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Conrad Ochego Mogaka, Dr. Sammy Odari, Kenya and Dr.Wycliffe Arani

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CUSTOMER INTEGRATION AND COMPETITIVE ADVANTAGE OF FOOD AND BEVERAGES MANUFACTURING FIRMS IN KENYA

[1]*Conrad Ochego Mogaka
Ph.D. Candidate, School of Business and Entrepreneurship, Jomo Kenyatta University of Agriculture and Technology, Kenya.
*Corresponding Author's Email: mogakaconrad@gmail.com

[2]Dr. Sammy Odari
Lecturer, School of Business and Entrepreneurship, Jomo Kenyatta University Agriculture and Technology

[3]Dr.Wycliffe Arani
Lecturer, Faculty of Business and Economics, Multimedia University of Kenya, Kenya.

ABSTRACT

Purpose: The purpose of this study was to assess the effect of customer integration on the competitive advantage of food and beverages manufacturing firms in Kenya.

Methodology: A cross-sectional survey was used in this investigation. Managers from 270 food and beverage production companies in Kenya were targeted as part of the study. A sample size of 146 comprising of supply chain, procurement, operations and finance managers was obtained using two-stage sampling design. Cluster random sampling was utilized in the first stage to find 73 food and beverage production companies. In the second stage, convenience sampling was employed to choose two participants from among the 73 firms that had been chosen. Research questionnaires were used to collect primary data. The drop-and-pick approach, along with emailing the questionnaires, were used to obtain data. The quantitative and qualitative data were analyzed by utilizing descriptive statistics in SPSS version 28. Inferential analysis was carried out, with a focus on correlation as well as regression analysis, and also hypothesis testing. Tables were used to display the findings.

Results: Customer integration and competitive advantage of food and beverage manufacturing enterprises in Kenya had a positive significant association (R =.661, p =.000), according to the data. This meant that consumer integration boosted the competitiveness of Kenyan food and beverage manufacturers. Customer integration and competitive advantage of food and beverage manufacturing enterprises in Kenya were also shown to have a positive and statistically significant association (R =.661, R^2 =.379), according to the study. As a result, customer integration accounted for 66.1 percent of the variation in food and beverage manufacturing enterprises' competitive advantage.

Unique contribution to theory, practice and policy: While existing theory was validated, the study recommends that managers of food and beverages manufacturing firms should build procedures and policies that link to a superior understanding of the customer in order to meet their expectations. The study also recommends that the food and beverages industry regulators should devise policies that would allow food and beverage manufacturers to integrate with customers and thus help avoid losses that impact the efficiency of these businesses and eventually the economy as a whole. The study suggests that the government takes a more systematic approach to ensuring the growth and development of customer integration in Kenyan food and beverage manufacturing firms in order to maintain a competitive edge. Moreover, empirical research needs to be conducted to establish the effect of customer integration on the competitive advantage of other sub-sectors of manufacturing in the economy.

Keywords: *Customer Integration, Competitive Advantage, Early Customer Involvement, Customer Relationship Management, Integrated Problem Solving.*

1.0 INTRODUCTION

Customer integration is a key component of the process of supply chain integration that leads to the ability of a company to compete, generated by integrating the SC with its essential clients (Da Mota Pedrosa, 2012). As such customer integration has been proven to be an enabler for the efficient continuity and overall growth of a business process (Liu & Lee, 2018). Manufacturers may use the knowledge gained and consumer requirements to create goods that meet the needs of consumers. In the attempt to stay integrated with their customers, intense global competition and growing consumer demands have forced supply chains to constantly reevaluate their business process (Lii & Kuo, 2016).

By combining their front ends with their clients, integration of the business with its clients makes it highly informed about their customers (Flynn, Huo & Zhao, 2010). Customer integration is downstream integration of the supply chain. It is the outgoing collection of goods and services and the incoming set of data (Yu *et al.,* 2013) from consumers to suppliers. Customer integration contributes to the development of a customer relationship and hence a deeper and clearer understanding of the needs of customers. Customer incorporation includes involving the views of consumers in commodity manufacturing decisions (Zhao *et al.,* 2013). It also contains strategies and ways to strengthen communication between the manufacturer and the client.

The strategic capacity of the organization to recognize its customers ' needs and the degree of its dedication to satisfying those needs defines the level of its customer relationship (Lee, Seo & Dinwoodie, 2016). Closer customer relationships allow companies to become more receptive to the needs and desires of their customers. Moreover, good customer relationships can be used to increase operating performance, cost performance, and discourage new entrants (He *et al.,* 2014). Via CRM, a company is able to recognize and reward its most loyal clients via targeted marketing to maintain and grow its business. It is therefore easier to maintain clients (Al Shurideh, Alsharari & Al Kurdi, 2019).

Huo (2012), pointed out that customer participation has become an important strategy for organizational survival through early customer involvement in new product creation, because innovation can come from how companies communicate with consumers through obtaining customer perspectives, ideas, thoughts as well as knowledge; enabling customers to participate in improving existing products or services; and encouraging customers to participate in helping to improve product and service offerings. In the early phase of the NPD process, customer engagement is critical because it has a positive impact on customer satisfaction that can lead to improved company results (Danese & Romano, 2011) because new product success. Customer participation can also increase new product performance in the late stages of the new product development process (Zogaj & Bretschneider, 2012).

All the pillars which comprise the principle of customer integration are customer complaint management, relationships, and satisfaction (Li *et al.,* 2006). Customer integration is characterized as a collection of activities related to customer complaint management, long-term customer building relationships, and customer satisfaction enhancement (Flynn, Huo & Zhao, 2010). Integrating with consumers facilitates the exchange of data between them and the company. In addition, customer relationships enable the company to develop core competencies (Al Shurideh, Alsharari & Al Kurdi, 2019). Integration of customers means exchanging information between both the company and the consumer.

Due to a steadily increasing globalization, Kenyan manufacturers are facing intense competition from global and foreign firms (Muiruri, Ngugi & Kihara, 2021). In context,

Kenya's manufacturing sector GDP contribution has steadily decreased from 12.05 percent in the year 2011 to 7.61 percent in the year 2020 (KAM, 2022). The food and beverage subsector were the most affected in the Kenyan economy as its performance declined by 13.4% (KNBS, 2021). Moreover, Kenyan food and beverage firms are vulnerable to SC disruptions and challenges which are rooted in the lack of effective internal and external supply chain (Mideva & Moronge, 2019). As such, the disjointed nature of the food and beverages manufacturing subsector, presents a significant challenge in relation to performance and competitive advantage (Rejeb, Rejeb & Keogh, 2021). Companies are enhancing competitiveness by strategically utilizing cooperative relationships internally, with consumers (Abdullah, Mohamad & Thurasamy, (2017). Therefore, **the objective of this study** was to assess the effect of customer integration on the competitive advantage of food and beverages manufacturing firms in Kenya

2.0 LITERATURE REVIEW

Manufacturers may use the knowledge gained and consumer requirements to create goods that meet the needs of consumers. In the attempt to stay integrated with their customers, intense global competition and growing consumer demands have forced supply chains to constantly reevaluate their business process (Lii & Kuo, 2016). Customer integration is a key component of the process of supply chain integration that leads to the ability of a company to compete, generated by integrating the SC with its essential clients (Da Mota Pedrosa, 2012). Customer integration has been proven to be an enabler for the efficient continuity and overall growth of a business process (Liu & Lee, 2018). By combining their front ends with their clients, integration of the business with its clients makes it highly informed about their customers (Flynn, Huo & Zhao, 2010).

Customer integration is downstream integration of the supply chain. It is the outgoing collection of goods and services and the incoming set of data (Yu *et al.,* 2013) from consumers to suppliers. Customer integration contributes to the development of a customer relationship and hence a deeper and clearer understanding of the needs of customers. Customer incorporation includes involving the views of consumers in commodity manufacturing decisions (Zhao *et al.,* 2013). In addition, knowing consumer expectations will help businesses gain fresh ideas about solutions (He et al., 2014), thus increasing the likelihood of new product growth and success. Customer collaboration can also contribute to advantages in product innovation (Elvers & Song, 2016) and it also has a positive effect on the success of product innovation. Thus, the efficiency and reliability of the latest product produced can be enhanced through customer participation (Njagi & Muli, 2020).

The theory of social exchange dates back to 1958, when George Homans, the American sociologist, published a paper entitled "Social Behavior as Exchange." With exception of economic exchanges, an individual engaged in social exchanges should not expect an immediate gain, so he needs to trust in the other side's benevolence, which will oblige in the long run (Cropanzano *et al.,* 2017). While consumer engagement is important for social content in marketing exchange, relationship quality and relationship efficiency. The principles of relationship as well as exchange really aren't opposites; across relationships there is an exchange of goods, information and technology along with social exchange (Davis-Sramek, Hopkins, Richey & Morgan, 2020). Dwyer, Schurr & Oh, (1987), recognize the difference between partnership exchanges and discrete exchanges.

Furthermore, the principle of social exchange suggests that people only engage in an exchange when they expect their benefits from it to justify the cost of participation (Mandal,

2016). It means that the relationship between customer-suppliers is reciprocal and that there is an equal transfer of information including benefits. Nevertheless, given the lack of contractual commitments, there is no guarantee in the Social Exchange Theory for mutual benefits after investing expenses or assets (St. John *et al.*, 2016). Therefore, the goal of an exchange would be to maximize benefits and reduce costs in a given environment at the same time, resulting in a positive effect.

A central point of the theory of social exchange is that the transaction between the buyer and the seller is not equally successful under all circumstances under which the relationship must reconfigure its consistency in a highly unpredictable setting to overcome dramatic shift (Wei, Wong & Lai, 2012). While consumer engagement is important for social content in marketing exchange, relationship quality and relationship efficiency. The principles of relationship as well as exchange really aren't opposites; across relationships there is an exchange of goods, information and technology along with social exchange (Davis-Sramek, Hopkins, Richey & Morgan, 2020). Dwyer, Schurr & Oh, (1987), recognize the difference between partnership exchanges and discrete exchanges.

Customers are often regarded as secondary customers or co-producers and therefore, high customer participation, such as customer engagement, ensures that during a service meeting, customers present themselves mentally, cognitively, as well as emotionally. A customer is delighted of the organization they support and is positive and optimistic about the role they play. He/she is also influenced by the clients of the service, the business, the brand or the other clients. Absorption defines the client as being completely focused, fulfilled, and profoundly absorbed when performing his part.

This study explored the relationship between customer integration as independent variable which formed a unique topology for supply chain integration from literature reviewed especially from studies especially [Njagi & Muli, 2020]; and competitive advantage of food and beverages manufacturing firms as the dependent variable. This is illustrated in the figure below;

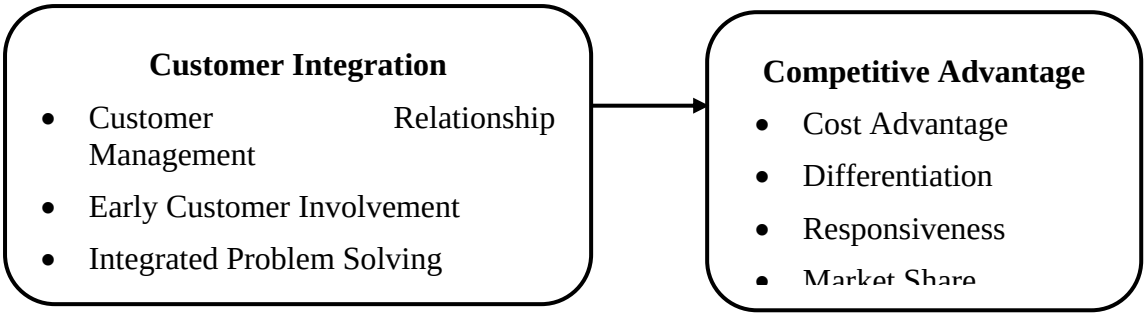

Figure 1: Conceptual Framework

Several studies on the upward physical flow indicate that customer integration is implemented to facilitate JIT delivery as well as postponement strategy (Nammir, Marane & Ali, 2012). Customer convergence with improved visibility would further allow participation in planning demand; alternatively, there would be massive inefficiencies in customer care due to the lack of data exchange from one end of the supply chain to the other (Elvers & Song, 2016). To enhance customer delivery efficiency, customer integration is arguably necessary. The value discipline of customer proximity may reflect demand-oriented logistics capabilities

such as delivery speed, delivery reliability, and target market responsiveness (Madhani, 2011). The design, development, implementation, and assessment of effective vendor-consumer partnerships, whether downstream or upstream of the supply chains, are all components of integrating with customers (Song, Ming & Xu, 2013).

Therefore, management of customer relationships (CRM) focuses not just on incoming customer relationships, as well as on outbound SCM customer relationships (Iriandini, 2015). Customer integration is about the ability to interact with the correct invoice delivery of the right goods and services to consumers locally and internationally at the right time, right place, and right quantity (Da Mota-Pedrosa, 2012). As a result, downstream integration is critical for manufacturing companies in many ways. Firstly, it can assist manufacturing enterprises in securing distribution networks for their goods, particularly in marketplaces with rising uncertainty (Ashenbaum & Maltz, 2017). Second, in the supply chain, it can provide a way to manage productivity gains and cost savings. Third, in relation to broad new revenue streams, downstream markets can deliver major advantages (Ashenbaum & Maltz, 2017).

Manufacturers have to broaden their concentration from continuous improvement to consumer allegiance and reconsider the significance of vertical integration in order to capture the value downstream (Guan & Rehme, 2012). An un-integrated business is known to be an organization in which the divisions or departments are not integrated and where each has its own information system independent of others (Misund, 2016).

3.0 METHODOLOGY OF THE STUDY

The study was conducted using a cross-section survey design. A cross-sectional survey design, according to Kothari (2017), aids in the formulation of hypotheses and the testing of association analyses between research variables. This survey included 270 food and beverage production companies in Kenya (KAM, 2020). The study used a two-stage sampling method. The Nassiuma formula was used to choose 73 food and beverage production enterprises from a list of 270 companies in the first round (2000). Convenience sampling was utilized in the second step to choose two respondents from each one of the participating organizations. As a result, the study's sample size was 146 participants from 73 Kenyan food and beverage production companies. Research questionnaires were used to collect primary data. The drop-and-pick approach, as well as emailing questionnaires, were used to obtain data. The quantitative as well as qualitative data was analyzed using descriptive statistics in SPSS version 28. Correlation analysis and regression analysis were used in the inferential analysis. Tables were used to show the findings.

4.0 RESULTS AND DISCUSSIONS

4.1 Descriptive Analysis of Customer Integration

The study participants were asked to indicate the extent to which they agreed with the effect of customer integration on the competitive advantage of food and beverages manufacturing firms in Kenya using the five-point Likert scale of 5= [SA] Strongly Agree, 4= [A] Agree, 3= [N] Neutral, 2= [D] Disagree, 1= [SD] Strongly Disagree). In table 1, the findings showed that the number of customers refereed to majority of food and beverages manufacturing firms' products has increased by at least 50% in the last three years ($\bar{x}$ = 3.529, σ = .5009). Moreover, majority of food and beverages manufacturing firms kept consumers satisfied by supplying a sensitive team of sales and support professionals ($\bar{x}$ = 3.500, σ = .5018). The findings showed that majority of food and beverages manufacturing firms are more responsive to dynamic customer needs ($\bar{x}$ = 3.504, σ = .4618).

In addition, the study established that majority of food and beverages manufacturing firms developed new products fitting consumer preferences ($\bar{x}$ = 3.326, σ = .4705). The findings also showed that majority of the food and beverages manufacturing firms did not develop routines for problem solving that allow for joint efforts ($\bar{x}$ = 2.362, σ = .4824). Additionally, the study established that majority of food and beverages manufacturing firms improved on customer analysis and segmentation ($\bar{x}$ = 3.541, σ = .4756). Further, the study established that majority of food and beverages manufacturing firms tracked customer's activities and managed their needs ($\bar{x}$ = 2.210, σ = .5048). Besides, the findings established that the number of complaints by customers has reduced by at least 70% in the last three years in majority of the food and beverages manufacturing firms ($\bar{x}$ = 4.225, σ = .4836). Moreover, the study established that majority of the food and beverages manufacturing firms do not have an efficient way to keep track of an issue raised by consumers over time ($\bar{x}$ = 2.268, σ = .4446).

Table 1: Customer Integration Descriptive Statistics

Statements	Mean	Std. Deviation
The number of customers refereed to our products has increased by at least 50% in the last three years.	3.529	.5009
Our firm kept consumers satisfied by supplying a sensitive team of sales and support professionals.	3.500	.5018
Our firm is more responsive to dynamic customer needs.	3.504	.4618
Our firm developed new products fitting consumer preferences.	3.326	.4705
Our firm developed routines for problem solving that allow for joint efforts.	2.362	.4824
Our firm improved on customer analysis and segmentation.	3.541	.4756
Our firm tracked customer's activities and managed their needs.	2.210	.5048
The number of complaints by customers has reduced by at least 70% in the last three years.	4.225	.4836
Our firm has an efficient way to keep track of an issue raised by consumers over time.	2.268	.4446

4.2 Correlation Analysis for Customer Integration

The study found that customer integration had a positive significant linear association with competitive advantage of food and beverage manufacturing enterprises in Kenya, as evidenced by a pearson product moment correlation of .661 at the .01 level of significance, as shown in table 2. This meant that there was a significant link between customer integration and food and beverage manufacturing enterprises' competitive advantage in Kenya.

Table 2: Correlation Analysis

Variable		CA	CI
CA	Pearson Correlation	1	
	Sig. (2-tailed)		
CI	Pearson Correlation	.661**	1
	Sig. (2-tailed)	.000	

**. Correlation is significant at the 0.01 level (2-tailed)

4.3 Regression Analysis

The effect of customer integration on the competitive advantage of Kenyan food and beverage manufacturing enterprises was studied using regression analysis. The following hypothesis was evaluated:

H_{o1}: *Customer integration has no significant effect on competitive advantage of Kenyan food and beverage manufacturing firms in Kenya.*

Customer integration and competitive advantage have a positive association (R = .661, R^2 = .437) and (F (1,136) = 110.233, p = .000), according to the results of model 1 in table 3. According to a R of.661, customer integration accounted for 66.1 percent of the variation in competitive advantage of food and beverage manufacturing enterprises.

Table 3: Model Summary

					Change Statistics				
Model	**R**	**R^2**	**Adjusted R Square**	**Std. Error of the Estimate**	**R^2 Change**	**F Change**	**Df1**	**Df2**	**Sig. F Change**
1	.661[a]	.437	.433	.377	.379	110.233	1[a]	136	.000

a. Predictor (Constant), CI

4.4 Analysis of Variance

Table 4 shows that the F-statistic was 110.233, with a P value of .000, which is < .05. This shows that the regression model utilized in the study is well-fitting. Furthermore, the findings demonstrate a positive significant association between customer integration and competitive advantage of Kenyan food and beverage manufacturing enterprises. As a result, consumer integration boosts Kenyan food and beverage producers' competitiveness.

Table 4: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	41.926	1	41.926	110.233	.000[a]
	Residual	54.015	136	.901		
	Total	95.941	137			

a. Predictor: (Constant), CI

b. Dependent Variable: CA

The test of significance for customer integration and competitive advantage is shown in Table 5. Customer integration and competitive advantage was found to have a positive and significant association in Model 1 (b1 = .652, p = .000, β = .661). Additionally, the t-statistic in the regression coefficient for customer integration was also positively significant at the.05 significance level (T = 8.733, p < .05), indicating that the null hypothesis tested was rejected. According to these statistics, there exists a significant positive relationship between customer integration and competitive advantage of food and beverage processing firms in Kenya. Equation 1 depicts the regression equation for model 1, which predicts a 65.2% gain in competitive advantage for every unit increase in customer integration.

Competitive Advantage = 2.267+ 0.652Customer Integration … ***Equation 1***

Table 5: Significance of Test Results

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	2.267	.240		9.525	.000
	CI	.652	.067	.661	8.733	.000

a. Dependent Variable: CA

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

According to the findings, customer integration and competitive advantage of food and beverage manufacturing enterprises in Kenya have a positive significant link. Furthermore, every unit improvement in customer integration is expected to result in a gain in competitive advantage. This showed that food and beverage manufacturers will enjoy a competitive edge as customer integration increases. Furthermore, the survey found that food and beverage manufacturers have improved their competitiveness by integrating with customers, as indicated by customer relationship management, early customer interaction, integrated problem solving, and complaint management. Similarly, the survey found that Kenyan food and beverage manufacturers have previously implemented customer integration to boost corporate competitiveness in the market.

5.2 Recommendations

The study further recommends that managers of food and beverages manufacturing firms should build procedures and policies that link to a superior understanding of the customer in order to meet their expectations. This will result in improved market visibility, more accurate and timely projections, and the capacity to predict and respond to consumer requirements with greater responsiveness as well as versatility. Moreover, developing and implementing such procedures does, in fact, enhance turnover by increasing sales as well as customer loyalty. Consequently, food and beverages manufacturing firms should enhance their customer integration to boost their competitive advantage.

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