regression model, as follows:

$$\mathbf{Y = \alpha + \beta1X1 + \beta2X2 + \beta3X3 + \beta4X4 + \epsilon}...............................\mathbf{Equation\ 1}$$

Where:

Y represents the performance of insurance firms

α represents a constant

β1, β2, β3 and β4 represents the beta coefficients

XI represents integration capabilities

X2 represents learning capabilities

X3 represents sensing capabilities

 X4 represents technical capabilities

Ɛ represents the error term

Results

Correlation Analysis

Table 1: Correlation Matrix

		Performance	Integration Capabilities	Learning Capabilities	Sensing Capabilities	Technical Capabilities
Performance	Pearson Correlation	1.000				
	Sig.(2- tailed)					
	N	212				
Integration Capabilities	Pearson Correlation	0.739	1.000			
	Sig.(2- tailed)	0.000				
	N	212	212			
Learning Capabilities	Pearson Correlation	0.701	0.470	1.000		
	Sig.(2- tailed)	0.000	0.000			
	N	212	212	212		
Sensing Capabilities	Pearson Correlation	0.641	0.490	0.468	1.000	
	Sig.(2- tailed)	0.001	0.000	0.000		
	N	212	212	212	212	
Technical Capabilities	Pearson Correlation	0.770	0.563	0.524	0.473	1.000
	Sig.(2- tailed)	0.000	0.000	0.000	0.000	
	N	212	212	212	212	212

Table 1 established the correlation results of integration capabilities and performance of on insurance firms r=0.739 and P value = 0.000.This suggested that integration capabilities has a strong positive correlation with performance of insurance firms in Kenya and hence an important factor in improving the performance of these firms. Moreover, the relationship was statistically significant at $p<0.05$ level of significance. Therefore, the study concluded that integration capabilities significantly influences the performance of insurance companies in Kenya.

The study also sought to determine the effects of learning capabilities on performance of insurance firms in Kenya in line with the second objective. The results shows a strong positive relationship that is significant relationship exists (r = 0.701, P value =0.000). The study thus rejects the null hypothesis indicating no statistical significant effect and conclude that learning capability influences performance of insurance firms in Kenya at 0.05% levels of significance.

The correlation analysis between sensing capabilities and performance of insurance firms in Kenya revealed a strong negative relationship (r = 0.641) with P value of 0.001 which implies that the relationship is significant and thus sensing capabilities has an impact on performance of insurance firms in Kenya at 0.05% threshold levels. Therefore, the null hypothesis which stated that sensing capabilities has no effect on performance of insurance companies in Kenya was therefore rejected. Thus, the study observed that sensing capabilities influenced performance in insurance companies in Kenya.

Lastly, the study established sought to determine whether technical capabilities had an influence on insurance firm performance. The correlation results reveal the existence of a strong positive relationship between technical capabilities and firm performance of insurance firms in Kenya (r= -0.770, P value =0.00).The relationship is significance with P value below the threshold of 0.05 significant value. The study thus rejects the null hypothesis and conclude that technical capabilities influences the performance of insurance firms in Kenya. It can thus be argued that all variables were significant to the research problem, but with

Regression Analysis

Model Summary

Table 2 Model Summary

Model 1	Multiple R	R Squared	Adjusted R Square	S.E Regression	Probability (F- Statistic)	Obs
Performance	0.751ᵃ	0.565	0.553	0.02804	0.0000	212

a. Predictors: (Constant), Integration Capabilities, Learning Capabilities, Sensing Capabilities, Technical Capabilities

Table 2 presents the model summary results, revealing a Multiple R correlation coefficient of 0.769 between the observed and predicted values. The correlation coefficient indicated a robust positive linear link between dynamic capabilities and performance of insurance firms in Kenya.The model summary indicated an R^2 value of 0.565 (56.5%).This implies that the differences in integration capabilities, learning capabilities, sensing capabilities and technical capabilities collectively accounted for 56.5% of the fluctuations in the performance as measured by the return on investment of insurance firms in Kenya, indicating that these variables possessed moderate predictive and explanatory power regarding the performance of insurance firms in Kenya. Additional factors not used in this study model account for the remaining 43.5% of the variance in the performance these insurance firms in Kenya.

Analysis of Variance (ANOVA)

Table 3: ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	8.545	3	2.8483	42.1970	0.0000
1 Residual	7.360	109	0.0675		
Total	15.905	111			

Critical value = 2.35

Table 3 as indicated by ANOVA revealed that the regression model had a significance level of 0.0000, which is equivalent to 0%. The results showed that the F value exceeded the critical value (42.1970 > 2.35). The model was therefore deemed significant, as evidenced by the significance value of less than 0.05. Therefore, the null hypothesis was rejected that the model was insignificant and concluded that the performance of insurance firms in Kenya was significantly influenced by integration capabilities, learning capabilities, sensing capabilities and technical capabilities

4.7.2.2. Regression Coefficients

Multiple regression analysis among dependent and independent was carried out to establish the effects of dynamic capabilities and performance of insurance firms in Kenya. The coefficient results are shown in Table 4.

Table 4: Regression Coefficients

Financial Performance	Coef.	Std. Err.	t	P>t	[95% Conf. Interval]	
Integration Capabilities	0.338	0.138	2.449	0.000	0.3457	0.6430
Learning Capabilities	0.279	0.108	2.583	0.013	0.0845	0.1452
Sensing Capabilities	0.347	0.103	3.369	0.001	0.9016	2.7291
Technical Capabilities	0.196	0.077	2.545	0.000	0.2832	0.7175
_cons	1.347	0.258	5.221	0.000	0.0398	0.0900

The generated output as per multiple linear regression is as presented in Table 4 above, thus the equation is as shown below:

$Y = 1.347 + 0.338 X_1 + 0.279 X_2 + 0.347 X_3 + 0.196 X_4$

Where,

Y is the asset quality of listed commercial banks

X_1 represent integration capabilities

X_2 represent learning capabilities

X_3 represent sensing capabilities

X_4 represent technical capabilities

Discussion of Findings

According to the findings, integration capabilities had Beta values of 0.338 with P value of 0.000 (P>0.005). The results imply that holding other factors constant and integration capabilities is controlled, a unit increase of integration capabilities will lead to an increase in the performance of insurance companies in Kenya by 0.338. The increase will be significant given the p values of 0.000 (P>0.005).The study thus rejected the null hypothesis

and concluded that integration capabilities has a significant effect on performance of insurance companies in Kenya. The findings resonates with the argument by Hong (2018), Kamau, Senaji, and Nzioki (2019) ,Lettice, Zhang, Chan, and Nguyen (2018) and Naguib, Elsaid, and Elsaid (2017) who all agree that how management organized and incorporated different organizational resources to guarantee success had a big impact on pharmaceutical firms' performance However, contrary to the findings is a study done by Kaiser and Obermaier (2020) found out that integration capabilities has a significant negative relationship with asset performance Bamidele (2019) on the other and found no significant relationship between integration capabilities on performance insurance firms in Nigeria.

In line with the second objective, the regression results indicated that learning capabilities positively and significantly influenced the performance of insurance firms in Kenya revealing Beta values of 0.279 and p value of 0.013 (P <0.05). This is an indication that a unit increase in learning will lead to an increase in the performance of insurance firms in Kenya by 0.279 units. The results are also evidenced by a significant P value of 0.013 which is less than the normal 0.05 significant value. Therefore, the study rejected the null hypothesis and concluded that learning capabilities has a significant effect on the performance of insurance firms in Kenya. These findings are in line with those of Pham and Hoang (2019) ,Hussain, Wahab, Zeb, Khan, Javaid, and Khan (2018), Gomes and Wojahn (2017), Orego & Wainaina (2019) and Salisu (2020) among other studies indicated that knowledge transfer, employee empowerment, dialogue, and risk-taking plays a key role to a firms performance since it continuously improves employee through experience, knowledge creation and offers numerous benefits, including enhanced adaptability to change, increased employee satisfaction and retention, and improved overall productivity

The third objective was to establish the effects of sensing capabilities and performance of insurance firms in Kenya. Findings showed that sensing capabilities positively and significantly influences the performance of insurance firms in Kenya with Beta values of 0.347 and p-value of 0.001 (P<0.05). The findings imply that holding other factors constant, a unit increase in sensing capabilities results to an increase in the performance of insurance firms in Kenya 0.347 units. The significant probability which is less than 0.05 significant level indicating that a change in the level of sensing capabilities will have a significant effect on the performance of insurance firms in Kenya. The study thus rejects the null hypothesis and concludes that sensing capabilities has a significant influence on the performance of insurance firms in Kenya. Similar findings were made by Sudrajata, Lasmyc, Herlinad and Syahcharie (2019), Alshanty, Emeagwali, Ibrahim and Alrwashdeh (2019) and Khalif, Deya & Noor (2022) who all conclude that sensing capabilities positively affects the performance of firms enhances performance and profitability by empowering businesses to create better goods, foresee risks, and maintain an advantage over competitors. However Rashidirad, Salimian and Soltani (2018) is of the contrary opinion and indicate that sensing capabilities has a negative effect on the performance of firms while Kankam-Kwarteng, Sarpong, Amofah and Acheampong (2021) opine that sensing capabilites do not play any significant factor in determining the performance of firms. Lastly, study sought to establish the effects of technical

capabilities and performance of insurance firms in Kenya. Regression results as shown in Table 4.21 indicate that technical capabilities had coefficients of 0.196, and p value of 0.047 (Beta = 0.196, p=0.000<0.05). The results thus reveal that holding other factors constant and technical capabilities are controlled, a unit increase in will results to an increase the performance of insurance firms in Kenya by 0.196,. The increase will have a significant effect in the performance of insurance firms in Kenya at 0.05 level of significance (p=0.000<0.05).Therefore, we reject the null hypothesis and conclude that sensing capabilities has a statistically significant effect on the performance of insurance firms in Kenya

The results are in agreement with that of Rahim and Zainuddin (2019), Hassan, Iqbal, Malik, and Ahmad (2018), Ahmad and Lazim (2019), Emmanuel (2022) and Imbambi et al. (2017) supported the findings that there is a significant impact of technical capabilities and performance of firms in the different sectors of the economy.On the other hand, Deya (2016) established that technical capabilities are still lacking in TVET institutions and therefore plays an insignificant role in this institutions while Candia, Jehopio, and Wesonga (2017) could not establish any significant role of technical capabilities and success of Makerere University in Uganda.

Conclusion

The study concluded that all four dynamic capabilities—integration, learning, sensing, and technical—positively influenced the performance of insurance firms in Kenya. Integration capabilities enhanced performance by improving outsourcing, structural alignment, and task delegation, which streamlined operations and supported effective decision-making. Learning capabilities boosted return on investment by promoting team coordination, knowledge sharing, and the development of strategic leadership grounded in ethical values and service excellence. Sensing capabilities played a critical role in identifying market trends, consumer behavior, and competitive threats, allowing firms to adapt quickly and seize new opportunities. Technical capabilities significantly contributed to innovation, efficiency, and competitive advantage through research and development, process re-engineering, and the adoption of new technologies. The study found that these capabilities collectively supported the firms' ability to respond to dynamic market conditions and achieve sustainable performance improvements. It recommended that insurance firms in Kenya strengthen these capabilities to enhance productivity, customer satisfaction, and long-term profitability.

Recommendations of the Study

Based on the study findings, the study recommended that Kenyan insurance firms enhance performance by strengthening dynamic capabilities. It advised adopting technology integration through fintech partnerships to improve service delivery and broaden market reach. Firms were urged to promote continuous learning, open communication, and invest in knowledge management systems to build resilient organizations. Sensing capabilities were to be improved by analyzing market data and competitor trends, while technical capabilities required investment in AI, analytics, and specialized staff skills like digital marketing. Policy recommendations included promoting R&D, streamlining regulations, and advancing financial

inclusion. The study also called for further research into additional dynamic capability dimensions, financial impacts, and gender as a moderating variable.

REFERENCES:

Aduwo, E., & Deya, J. (2022). Dynamic capabilities and competitive advantage of commercial banks in Kenya. *International Academic Journal of Human Resource and Business Administration*, *4*(1), 408-429.

Bell, E., Bryman, A., & Harley, B. (2022). *Business research methods*. Oxford university press.

Chu, H., & Ke, Q. (2017). Research methods: What's in the name?. *Library & Information Science Research*, *39*(4), 284-294.

Cypress, B. (2018). Qualitative research methods: A phenomenological focus. *Dimensions of Critical Care Nursing*, *37*(6), 302-309.

Deya, J. (2016). *Relationship between dynamic capabilities and competitive advantage of Technical, Vocational and Entrepreneurship Training Institutions in Kenya* (Doctoral dissertation, Business Administration (Strategic Management), JKUAT).

Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: what are they?. *Strategic management journal*, *21*(10-11), 1105-1121.

Hailekiros, G. S., & Renyong, H. (2016). The effect of organizational learning capability on firm performance: Mediated by technological innovation capability. *European journal of business management*, *8*(30), 87-95.

HALIMA, M., EMMANUEL, I. E., & RIKWENTISHE, R. (2022). DYNAMIC CAPABILITIES AND PERFORMANCE OF AVIATION FIRMS IN NIGERIA. *Journal of Academic Research in Economics*, *14*(3).

Herburger, M., Wieland, A., & Hochstrasser, C. (2024). Building supply chain resilience to cyber risks: a dynamic capabilities perspective. *Supply Chain Management: An International Journal*, *29*(7), 28-50.

Hong, J., Zhang, Y., & Ding, M. (2018). Sustainable supply chain management practices, supply chain dynamic capabilities, and enterprise performance. *Journal of cleaner production*, *172*, 3508-3519.

Kaiser, F., & Obermaier, R. (2020). Vertical (dis-) integration and firm performance: A management paradigm revisited. *Schmalenbach Business Review*, *72*(1), 1-37.

Kamau, J. G., Nzioki, S. C., Senaji, T. A., & Eng, R. (2019). Relationship between strategic capabilities and competitive advantage in the Kenyan banking sector. *European Journal of Business and Strategic Management*, *4*(2), 1-23.

Kankam-Kwarteng, C., Sarpong, A., Amofah, O., & Acheampong, S. (2021). Marketing performance of service firms: Recognizing market sensing capability and customer

interaction orientation. *Journal of Tourism, Heritage & Services Marketing (JTHSM)*, *7*(2), 38-48.

Kiiru, G. W. (2015). *Dynamic capabilities, strategic orientation and competitive advantage of small and medium-retail enterprises in Kenya* (Doctoral dissertation).

Kimathi, C. M., & Mungai, J. (2018). Financial distress and profitability of tier three commercial banks in Kenya. *American Journal of Finance*, *3*(1), 46-66.

Kipkoech, S. J., & Nzuki, D. M. (2017). Organizational Capabilities and E-Waste Management: A Theoretical Review.

Kirugumi, A. T., Theuri, M. M., & Magu, D. M. (2021). Influence of Managerial Capability On Internationalization Status of Public Universities In Kenya.

Kitenga, G., Kilika, J. M., & Muchemi, A. W. (2020). The Moderating effect of Firm Size on the impact of Dynamic Capabilities on sustainable Performance of food manufacturing firms Kenya. *Technium Soc. Sci. J.*, *7*, 149.

Liu, C. H., Horng, J. S., Chou, S. F., Yu, T. Y., Huang, Y. C., Lin, J. Y., & Lapuz, M. C. B. (2023). Discovery of the mutual relationships among dynamic capabilities and intellectual capital: the moderating roles of service innovation. *Asia Pacific Journal of Tourism Research*, *28*(10), 1147-1165.

Mairim, M. S. (2022). *Effect Of Dynamic Capabilities On Financial Performance Of Oil Marketing Firms In Kenya* (Doctoral dissertation, KCA University).

Manyara, E. K., Nkaabu, C., & Moguche, A. (2020). Effect of dynamic capability on the performance of Matatu SACCOS in Meru County.

Marco-Lajara, B., Sarmiento-Chugcho, C. B., Ramón-Ramón, D. I., & Martínez-Falcó, J. (2023). Dynamic capabilities and innovation in a developing country SMEs: the role of absorptive, learning and adaptive capacities. *International Journal of Business Environment*, *14*(2), 211-239.

Misigo, I. R. (2018). *Influence of strategic capabilities on competitive advantage of sugar companies in Western Kenya* (Doctoral dissertation, COHRED-JKUAT).

Muithya, V., & Muathe, S. (2020). Dynamic capabilities and performance in the context of microfinance institutions in Kenya: An exploratory study. *Journal of Business, Economics and Management Works*, *7*(08), 15-29.

Murugi, J., & Kariuki, P. (2021). Influence of strategic capabilities on performance of firms in the leather industry in Kenya. *Journal of International Business, Innovation and Strategic Management*, *4*(3), 73-88.

Naguib, A. N., Elsaid, E., & Elsaid, A. M. (2017). The impact of dynamic capabilities on sustainable competitive advantage in the pharmaceutical sector in Egypt. *Business and Management Research*, *6*(2), 1.

Nasambu, M. J., G. Ariya, F. Wamalwa, R. Njoroge, and A. N. Otinga. "Gender relations in farmer groups' performance: Voices of Women in Western Kenya."

Ngeera, M. E. (2013). *Application of Dynamic Capability Approaches in Commercial Banks in Kenya* (Doctoral dissertation, University Of Nairobi).

Nyabuti, K. J., Chepkilot, R., & Zakayo, C. (2016). Relationship Between Human Resource Capability and Performance of Civil Servants in Kenya. *Journal of Business Administration*, *1*(1), 1-14.

Nyachanchu, T. O., Chepkwony, J., & Bonuke, R. (2017). Role of dynamic capabilities in the performance of manufacturing firms in Nairobi County, Kenya. *European Scientific Journal, ESJ*, *13*(31), 438.

Odwaro, N. C., Abongo, B., & Mise, J. K. (2022). Effect of Dynamic Capabilities on Performance of Commercial Banks. *European Journal of Business and Management Research*, *7*(3), 209-215.

Okwemba, E. M. (2019). *Influence of Organizational Capabilities on Non-Financial Performance of Manufacturing Firms in Kenya* (Doctoral dissertation, JKUAT-COHRED).

Onyango, N. G., Wanjere, D. M., Egessa, R. K., & Masinde, S. W. (2015). Organizational capabilities and performance of sugar companies In Kenya. *International Journal of Management Research & Review*, *5*(10), 845-863.

Orego, M., & Wainaina, L. (2019). Strategic organizational learning capability and firm performance: A case of tourism fund in Kenya. *International Academic Journal of Human Resource and Business Administration*, *3*(8), 39-57.

Osisioma, H., Nzewi, H., & Mgbemena, I. (2016). Dynamic capabilities and performance of selected commercial banks in Awka, Anambra State, Nigeria. *European Journal of Business and Social Sciences*, *4*(10).

Parnell, J. A. (2021). An Ounce of Prevention: What Promotes Crisis Readiness and How Does It Drive Firm Performance? *American Business Review*, *24*(1), 6.

Privitera, G. J., & Ahlgrim-Delzell, L. (2018). *Research methods for education*. Sage Publications.

Rahim, F. B. T., & Zainuddin, Y. B. (2019, January). The impact of technological innovation capabilities on competitive advantage and firm performance in the automotive industry in Malaysia. In *AIP conference proceedings* (Vol. 2059, No. 1). AIP Publishing.

Rashidirad, M., Salimian, H., Soltani, E., & Fazeli, Z. (2017). Competitive strategy, dynamic capability, and value creation: Some empirical evidence from UK telecommunications firms. *Strategic Change*, *26*(4), 333-342.

Rita, M. K. (2023). STRATEGIC CAPABILITIES AND PERFORMANCE OF SELECTED COMMERCIAL BANKS IN NAIROBI CITY COUNTY KENYA. *International Journal of Social Sciences Management and Entrepreneurship (IJSSME)*, *7*(2).

Rose, H., McKinley, J., & Baffoe-Djan, J. B. (2019). *Data collection research methods in applied linguistics*. Bloomsbury Academic.

Salisu, Y., & Abu Bakar, L. J. (2019). Technological capability, innovativeness and the performance of manufacturing small and medium enterprises (SMEs) in developing economies of Africa. *Journal of Business and Management*, *21*(1), 58.

Sudrajat, D., Budiastuti, D., Setiadi, N. J., & Supeli, A. (2016, November). The effect of integrated information technology on innovative capability and its impact on firm performance. In *2016 International Conference on Information Management and Technology (ICIMTech)* (pp. 333-337). IEEE.

Surmeier, A. (2020). Dynamic capability building and social upgrading in tourism-Potentials and limits of sustainability standards. *Journal of Sustainable Tourism*, *28*(10), 1498-1518

Teece, D. J. (2023). The evolution of the dynamic capabilities framework. *Artificiality and sustainability in entrepreneurship*, *113*.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, *18*(7), 509-533.

Zhou, L., Peng, M. Y. P., Shao, L., Yen, H. Y., Lin, K. H., & Anser, M. K. (2021). Ambidexterity in social capital, dynamic capability, and SMEs' performance: quadratic effect of dynamic capability and moderating role of market orientation. *Frontiers in psychology*, *11*, 584969.