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**Relationship between Firm Readiness and the Adoption of Digitalized Marketing
Operations Tactics by Chain Supermarkets in Kenya**

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Abstract

Purpose: Digitalized marketing operations has transformed the retail sectors by providing access to instantaneous, inexpensive contact among sellers, buyers, investors and advertisers anywhere in the world. This has made traditional marketing and sales strategies less effective in today's markets. However, a digital divide exists between consumers and retailers with many retailers failing to leverage the potential of or meet the digital expectations of their customers. This gap between consumers' expectations and retail offerings puts at risk more than just shopping revenue that physical store could have earned online. It also poses a serious threat to overall revenue and challenges how they respond to and anticipate customers' shopping habits in-store. There are different drivers of adopting digitalized marketing operations tactics, including firm size, firm readiness, perceived benefits, perceived barriers, customer pressure and competitive pressure. This study addressed the relationship between firm readiness and the adoption of digitalized marketing operations tactics by chain supermarkets in Kenya.

Methodology: The research study considered the positivism research philosophy and adopted a descriptive research design. The study's target population was 180 retail chain supermarket stores in Kenya and all the 180 retail chain supermarkets were included in the sample. The research instrument of the study was a semi-structured questionnaire administered to all the 180 chief operations managers by use of google surveys and/or drop and pick method. The quantitative information was analyzed by the help of SPSS program (v.25.0) and Excel. The findings were presented as averages, standard deviations, counts and percentages using tables.

Findings: The findings revealed that firm readiness which include technology sufficiency, technology compatibility, human capacity to absorb new technology and top management support ($\beta=0.295$, $p=0.000$) have a positive and significant relationship with the adoption of digitalized marketing operations tactics by chain supermarkets in Kenya. This implies that improvement in 1 unit of the aspects related to firm readiness improves the adoption of digitalized marketing operations tactics by chain supermarkets in Kenya by 0.295 units.

Unique Contribution to Theory, Practice and Policy: The study bridges the gap between theoretical constructs of digital marketing adoption and their practical application within the chain supermarkets in Kenya, offering valuable perspectives that will drive the sector's growth and competitiveness in the digital age.

Keywords: *Firm Readiness, Chain Supermarkets, Digitalized Marketing Operations Tactics*

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INTRODUCTION

Due to its role as the last mile along the consumption journey, the retail business is structured around sourcing, breaking bulk and distributing consumer goods. Subsequently, these businesses have experienced profound transformation in almost every aspect of retailing including processes, services, products and operations. There has not only been reconfiguration in retailer-consumer interaction due to emerging consumption associated with digitalization, but retailers also participate in providing digital adapted products and services (Hagberg et al., 2017). Digital technology has brought the chain supermarkets inside customers' homes or in their devices. (Järvinen, 2017). Digitalized marketing operations include the following: e-commerce-enabled Website, Search Engine Optimization (Lemos & Joshi, 2017), Customer Service E-mail /E-mail marketing (Mohammadi, Malekian, Nosrati & Karimi, 2019), Blogs and social media (Facebook, Twitter & Instagram), Mobile Applications (Baktha, 2017), Webinars and Online Payment Integration (M-Pesa, PayPal, PesaPal, iPay) among others (Cheng et al., 2017).

These digitalized innovations are notable because they reduce transaction costs, increase user interaction with the seller, reduce time wastage and build long-term relationships with current and future customers, implying the business's future. With e-commerce in the current digital era, the crossing of borders is no longer an issue, and retailers can invest in digital marketing, e-mail marketing, and online payment transactions to meet customer needs globally. The global network has facilitated this, where the internet has become a universal infrastructure (Alvarez, Lippi & Paciello, 2018).

In Kenya, the vast consumer base in rural areas still shops at informal outlets, which account for approximately 70% of retail shopping. However, compared to other African markets, Kenya's formal retail penetration rate ranges from 25% to 30% (African Consumer and Retail Sector Report, (ACRSR, 2016). This places Kenya at about half the level of South Africa, (OBG, 2016). However, Kenyans still prefer physical shopping due to insecure delivery systems, cyber-crimes and lack of proper physical addresses especially in rural areas. Despite these hindrances, numerous internet retail start-ups are finding solutions to these challenges and continue to invest in consumer awareness, optimizing delivery networks and building trading platforms, while large retailers appear to focus on e-commerce, moving towards real-time proximity marketing and on-the-move customer engagement (Republic of Kenya, 2017).

Digitalized marketing operations has transformed the retail sectors by providing access to instantaneous, inexpensive contact among sellers, buyers, investors and advertisers anywhere in the world. This has made traditional marketing and sales strategies less effective in today's markets (PwC, 2020). However, a digital divide exists between consumers and retailers with many retailers failing to leverage the potential of or meet the digital expectations of their customers. This gap between consumers' expectations and retail offerings puts at risk more than just shopping revenue that physical stores could have earned online. It also poses a serious threat to overall revenue and challenges how they respond to and anticipate customers' shopping habits in-store. Several studies have attempted to explain the relationship between problems associated with low adoption. However, not many of them have addressed the problem of low adoption of drivers of digitization of marketing and sales operations in Kenya's retail sector. For instance, Zafar and Mustafa (2017) sought to find out the contribution of SMEs in the economic and socio-economic development of

Pakistan while Jörling, Böhm and Paluch (2019) sought to investigate the drivers of perceived responsibility for service outcomes in the adoption of Service robots. These studies presented contextual gaps that failed to address the low adoption problem in Kenya's retail sector. Therefore, premised on the backdrops of the gaps presented, the current sought to specifically analyze the effects of firm readiness on drivers of adoption of digitization of marketing and sales operations in Kenya retail sector.

Theoretical Framework

Technology, Organization, and Environment (TOE) Framework

The TOE framework was developed in 1990 (Tornatzky and Fleischer 1990). It is a theoretical model that identifies three aspects of a firm that influence the process by which it adopts and implements technological innovations. The technology context includes both the internal and external technologies relevant to the firm. The organizational context encompasses the firm's size, scope, resources, and managerial structure. The environmental context refers to the industry characteristics, regulatory climate, and market structure in which a firm operates. This framework posits that the interaction between these three contexts shapes the firm's technological adoption decisions and strategies. In relation to the study on digitalized marketing operations tactics by chain supermarkets in Kenya, the TOE framework underpins the examination of firm readiness (organization) and its impact on the adoption of digital marketing tactics. The study assesses technological sufficiency and compatibility (technology), human capacity (organization), and external pressures (environment), thereby offering a nuanced analysis of how these factors jointly influence supermarkets' readiness and consequent adoption of digital marketing innovations in their operations.

Diffusion of Innovation Theory

The Diffusion of Innovations theory, formulated by Everett Rogers (1995), explains how, why, and at what rate new ideas and technology spread through cultures. The theory outlines key elements that influence the adoption of an innovation, including the characteristics of the innovation itself, communication channels, time, and the social system. It identifies categories of adopters based on their readiness to embrace new technologies, ranging from innovators and early adopters to laggards. Relating this to the study on chain supermarkets in Kenya, the Diffusion of Innovations theory is used to frame how digital marketing tactics are adopted within the supermarket sector. The study's focus on firm readiness as a facet of the innovation-decision process reflects on the organizational characteristics that determine how quickly and effectively these supermarkets move through the adoption categories from awareness to implementation of digital marketing operations. By investigating aspects such as technology compatibility and human capacity, the study contextualizes the theory within the specific dynamics of the Kenyan retail environment, offering insights into the patterns and predictors of digital innovation adoption in this sector.

Empirical Literature

Priyono, Moin and Putri (2020) sought to analyze how small and medium enterprises (SMEs) cope with environmental changes due to the COVID-19 pandemic by pursuing the business model transformation with the support of digital technologies. A multiple case study design with

qualitative analysis was applied to 7 manufacturing SMEs from Indonesia selected using a theoretical sampling technique. It was discovered that SMEs adopt different digital transformations, which can be summarized into three paths, depending on the firms' contextual factors. However, SMEs with a high level of digital maturity respond to the challenges by accelerating the transition toward digitalized firms. SMEs experiencing liquidity issues but a low level of digital maturity decide to digitalize the sales function only. Likewise, SMEs that have very limited digital literacy but are supported by a high level of social capital can digitize. This last group of firms solves the challenges by finding partners who possess excellent digital capabilities indicating the contribution of firm readiness towards adoption of digital technologies. The qualitative case study method allows the study to conduct in-depth and detailed analysis, but has thin generalizability.

Giampietri and Trestini (2020) analyzed the effect of farmers' intention to adopt web marketing based on their financial and technological readiness. Based on the technology-organization-environment perspective, the results show that the intention to adopt web marketing is positively influenced by the customers' readiness to use this technology and the perceived ease of use. The organizational context (OC) including the firm's characteristics as the leader's opinion or the readiness to adopt the innovation, affect the intention and capacity to acquire a given technology. The study was, however, based on farmers whose findings provide limited generalizability to retail industry.

Aboelmaged (2017) sought to predict e-readiness at the firm-level on e-maintenance readiness in manufacturing firms. The study surveyed responses of 308 managers from a wide spectrum of manufacturing firms and the findings indicated that dimensions of e-maintenance technology readiness in manufacturing firms are mainly influenced by technological and organizational determinants involving technological infrastructure and competence, expected benefits and challenges of e-maintenance, and firm size and ownership.

This research fills a crucial gap in the current literature by concentrating on the specific nuances of digital marketing operations within the retail sector, with an emphasis on chain supermarkets in Kenya a market that has been previously underrepresented in academic inquiry. It extends beyond the conventional analysis by offering a detailed examination of firm readiness, which includes a suite of factors such as technological adequacy, compatibility, human resource capacity, and executive backing, and how these influence the integration of digital marketing strategies. By applying both the Technology-Organization-Environment (TOE) framework and the Diffusion of Innovations theory, the study provides a rich, context-specific understanding of the strategic incorporation of digital marketing into the operations of these supermarkets. Significantly, it offers valuable empirical evidence from the Kenya, which can serve as a referential benchmark for other emerging economies striving to harness the potential of digitalization within the retail space.

METHODOLOGY

The study applied the positivist philosophy, whereas the current study pursued the quantitative approach because the unit under observation is quantitative. The study was cross-sectional, adopting a descriptive survey design. A combination of both qualitative and quantitative methods was employed in data collection and analysis. By blending the two methods the study aimed to

harness the inherent advantages associated with each of two methods. The method enabled the quantification of digitalization of market practices by retail chain supermarkets, and subsequently analyzed the relation between firm readiness and the establishment of digitalization. The target population of the study was 180 retail chain supermarkets in Kenya. All the 180 retail chain supermarkets were included in the sample. However, a census survey was used since the population is small but adequate for study. The research instruments of the study constituted a semi-structured questionnaire. The questionnaire had both open-ended questions and closed questions. Before collecting data, the researcher sought the university's approval and permission from the relevant authorities, including a research permit from the National Council of Science, Technology and Innovation (NACOSTI). The study used qualitative as well as quantitative which was sorted, coded and cleaned prior to analysis to ensure adequacy. Descriptive and inferential statistics were used to analyze the data using the descriptive and positivist approaches. The quantitative information was analyzed by the help of the SPSS program (v.25.0) and Excel.

RESULTS AND DISCUSSIONS

The descriptive results showed that 85% of the respondents agreed that the management has made arrangements to procure, make available and digitalize most of its systems such as computers, WI-FI, up-to-date software (mean=4.18, SD=0.68). The results also revealed that 77% of the respondents agreed that the firm computer hardware, software and associated computer accessories are up to date (mean=3.66, SD=1.10). The results also indicated that 90 of the respondents agreed that compatibility of the existing technology infrastructure has been upgraded to accommodate the new technologies (mean=4.73, SD=0.64).

The results revealed that most respondents (72%) agreed that the store has upgraded the IT department and is fully equipped to sustain the new innovations (mean=3.99, SD=0.74). The results also revealed that 46% of the respondents agreed that the firm had upgraded its capability to use online marketing platforms such as social media apps (mean=4.91, SD=1.18). The results showed that 62% of the respondents agreed that the firm's leadership supports the team with new forms and ways of assimilating the new digitalized marketing operations (mean=3.74, SD=0.66).

The results indicated that most respondents (94%) agreed that the management is constantly training the internal staff to absorb new digitalized marketing operations (mean=4.43, SD=0.61). The results showed that 71% of the respondents agreed that new employees are usually inducted into the system and coached toward the future goal of digitization (mean=3.92, SD=1.24). The results also revealed that 66% of the respondents agreed that the firm's leadership constantly encourages the appreciation of digitized operations to give employees moral support (mean=4.11 \approx 4, SD=1.10).

In conclusion, the average mean of the responses was 3.96 when viewed on a scale of five points, presenting a standard deviation of 0.87. This means that most respondents agreed that the aspects of firm readiness in supermarket chains have enabled them to adopt digitalized marketing operations tactics by chain supermarkets in Kenya. The findings agree with Priyono, Moin and Putri (2020) who discovered that SMEs adopt different digital transformations, which can be summarized into three paths, depending on the firms' contextual factors. However, SMEs with a high level of digital maturity respond to the challenges by accelerating the transition toward

digitalized firms. Likewise, Giampietri and Trestini (2020) show that the intention to adopt web marketing is positively influenced by the customers' readiness to use this technology and the perceived ease of use. Aboelmaged (2017) indicated that dimensions of e-maintenance technology readiness in manufacturing firms are mainly influenced by e-readiness at firm-level, technological and organizational determinants involving technological infrastructure and competence, expected benefits and challenges of e-maintenance, and firm size and ownership.

Table 1: Descriptive Results for Firm Readiness

Indicators	1	2	3	4	5	Mean	S D
The management has made arrangements to procure, make available and digitalize most of its systems e.g., computers, WI-FI, up-to-date software.	0%	0%	16%	51%	34%	4.18	0.68
The firm computer hardware, software and associated computer accessories are up to date	5%	17%	0%	61%	16%	3.66	1.10
Compatibility of the existing technology infrastructure has been upgraded to accommodate the new technologies	0%	0%	11%	6%	84%	4.73	0.64
The store has upgraded the IT department and is fully equipped to sustain the new innovations	0%	0%	28%	45%	27%	3.99	0.74
The firm has upgraded its capability to use online platforms of marketing e.g., the social media apps.	11%	16%	27%	6%	40%	4.91	1.18
The leadership of the firm supports the team with new forms and ways of assimilating the new digitalized marketing operations	0%	0%	38%	50%	12%	3.74	0.66
The management is constantly training the internal staff to absorb new digitalized marketing operations.	0%	0%	6%	45%	49%	4.43	0.61
New employees are usually inducted into the system and coached towards the future goal of digitization	6%	11%	12%	27%	44%	3.92	1.24
The leadership of the firm constantly encourages the appreciation of digitized operations to give employees moral support	0%	6%	28%	16%	50%	4.11	1.00
Average						3.96	0.87

The correlation results revealed that firm readiness and the adoption of digitalized marketing operations tactics by chain supermarkets in Kenya have a positive and significant relationship

($r=0.643^{**}$, $p=0.003$). The r value of 0.643 indicates a value of greater than 0, implying that firm readiness as a linear variable has a positive association with adopting digitalized marketing operations tactics by chain supermarkets in Kenya. The findings agree with Priyono, Moin and Putri (2020) who discovered that SMEs adopt different digital transformations, which can be summarized into three paths, depending on the firms' contextual factors. Likewise, Giampietri and Trestini (2020) show that the intention to adopt web marketing is positively influenced by the customers' readiness to use this technology and the perceived ease of use.

Table 2: Correlation Test of Firm Readiness

		Firm Readiness	Adoption of digitalized marketing operations tactics
Firm Readiness	Pearson Correlation	1	.643**
	Sig. (2-tailed)		0.003
Adoption of digitalized marketing operations tactics	Pearson Correlation	.643**	1
	Sig. (2-tailed)	0.003	

Regression analysis was also done in the study to identify the relationship between firm readiness and the adoption of digitalized marketing operations tactics by chain supermarkets in Kenya.

Table 3: Model Fitness for Firm Readiness

R	R Square	Adjusted R Square	Std. Error of the Estimate
.643a	0.414	0.41	0.169

Table 3 presents the fitness of regression used in explaining the study phenomena. Firm readiness is essential in the adoption of digitalized marketing operations tactics by chain supermarkets in Kenya. This is evident, as shown by the R square value which is 0.414. This implies that firm readiness explains 41.4% of the adoption of digitalized marketing operations tactics by chain supermarkets in Kenya.

Table 4: ANOVA for Firm Readiness

	Sum of Squares	df	Mean Square	F	Sig.
Regression	3.012	1	3.012	105.992	.000b
Residual	4.262	150	0.028		
Total	7.273	151			

Table 4 showed that the model was also statistically significant, implying that firm readiness affects the adoption of digitalized marketing operations tactics by chain supermarkets in Kenya.

This is further supported by the F statistic 105.992 where the value was greater than the critical value at 0.05 significance level, $F_{\text{statistic}} = 105.992 > F_{\text{critical}} = 3.909 (1, 150)$.

Table 5: Regression coefficients for Firm Readiness

	Unstandardized Coefficients	Std. Error	Standardized Coefficients Beta	t	Sig.
(Constant)	1.655	0.232		7.119	0.000
Firm Readiness	0.603	0.059	0.643	10.295	0.000

Y= 1.655+0.603 Firm Readiness where

Y= the adoption of digitalized marketing operations tactics by chain supermarkets

Table 5 revealed that firm readiness and the adoption of digitalized marketing operations tactics by chain supermarkets in Kenya have a positive and significant relationship ($\beta=0.603$, $p=0.000$). This implies that improvement in 1 unit of the aspects related to firm readiness improves the adoption of digitalized marketing operations tactics by chain supermarkets in Kenya by 0.603 units. The findings agree with Priyono, Moin and Putri (2020) who discovered that SMEs adopt different digital transformations, which can be summarized into three paths, depending on the firms' contextual factors. However, SMEs with a high level of digital maturity respond to the challenges by accelerating the transition toward digitalized firms. Likewise, Giampietri and Trestini (2020) show that the intention to adopt web marketing is positively influenced by the customers' readiness to use this technology and the perceived ease of use. Aboelmaged (2017) indicated that dimensions of e-maintenance technology readiness in manufacturing firms are mainly influenced by e-readiness at firm-level, technological and organizational determinants involving technological infrastructure and competence, expected benefits and challenges of e-maintenance, and firm size and ownership.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

The findings revealed that firm readiness and the adoption of digitalized marketing operations tactics by chain supermarkets in Kenya have a positive and significant relationship ($\beta=0.295$, $p=0.000$). This implies that improvement in 1 unit of the aspects related to firm readiness improves the adoption of digitalized marketing operations tactics by chain supermarkets in Kenya by 0.295 units. These findings were supported by the responses from the questionnaire where most respondents agreed that the aspects of firm readiness in the supermarket chains have enabled them to adopt digitalized marketing operations tactics by chain supermarkets in Kenya.

From the findings, the study concludes that firm readiness significantly affects adoption of digitalized marketing operations tactics by chain supermarkets in Kenya. This is because the management having made arrangements to procure, making available and digitalizing most of its systems such as computers, WI-FI, up-to-date software; the firm computer hardware, software and associated computer accessories being up to date; compatibility of the existing technology infrastructure having been upgraded to accommodate the new technologies, and the store upgrading the IT department and is fully equipping it to sustain the new innovations are factors

that explain why firm readiness influenced the adoption of digitalized marketing operations tactics by chain supermarkets. Also, the firm having upgraded its capability to use online platforms of marketing such as the social media apps; the leadership of the firm supporting the team with new forms and ways of assimilating the new digitalized marketing operations; the management constantly training the internal staff on absorbing new digitalized marketing operations; induction of new employees into the system and coaching them towards the future goal of digitization and the leadership of the firm constantly encouraging the appreciation of digitized operations to give employees moral support explained the influence of firm readiness on the adoption of digitalized marketing operations tactics by chain supermarkets.

From the results, it is realized firm readiness positively influenced the adoption of digitalized marketing operations tactics. From the findings, the study recommends that retail chain supermarkets prioritize and strengthen their readiness for digital transformation. This includes evaluating and upgrading their technological infrastructure, providing staff with relevant training and skill development programs, and fostering an organizational culture that embraces innovation and change. Establishing a dedicated digital transformation team or department can help drive these initiatives effectively.

From the findings, the study invites a re-examination and potential refinement of these theoretical models to better encapsulate the intricacies of digital marketing within the retail domain. Additionally, the focus on varying dimensions of firm readiness opens avenues for identifying different variables that could significantly impact technological adoption, enhancing the granularity of organizational studies. The study's in-depth look at Kenyan chain supermarkets paves the way for comparative research, fostering a broader understanding of digital transformation processes in diverse retail settings. Finally, the qualitative insights gained could serve as the foundation for hypothesis generation in quantitative studies, potentially expanding the scope and applicability of the research outcomes to a wider set of organizations.

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