

Fast Moving Consumer Goods Retailers Socioeconomic Attributes and Their Impact on Supply Chain Integration in Osogbo

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Abstract

Problem: This study investigated the interaction between the socio-economic situation (SES) and supply chain integration (SCI) among retailers in Osogbo city. **Design/Methodology/Approach:** survey of 318 retailers of FMCG was undertaken in Osogbo, Kruskal-Willis, a non-parametric test technique was employed to test if the SES of the respondents predicted their readiness to be part of a functional SC. **Findings:** The result showed that the mean ranks of the identified SES (age, marital status, academic qualification, business experience, and financial capability) do not significantly predict their SCI (chi-square=8.8; $p=0.065>0.05$; chi-square=1.494; $p=0.828>0.05$; chi-square=1.226; $p=0.747$; 4.459 $p=0.334>0.05$ and 0.645 $p=0.725$) at 5% level respectively. It is observed that while there is a semblance of a principal-agent relationship between the brokers and retailers because of the fiduciary responsibility placed on the retailers, such a mutually benefiting relationship is absent among the retailers. **Conclusion:** The study advised that business managers should encourage the building of stronger horizontal and vertical alliances across the SC to increase the resilience of the SC ecosystem.

Keywords: Supply Chain Integration, Socio-economic Situation, Retailer, Broker, Fast Moving Consumer Goods.

1. Introduction

Over the years, the retailing of fast-moving consumer goods (FMCG) has grown to become a vital component in the achievement of an intricate balance between household needs and supplies across the globe [3, 37, 51]. This development has spurred unprecedented growth in the global retail market, according to 2023 Retail Statistics the global retail market generated sales of over 12 billion USD in 2023, with a forecast to reach over 18 billion USD by 2031 [54]. FMCG, also known as consumer-packaged goods (CPG), represents the largest group of consumer products in the marketplace. It includes durable and non-durable goods such as food and beverages, personal care and cosmetics, health care, home care, footwear, footwear accessories, and others [3, 54].

The FCMG sector in Nigeria has shown resilience indicative of an emergent growth contributor to the national economy despite the unstable operating environment [3, 37]. In Nigeria, trading (in which retailing activities are a key subset) amounted to 17% of the country's Gross Domestic Product (GDP) (worth over US\$75b) in 2020 [3, 53]. Also, available statistics showed that the FMCG sector rose by 25.3 percent (which amounted to N746.6 billion) in the first six months (January-June) in 2022 from N595.4 in the same period of 2021. The array of macroeconomic challenges assailing the nation's development has not reduced the growth in the sector. Available statistics showed that six FMCG companies in Nigeria, including BUA Foods, Cadbury, Dangote Sugar

Refinery, Nasco, Nestle, and Unilever, reported a surge in revenue between 2021 and 2022. Their collective revenue increased by 32.9% in 2022 compared to 2021, with combined profits after tax rising by 48.5% [3].

Research findings are indicative that socioeconomic status proves pivotal in the decision-making patterns of business owners [3, 5, 48]. Scholars strongly believe that socioeconomic factors such as age, income level, educational qualification, and gender are products of adaptive responses that influence business managers contextual dispositions to critical issues of resource management, achievement of operational stability, and the adoption of novel technological aids [47, 48]. It is also argued that the natural shifts in socioeconomic processes (getting older for example) among business owners often lead to rational decisions in the proximal context underlying the achievement of organizational distal business goals [37, 48]. Also, an anecdotal report by Deloitte underscored the relevance of the socioeconomic situation of retailers on their willingness to integrate either vertically or horizontally with other chain members [48]. The study which relied on the use of the content analytical method provided an in-depth relational analysis between socioeconomic situation and supply chain integration concepts and surmised that there is a possibility of the existence of an interaction among them. This study is filling a gap in the discourse by providing an empirical examination of the interaction between socioeconomic situations and SCI among retailers of FMCG. Another important gap that the present study filled is the provision of an insight into how the socioeconomic situation of retailers that specialize in the merchandise of FMCG in a developing economy city impacted their willingness to integrate as members of a viable SC unit.

2. Literature Review

The quintessential retailer is one of the most critical links in the supply chain process for FMCG [3, 54]. Because retailing is a node in the supply chain architecture for FMCG, it is not immune from the resultant impact of SC practices involving the other constituents of the chain [18, 32, 51]. It is believed that the quality of SCI among chain members could be one of the critical predictors of the overall health of the SC ecosystem [35, 40]. It is also argued that the functionality of retailers as a constituent of the SC, is pivotal in the achievement of a seamless flow of funds, material, and information in the SC architecture [3, 18, 32, 51].

SCI is identified in the available literature as a critical determinant of the success or the viability of SCM [35, 40]. Scholars generally affirmed that SCI (just like other SCM management concepts like agility, lean, sustainability, and reverse logistics) plays inimitable roles in the enhancement of business performance [18, 32,]. SCI has been described as a process involving the interaction of all parts of the supply chain to optimize their collective performance. It integrates the processes, operations, and data of the supply chain, from its creation, through the distribution of products, and the provision of after-sale services [35, 40]. The conceptualization of SCI is to improve efficiency, effectiveness, response time, production time, and reduce costs, limit waste, and improve customer satisfaction among chain members [32].

The contextual roles of retailers in the supply chain configuration make the possession of current market information expedient for them [3]. Retailers are expected to be equipped with proper knowledge about consumer preferences and to also have the correct orientation in consumer behavior assessment, after-sales, and market volatility [4, 24, 28]. An important determinant of how successfully the quintessential retailer can interpret his/her role in the SC configuration is their socioeconomic characteristics of literacy [3, 5, 24, 28]. It is an incontrovertible fact that the socioeconomic characteristics such as literacy level and age among channel members in the SC configuration are important in the interpretation of their roles within the chain, and in the execution of their functions within its operational architecture [4, 24, 28].

The global demographic transition of the last three decades has redefined the FMCG sector [5, 20, 45, 52]. The emergence of the Millennials, Gen Z, and Gen Z+ as part of the 'consuming population' has led to a paradigm shift

in the conceptualization, and operational pattern of retailing from its traditional nature [5, 11]. Available shreds of evidence showed that these cohorts who are between the ages of 15 and 45 are more tech-savvy, and utilizes online platforms for 'window shopping' and actual shopping [5, 20, 45, 52]. To meet the needs of these new generations of buyers, retailers therefore have to employ more innovative and inventive techniques. One such ingenious technique as accentuated in the available literature is the development of a more synergistic relationship that is a departure from the traditional operational structure of silos among SC members [4, 11, 24, 28].

This development has necessitated the emergence of retailers who operate interdependent relationships on both the vertical and horizontal planes of SC architecture, the reality is that the 21st century retail sector is an integrated industry [18, 32, 35, 40]. Regardless of the size or scope of their operations, contemporary retailers are now more active participants in an integrative network that guarantees current information flow, maintains a sensible inventory balance, and achieves excellent customer satisfaction [4, 8, 11, 24, 28].

Despite the re-emergence of Western-style retailing in Nigeria, available statistics posited that traditional open-air market still accounts for 65% of retail trade, while supermarkets, convenience stores, and street shops account for 35% [3, 36, 39]. The research community in the country avowed that the preponderance of the traditional open-air retailing in the Nigerian milieu is rooted in the historical development of the country's FMCG market, retailing as a subset of the SC of products was seen as activities managed by operators with low-level of literacy, income, and exposure [3, 39].

Empirical findings have shown that retailing pattern and scope differs across the globe [6, 8, 19, 29, 34, 42]. Although suburbanization and new developments at city fringes have altered retailing form worldwide, cultural beliefs as reflected in the socioeconomic characteristics of different people in diverse places impacted more strongly on the structural pattern of retailing than any other considerations [6, 19, 29, 34, 42]. Pioneering research in retail geography includes that of [34, 42]. These earlier works established the nexus between retail activities, urban functions, and spatial structures in most American and European cities of the twentieth century. [34] for example, asserted that the four interrelated themes of consumer behavior, retail location, retail organization, public policies, and the demographic transition operational in any location strongly define its retailing pattern [6, 19, 29].

The literature is replete with shreds of evidence on the retailing dynamics as an integral part of the SC configuration in the Nigerian milieu, and the significant role it plays in the national economy [23, 1, 3, 21, 26, 41, 46]. These studies underscored the pivotal nature of retailing and detailed how scholars conceptualized its relevance across time, and space in the country. For example, some studies provided insights into how the construction of retail malls has redefined the morphological pattern of urban centers in Nigeria in recent times [3, 26]. Another strand of research in recent times is various longitudinal studies that captured the trend analysis of the retail sector, and the impact that the proliferation of hypermarkets, supermarkets, discounters, convenience stores, and mixed retailers are having on the sectorial development [41, 46]. Some other researchers also examined the burgeoning influence that online marketing or e-commerce is exerting on brick-and-mortar retail stores in the country [1, 21].

Literature search on this discourse established the fact that studies that centered on the investigation of the interaction between retailers' SES and their readiness to engage in SCI are generally scanty. Some studies provided insights into the impact which SES has on decision-making on different issues: crime vulnerability [7], financial planning [31,48], reactive tendencies to governmental policies [10], safety and security [4,5], however, there is a noticeable gap on studies that provided an empirical assessment of retailers SES impacted their

readiness to integrate with other members of the SC. This study filled this important gap in the body of the discourse.

This research is also an exploratory attempt that investigate critical determinants of retailing dynamics in a developing economy like Nigeria. Some earlier works only showed the relationship between attitudinal factors and customer satisfaction [1, 3, 23, 26]. However, those studies did not empirically determine the degree of the influence of socio-economic attributes of retailers in determining the performance of supply chain integration in the study area. Based on the extensive literature review undertaken thus far, a hypothesis is derived to achieve this study objective. The derived hypothesis is stated below:

Ho: Socioeconomic situations (SES) of retailers of FMCGs do not significantly influence the achievement of Supply Chain Integration (SCI) among chain members.

3. Methodology

This study employed the positivist paradigm. It is also a cross-sectional study, where primarily sourced data were collected from a representative subset of the general population at a specific point in time. The research protocol was approved by the ethical committees of the Redeemer's University. All participants were properly notified of the aim of the research. Thereafter, informed consent was obtained from each of the participants. This is in line with the guiding principles of the ethical protocol; it also provided necessary reassurance of confidentiality for all participants in the study. Furthermore, to strengthen the confidentiality of the sourced information, all sourced data were documented by code, rather than the respondent's name. The questionnaire which was comprised of five (5) sections contained pre-tested items which measured the study objectives. The information retrieved from the questionnaires was transferred into a Microsoft Excel (2010) workbook sheet which was the platform where the database management was done; this helped in putting the data in good shape. The statistical analyses were performed using IBM SPSS (Statistical Package for Social Sciences), version 23.

3.1. Scale Development

The development of a research instrument that provided a scientific calibration of research objectives as represented in the questionnaire is quite novel and central to the achievement of the aim of this research. Providing scientific measurement for various SCI criteria has always been part of the classical foundation of the discourse laid by some scholars [13, 22, 27, 44], and the contemporary works of other authors [6, 18, 32, 35, 40, 47].

On the other hand, fresh operational constructs were made to assess variables that have scanty representation in the available literature. Therefore, measurable operational definitions were provided for constructs that measured the interrelationship between SES and SCI using the works of various authors that have contributed to the existing literature in this regard [5, 7, 8, 10, 31, 48]. The research team held a pre-field exercise which helped in ensuring the validity and reliability of the research instruments. Moreover, the Cronbach alpha test was done on each of the constructed multi-item instruments to observe their internal reliability and ability to effectively measure the research variables. As a rule of thumb, a Cronbach's alpha lower than 0.60 means poor reliability, values between 0.6 and 0.7 are acceptable and values equal to or higher than 0.70 indicate good scale reliability [5, 6, 17, 43]. The SCI subscale which consisted of 9 items has a Cronbach's alpha of .85 ($\alpha = .85$), and the influence of SES in SCI with a subscale with 10 items has a Cronbach's alpha of .81 ($\alpha = .81$).

Table 3.1. List of Brokers, Manufacturing Brands they represent and Numbers of Retailers in their Database.

S/N	Selected FMCG Company /Product	Names of brokers (distributor/wholesaler) in Osogbo	The population of retailers picked under them
1	Promasidor (Cowbell, Beverages, Culinary, Dairy Product)	Orabiyi Nigeria Enterprises	2,047
2	PZ (Detergents)	Oluwabukunmi Ventures	958
3	Nestle (Milo, Golden Morn)	Precious Heritage Multiventure	1,432
4	PZ (Vegetable Oil)	Jimkam Ventures	576
5	UAC Foods (Snacks, Diary and Spring Water)	FBA Investment	598
6	Flour Mills Nigeria Plc.	Flour Mills Depot Osogbo Branch	1,158
	Total		6,769

Source: Researcher’s Field Survey, 2022

Retailers generally are loosely organized under a brokerage system facilitated by an existing broker in the study area. These brokers act as the in-between among the retailers and manufacturers of FMCGs in the study area. Table 3.1 represents the statistical data of how these retailers are organized under the available brokerage firms. Six brokers were consulted following the pre-field exercise, who facilitated the supply chain of FMCG in Osogbo on behalf of the various manufacturers of the sampled products. According to Table 1, the six identified brokers have 6,769 registered retailers operating under their business, whose locations span every street and corner of Osogbo and its surroundings. The figure is an estimation of the number of stores selling fast-moving consumer items. From manufacturers such as Promasidor, Nestle, Paterson Zochonis, Flour Mills, and United Africa Company.

To randomly select three (3) of the six (6) brokerage businesses involved in the distribution of FMCGs in Osogbo, as shown in Table 2 below, a multistage sampling technique was utilized. Every odd-numbered brokerage firm on the list was selected for the study. Therefore, the sample frame for this study is four thousand and seventy-seven (4,077). The researcher adopted the statistical formula theorized by Yamane (1967) to determine the sample size of this study.

The selected brokerage firms with their retailer strength are (1) Orabiyi Nigeria Enterprises (2,047), (2) Precious Heritage Multiventures (1,432), and (3) FBA Investments (598) [Table 2]. In stage two, the actual numbers of retailers that participated in the study were obtained with Yamane Taro’s formula. Based on the formula used, 364 retailers are the actual study population that were sampled for this study. To administer the

questionnaire, every odd-numbered retailer on the list with each of the 3 brokers is selected for the study. 318 questionnaires were retrieved and these formed the research instrument used for this study.

Table 3.2 - Description of Sample Size

S/N	Selected FMCG Company /Product	Names of brokers (distributor/whole saler) in Osogbo	The population of retailers picked under them	Sampled Population
1	Promasidor (Cowbell, Beverages, Culinary, Dairy Product)	Orabiyi Nigeria Enterprises	2,047	183
2	Nestle (Milo, Golden Morn)	Precious Heritage Multi-Venture	1,432	128
3	Foods (Snacks, Dairy and Spring Water)	FBA Investment	598	53
Total			4,077	364

Source: Researcher's Field Survey, 2022

A total number of 364 respondents were sampled from which 318 questionnaires were retrieved for this analysis (which amounts to an 87% response rate). The Kruskal-Wallis rank test was used to analyze the significance of the SES variables (age, marital status, academic qualification, working experience, and financial capability) on supply chain integration. Kruskal-Willis is a rank-based nonparametric test used to analyze the objective of the study because it is a reliable tool that can be used to determine if there are statistically significant differences between two or more groups of an independent variable (the identified SES variables) on a continuous or ordinal dependent variable (SCI).

4. Results

Table 4.1 Kruskal-Wallis Test Results

Variable	Category	N	Mean rank	Chi-Square	Df	Asymp. Sig. (2-tailed)
Age	21-30	28	168.04	8.863	4	0.065
	31-40	93	158.69			
	41-50	44	132.93			
	51-60	67	154.56			
	61 and above	86	175.03			
Marital Status	Single	44	158.23	1.494	4	0.828
	Married	208	157.12			
	Separated	16	160.94			
	Divorced	6	151			
	Widowed	44	172.68			
Academic Qualification	SSCE	162	158.85	1.226	3	0.747
	ND/NCE	108	162.78			

	BSc/HND	40	158.95			
	PGD/MBA/MSc/MA	8	131.13			
Working Experience in Retailing	1-5years	112	148.16	4.569	4	0.334
	6-10years	151	165.22			
	11-15years	41	164.57			
	16-20years	6	151			
	21years and above	8	190.75			
Financial Capability	#50,000-#150,000	92	157.91	0.645	2	0.725
	#151,000-#250,000	124	163.82			
	#251,000-#500,000	102	155.68			

Source: SPSS Version 26, Author's Computation (2023)

Table 4.1 is the summary of the Kruskal Wallis conducted on the sampled data. The result indicates that the mean ranks of the age distribution of the respondents across supply chain integration are not statistically significant (chi-square=8.8; $p=0.065 > 0.05$) at the 5% level. Similarly, the ranks of the distribution of the marital status are also not statistically significant at the 5% level (chi-square=1.494; $p=0.828 > 0.05$). Furthermore, the mean rank of the distribution of academic qualification is not statistically significant at the 5% level (chi-square=1.226; $p=0.747$). The same results hold for the mean ranks of the distribution of working experience and financial capability, with chi-square statistics of 4.459 ($p=0.334 > 0.05$) and 0.645 ($p=0.725$) respectively.

The results in the table above show that the p-values of the SES variables are not statistically significant at the 5% level. Therefore, the null hypothesis cannot be rejected and it is concluded that the SES of retailers in FMCG do not singly significantly influence the achievement of SCI.

5. Discussion of Results

In this study, some facts are established, particularly when reviewed on the premise that findings from previous studies established an empirical basis for a strong association between some of the selected SES variables (age, marital status, years of experience in retailing, financial capability and academic qualification) and the utilization of salient SC techniques as enhancers of performance [2, 5, 9, 15, 16]. For example, [15, 55], and [2] avouched that the SES factor of gender has a causal relationship with the achievement of SC sustainability among the consuming public. Similarly, [16], [14], and [9] also affirmed that the level or the quality of education among employees of collaborating SC firms is a key consideration in their willingness to integrate through the sharing of necessary operational information. Findings from this study indicate a clear departure from these earlier findings, as none of the considered SES (age, gender, years of operation, financial capability, and marital status) significantly predicted the willingness among the sampled retailers to collaborate. While there may not be a ready-made answer for this observation, it can be inferred that independent business owners (particularly those of Small and Medium-sized Enterprises [SME] have a contrasting notion on the benefits of fostering a strategic alliance than business leaders in corporate organizations [12].

Research findings also established the fact that the operational scale of business enterprises are predictor of their readiness to forge a strategic alliance across horizontal and vertical planes of the SC [6, 30, 50]. The operational capacity of the FMCG retailers that are the sampled population of the study is relatively small (their

monthly income ranged between #50, 000 to #500,000), and this can be a critical factor that restricted their willingness to integrate.

Previous investigations have shown that the deployment and utilization of salient SCM techniques are strongly anchored on the nature of the corporate governance (CO) of concerned firms. The degrees of adoption of these SCM techniques and applications are generally informed by the financial commitment of the management, and operational size of these organizations [2, 30, 50]. The result in Table 4 showed that the retailers of FMCG in the study area are generally limited by their financial base and this delimited their propensity to integrate. Available facts on the discourse showed that bigger enterprises leveraged SCI as a tool to defray risk and reinforce a stable business environment while it is a truism that smaller enterprises are not immune from the shocks of business uncertainty, most SMEs do not take SCI as an option to prevent business failure [8, 25, 33, 38, 44].

Another reality unearthed by this research is the fact that the variation in the age distribution of the retailers did not significantly predict their readiness to integrate with other members of the chain. The result contradicted results from similar research that indicated that younger chain members (either managers or employees) generally showed a greater propensity to integrate with other chain members [4, 8, 33]. Experiential evidence indicate that the younger professionals (who are tech-savvy) operating as members of SC employed the use of Information and Communication Technology (ICT) devices in market information management, and this often enhances operational performances of the entire SC. It can be inferred that the inability of the younger age cohorts among the retailers of FMCG in the study area to influence the forging of SCI is hinged on their numbers, Table 4.1 showed that only 28 (8.80%) of the sampled population are below 31 years old. The preponderance of the sampled retailers 197 (61,94%) are older than 40 years, research findings have shown that older business owners/managers are less willing or open to 'experimentation or utilization of novel techniques' [8, 33, 38].

Empirical analysis from the study also revealed that the years of working experience as retailers did not significantly predict their willingness to integrate with other members of the chain (chi-square statistics of 4.459 [$p=0.334>0.05$]). The statistical data indicated that 263 (82.70 percent) of the respondents have between 1-10 years of working experience as retailers. This figure could be responsible for the non-significant influence that years of working experience had on the achievement of SCI among the retailers. Existential facts from studies that focused on similar theme showed that forging strategic alliances among members of SC naturally evolve overtime: mutually benefiting business partnership or SCI takes time to build [6, 8, 33, 44].

Lastly, it has been established that business owners are often time conflicted by the prevailing cultural practices in their domain, and this often affects their willingness to operate as a part of interconnected nodes in a chain [6, 8].

6 Implications for Managerial Decision-making

There are key findings that can be derived from this study with critical implications for business owners, and SC managers. First, SES factors of age, gender, years of working experience, and financial capabilities are not predictors of the respondent's readiness to be part of a functional SC in the study area. The study established that all the sampled retailers are members of a functional chain because each retailer is affiliated with a broker through which goods and necessary market information are funneled to them (Tables 3.1 and 3.2), it is however instructive that the information on the tables indicated the existence of a viable relationship between the brokers and the retailers. The nature of interaction between brokers and retailers is reflective of a relationship between a principal and an agent. A semblance of fiduciary responsibility is expected from each retailer to his/her broker to foster a strategic alliance that will be rewarding to the parties involved in the alliance built [6, 8, 33, 44]. Such a responsibility is not however expected between retailers, as a matter of fact – retailers generally perceived themselves more as competitors than allies [33, 38].

Managers of the SC ecosystem or brokers are therefore advised to help in midwifing and sustenance of a viable business interaction between retailers by forging a systemic flow of information and goods among them. This will improve the functionality and resilience of the entire SC for FMCG in the study area.

7. Conclusion

This research undertook the filling of a critical gap in the body of extant literature by examining the relationships between key SES variables (age, educational status, and marital status) of retailers and their impacts on the achievement of SCI among retailers in Osogbo City. Results from the hypothetical test conducted indicated that none of the identified SES (independent variables) predicted the willingness of the retailers to engage in SCI. This finding negates results from studies with a similar theme that seems to suggest an element of causality between SC members SES and the adoption or utilization of novel SC techniques, as a means of performance improvement. Regardless of the nature of the result of the study, key findings have been established from it. First, the study showed that all the identified SES did not jointly predict the readiness of the respondents to collaborate or integrate with other members of the SC. Second, it is also confirmed from the study that none of the SES-identified variables singly predicted the respondents' willingness to integrate as members of a functional SC.

This study is not without some limitations. One of such is that such an attempt was not made to examine the implication of the interaction between the retailer's SES and their willingness to adopt SCI on their operational performance. A further study that will provide an empirical insight of such is advocated to deepen the understanding of the discourse. Another limitation revolves around the sampled population of the study, the respondents are retailers of FMCG in Osogbo city, and retailers of other products are exempted from this study, it will therefore be misleading to make an inference relating to such from the findings established in this study. The entry of global retailing giants like Shoprite, Spar, Play, and indigenous mega stores into the retailing sector in Nigeria, has created a surge in the growth of organized retail in Nigeria. Business managers need to reinvent their strategic plans to maximize the business opportunity the sector has it offer – given the great benefit it holds for investors.

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