Journal of Economics, Management and Trade

Volume 29, Issue 9, Page 10-22, 2023; Article no.JEMT.101119
ISSN: 2456-9216
(Past name: British Journal of Economics, Management & Trade, Past ISSN: 2278-098X)

Influence of Competitive Intelligence on the Performance of Indigenous Banks in Nairobi, Kenya

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

Article Information

DOI: 10.9734/JEMT/2023/v29i91124

Open Peer Review History:
This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: https://www.sdiarticle5.com/review-history/101119

Original Research Article

Received: 29/04/2023
Accepted: 15/06/2023
Published: 06/07/2023

ABSTRACT

Indigenous banks in Kenya are facing intense competition in the Kenyan market. To survive there is a need for competitive intelligence which is both a process and a product. This will play a crucial role in their operation to guide decision-making and strategy formulation. The banks endeavor to address threats to the triple bottom line and in the same breath required to overpower the uncertainty presented by the host business atmosphere, technological advancement, and economic changes as well as pandemics such as Covid-19 for their own survival. The indigenous banks are alive to the fact that local stakeholders' desires may affect their functioning adversely and therefore, they are required to examine their functions by adopting competitive intelligence activities in order to respond to their needs faster. The study, therefore, purposed to establish the influence that competitive intelligence subsets have on the performance of indigenous banks in Nairobi, Kenya. The research was conducted through the survey approach by use of questionnaires using the drop-and-pick method. The sample size of the study was 90 respondents of which only 81 of them were retrieved. Primary data collected were analyzed using the statistical package for Social Sciences (SPSS) software. Figures and tables were used to summarize the

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data collected for additional analysis and comparison. Multiple regression was utilized with the intention of evaluating the aggregate effect and relationship between the independent and dependent variables. The findings of the study revealed that there is a positive relationship between technological, product, organizational, and marketing intelligence with the indigenous bank's performance.

Keywords: Competitive intelligence; market intelligence; organization intelligence; organizational performance; product intelligence; technology intelligence.

1. INTRODUCTION

Competition is a situation that all businesses must constantly acknowledge as it forms a major part of defining the failure or prosperity of the business. Businesses face the potency of competition known as competitive intensity and these in an industry are caused by various contesting firms and strategies adopted as well as forces behind competition within an industry.

Nhuta [1] states that Michael Porter who has been regarded as an expert in competitive strategy, asserted that a firm is most worried about the magnitude of competition caused by key forces of competition within a given industry. Further state that according to Porter the initial stage in structural analysis is an appraisal of the competitive atmosphere in which an organization carries out its business, the key competitive forces, and the potency of each in determining the structure of the industry. The next step is an appraisal of the strategy deployed by the company and how well it has placed itself to thrive in such an environment. Additionally, the management should gather and interpret knowledge regarding the firm itself, its stakeholders, its rivals, and the industry at large.

The nature of competition in an industry according to [2,3] depends on five key forces, which include the potential arrival of new players or entrants, the influence of customers, the influence of suppliers, the potential introduction of alternative products, and services and finally rivalry between current competitors. The combined potency that these forces make affects the basic potential of an industry to make a profit.

According to [4] competitive intelligence is a term that was discovered in the 1970s in USA and later embraced across the world. The Strategic and Competitive Intelligence Professionals (2004) termed competitive intelligence as a methodical and fitting set of actions that entails amassing, evaluating, and overseeing external information that has an effect on the proposals, resolve, and procedures of the organization. [5] in their article on competitive intelligence practices posited that firms today operate in an uncertain environment that is fast changing and characterized by developments in economic changes, technologies, and shorter life cycles of products leading to dynamic competition and their findings were in tandem with those of [6]. Further, they postulated that as a result of this uncertain environment, it is prudent that firms must dedicate a greater percentage of their wealth to innovation and knowledge in a timely manner.

Gatibu et al. [5] argued that a competitive advantage is achieved through the course of turning information into knowledge. This is achievable when it is fashioned as actionable insights relevant to a firm or business atmosphere. Subsequently, reverting back new knowledge gotten from it into the business. Due to the increasing financial competition experienced in the contemporary economies that are knowledge-oriented, many businesses are turning out to be more conscious to drying up budgets and the demand to invest in innovative competencies to satisfy marketplace requirements. In addition, firms are engaging in business competitive intelligence to guide in decision-making and strategy formulation, survival, and competitive edge and in order to know what their customers want so as to be effective in their response. A firm that does not carefully observe and examine its major competitors is inadequately prepared to effectively adopt a competitive plan or strategy and this makes the firm to be vulnerable to attacks in the market.

Indigenous banks being part of the larger banking sector are subjected to rules and guidelines published by the Central Bank of Kenya (CBK) which subjects them to certain limitations, obligations, and guides. This supervisory framework creates openness amongst institutions in the sector, companies, and the individuals with whom they do business.

The sector is policed in accordance with the prerequisites of the Constitution of Kenya 2010, the Banking Act (2015) and Prudential Guidelines (2013) and the Regulations issued by CBK. These include the Constitution of Kenya (2010), the Micro-finance Act (2006), CBK Act (2015), the National payment system (2011), Kenya Deposit Insurance Act of 2012, Banking Act of 2015 and Prudential Guidelines (2013) and Guidance Notes among other Regulations published thereunder (CBK annual report, 2020).

Firms that are engaging in competitive actionable insights or intelligence ought to consider the internal and external environment. [7] opined that considering the external environment is still a new concept to guide in decision-making and strategy formulation, survival, competitive edge, and in order to know what their customers want so as to be effective in their response. A firm that does not carefully observe its major competitors is inadequately prepared to effectively adopt a competitive plan and this renders the firm vulnerable. Regardless of the strategic structure, an organization adapts, CI remains at the heart of competitive strategy and is more focused on accomplishing the right thing rather than doing the deed correctly.

Competition in any sector or industry constantly causes the level of return investment to shrink. This consequently leads to a situation where the management should constantly monitor all manner of developments in the working environment of the business and those together with other professionals should incorporate competitive intelligence to ensure profitability. The Kenyan banking sector is characterized by very high competition from others thus making CI practices a necessity in pursuit of competitive edge over competitors.

Research carried out in the area of CI includes [8] did a study on the role of CI types in marketing services in banking around the Kurdistan Region, [9] did competitive intelligence in the banking industry, whose case study is a Nigerian bank, [10] did research on a framework for CI in strategic decision making in Ethiopian Conglomerate, [11] who did a study on CI and its subtypes. In Kenya, various studies or investigations have been conducted on competitive intelligence in regard to the banking sector. In this regard, [12] studied the banking sector in Kenya in regard to how CI practices impact on the profitability of banking institutions and whose findings were in tandem with those of [13,14], [5] did a study focusing on the performance of Equity Bank Kenya and how it is affected by CI practices. Other studies are that of [15] who researched on the extent to which CI practices influence competitive advantage in KCB Bank Kenya and [16].

Even with the embracement of CI in Kenya, there is a scarcity of literature or no research dedicated to the indigenous banks segment up till now and this is despite the fact that the major indigenous banks are performing well regardless of originating from a developing country against the stiff competition from their foreign counterparts whose origin are mostly the developed and financially endowed countries and thus making of massive profits running into billions of shillings leading to substantial contribution towards the fast tracking of the economic development of the country, in addition to expansions into the region through mergers and takeovers. In addition, scarcity is experienced in articles showing the correlation between the various subsets of CI both separate or in combination in regards to the different indicators of performance of the indigenous banks from a developing country like Kenya and its position in this side of the globe. These therefore has led to challenges touching on theorizing and formation of concepts in regards to this phenomenon. Also, many banks have not taken the issue of creating a CI department seriously and even if it exists they may either be not operational or not fully involved in CI-related activities needed for a competitive edge. The focus of this study is to find out the correlation between CI and the performance of the indigenous segment of the banking sector and secondly, it seeks to fill the prevalent gap in knowledge that explains the performance potency of these Kenyan indigenous banks by conducting a study on the linkage between C.I and performance of indigenous banks in Nairobi, Kenya. It also seeks to explain the degree to which these banks are embracing CI systems in gaining a competitive edge, leadership, and growth over their rivals.

1.1 The Hypotheses Statements for This Study are

H_{01}: Technology intelligence activities have no influence on the performance of indigenous banks in Nairobi, Kenya.

H_{02}: Organization intelligence activities have no influence on the performance of indigenous banks in Nairobi, Kenya.

H_{03}: Product intelligence activities have no influence on the performance of indigenous banks in Nairobi, Kenya.
H_{04}: Markets intelligence activities have no influence on the performance of indigenous banks in Nairobi, Kenya.

2. LITERATURE REVIEW

The study was anchored on three main theories namely knowledge-based theory, resource-based theory, and open system theory:

2.1 Knowledge-Based Theory (KBT)

It was brought to perspective by James Grant in 1996 as growth from a resource-based view. This theory holds that knowledge is a strategic resource in an organization [17,18]. This is justified by its non-inimitability quality of resources from the resource-based view. The competitive intelligence perspective of a product defines data collected as the knowledge that is therefore accumulated and protected by the management for strategic management processes [19]. It, therefore, follows that competitive intelligence as a system has come in to support organizations with their strategic management by increasing the potential of an organization's performance through knowledge management and improvement (Gisela, Gomez, Fernandez & Palomo, 2019). From the perspective of competitive intelligence as a product, the data produced by the process has been positioned as a kind of knowledge that is strategic in an organization due to its inimitability quality.

According to [20], the CI viewpoint of a product expresses collected data that is then processed into knowledge which is then protected through various mechanisms by management so that it can be used for tactical management procedures [19] thus CI systems assists the firm in enhancing the capability of its performance through KM systems. CI can be used therefore to generate knowledge necessary for a firm to engage in SWOT analysis by identifying its opportunities and threats on the one hand and the strength and weaknesses of its competitor [21] on the other hand. The transfer of explicit knowledge is inferred to affect the realization of competitive edge and studies done by [22] among others posit that knowledge-oriented firms tend to be more resourceful or ingenious and have efficacy than other enterprises not engaged in the same.

This theory therefore, has the potency to elaborate how indigenous banks can exploit their knowledge management capabilities by incorporating knowledge as a tactical management tool with the help of executives in crafting practical competitive information utilization mechanisms to sustain their upward developmental trajectory and act as a leverage in their performances in the banking sector. The theory is thus significant in this research as it can guide on how to understand this banking segment of the banking sector that not much study has been dedicated to so as to be able to decipher their competitive strategies and how they have been making profits more than their foreign counterparts in the face of tough competition so as to have a winning situation that generates more knowledge in this area for further research and increase in extant knowledge if available.

2.2 Resource Based Theory (RBT)

The RBV was coined by [23] and it has emerged over the years as an acceptable theory of competitive edge. Its simple rationality is that the desired results of the efforts put by management within the business are for ensuring a competitive edge that is sustainable since this allows the business to gain returns that are above average. From a business perspective, the possessions of the firm such as competencies, assets, knowledge, procedures, and assets as well as technical expertise are key in the execution of the various set plans and in fostering competitiveness within the business and the SC levels. [24] share in these conclusions and postulates that the efficacy in using and distributing these key possessions especially knowledge will lead to a competitive edge and knowledge management practices. The resources of a firm such as social capital, finances, human capital, and technological and structural capital are factors that facilitate firms to engage in value creation for their stakeholders key among them customers.

Therefore, the RBT is relevant for this study as it guides how the indigenous banks can use their non-tangible resources such as knowledge in developing key competitive mechanisms to maintain their development in the sector and generate new understanding of the prevailing phenomenon.

2.3 Open Systems Theory (OST)

Open systems theory was primarily advanced by a biologist called Bertanlanffy in the year 1956

but it later became acceptable amongst all disciplines. [25] suggested that the basis of this theory was that an organism that is living is not a composite of distinct elements but a system, or organization that is possessing and fullness. They continue to say that an organism retains a persistent nature while energy and matter which go in it keep transforming in what is being referred to as dynamic equilibrium and that it is affected and it affects the atmosphere as it reaches this equilibrium. This depiction of a system according to them, adequately describes an average corporate as a system that is made by humans and has a vibrant interaction with its environment including clients, government, business rivals, and suppliers among other entities. Thus an organization is a system of interconnected parts operating in harmony with one another so as to attain the set objectives of both the firm and the individuals in it. The environment that these organizations operate in according to [26] can be in sectors such as in social-cultural, economic, technological, regulatory, and rivalry among competitors. [27] add to this by saying an organization is an assembly of different departments, divisions, sections, and sub-sections constituted by persons and groups of individuals who are autonomous but correlating with each other to accomplish the laid down objectives with the purpose of accomplishing the vision of the organization.

Thus, the open systems theory plays an important role in the progression of knowledge and its theoretical proposals are sound in understanding the substantial input of human initiatives. This may be ascribed to knowledge generation grounded on the interactions of humans and its environment including clients, government, business rivals that generate new knowledge which may then be established as the banks' knowledge occasioning an increased creation in value.

2.4 Empirical Review

2.4.1 Technological intelligence activities and performance

According to [8,28] constant innovation has led to technological changes which have affected businesses. [29] further suggest that organizations that are intelligent do not just sit and wait for change but keenly observe the changes in their surroundings and new innovations in order to gain from them. Technology intelligence according to [28] is sensitive information for a business in regard to exterior sciences and technology that can impact a firm's competitive position. They posit that technology intelligence is an unofficial way of checking technology and involves planning, arranging, and implementing CI activities, secondly, collecting information regarding actionable insights, thirdly, data analysis, and finally, releasing the findings to guide decision-making [30]. [28] continue to say that these processes add knowledge to the already existing ones and this in turn enhances the capabilities of firms and gives a clear scenario of the present and future nature of competition programs for executives so that they can be able to make decisions faster and earlier in order to foster growth and expansion for their businesses. [31] in their study found Technological Intelligence to be those actions that assist in decision-making in regard to technology and management in general by utilizing relevant knowledge on technological threats and opportunities as well as facts of the organization's surroundings by gathering, interpreting, and distributing of information.

According to [11], Technological intelligence focuses on gauging the benefit and costs of present and new technologies and prognoses on the future breaks in technology [32]. Taney and Bailetti (2008) in their research found a correlation between technological intelligence collection and performance of innovation and this is due to new technologies, new processes, and methods that enable companies to locate new prospects inside the market and maximize them by making available new products quicker than their rivals [33]. TI and solutions have been found to give an organization a competitive edge through technology management and producing outstanding and distinct products from current ones which can foster excellent performance in the market [34]. This is in addition to TI facilitating in gaining knowledge regarding preferences of clients [35]. [11] further asserts that companies with excellent infrastructure in technology are likely to be more innovative and therefore tend to perform highly and this is also due to the usage of new technologies which impacts how intelligence is collected and distributed across the organization thus impacting on CI performance. [14,15,36] in their studies suggested that firms should integrate their client value-innovation [37] with technological intelligence so as enhance their opportunities of gaining sustainable profit and development.

Technology intelligence impacts can be felt in technological innovation which in turn ensures the survival of a firm and its business ecology which then is established on accomplishing sustainable performance in the financial aspect. Technological innovation has been linked to growth in employment rate, performance, and developments driven by productivity, market positioning and share and efficacy in processes [38]. According to [12,39] banks have been using technological intelligence which has led to innovations in their functions such as intelligent ATM withdrawals and deposits, monitoring systems, and custodial services.

2.4.2 Product intelligence activities and performance

Competitive intelligence and its subset including product intelligence have the competence to collect customer's opinions [40,41] posits that this opinion can provide intuition into the values of a service or a product in addition to utilization trends and future fantasies. Fantasies and intuition are at the center of the process of innovation which in turn focuses on gratifying the needs of customers. Thus product intelligence which inspires product innovation and by extension competitive intelligence addresses matters to do with marketing, sales, and development of a product. Innovation on the other hand has been credited with the survival of the firm since firms that do not innovate end up perishing and losing their consumer base [42] support this stance and assert that effective product innovation has for two decades been deemed to be a significant prerequisite for business success [43] posit that product intelligence entails a mechanized or automatic system for collecting and interpreting actionable insight in regards to the market performance of a product which is either intended or produced for purposes of apprising the production managers who are involved in the coming up of varieties of the same for the future. The authors further assert that product intelligence accelerates the level of innovation for a product and this in turn makes the product more attractive to the market thus increasing its competitive edge [44] in a related study postulate that product intelligence, product design, consumer satisfaction estimation, product differentiation, new product innovation, and advertising as well as branding impacts the performance of airline companies in Kenya. Further, they posit that the embracement of product intelligence increases the returns whether in the form of profit or return on investment and this demands the involvement of customers in the design of the product to ensure conformity to their specifications. Referring to the works of other scholars the two equate product intelligence to the worthiness of the business entity and a factor for increasing the performance of the business entity. Increment in product intelligence affects the performance of a business due to benefits such as economies of scale, market potency, and reduction of risks [16]. [14] infer that other benefits are better performance, in addition to economies of scope and integration where the former offers a firm with reduced production costs. However, on the negative side, the two found that product intelligence has a negative correlation with a firm's value and happens in firms with reduced stakeholder ownership of assets. [16] while referring to a study on Dell Company, they assert that firms that implement product intelligence always design their products in a manner that pleases the customer thus culminating to development and competition domination over rivals in addition to consistent launching of innovative products.

2.4.3 Market Intelligence (MI) activities and performance

The sustainability and survival of an organization demand that the organization understands the market in which they are operating. Having information or data plays a major role in market intelligence since the organization will be able to make data-based decisions. Through market intelligence, data decisions like competitors' behavior, product, and customer trends are more accurate. According to [28] market intelligence illustrates the border, present and future trends, client demands, likings, new or novel markets, market divisions, significant steps, and shifts in distribution and marketing.

Katsikea et al. [45] state that MI creation and distribution are actionable insights activities of a firm and that these activities entail gathering and distribution of information which is vastly linked to a firm's capacity to choose and execute marketing strategies in addition to improved performance as found by Li and Calantone (1998). MI was found to aid firms respond to both present and future demands of customers and pinpoint trends in the market. This responsiveness in turn supports in developing a strategy aimed at effective division of customers, choosing and tracking of the most profitable

ones, and fostering successful associations for improving the performance and well-being of a business compared to its rivals. [46] continues to suggest that information or feedback gathered through MI activities helps to recognize the qualities of a product that are cherished by consumers. This makes the organization to concentrate on the development of new differentiated products and incremental innovations that have a higher potential that leads to faster expansion and growth than their rivals.

A firm ought to possess excellent gathering methods in MI and innovation capacities so as to survive in the extremely ambiguous atmosphere and develop quality decisions regarding the market so as to be successful. MI has been found to have a positive correlation with the success of a new product in low tumult enterprises [47], the performance of new products [48], competitive advantage [49] and new market development and segmentation (Moorman, 1995). [50] posit that MI-generated information on customers, suppliers, and competition is key for industrial Small and Medium-sized enterprises exporters when venturing into new markets and countries [51] and market performance. Thus MI has been seen as an important factor in decreasing ambiguity in foreign markets and management of tactical marketing in exporting firms. Additionally, the information provides an avenue for elements adoption of the marketing mix to the divergent needs in each market or country thus helping the business gain share of the market, and advance its competitiveness and positioning internationally [50].

In a related study, [52] looked at the works of Perin and Sampaio (2001) who researched the level of influence of the dimensions of market orientation key among them market intelligence creation, distribution, and reaction on performance using a small representation of B2C and B2B Brazilian markets. In their findings the three dimensions were found to have a positive correlation with performance, market intelligence creation was seen to be more appealing and impactful against performance with marketing intelligence distribution seen as a contributor to topmost heights in innovation and making for association of clients' relationship thus significantly affecting performance and finally, market intelligence reaction seen as having the greatest impact on the performance of management in the two markets.

2.4.4 Organizational intelligence activities and performance

McMaster [53] defines OI as the ability of an enterprise in its entirety to collect information, to create knowledge, innovate, and take action effectively using the generated knowledge. OI has further been defined as the ability of an enterprise to learn, control and utilize knowledge for making effective decisions and adapting to shifts in the business atmosphere. It is the ability of an enterprise to estimate that which can be used to information gathered externally or within the firm to adapt to the atmospheric surroundings of the market and for survival purposes. According to [54], structural organizational intelligence includes set aside knowledge in the firm comprising databases, strategies, charts, creativity, intellectual capital, innovation, renewal and cultural intelligence, patent right and efforts to do with education [55].

According to [56] structural organizational intelligence entails infrastructures of information and tools of communication which has changed the manner in which enterprises collect, create and disseminate competitive intelligence. It provides barriers to rivals in regards to going through the market, functional relation and business process re-engineering such as electronic selling, cost reduction and quality enhancement. Structural organizational intelligence (SOI) is a communication tool within an industry that accelerates the cycle of production and amplifies the capacity of an organization [57]. [54] further state that SOI helps enterprises to gain knowledge on the preference of customers through customer relations management information systems in the organization and these systems further provides information that enables progressive anticipation of sales leading to competitive edge entailing efficient strategic production and minimum supplies inventory [58]. SOI also enables producers to enhance their list of suppliers and understand technologies used by their rivals for their processes in addition to top executives having significant knowledge and trends in the economy relevant for efficacy in tactical planning.

According to silva (2015); [59] OI tends to focus on the fragile and solid points of the enterprise and provides necessary strategic plans to assist organizational operations by computing the state of intelligence of the enterprise. It gives a process for converting data to relevant information, then information to knowledge, and

knowledge into action for improving performance such as innovations key for enterprises to be experienced in global markets [60]. [61] continue to say that enterprises that utilize OI practices are more harmonious, and intelligent and have substantial capability to face both interior and exterior intricacies or complexities thus enabling them to be swift, and empowered during a time of crisis and competitive intensity leading to higher heights in success.

3. METHODOLOGY

To elucidate the effect or influence that competitive intelligence subset have on the performance of indigenous Banks in Nairobi Kenya. The research adopted a descriptive research design to enable the making of conclusions or generalizing the results to a bigger population. In this study, a cross-sectional survey was used because it enables the analysis of more than one case at a given or solo point in time.

The population of interest was the twenty-four indigenously owned banks as per the Central Bank of Kenya's 2020 annual report. The Central Bank of Kenya is the regulator of banks in Kenya. The respondents were managers of the various departments in the banks since they are aware of the CI practices in their areas of control.

The sample size was 90 respondents from six selected indigenous banks in Nairobi, Kenya constituting 25% of the twenty-four indigenously owned banks in Nairobi.

The study used a questionnaire which is a survey method to gather primary data. It was preferred because of privacy, time-saving, uniformity in the manner the questions are invited, congruency in responses, and results being easily measurable. A Likert scale was preferred having divergent guides for different sections in the questionnaire since it is for ranking purposes. The questionnaires were shared through electronic mail and the drop-and-pick technique. The respondents comprised executives, managers, and other staff in the units, divisions, or departments. The data collected was quantitative through the Likert scale and thus justified the use of descriptive statistics to analyze the data including the use of Statistical Package for social sciences (SPSS) software. A multiple regression analysis was carried to determine the influence of competitive intelligence and its sub-sets on performance.

The regression equation that was used to find the effect was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon.$$

Where

Y = Performance; β0 = Intercept; β_1, β_2, β_3, β_4 are regression co-efficient, ε is the error term; X_1 = Technology intelligence activities; X_2 = Organization intelligence activities; X_3 = Product intelligence activities; X_4 = Market intelligence activities.

4. RESULTS AND DISCUSSION

The findings reveal that the competitive intelligence practices were implemented to a greater extent across the indigenous banks with a mean and median of 4 as shown in the Table 1. The results show that on average the bank has implemented Product intelligence activities such as aligning products with customer needs and Market intelligence activities (such as concentration on market share and value, and new market developments) to a great extent. A similar case was observed in terms of Technological intelligence (such as developing technology-integrated products/Internet-enabled, and embracement of ISO 27001 in its operations), and Organization intelligence (such as human capital readiness, information processing capacity, innovation, and adaptive capability) which was implemented to a greater extent however slightly below the mean of four.

Cronbach's alpha of more than 0.8 was reported across the five scales, which indicates a high level of internal consistency for our scales.

Table 1. Competitive intelligence indicators characteristics

Competitive intelligence practices	N	Mean	Median	Std. Deviation	Cronbach's Alpha
Technological intelligence	81	3.77	4	0.58	0.81
Product Intelligence	81	4.03	4	0.45	0.81
Market Intelligence	81	4.01	4	0.5	0.84
Organization intelligence	81	3.95	4	0.49	0.81
Bank's performance	81	4.02	4	0.6	0.92

4.1 Technology Intelligence (TI) Practices and Performance of Indigenous Banks in Kenya

To determine the influence of TI activities on the performance of indigenous banks it was ascertained that as per the multiple regression equation, a unit increase in technology intelligence practice results in a statistically insignificant 0.201 units (p value=0.060) decrease in performance. This however was not in agreement with the literature since technological innovation has been linked to growth in employment rate, performance and developments driven by productivity, market positioning and share and efficacy in processes [38]. According to [12,39] banks have been using technological intelligence which has led to innovations in their functions such as intelligent ATM withdrawals and deposits, monitoring systems and custodial services. This has been the case in this study using technology as the only predictor of performance, however not significant.

4.2 Organization Intelligence Practices and Performance of Indigenous Banks in Kenya

Secondly, in evaluating the influence that organization intelligence has on performance the findings show that a unit increase in organization intelligence will statistically significantly improve the productivity of indigenous banks by 0.449 units (p value=0.002). The findings concur with the literature review where [61-63] said that enterprises that utilize OI practices are more harmonious, and intelligent and have substantial capability to face either interior and exterior intricacies or complexities thus enabling them to be swift, and empowered during the time of crisis and competitive intensity leading to higher heights in success.

4.3 Product Intelligence (PI) Practices and Performance of Indigenous Banks in Kenya

The third aspect was to determine the influence product intelligence practices have on performance. The study outcome shows that a unit increase in product intelligence activities employed by indigenous banks will statistically significantly increase productivity by 0.597 units (p value<0.001). Product intelligence which inspires product innovation and by extension competitive intelligence has been credited with the survival of the firm since firms that do not innovate end up perishing and losing its consumer base. These findings concur with the literature review. Increment in product intelligence affects the performance of a business due to benefits such as economies of scale, market potency, and reduction of risks [16]. [44] also in their study of airline companies in Kenya confirmed that product intelligence through product design, consumer satisfaction estimation, product differentiation, new product innovation and advertising as well as branding all together impacts the performance of these companies.

4.4 Market Intelligence and Performance of Indigenous Banks in Kenya

Finally, to determine the influence market intelligence activities have on performance, the findings show that a unit increase in market intelligence practice statistically insignificantly increases profitability by 0.021 units (p value=0.881). These findings suggest that market intelligence had a minimal influence on the performance of indigenous banks in Kenya when combined with the other three factors, however looking at market intelligence's individual influence on performance, a statistically significant effect was observed on the performance of indigenous banks. According to the findings of previous studies, [52] in their findings found market intelligence reaction to have a positive correlation with performance, and have the greatest impact on the performance of management combined with market orientation and market intelligence creation.

Multiple regression analysis determining the relationship between the performance of indigenous Banks in Kenya and the four variables is presented above. As per the SPSS generated table, the equation

$(Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon.)$ becomes: $Y = 0.315 + 0.449X_2 + 0.597X_3$

Where

Y = Performance of indigenous Banks in Kenya; X_1 = Technology intelligence activities; X_2 = Organization intelligence activities; X_3 = Product intelligence activities; X_4 = Market intelligence activities.

Table 2. Regression analysis

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. error	Beta		
(Constant)	0.315	0.565		0.558	0.579
Technological intelligence	-0.201	0.105	-0.194	-1.908	0.060
Product Intelligence	0.597	0.158	0.450	3.781	0.000
Market Intelligence	0.021	0.144	0.018	0.150	0.881
Organization intelligence	0.449	0.138	0.370	3.247	0.002

Table 3. Coefficient of determination

Coefficient of Determination (R^2)					
R	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**	**Sig.**	**Durbin-Watson**
.661[a]	0.438	0.392	0.46503	<0.001	1.504

According to the R^2, the four independent variables investigated explain 43.8% of indigenous Banks of Kenya performance. This suggests that other factors which were not investigated in this study contribute 56.2% of the productivity of Kenyan indigenous banks.

5. CONCLUSIONS

From the study it implies that product and organizational intelligence contributed more to bank performance with a statistically significant effect than technology and market intelligence, which had minimal statistically significant effect on indigenous bank performance in Nairobi, Kenya. The study concludes that technology intelligence activities have minimal significant impact on the performance of Kenyan indigenous banks through the use of technology-enabled products. Market intelligence strategies when deployed with other factors such as TI, OI and PI, its impact on the banks was found to be minimal while Product intelligent activities make indigenous banks more competitive and profitable through increased sales results/revenue and profit, Return on Investment (ROI) and Return on Assets (ROA). On the other hand, Organization intelligence approaches employed by indigenous banks have an impact on their performance through more bank branches, utilization of the resources and competencies related to knowledge and learning leading to innovation capability.

6. RECOMMENDATIONS

From the study findings, recommendations suggested that organizations need to adopt competitive intelligence activities so as to attain a competitive edge.

Further, there is a need to create a whole unit or department dedicated to competitive intelligence and knowledge management and the installation of knowledge management systems or databases.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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Peer-review history:
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https://www.sdiarticle5.com/review-history/101119