Competitive Intelligence Practices on the Performance of Bakeries in Nakuru County, Kenya

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Bakeries experience shocks just like other industries emanating from global external environment prompting the development of strategies to reduce costs and deliver services and products to clients to boost their performance.   The revenues for the bakery industry have largely stagnated over the years rising at a compounded annual rate of 0.1% over the last five years. This research investigated the impact of CI strategies on performance of bakeries in Nakuru County. The research was informed by the resource based view, theory of network organization, diffusion innovation theory and the balance scorecard model. The research design was the descriptive and explanatory design. Main data collection instrument was the questionnaire. To accomplish this, the research study targeted the 35 bakeries in Nakuru County. The investigation adopted a census since all the bakeries were studied. The questionnaires were administered to General Managers, Sales coordinators, Marketing manager and Strategy and operation manager making a total population of 140 respondents.The instrument's reliability was evaluated using the Cronbach Alpha and cut off 0.7 where all the variables were passed the benchmark. The reliability values for product intelligence, technology intelligence, process intelligence, market intelligence and performance were 0.82, 0.78, 0.89, 0.91 and 0.96 respectively. The quantitative data was evaluated through the application of SPSS software version 23. The scrutiny found a significant and positive association between competitive intelligence practices and organizational performance of bakery firms as depicted by a p value of 0.000. The coefficients for product intelligence, technology intelligence, process intelligence and market intelligence were statistically significant and positive The study recommends that bakeries should therefore explore other areas of product intelligence such as focusing on the customers' concerns for health and wellness and incorporating such elements in production to retain the customers. There is also need to invest in research and development which remains fully untapped to improve on products, processes and the market structures to improve the performance of bakeries in Nakuru county.
Keywords: Competitive Intelligence Strategies, Performance of Bakery Firms

I.   Introduction

A. BACKGROUND OF THE STUDY

Modern firms are experiencing intensified competitiveness brought about by technological advancements, globalization, social economic factors and reduced product cycle which has intensified competition (Ngugi&Muthama, 2012). Adverse competition reduces the level of productivity in an industry hence poor firm performance (Assefa, Meesters& Hermes &2010). Whereas Al-Rfaou (2012) documented a positive association between competition and performance, a negative association is inevitable especially in competitive industries (Odhiambo, Musyoki&Kibera, 2015). The dynamism and complexity of the business environment occasions managers toadopt strategic management practices which will place the firm strategically in the competitive business environment hence superior firm performance.The outlook of the bakery industry is usually positive, with global sales expected to grow at an annual compound growth rate (CAGR) of 6% to a value of $521 billion in 2020 (Farrelly&Mitchell, 2020). Biscuit and bread remain dominant categories, while pastries and cakes emerge as the fastest growing. Regionally he industry's growth is driven by increased consumption in emerging and developing markets whereas in mature markets, demand for traditional bakery products declining as the demand sales of healthy baked products with natural and organic ingredients grow.

In the last five years, many bakeries have sprung up in Kenya. This industry growth is fueled by increases in customer spending, increases in disposable income, higher customer spending, increased need for convenience and affordable price (Martínez-Monzó&Garrigos, 2001). In a retail bakery design context, baked products' shelf life is short and highly deteriorated by temperature, water activity, pH and contamination levels. The bakery production and supply chain is faced by risks such as temperature abuse, transport delays/ breakdowns, lack of traceability, cross contamination and failure to honor payments (Srivastava, 2015). In

2019, the manufacture of bakery products was classified as one of the dominant industries contributing 3.18% of the manufacturing sector. During this period, bread production increased by 3.9% emerging as the most improved product (Economic Survey, 2020). However, the manufacture of bakery products declined by 3.5% in 2020 compared to a growth of 4.5% in 2019(Kenya Economic Survey, 2021). Biscuit production declined by 13.6 thousand tones in 2020.

Regardless the strategic framework adopted by the firm to manage the business, competitive intelligence remains one of the most effective competitive strategy. Competitive intelligence lays more emphasize on engaging in legitimate activities as opposed to executing the task the right way. Competitor scanning seeks to advance a roadmap of the type of strategy initiatives to be taken by each competitor, possible response by every competitor to counter the strategic moves made by competitor and the likely reaction of each competitor to environmental paradigms which might occur.

Competitive intelligence can be perceived as both a product and process. According to Yap, Sapuan& Rashid (2011), as a process, CI is described as a set of ethical and legal procedures for collecting, organizing, analyzing and distributing findings regarding competitors, clients, suppliers, the firm and business surrounding that can influence the plans, decisions as well as operations of the firm. Competitive intelligence refers to information related to the competitor's present as well as future behavior, customers, suppliers, market and technologies, governmentand the overall businesssorrounding (Wright, Fleisher&Eid, 2009). Similarly, the marketing environment is changing rapidly due to dramatic shifts from local to national or global marketing and price to non-price competition and so there is need for real time market information.

As incomes increase, buyers become increasingly aggressive in their choices of goods and services and thus companies must turn into marketing intelligence to predict the responses of buyers to different features, styles and other characteristics (Kelly, 2009). Conventional knowledge designates that organizational performance depends on the entities' capability and the proprietors technological intelligence to establish technical threats in the in the external environment and developing strategies aimed at ensuring organizational performance (Muthama&Ngugi, 2012).

B. RESEARCH PROBLEM

The baking sector has witnessed slow growth in the previous five years mainly due to changes in consumer preferences and competition. The industry has been one characterized by emerging bakery stores operating at retail, wholesale and in-store level threatening the survival of the existing ones (Purlis, 2011). Similarly, the demand for traditional loaves has been declining causing more problems for large bakery firms that tend to specialize in loaf production. On the other hand, small artisan bakeries have proven to be increasingly popular with consumers. Nonetheless, industry revenue has largely stagnated over the years rising at a compounded annual rate of 0.1% over the last five years The bakery product retailing revenue 2015-2020 has decline at a compound annual rate of 2.6% (Global bread and Bakery Production, 2020). The Bakery industry will be given its significant contribution to the manufacturing sector (3.8%) and the economy at large. The study finds Nakuru a suitable context given its recent endorsement to a city status hence high prospects of the baking industry in spurring the growth of the yet to be chartered city.

Several studies have been documented both locally and globally on competitive intelligence. Globally, Sapahvand, Nazarpoori&Veisi (2016) explored the effect of CI on performance through orientation in the city of Sanandaj. The results revealed that CI significantly and positively influences organizational performance. Wright, Bisson & Duffy (2013) examined CI and use of information technology by Turkish SMEs. The results revealed significant improvements on performance attributed to diagnostic technology framework. Yap, Rashid &Sapuan (2012) delved into competitive intelligence and performance of Malaysian public quoted companies. The findings revealed that firms with formal versus those with informal competitive intelligence recorded better performance.

In Kenya, Muiva, (2001) carried out an investigation on the application of CI in the Pharmaceutical Industry in Kenya. A study by Kipkorir, (2001) delved into CI practices by Kenyan FM radio stations. Similarly, Wahome (2012) explored competitive intelligence practices adopted by Safaricom Limited while a research by Atako (2013) examined the impact of CI on performance of Old Mutual Kenya.

The above studies were undertaken on other institutions but not bakeries. The study thus sought to fill the existing knowledge gap by exploring the effect of competitive intelligence practices on performance of bakeries in Nakuru County, Kenya. This study will help bakeries to remain competitive and profitable amidst the stiff competition prevailing in the baking industry.

C. RESEARCH OBJECTIVES
a. General Objective

The study's broad objective was to determinethe effect of competitive intelligence practices on performance of bakeries in Nakuru County, Kenya.

b. Specific Objectives
  i.   To examine the effect of product intelligence and performance of bakeries in Nakuru County?
 ii.   To analyze the impact of process intelligence vary the performance of bakeries in Nakuru County?
iii.   To examine the effect market intelligence and performance of bakeries in Nakuru County?
 iv.   To explore the impact of technology intelligence affect performance of bakeries in Nakuru County, Kenya?

II.   Literature Review

2.2 THEORETICAL REVIEW
a. RESOURCE BASED VIEW
        The RBV was proposed by Penrose 1959 and emphasizes on management and the essence of firm resources. According to the theory, competitiveness can be achieved through provision of superior value to clients. The theory argues that the uniqueness in asset and capabilities may only prevail for some timeframe given that not all asset is versatile and therefore a company may possess the capacity to transform the assets into use depending on the ability to nature its intrinsic capabilities to become competitive (Gimeni, 2009). This applies to a company with diverse resources including capital and labour which competitors deem hard to beat hence a competitive edge by the firm (Gimeni, 2009).
        The RBV argues that firms with superior organizational designs are perceived to be more successful since they have remarkably lower costs, superior products and higher performance (Barney&Pateraf, 2003).It has been argued that the type of information processing systems determines whether it is a source of sustained competitive edge. According to Hayes and Wheelwright(1984), information processing systems, for instance computers, on their own cannot be a fount ofcompetitive advantage, as their acquisition can be across markets (Barney, 1986a).On the contrary, as Barney (2001) argues, continued competitive advantage can be achieved through an information processing system that is profoundly entrenched in a firm's formal and informal management decision-making process.
        Critics have questioned the generalizability of the RBV of the firm. Gibbert (2006) contends the concept of resource exclusivity derived from heterogeneity and immovability blending, does not give room for any potential unlimited application what Kraaijenbrink, (2010) refer to as "ex definition". Connor (2002) posits another version of critique that the RBV is exclusively applicable to big firms with extensive market command; this is not the case with smaller firms whose SCA cannot be established on their immovable assets and hence placing them outside the RBV boundaries. Connor's argument however becomes inconsequential when intangible resources, which may give small firms a competitive edge, are considered. Miller's (2003) submits SCA can only be generated by resources that are hard to obtain. This may imply only those entities that possess VRIN attributes of assets can gain and make use of surplus assets, or else business rival would obtain them effortlessly. This, however, does not make RBV extremely wanting since its scope is inclusive of the distinct resources and competences of the entrepreneurs that formed the business entity and therefore is applicable to new firms. RBV only needs to make it explicit that the 'rules of the game', as Barney (2002) puts it, in an industry stay relatively fixed.
        The RBV is important in informing this research since it enables the firm to deliberate on how best to plan and allocate resources based on research and forecast of future opportunities and risks hence ensuring sustainability. The theory thus views information and competitive intelligence capabilities a crucial resource of the firm. The study also upholds the assumption that the organization's resource capabilities determine ability to seek for information which will inform business decisions.

b.DIFFUSION OF INNOVATION THEORY (DIT)
        The DIT was founded by Everett Rogers in 1962. The theory explains the rate at which new technological ideas are spread. The theory's underlying assumptionis that diffusion research depend on the circumstances which either decreaseor increase the probability that a new product or idea will be embraced by the members of a given society. Diffusion is the process through which new innovations are conveyed through new channels over a given timeframe. Companies exists in environments that are constantly permeated by new technologies. The incorporation of new technologies into operations and service offerings has significant impact on how companies attain and sustain competitiveness. Technology changes transform the design of products, the value creation process and the competitive environment of the company (Tiwana et al. 2010). Diffusion innovation theory explain the essence of technology intelligence in exploiting the technological opportunities that are viewed as an avenue of competitive advantage (Sahim, 2006).
        For innovation process to realize its full potential, themarket should purchase the final service or product. This compels the innovating company to collect diverse information regarding the customer's needs or increase the demand in the market. The search for information entails search for inside or outside information to advance innovative product fulfill a market demand (Burgeman& Sayles, 2004)). The innovation diffusion

process occurs while individuals engage in multiple actions that influence decisions. Innovation is viewed as a company's core value creation capacity and a vital competitive tool (Sandvik&Sandvik, 2003). The innovation diffusion theory covers five phases; knowledge, pursuance, decision, implement and confirm. Innovation decisions are made when persons are aware of innovations and understand its gains. Decision signals when the unit decides to reject or adopt the innovation whereas confirmation manifests when the innovation either accepted or rejected (Rodgers, 2004).

Technology intelligence enables a company to respond to threats from rivals and explore the opportunities emerging from technological paradigms. It is anchored on technological scientific and technological developments and can advance information opportunities and threats (McGonagle&Vella, 2002).The theory is applicable o the investigation since the information conceived through research and innovation require a mechanism for integration and absorption into business processes to enhance efficiency. Innovation diffusion enables the organization to leverage on the synergies of research which are deployed to better coordinate the processes and activities of organization to attain competitive advantage. The theory further informs the way new technological innovations migrate from creation to use.

B. EMPIRICAL LITERATURE
A. PRODUCT INTELLIGENCE AND PERFORMANCE

McFarlane, Giannikas, Wong, & Harrison (2013) undertook a theoretical evaluation on product intelligence and its applicability in industrial control. The analysis sought to accord the customer with more control regarding the processing of a purchase by incorporating technologies that enableintensified tracking, on the manner the good is produced, store and transported. The study found that engagement in product intelligence was motivated by specific business driven needs such disconnect between material as well as information flow in the entire supply chain. The study concluded that the acceptance of product intelligence was faced with barriers including economic viability, risk management, cultural acceptability, and control after point of sale. The study took a theoretical approach to analyze the need for product intelligence for business survival in the highly dynamic business environment.

Serge & Erik (2007) examined the nexus between product intelligence and customer satisfaction. The study used a literature analysis approach augmented with interviews from practitioners to conceptualize product intelligence and customer satisfaction. The results reveal that product intelligence leads to higher customer satisfaction.Subsequently, it can be argued that factors related to product diversification such as new product launching and using support technology for instance internet ought to be anchored within stipulated strategic model which integrates the principle of relationship marketing, study only considered one aspect of performance (customer satisfaction) leaving asideother performance measures and therefore the findings were not conclusive.

McFarlane, Giannikas, Wonf and Harrison (2012) delved into the evolution of intelligent products in the supply chain. A decade ago, theproduct intelligence model was launched to augment supply chain whereby product were key opposed to the organization that made the delivery. The study analyzed the developments in the business environment that increase the prospects for deployment of intelligent product approach.The findings revealed that technical developments such as IoTpromise to provide instruments suited to the intelligent product systems. Transition towards full adoption of product intelligence was hampered by factors such as technical feasibility, economic viability, operational practicality and cultural acceptability. The emphasis of the study was more inclined towards evolution of products a ignoring the role of information in informing product advancements.

Moneme (2013) CI and product development in designated pharmaceutical companies in Nigeria's Anambra state. Information were retrieved from primary fronts and the principal component technique applied for data analysis. The study's findings found a significant association between CI and product development through provision of strategic information that will enable pharmaceutical companies to meet the customer's needs. There exists a contextual gap since the study performed in the sector and not the food sector where the bakeries fall.

b. PROCESS INTELLIGENCE ON THE PERFORMANCE

Arefin, Hoque&Bao (2015) examined the effect of process intelligence on organization's effectiveness. The sample constituted 225 organizational units from Bangladesh where data on the process intelligence structure and possible impact on organizational effectiveness was collected and analyzed using the partial least squares technique. The outcome revealed that organizational factors including processes and strategy positively influence organizational effectiveness and that business intelligence systems partially mediate the role of process intelligence on organizational effectiveness. The study concludes that process intelligence is a crucial antecedent for effective organizational performance. There exists a contextual gap as the study as conducted abroad and may not reflect the local scenario.

A Study by Elbashir, Collier, &Daven (2008) examined the effect of business intelligence system, the association between business processes and performance of the firm. The study uses perception-based measurements drawn from literature since most benefits drawn from business intelligence systems including business process benefits are qualitative and abstract since most data is confidential thus not available. The list of measurements was prepared guided by Porter's framework. Data collection targeted large sample field survey where the respondents were identified through purposive sampling to pick 1873 managers from 612 organizations. The results recorded a strong nexus between process intelligence and performance.

Bor(2013) explored the degree to which CIP impact the attainment of competitive advantage of Kenyan commercial bank. The research employed the case study approach to aim at obtaining comprehensive information on the degree to which CIP enable forms to attain competitive advantage. The results showed that KCB hasembraced technology intelligence, knowledge management practice, market intelligence practices and financial product intelligence to a great degree and supports the identification of new markets and effective ways to fulfill the needs of new markets. The survey deduced that CIP adopted by KCB has have earned it distinctive competence and made it a market leader.

c. MARKET INTELLIGENCE ON THE PERFORMANCE

Rotich (2016) undertook a study on marketing intelligence on the performance of bank assurance among Kenyan financial intermediaries. The survey employed thecross-sectional descriptive design targeting all the 26 Kenyan commercial banks which had adopted bank assurance by the end of 2015. The survey employed primary data through gathered through questionnaires. The study established that banks mostly adopted new methodologies to improve customer value as a marketing intelligent dimension. The study further established that marketing the least employed marketing intelligence by banks was conducting pilot tests to gather data on pilot client preference and using market information systems to collect data and investingin R&D to explore new ways of meeting client needs. The research focused on the financial sector and not the food and retail sector.

Hussein, Akhtar and Shah (2016) delved into the association between market structure and performance using the conceptual approach. The findings revealed that adopting marketing inclination or oblige and open system which enables them to exhibit dynamic relationship with the external environment. It designed in a manner that market inclination ensures achievement of sustainable competitive advantage in companiesvia effective organizational assets. The research took an empirical review design which is subject to various assumptions that will be addressed by the study by analyzing the effect product intelligence on performance in the bakery sector. In a study by

Mbole&Nyariki(2016) explored the impact of market investigation on sales performance among French bean producers in Machakos County, Kenya. 120 farmers were selected using the simple random sampling. Descriptivve statistics results revealed that only 30 per cent of the 120 selected French bean farmers had implemented market intelligence thus leaving the majority to broker. The findings revealed that farmers who sold their produces to exporters registered higher margins that those that sold to brokers. There exists a contextual gap on grounds that the scrutiny examined an agricultural product in a different geographic horizon (Machakos).

Navarro-García, Villarejo-Ramos and Barrera-Barrera(2013) examined the impact of marketing intelligence on the associations between market distance recognized by export managers(adaptation vs standardization) and performance of exports (increase in foreign sales and customer satisfaction) among Spanish firms.The results from the empirical study of 212 sampled Spanish firms allude a positive association between marketing information and company performance. The findings were generalized from a national aggregate level and not at the firm level.

d. TECHNOLOGY INTELLIGENCE PRACTICES AND PERFORMANCE

Paul, Hannah & Linda (2016) explored the impact of technology driven CI on firm performance of companies quoted at the NSE. Theexamined all the sixty-four firms quoted at the NSE. Inferential and descriptive statistics was used to analyze thedata. The outcome indicated that technology focused CI had a positive and significant association with performance of companies quoted at the NSE and thus companies should increase the utilization levels of technology intelligence to make accurate forecasts in the environment and strategically tackle unprecedented situations. The study was conducted at the Nairobi Stock Exchange thus there exists a contextual gap.
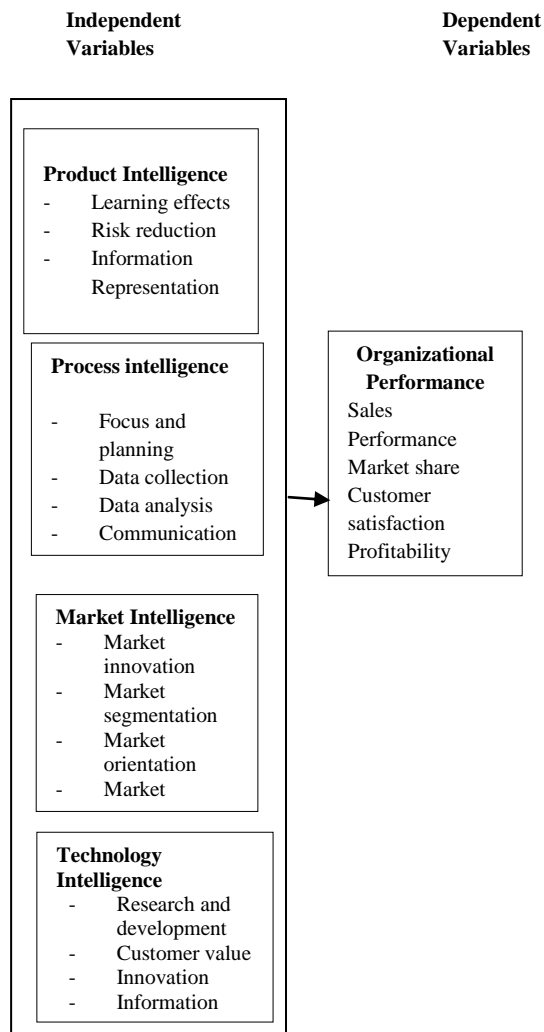
Fatemeh& Habib (2014) did a survey on competitive intelligence, technology intelligence and business performance. The findings indicate that there exist a robust nexus between technology intelligence and performance in industrial city of Ardebil in relation to market, customer dimension and competition. In the research, technology was used to moderate the impact of CI on performances yet in essence, the variable plays a direct role. Ftatteneh, Mehrdad& Mohammad (2015) delved into business intelligence, information technology

and performance. Research findings indicated that technology intelligence has positive and strong effect on the organization's performance.

Asikhia, Magaji&Muritala (2019) examined technology intelligence and organizational performance and the moderating role of process innovation in the Insurance industry. It was established that there exists a gap in the nexus between technological intelligence and enterprise performance. The survey was conducted in the insurance industry and thus the findings cannot be generalized.

Wright, Madden and Fleisher (2008) analyzed the attributes of competitive intelligence practice in research and development steered companies in the UK pharmaceutical sector. The findings revealed that the status of CIP in the industry was both embryonic and fragmented. The backdrop of those engaging in competitive intelligence had extensively come from marketing, technology R&D and information technology. The findings were subjective and recommended the channeling of competitive intelligence efforts to marketing and research and development departments. Studies should be carried out in other contexts to ascertain if the same facts hold.

c. CONCEPTUAL FRAMEWORK

Independent Variables

Dependent Variables

Product Intelligence
- Learning effects
- Risk reduction
- Information Representation

Process intelligence
- Focus and planning
- Data collection
- Data analysis
- Communication

Market Intelligence
- Market innovation
- Market segmentation
- Market orientation
- Market

Technology Intelligence
- Research and development
- Customer value
- Innovation
- Information

Organizational Performance
Sales
Performance
Market share
Customer satisfaction
Profitability

III.   METHODOLOGY

The study employed a descriptive design. The explanatory design is considered suitable when the constructs under study have not been researched before, demands priorities, requires more detailed explanations, provide a better-researched model and explain aspects of a study in a more detailed manner (Kothari, 2014). The descriptive explanatory design was deemed as a suitable blueprint since application of competitive intelligence and performance among bakeries remains limited and the approach provided a deeper understanding of the constructs and its application in the baking industry.The study's target population was drawn from all the formal licensed bakeries in Nakuru town. There are 35 licensed bakeries in Nakuru County (Nakuru County trade licensing department (2020).Respondents were drawn from various designations namely; General managers,

Sales coordinators, Marketing manager and sales representative.The study used the census survey.Census was used to collect data from the all the 35 bakeries in Nakuru County since the population is relatively small to obtain the most accurate information. A questionnaire was used for data collection. The primary data was appropriate in depicting actual scenario between the exogenous and predictor variables. The descriptive attributes were presented inform of percentages and frequencies. Inferential statistics was conducted by the investigator in order to establish how competitive intelligence practices influence performance of bakeries in Nakuru county. The independent variables were product intelligence, process intelligence, marketing intelligence and technology intelligence while organizational performance was the endogenous variable.
The resultant equation was;

$$Y = \beta 0 + \beta X_{1} + \beta X_{2} + \beta X_{3} + \beta X_{4} + \varepsilon$$

Where:
Y= Performance
c0= Constant (coefficient of intercept)
X_1= Product intelligence
X_2= Process intelligence
X_3= Marketing intelligence
X_4= Technology intelligence
ε= Error term
β_1........ β_4 = Regression coefficient of the four independent variables.

IV. RESULTS FINDINGS AND DISCUSSIONS
A. DESCRIPTIVE STATISTICS
The study sought to measure the degree to which the different competitive intelligence practices have been adopted by Bakeries in Nakuru County.
a. PRODUCT INTELLIGENCE PRACTICES AND ORGANIZATIONAL PERFORMANCE
The results on product intelligence practices an aspect of competitive intelligence are presented in Table 1

Table 1: Product Intelligence

	N Mean Std. Deviation
Firm has significantly enhanced its risks profile by investing in product intelligence	98 4.255 1.86527
Through product information, firm has been able to respond to customer product needs	98 3.9082 .82595
Notable product advancements have been made by the firm through progressive learning	98 3.8347 1.26655
The firm collects information from customers to guide the development of new bakery products	98 3.8163 1.02893
The firm invests in new product development to capture shareholder desire to invest in new markets	98 3.7755 .85591
Average	**98 3.918 0.96852**

From the investigation presented in Table 1 above, majority of the respondents agree that the firm has significantly enhanced its risk profile by investing in product intelligence (M-4,255, SD- 0.865). Similarly, the respondents concur that through product information, the firm has been able to respond to customer product needs (M-3.9082, SD-0.8259). The attributes, notable product advancements have been made by the firm through progressive learning and the firm collects information from customers to guide the development of new bakery products follow at a close range as shown by means and standard deviations of (M-3.8163, SD- 1.028) and (M-3.816, 1.029) respectively. Finally, the respondents agree to some extent that the firm invests in new product development to capture shareholder desire to invest in new markets (M-3.775, SD- 0.8559). Overall, competitive intelligence as a practice has been largely adopted by bakery firms in Nakuru County as depicted by a grand mean of 3.918. The results imply that bakeries acknowledge the role of product intelligence as an antecedent of performance.

b. TECHNOLOGY INTELLIGENCE PRACTICES AND ORGANIZATIONAL PERFORMANCE
The results on technology intelligence practices and aspect of competitive intelligence are presented below;

Table 2.Technology Intelligence

Technology Intelligence	N Mean Std. Deviation
Technology intelligence has enabled the firm to develop new products at low costs	98 4.2959 1.35433
Firm has overcome past weaknesses through application of new technologies	98 4.0306 .90193
Information quality is a key factor when introducing any change in the product value chain	98 3.8980 .68096
Most innovation initiatives of the firm are driven by the desire to increase customer value	98 3.5714 .84950
The firm engages in research and development to ensure product improvement and efficiency in production.	98 3.1327 .95667
Average	**98 3.78570 .94868**

The results presented in Table 2above reveal that technology intelligence has enabled bakery firms to develop new products at low costs (M- 4.295, SD- 1.354) and firms have overcome past weaknesses through application

of new technologies (M-4.031, SD-0.9020) as this were the top two ranked attributes. Additionally, the respondents agree that information quality is a key factor when introducing any change in product value chain (M3.8980, SD- 0.681). The respondents were also certain that most innovation initiatives are driven by the desire to increase customer value (M-3.5714, SD- 0.849) while a significant proportion were unsure as to whether the firm engages in research and development to ensure product improvement and efficiency in production (M- 3.133, SD- 0.957).

c.PROCESS INTELLIGENCE PRACTICES AND ORGANIZATIONAL PERFORMANCE
The results on market intelligence practices a component of competitive intelligence are presented in Table 3

Table 3: Process Intelligence

Process Intelligence	N Mean Std. Deviation
The firm constantly develops and implement new process technologies to become competitive	984.0408.82385
The firm recruits the best talents to boost organizational performance	984.0000.84950
Firm has realized benefits associated with process capture and commitment	983.8510.91237
The firms has reaped benefits associated with process capture commitment	983.73471.19751
The firm has capacity to acquire, assimilate and transform and exploit technically related resources for process innovation purposes	983.23061.23692
Average	**983.77141.00403**

The results above demonstrate that process intelligence is a common practice among bakeries in Nakuru as depicted by a grand mean of 3.7714. Particularly, most participants were elated that the firm constantly develops and implements new process technologies to become competitive and that the firms recruits the best talents to foster organizational performance as shown by means of 4.041 and 4.000 respectively. On the other hand, a significant proportion construe that the firm has realized the benefits associated with process capture and commitment (M- 3.8510, SD- .912) while some hold the view that the firms have reaped benefits associated with process capture commitment (M-3.735, SD- 1.198). Last but not least, majority of the respondents were skeptical as to whether the firm has the capacity to acquire, assimilate and transform and exploit technically related resources for process innovation purposes (M-3.2306, SD- 1.237).

d.MARKET INTELLIGENCE PRACTICES AND ORGANIZATIONAL PERFORMANCE
The results on market intelligence practice an aspect of competitive intelligence are shown in Table 4 below

Table 4: Market Intelligence

Market Intelligence	N MeanStd. Deviation
The firm analyzes market opportunities available in the environment	984.326 1.00394
The firm involves all employees in gathering information from the market for competitiveness	984.173 .78682
The firm analyzes the competitive risks in bakery market	983.887 .92928
Our company analyzes the strengths and weaknesses of other channels of bakery distribution	983.795 .84900
The firm focuses on identifying ways to modify current marketing strategy	983.377 1.35095
Average	**983.801 0.97039**

The results above imply that the market the market intelligence component is considered as an important function and has been implemented by most bakery firms in Nakuru as shown by the outstanding mean of 3.801. Precisely, the standard deviations and means were; the firm analyzes market opportunities

available in the environment (M-4.326, SD- 1.00), the firm involves all employees in collecting data from the market for competitiveness (M- 4.173, SD- 0.786), the firm evaluates the competitive risks in bakery market (M- 3.887, SD- 0.929), our company analyzes the strengths and weaknesses of other channels of bakery distribution (M- 3.795, SD- 0.849), the firm is pivoted on exploring ways to modify the current marketing strategy (M-3.377, SD-1.351) and the firm has a marketing information system to collecting data (M-3.246, SD-0.90234). From the findings it is clear that firms need to engage in continuous market intelligence through various practices to maintain superior organizational performance.

B. ORGANIZATIONAL PERFORMANCE
The descriptive statistics for organizational performance are shown in Table 5 below

Table 5: Organizational Performance

	N	Mean	Std. Deviation
The firm has registered consistent growth in market share over time	98	3.7143	1.00514
The sales volume of the firm has been on an upward trajectory over the last three years	98	3.0510	.87782
The firm's profit margins have been on the rise on the last three years	98	3.5204	1.15972
There has been increased adoption of technology in the firm in the last three years	98	3.6735	1.05298
Customers have reported increased customer satisfaction over the last three years	98	3.9837	1.16298
Average	**98**	**3.5886**	**1.05173**

The findings on performance show unique trends with respect to the different measures of performance. While the respondents agree with some statements such as the respondents have reported increased customer satisfaction over the last three years (M-3.984, SD- 1.163) and there has been increased adoption of technology over the last three years (M- 3,674, SD- 1.05), most fail to approve that the sales volumes of the bakeries have been on an upward trajectory over the last three years (M- 3.05, SD- 0.887). Other aspects such as the profit margins have been on the rise and consistent growth in market share recorded moderate responses. On average, the performance of bakeries in Nakuru County has been fairly good as demonstrated by a mean of 3.588.

C.REGRESSION

Table 6. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.606[a]	.367	.340	.71340

a. Predictors: (Constant), product intelligence, technology intelligence, process intelligence, market intelligence

From the model summary, the coefficient of determination (R^2) is 0.367. This means that 36.7% of change in performance at of bakeries in Nakuru County attributed to the studied competitive intelligence practices. The remaining 63.3 percent variation in performance is due to other factors not captured in the model. Further, the variation between R square and the adjusted R square is marginal (0.027) implying that the model is robust and consistent.

Table 7. Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.414	4	6.854	13.466	.000[b]
	Residual	47.331	93	.509		
	Total	74.745	97			

a. Predictors: (Constant), product intelligence, technology intelligence, process intelligence, market intelligence

ANOVA is computed to establish whether independent variables reliably predict the dependent variable. At 95% percent confidence level, the p value was 0.000 implying that the model adopted for the study is significant. Therefore, the selected competitive intelligence variables can used reliably, predict performance of bakeries in Nakuru County. The reliability of the model if further affirmed by the calculated F value of 13.466 which is greater than the F critical of 2.45. This finding is supported by Sapahvand, Nazarpoori&Veisi (2016) that competitive intelligence significantly and positively influences organizational performance.

Table 8. Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
1(Constant)	1.715	.634		2.707	.008
Product Intelligence	.181	.064	.256	2.839	.006
Technology Intelligence	.094	.071	.430	3.027	.003
Process Intelligence	.213	.083	.301	2.566	.012
Market Intelligence	.532	.083	.547	6.417	.000

a. Dependent Variable: **Organizational Performance**

From the coefficients Table, the regression equation becomes:

$Y= 1.715+ 0.181X_1 + 0.094X_2 + 0.213 X_3 + 0.532X_4$

Organizational performance of bakery firms would be held at 1.715. A unit change in product intelligence would result to 18.1% improvement in organizational performance of bakeries. Similarly, a unit change in technology intelligence will yield 9.4% positive and significant improvements in performance. Additionally, if process intelligence is varied by one unit, it will trigger 21.3 percent positive and significant changes in organizational performance. Finally, changing market intelligence by one unit translate to 53.2 percent improvement in performance of bakery firms.

D.HYPOTHESIS TESTING

Ho[1:] Product intelligence has no statistically significant impact on performance of Bakeries in Nakuru County

The results point out to a positive and statistically significant association between product intelligence and performance of bakery firms as shown by a regression coefficient of 0.181 at a p value of 0.006 which is < 0.05 threshold. Therefore, we reject the null hypothesis and conclude that product intelligence has a significant effect on performance of bakery firms in Nakuru County. These findings concur with Surge & Eric (2017) concluded in their study that product intelligence results to higher customer satisfaction and McFarlane et al., (2013) who reported that product intelligence is crucial for business survival in the highly dynamic business environment. Similarly, the results concur with Moneme (2013) who found a significant association between product intelligence and performance on grounds that having strategic information about the product enabled pharmaceutical companies to produce goods that meet the customer's needs.

Ho[2:] Process intelligence has no statistically significant effect on performance of Bakeries in Nakuru County

The results depict a positive and significantnexus between process intelligence and performance as shown by a regression coefficient of 0.094 at a p value of 0.003 which is < 0.05 significance level. The study thus rejects the null hypothesis and upholds that process intelligence has a significant effect on bakery firms' performance in Nakuru County. These findings concur with Arefen, Hoque&Bao (2015) who documented that process intelligence is an important catalyst for effective organizational performance. The results also affirm the outcome by Elbashir, Collier, & Daven (2008) there is a strong nexus between process intelligence and performance and Korotina (2015) who suggested that real-time process intelligence translates to process performance needed by companies to survive in the highly dynamic business environment.

Ho[3:]Market intelligence has no statistically significant effect on performance of Bakeries in Nakuru County

According to the findings, there is a positive and statistically significant relationship between market intelligence and performance of bakery firms as shown by a regression coefficient of 0.213 at a p value of 0.012 which is < 0.05 significance level. The study thus reject the null hypothesis and affirms that market intelligence has a significant effect on performance of bakery firms in Nakuru County which is in line with Navarro-Garcia et al., 2013 who reported that market intelligence has a positive impact on organizational performance. The findings further agree with Kelly (2009) who suggested that companies must turn into marketing intelligence to predict the responses of buyers to different features, styles and other characteristicsto realize superior performance. However, the findings contradict with Rotich (2016) who alluded that marketing intelligence was the least technique deployed by banks to realize performance.

Ho[4:]Technology intelligence has no statistically significant effect on performance of Bakeries in Nakuru County

The results indicate that there exists a positive and statistically significant correlation between technology intelligence and performance of bakery firms as shown by a regression coefficient of 0.532 at a p value of 0.0 which is < 0.05 significance level. The study thus rejects the null hypothesis and maintains that technology has a significant effect on performance of bakery firms in Nakuru County. This results concur with Wright, Bisson & Duffy (2013) who argued that the use of information technology improve performance and Muthama and Ngugi (2012) who reported that organizational performance depends on organizational capability and the owner's technological intelligence to establish technical threats and opportunities in the in the external environment and

coming up with strategies aimed at ensuring organizational performance. Additionally, the findings align with those of Paul, Hannah & Linda (2016) who indicated that technology focused competitive intelligence had a positive and significant association with performance of companies quoted at the NSE.

V. CONCLUSIONS AND POLICY RECCOMENDATIONS

a. CONCLUSIONS

The conclusion of the study based on the specific objectives are discussed below;

The study found a strong positive link between product intelligence and performance. In response, bakeries were found to have heavily invested in product development in new areas, timely response to customer needs, progressive learning and constant collection of data to guide the development of new bakery needs.

According to the results, investing in technology intelligence was found to have a significant impact on performance. Bakeries therefore undertook technology intelligence to explore new technologies that can be used to overcome past weaknesses and introduce changes in product value chains. For most bakeries, technology intelligence had resulted to development of new products at lower costs. Despite the gains, the level of research and development was found to be wanting yet this function was crucial for improvement and efficiency in production.

The results document a positive and significant link between process intelligence and performance of bakeries. Consequently, bakeries have made efforts to recruit the best talents to help in the development and implementation of new technologies. According to the findings, bakeries appreciate that the realization of process capture and commitment and commitment require the capacity to acquire to exploit technically related process intelligence which was found to be limited.

Based on the results, market intelligence has a positive and significant impact on organizational performance. This drives bakeries to engage in constant search of information to analyze market opportunities regarding the customers, distribution channels which are crucial for modification of current market strategies for realization of superior performance. The findings however revealed that bakeries were yet to fully implement market information systems for seamless collection of data.

b.   RECOMMENDATIONS

From the conclusions, it is undisputed that product intelligence drive excellent organizational performance. Bakeries should therefore explore other areas of product intelligence such as focusing on the customers' concerns for health and wellness and incorporating such elements in production to retain the customers. Continuous benchmarking with international brands will enable the firm to produce quality products that can compete effectively and keep the bakeries sustainable. The study concluded that product intelligence is a continuous process hence continuous review of the current business model will be beneficial in making necessary adjustments and remaining competitive.

The bakeries' research and development capacity was found to be undeveloped. In addition to devoting more investment to this functional area, bakeries should leverage on research and development facilities offered by the government, academic institutions and other partners by engaging in collaborations. The employees should also be empowered to be tech survey through workshops and trainings to be able to identify gaps across functions that need technological interventions. Borrowing efficient technologies from successful firms that can easily be integrated into the firms' system is also a means of survival

Given the impact on process intelligence on performance, bakeries should adopt the most effective processes that are not only cost efficient but also generate quality. Continuous review of current processes will enable bakeries to adopt steps that yield operational efficiency. Identifying new strategies will ensure that the firm operates optimally even during busy seasons. Taking advantage of new ideas and best practice in a manner that aligns with the existing model is an approach that should be considered by bakeries

Market intelligence was noted to be crucial especially in driving the sales of bakery firms. As such, bakeries must explore ways of increasing sales. The study recommends' the adoption of online channels of marketing and shopping to meet the needs' of the customers' who are seeking convenience and preference. Such approaches will be cost effective for the firm through elimination of intermediaries that reduce firm profits and increase customer cost. Feedback should also be sought from the community to understand areas of product improvement. Engaging in corporate social responsibility will also uphold brand superiority hence focus should be diverted to this function.

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