An examination of reverse logistics best practices in the fast-moving consumer goods industries

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Abstract
The Coronavirus pandemic has led to consumers being progressively demanding, with changing needs owing to increased product variety and globalisation, as well as cheaper substitutes for products from foreign markets. The fast-moving consumer goods industry is able to provide for such a demand, as it is one of the biggest industries globally. However, this industry has also been affected by reverse logistics, which has led to the industry in search of reverse logistics best practices to mitigate reverse logistics challenges. The main objective of this study was to examine reverse logistics best practices in the fast-moving consumer goods industry. This was achieved by employing a positivist research philosophy, and furthermore by employing the explanatory and descriptive research design. This study was quantitative in nature which promoted the use of a non-probability purposive method to further collect data through survey-monkey using online platforms. The study achieved an 80% response rate from the FMCG retail industry, where the descriptive results from the Statistical Package for the Social Sciences, version 27 revealed that RL best practices are moderately implemented.

Introduction

The coronavirus (Covid-19) pandemic has led to consumers being progressively demanding, with changing needs owing to increased product variety and globalisation, as well as cheaper substitutes for products from foreign markets. On average 8% of total sales stem from retailers' reverse logistics (RL), and at the same time, tighter regulation and Omni-channel retail make RL more complex. The increasing number of regulations encouraging the recycling of packaging materials and containers has led to the fast-moving consumer goods (FMCG) retail industry implementing RL (Bowersox, Closs, Cooper & Bowersox (2020). This leads to the FMCG industry seeking RL best practices that can be employed to enhance RL and achieve firm competitiveness.

RL of FMCG in the retail industry can be defined as the backward flow of goods by returning damaged goods, unused goods, or defective goods from customers (distributors, retailers, end-users) to manufacturers for substitution, reuse, repackaging, recycling, remanufacturing, repair, resell, disposal, and incineration. According to Kussing and Pienaar (2016), there are three general stages in that RL can occur in the supply chain:

(i) Manufacturing: RL due to production scrap, failed quality controls, and surplus raw materials.

(ii) From the distributor: these include RL due to inventory adjustments, commercial returns, redistribution of products, and product recalls.

(iii) From the customer: these include the RL of services, goods that have reached the end of use, and warranty returns.

In between the process of manufacturing and distribution RL best practices occurs. RL best practices are the mutual RL standards practiced in different industries and in this case, the FMCG. Omwenga, Ngacho and Muya (2019) posit that the ability of a firm to implement and handle RL best practices has rapidly become an important logistical process in nearly all industries of the economy. The RL best practices are implemented by industries through RL partners (Prakash & Barua, 2016); and will differ from industry to industry, and from country to country. Waqas, Dong, Ahmad, Zhu and Nadeem (2018)

opine that different practices have been recognised and established by different countries to encourage RL best practices. Furthermore, Mangla, Govindan and Luthra (2016) explain that the implementation of the RL best practices has received major attention among developed countries; and further highlight that a more thorough study is required in developing countries to receive the required benefits. However, Badenhorst (2016:10), mentions that "it is not practical to implement all best practices at once". Consequently, it is essential to prioritise the RL best practices for gradual implementation (Prakash & Barua, 2015:559).

Literature review

Firms have started developing and utilising RL best practices to harness the benefits of effective RL implementation (Makaleng, 2017). Since RL best practices permit firms to benefit from added cost-saving prospects by recovering the costs of product materials and reusing them at a later stage (Arrieta, 2015). Moreover, implementing RL best practices can also allow firms to create clear RL policies. This is because inadequate policies are a key limitation in developing countries when compared to developed countries (Waqas *et al.,* 2018).

There are several reasons why firms decide to refrain from or implement RL best practices (Waqas *et al.,* 2018). These reasons include but are not limited to increasing environmental concerns for society and rigid environmental regulations (Jindal & Sangwan, 2015), increasing customer satisfaction and service levels (Prakash & Barua, 2016). Some of the RL best practices which firms can prioritise in terms of implementation are establishing centralised return centres, establishing a gatekeeping function, and collaborating and sharing information with other FMCG retailers and supply chain partners. Moreover, using returns software, state-of-the-art technology, and RL information management systems, outsourcing reverse logistics to third parties.

Makaleng (2017); Waqas *et al.* (2018); and Omwenga *et al.* (2019) all discussed and examined the importance of RL best practices, the benefits of implementing the RL best practices in a firm, and its implementation. As mentioned previously, some of the benefits mentioned by the authors include, increasing customer satisfaction, cost savings, and service levels, amongst others.

Previous research did not necessarily focus on RL, and RL best practices in the FMCG sector. Mvubu's (2015:133) investigated green supply chain management challenges in the South African fast-moving consumer goods industry: a case of Unilever. The study indicated that "FMCG companies are the link between suppliers and customers and are therefore in a position to play an essential role in driving green SC initiatives in the total SC. Thus, in order to establish a database of greening practices, firms including those in the local FMCG sector should be encouraged to participate in similar studies on a specific basis". Agigi, Niemann & Kotzé (2016) examined the Supply chain design approaches for supply chain resilience: A qualitative study of South African fast-moving consumer goods grocery manufacturers. The results in Agigi *et al.* (2016:11) explained that "multi-sourcing and strategic stock are two of the main redundant design strategies used by San FMCG grocery manufacturers. The strategies allow firms to maintain continuity of operations. The firms currently follow a mixed distribution model allowing them the flexibility of having numerous facilities in case one of the facilities is affected by a disruption".

Meyer, Niemann, Van Pletzen, & Smit (2019:8) studied Environmental initiatives: A study of dyadic buyer and supplier relationships in the South African Fast-Moving Consumer Goods industry. The study further indicates in their findings that "in SAs FMCG sector, buyer organisations now include environmental initiatives as a key requirement in their supplier selection criteria, while buyer and supplier relationships are built on high standards of trust and quality". In their study, Meyer *et al.* (2019) further suggest that quantitative research could be used in future studies since it will encourage participants to be more open when disclosing negative experiences.

Finally, a study conducted by Botha, Creaven and Mandy (2020) conducted research on, conveniently healthy: The impact of health endorsements on brand trust, brand loyalty, and brand equity in Fast Moving Consumer Goods convenience versus shopping goods. The next sub-section will discuss the problem statement.

Problem statement

A review of the literature showed that there's a dearth of studies conducted on RL best practices, especially in the FMCG industry, hence the gap which resulted in this study being conducted. Hence the current study sought to examine reverse logistics best practices in the fast-moving consumer goods industries. Therefore, the current study's RL best practices include: (i) the establishment of centralised return centres (Myerson, 2015; Saikiah, McRoberts & Thakur, 2016); (ii) the establishment of a gatekeeping function (Shukla, 2015; Kussing & Pienaar, 2016; Saikiah *et al.*, 2016; and Makaleng, 2017); (iii) collaborating and sharing information with other FMCG retailers and supply chain partners (Prakash & Barua, 2015; Morgan, Richey & Autry, 2016; and De Villiers Nieman & Niemann, 2022); (iv) utilising return software, state-of-the-art technology, and RL information management systems (Robinson, 2015; Samarasinhe & Wang, 2019; and Saikiah *et al.*, 2016); and (vi) outsourcing RL to third parties (Badenhorst & Van Zyl, 2015; Prakash & Barua, 2016; Badenhorst, 2016; Robinson, 2016; Samson, 2018; and Gu, Wang, Dai, Wei & Chiang, 2019). These RL best practices were found to be appropriate for the accomplishment of firm competitiveness in the FMCG retail industry.

Research Objectives

Methodological objectives

Following the problem statement, the study aimed to address the following methodological **objectives:**

MO_1 to review the literature on RL best practices implemented in the FMCG retail industry.

MO_2 to propose the most appropriate research design and methodology for this study.

MO_3 to gather and analyse primary data on RL best practices implemented in the FMCG retail industry.

Primary objectives

The primary objective of this study was to examine the RL best practices in the FMCG retail industry in Pretoria, South Africa (SA). To achieve this objective, the study had the following sub-objective:

Secondary objective

The secondary objective of this study was to:

SO_1 identify RL best practices implemented by the FMCG retail industry.

Research design and methodology

A research methodology encompasses the research philosophy, research design, research approach, sampling design, and data collection analysis methods (Quinlan, Babin, Carr, Griffin & Zikmund, 2019). A positivist research philosophy worldview was followed in this study because of the following reasons as mentioned by Govender (2018:359); "assumes an objective world"; "searches for facts"; "generalises results"; "uses scientific methods" and "not interested in meaning, but only proven facts". Moreover, the study employed descriptive and explanatory research. The descriptive research design aided the researcher to describe the FMCG retailers' profile and identify the level of implementation of RL best practices in the FMCG retail industry. The outbreak of the Covid-19 pandemic led to the researcher's use of a quantitative research approach since it ensured the safety of both the respondents and the researcher. A quantitative approach assisted in addressing the research aims, the research problem, and objectives. According to Quinlan *et al.* (2019:129), a quantitative research approach "addresses the research objectives through empirical assessments involving numerical measurements and analysis approaches". Using a quantitative approach enabled the researcher to address the research problem through the quantitative results on the implementation of RL best practices in the FMCG retail industry that can better assist managers, supervisors, workers, and consumers in Pretoria to gain firm competitiveness through enhancing customer satisfaction.

Sampling design

The population for this study included FMCG retailers and consumers in Pretoria. This consisted of retail stores, such as Woolworths, pick n Pay stores, Checkers, Spar, and Boxer stores because they are some of the biggest retailers involved in the reversal of FMCG. This population was inclusive of logistics managers/customer care managers, retail store managers, supervisors, third-party RL service providers,

and shoppers or consumers of the FMCG. Any shoppers/ customers above the age of 18 in Pretoria, SA, formed part of the targeted population in this study.

A non-probability purposive sampling method was employed to enrol the respondents since the researcher had a specific purpose in mind which was to examine the RL best practices for FMCG retailers in Pretoria. Additionally, the purposive sampling method was employed because the sampling population was to be selected on purpose. The researcher recruited the FMCG retailers through the retailer's database and sent out personal emails with the link to the required personnel who deals with RL. A link was further provided to consumers through social media platforms, such as emails and LinkedIn. The retailers and consumers addressed issues relating to the research objectives and questions and further provided information-rich cases. It proved difficult to track the number of logistics managers/customer care managers, retail store managers, supervisors, third-party RL service providers, and shoppers in Pretoria because of Covid-19. However, since the researcher used purposive sampling, a large number of completed questionnaires were obtained and all the targeted respondents in Pretoria, SA, had some degree of chance to be included in the sample of data collection.

The total population for this study was not known and therefore the scholar-practitioner determined the sample size of 520 respondents which comprised 500 FMCG consumers and 20 respondents from the FMCG retail employees was sufficient. This is because Gay, Mills and Airasian (2009), opine that where a population size (N)= 5000 or more, the population size is irrelevant, and therefore a sample size of 400 will suffice. Therefore, as per Gay *et al.* (2009), the sample size of 520 was sufficient.

Data collection and analysis

Data collection was done through two closed-ended questionnaires. The questionnaires were converted into SurveyMonkey web-based research platform questionnaires and one questionnaire was used to collect data from the FMCG consumers while the other questionnaire was used by retailers because it is less expensive. The questionnaire consisted of a nominal scale based on the demographic information of the respondents, as well as multi-term measures on the RL best practices, and these measures were anchored on a five-point Likert ordinal scale.

The questionnaire items were adapted from previous questions from other researchers and literature in this field to also ensure validity. The link to the participants was distributed through email, LinkedIn, and WhatsApp social media platforms. This allowed the researcher to gather data from a large group of FMCG customers and retailers while ensuring the safety of both the researcher and respondents given Covid-19.

The Statistical Package for the Social Sciences (SPSS) version 27 was employed to perform descriptive analysis on demographic information and RL best practices. The reliability test was also performed in SPSS version 27. Furthermore, the study conducted the confirmatory factor analysis (CFA), which confirmed already existing and tested questionnaire items, adopted and adapted from previous studies. Furthermore, frequency tables, diagrams, and charts were used to discuss the results (Bryman Bell, Hirschsohn, Dos Santos, Du Toit, Masenge, Van Aardt & Wagner, 2017).

Data quality control

The researcher received ethical clearance to conduct the study (ethical clearance reference number: H21-BES-LOG-050) and conducted the study in an ethical manner. Also, a Cronbach's alpha coefficient test performed in SPSS version 27 was used to test reliability. To ensure the validity of the research questionnaire, the researcher conducted a pilot test to test the data collection instrument which measured face and content validity.

Results and findings

Out of the 520 (500 for the customer survey and 20 for the retailers' survey) initial targeted sample size, a total of 418 questionnaires (402 for the customer survey and 16 for the retailer's survey) were completed in full, thus yielding an 80.38% response rate. Mugenda and Mugenda (2003), opine that a 70% and above response rate is very good. Thus, based on this statement, the 80.38% response rate obtained in this current study is very good.

The current study sought to examine the RL best practices in the fast-moving consumer goods industries, which also meant identifying the RL best practices implemented by the FMCG retail industry. The RL best practices are some of the most essential practices that firms follow towards achieving success of their firms. As stated previously in the literature review Jindal and Sangwan (2015) pointed out that RL best practices have been receiving increased attention in developing countries due to pressure from rigid environmental regulations, increasing environmental concerns of society, and the need to enjoy cost reduction benefits. The next sub-section discusses the results of the demographic information of the customers.

Demographic information on customers

The study sought to gain insight into the surveyed customers' characteristics. Lakshmi, Niharika and Lahari (2017), explain that one of the major factors in purchasing behaviour is gender. As shown in Figure 1 below, female respondents were more than male respondents, and this could be because generally, females do more shopping than males.
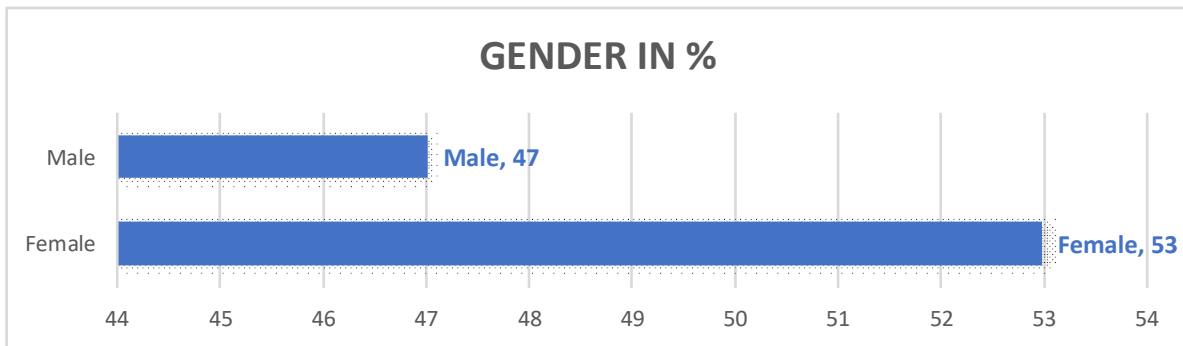

Figure 1: Gender

According to the results in Figure 1, more than half of the surveyed respondents (53%) in this study were female and 47% were male. This is because females find pleasure and satisfaction when shopping (Greeshma, 2016). From these respondents, the majority of the respondents were between the ages of 18 and 30 years, which represents 47% of the respondents. This is mostly composed of youth. This is followed by respondents aged between 31 to 40 years (39%), while the remaining 14% was represented by respondents aged between 41 and 65 years. The reason for the decline in percentage for the older generation could be because of Covid-19, e-retailing, and also because the youth could be buying for the older generation.
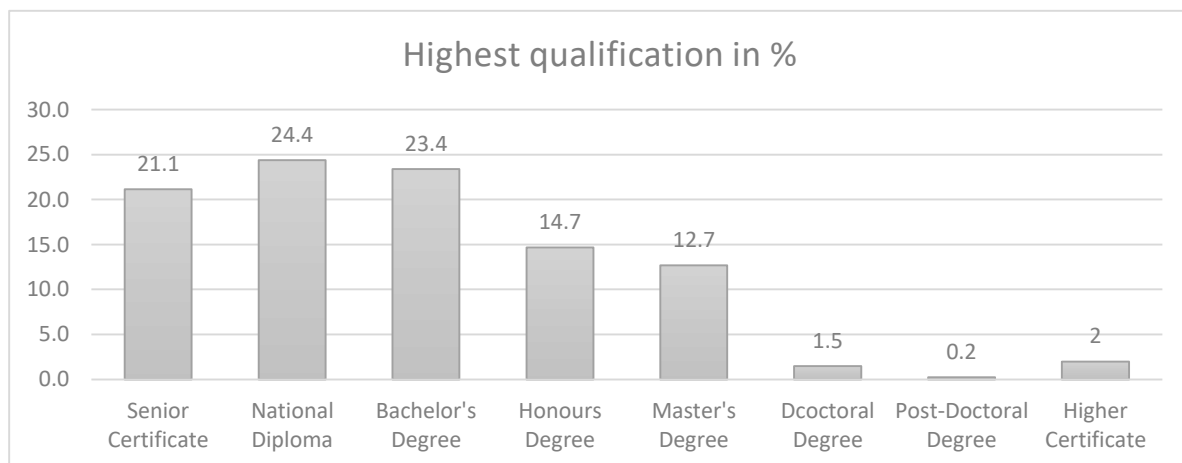

Figure 2: Highest qualification

As can be seen from the above results, a majority of the surveyed respondents in this current study had post-matric qualifications. As depicted in Figure 2 above, 24.39% of the surveyed customers held

National Diplomas, followed by 23.38% with bachelor's degrees, 21.1% of the respondents had a senior certificate, and 14.68% of the respondents held an honours degree. Only 12.69% of the respondents held a master's degree, with only 1.50% of the respondents having a doctoral degree, and 0.25% holding a post-doctoral qualification. Therefore, the remaining 1.99% belonged to the category *other*. Respondents in this category indicated that they had a higher certificate, and or advanced diploma.

Other descriptive questions were undertaken to understand the buying frequency of customers in this study and their understanding of RL. The results are illustrated in Figure 3 below. According to Figure 3, the majority of the respondents, which represented 48.51%, bought FMCG on a weekly basis from either Pick n Pay, Woolworths, Checkers, Spar, Boxer, and Makro, amongst others. This could be because the majority of the respondents, 47%+, were the youth who could be buying fresh produce because they are more health conscious. This is followed by 23.89% of the respondents buying on a monthly basis, and 21.44% of the respondents buying twice a month.
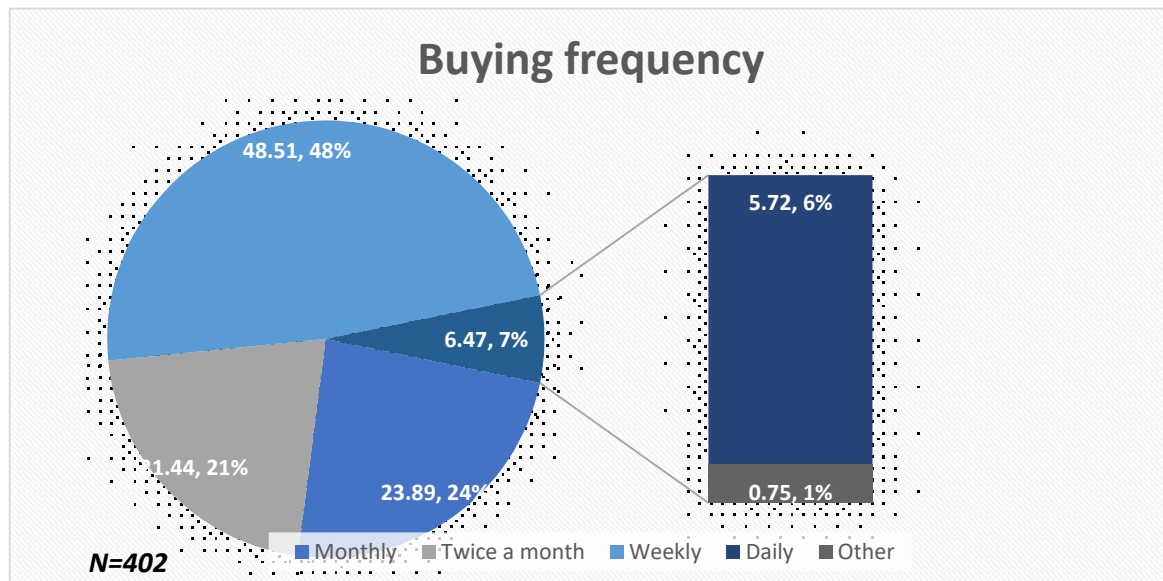

Figure 3: Buying Frequency

Moreover, the results reveal that 5.72% of the respondents bought FMCG on a daily basis, and 0.75% bought it once in a while, thrice a month, and once in six months (categorised under other). These results enabled the researcher to understand the profile of the respondents. The next section discusses the demographic information on retailers.

Demographic information on retailers

The demographic information was an important tool in assisting the researcher to establish background information to further conceptualise and gain an understanding of the respondents' characteristics. The demographic results included gender, the highest level of education, job title, and work experience. Frequency tables were used to determine the demographic profile of the surveyed respondents from the retail firms. These are summarised in Table 1 below. The findings in Table 1 indicate that the FMCG retail industry in Pretoria is male dominated (62.50%), while the females only constituted 37.50%. These findings indicate that women still lag behind men in logistics-related managerial jobs in the retail industry. The results are consistent with those of Meyer, Niemann, Mackenzie and Lombaard (2017) in whose study females constituted 33.33% of the large grocery retailers in SA. These results are concerning because the majority of the population in SA are women.

The findings in Table 1 further indicate that all the surveyed respondents in the study have formal qualifications. Moreover, the results also reveal that the majority of respondents (50%) have a National Diploma, while 37.50% of the respondents have a Bachelor's, Honours, and or master's degree. A total of

12.50% of the respondents indicated that they have a Senior Certificate. The high levels of qualifications among the retail staff meant that the surveyed respondents were qualified to answer the highly technical questions on RL asked in this study's survey. Although the surveyed respondents had a post-matric qualification, this does not indicate whether a respondent's schooling is in line with SC or logistics. The significance of SC or logistics education and education, in general, should not be disregarded because it can contribute to the success of retailers.

Table 1: Demographic characteristics of the retail respondents

Variable	Category	Frequency	Percentage (%)	Cumulative %
Gender	Female	6	37.50	37.50
	Male	10	62.50	**100**
	Total	**16**	**100**	
Highest level of qualification	Senior Certificate	2	12.50	12.50
	National Diploma	8	50.00	62.50
	Bachelor's Degree	2	12.50	75
	Honours Degree	2	12.50	87.50
	Master's Degree	2	12.50	**100**
	Total	**16**	**100**	
Job title	Store manager	3	18.75	18.75
	Logistics/Customer care manager	2	12.50	31.25
	Supervisor	2	12.50	43.75
	Procurement manager	3	18.75	62.5
	Third-party RL personnel	1	6.25	68.75
	Other	5	31.25	**100**
	Total	**16**	**100**	
Experience in current position	2 to 5 years	3	18.75	18.75
	6 to 15 years	8	50.00	68.75
	16 to 21 years	2	12.50	81.25
	22 or more years	3	18.75	**100**
	Total	**16**	**100**	

The current study also sought to gain further insight into the job positions held by the respondents, and the results indicate that the majority of the respondents were store managers and procurement managers (18.75%), 12.5% were either logistics or customer care managers in retail firms, 12.5% of the respondents were supervisors of their retail firms, and only 6.25% of them were third-party RL personnel. The results further showed that the remaining 31.25% worked in the human resource department as administrative clerks and finance clerks. However, the results clearly indicate that 68.75% of the respondents were the targeted respondents and the researcher could assume that these respondents are able to understand SC, logistics, and RL.

These respondents further indicated the experience they had in their respective current position, and this was shown in Table 1. The majority of the respondents (50%) indicated that they had been in their respective job positions for six to 15 years. This was followed by 18.75% of the respondents who indicated that they had two to five years of experience in their positions, and another 18.75% who had been in their respective position for more than 22 years. A minority (12.50%) of respondents indicated that they had been in their job positions for 16 to 21 years. This revealed that the majority of the respondents had more than six years of work experience in their current positions and were more informed about RL's best practices implementation in their firms. This will further be discussed and tabulated in the next section.

RL best practices

This section will be discussing the results tabulated in Table 2 from the survey questions on the level of implementation of the RL best practices by FMCG retail firms in Pretoria, SA.

Table 2: Reverse logistics best practices

Centralised return centres for returned products			
	Percentage	Mean	Std.Dev
Not implemented	6.3		
Less implemented	12.5		
Moderately implemented	37.5	3.19	0.911
Highly implemented	43.8		
Total	100		
Gatekeeping function that deals with returned products			
Less implemented	18.8		
Moderately implemented	37.5		
Highly implemented	31.3	3.38	0.957
Extremely implemented	12.5		
Total	100		
Collaboration with other FMCG retailers when transporting product waste to their final destination			
Not implemented	6.3		
Less implemented	25		
Moderately implemented	31.3	3.13	1.147
Highly implemented	25		
Extremely implemented	12.5		
Total	100		
Collaboration with consumers for effective recycling of used up products			
Not implemented	6.3		
Less implemented	37.5		
Moderately implemented	31.3	2.81	1.047
Highly implemented	18.8		
Extremely implemented	6.3		
Total	100		
Collaboration with suppliers for effective remanufacturing of our products that have reached their end of shelf life			
Not implemented	6.3		
Less implemented	18.8		
Moderately implemented	6.3	3.50	1.155
Highly implemented	56.3		
Extremely implemented	12.5		
Total	100		
Information sharing on products that have reached their end of life with our supply chain partners, to ensure responsibility towards the environment from everyone			
Less implemented	12.5		
Moderately implemented	25	3.69	0.946
Highly implemented	43.8		

Extremely implemented	18.8		
Total	100		
The use of advanced technologies and systems such as returns software, state-of-the-art technology, and RL information management systems, to enable the effective implementation of RL practices in the supply chain			
Not implemented	6.3		
Less implemented	6.3		
Moderately implemented	25	3.44	0.892
Highly implemented	62.5		
Total	100		
The use of third parties to effectively manage RL activities			
Not implemented	6.3		
Moderately implemented	43.8		
Highly implemented	37.5	3.50	0.966
Extremely implemented	12.5		
Total	100		
Mean: 3.33 **Std.Dev: 0.645**			

As shown by the overall mean (M=3.33) presented in Table 2 above, a majority of the respondents in this study indicated that RL best practices are moderately implemented in their respective FMCG retail firms. It is also evident from Table 2 that 43.8% of the respondents indicated that they highly implement centralised returns centres for returned products. Centralised returns centres have become a common solution for providing centralised sorting and return disposition services for firms (Saikiah *et al.*, 2016:9). More so, 37.5% of the respondents revealed that their FMCG retail firms moderately implement a gatekeeping function that deals with returned products. Retail firms should highly implement the gatekeeping function because it "reduces the cost of products being returned to an inappropriate destination" (Kussing & Pienaar, 2016:501). Furthermore, 31.3% of the surveyed retail managers stated that their FMCG retail firms moderately implement collaboration with other FMCG retailers when transporting product waste to their final destination.

The results in the above table also show that the surveyed FMCG retailers collaborate less with their customers for the effective recycling of used products. Moreover, 56.3% of the respondents stated that their retail firms highly implement collaboration with suppliers for effective remanufacturing of their retail stores' products once they have reached their end of shelf life. Also, 43.8% of the respondents stated that their FMCG retail firms highly implement information sharing with their SC partners. Information sharing in RL is important because it enables firms to collaborate effectively and efficiently with their supply chain partners in ways that generate RL-related value advantages, which will in turn improve the sustainable competitiveness and performance of the firm and its entire supply chain.

The results in Table 2 further indicate that advanced technology is highly implemented in most of the surveyed FMCG retail firms (62.5%). The respondents also said they believe that their FMCG retail firms have advanced in the use of technology systems, such as returns software, state-of-the-art technology, and RL information management systems are employed to allow the effective implementation of RL practices. This is good because excellent technological and information systems can help track and trace returned products and are useful when implementing standard RL activities (Samarasinhe & Wang, 2019).

Lastly, 43.8% of the respondents indicated that the use of third parties to effectively manage RL activities is less implemented in their FMCG retail firms. Highly implementing the use of 3PL RL service providers can enable FMCG retail firms to focus on their core business functions and enhance the use of advanced technology in a cost-efficient manner. This can also lead to inventory management improvement, increased visibility, cost reduction, and risk management enhancement, which also leads to

greater controls over inspecting, testing, recovering, and disposing of returned products, ultimately improving the firm's competitiveness of these retail firms (Robinson, 2016).

Reliability

The reliability of the scale results is presented in this section. The tests were conducted to measure if the results are consistent and whether the concepts that should be related are indeed related. According to Taherdoost (2016), reliability is the extent to which the measurement of a phenomenon provides stable and consistent results. This is further supported by Pietersen and Maree (2020) who postulate that reliability is the extent to which a measuring instrument is consistent and repeatable. Field (2013) opines that Cronbach's alpha and composite reliability are commonly employed to measure the scale's reliability. The required cut-off value of both Cronbach's alpha and composite reliability is 0.8 and above (Bryman *et al.,* 2017). However, Malhotra, Nunan and Birks (2017) suggest that 0.7 is acceptable, and 0.6 is sometimes also acceptable. The results suggested that Cronbach's alpha ranged from 0.820 to 0.931, signifying an overall good level of internal consistency. More so, these Cronbach's alpha results are supported by composite reliability coefficients which extended from 0.821 to 0.929. Based on both Cronbach's alpha and the composite reliability, the constructs involved in this study are considered reliable.

Implications

Upon completion of this research, this study indubitably contributed significantly to the theory development of future studies. The contributions of this study are as follows; (i) The study provided insight into previous research on RL best practices and the FMCG industry in SA. (ii) The study identified the RL best practices through a literature review for successful RL implementation that can lead a firm towards achieving the firm's competitiveness. (iii) The field of RL is dynamic and there is a dearth of research dealing with RL in the FMCG sector in SA, therefore, this study will play an essential role in the field by providing new insights and contributing to the body of knowledge. (iv) Many individuals can make a living through RL by recycling and selling recycled products from waste delivery. (v) It will also lead to an effective RL management system which will lead to the achievement of many goals, such as meeting the environmental protocols, increasing customer satisfaction, the decrease of operational costs, and the cumulative value of the brand.

This current study will therefore unquestionably assist the FMCG retail industry, managers, and practitioners in the successful implementation of RL best practices – by enabling the FMCG retail managers in identifying the RL best practices which they need towards achieving the firm's competitiveness.

As mentioned previously, there is a dearth of literature on RL best practices in the FMCG retail industry. Undeniably, this current study contributes significantly to the literature for future studies. This study has thus created the theoretical groundwork for future studies in this country and globally. Thus, this study recommends the implementation and improvement of RL best practices in the FMCG retailers' industry to achieve the firm's competitiveness. However, they face RL challenges in effectively implementing RL best practices toward achieving the firm's competitiveness.

A critical part of this research was to recognise and highlight the RL best practices to the FMCG retail industry, managers, and 3PL service providers. Through the findings in this study, the FMCG managers can scan the FMCG retailers' environment by conducting a swot analysis that can best assist them in knowing their strengths, weaknesses, opportunities available (such as 4IR) as well as threats (such as Covid-19). Moreover, the managers should, conduct a risk assessment and manage it by implementing the RL best practices. Also, the FMCG retail managers can plan, prioritise & implement and improve RL best practices to achieve a competitive advantage. Finally, they should monitor, evaluate & improve for RL best practices implementation success.

Recommendations

The recommendations of this study are expected to advise the FMCG retail firms of ways to improve their RL performance to achieve firm competitiveness. This was only plausible after the completion of this study. Following the results of this study, it is recommended that the FMCG retail industry increase

customer awareness of RL best practices implemented by retail firms, and train and educate employees on RL and RL best practices. Also, they should enhance RL best practices to improve RL implementation success and enforce formal policies. It is thus recommended that FMCG retailers globally enforce formal policies through harnessing RL practices to achieve these benefits that lead to the firm's competitiveness.

Limitations and future research

As prior stated, RL has been studied all over the world by many researchers; nevertheless, there's a dearth of literature on RL best practices in the FMCG retail industry in Pretoria, SA. Therefore, it proved difficult but not impossible for the researcher to find relevant literature. Thus, this current study undeniably contributes to both the FMCG retailers and the development of theory. The RL best practices can be used for RL implementation and improvement in other sectors globally. However, like any other study, this study is not without limitations. This study was conducted in Pretoria, SA, and could not cover SA as a whole due to time constraints. Hence, future studies may be carried out in other countries, provinces, and sectors. Similarly, further research can be conducted to improve the measurement of RL best practices.

This study employed a quantitative research method due to the 2020 outbreak of the Covid-19 pandemic, therefore the study only collected data through an online survey to ensure the safety of both the researcher and the respondents. That also became more challenging in July 2021 when the Protection of Personal Information (POPI) Act was implemented. Thus, future studies can consider using other research designs and methods of collecting data such as a qualitative research method and or a mixed method to get more insights on RL best practices that can lead to the firm's competitiveness to compare the results. Moreover, since this study only focused on RL best practices. Future research can also investigate other variables that can lead to the firm's competitiveness. Future studies can also increase the sample size when assessing the influence of RL best practices in the FMCG retail industry.

Conclusions

The FMCG retail sector has been prone to a lot of RL due to recalls and to a large extent waste management. The importance of implementing RL best practices and improving them has been highlighted in this study, as well as the benefits of implementation which will lead to the achievement of the goals set and ultimately the firm's competitiveness. Thus, this study significantly to the literature for future studies. The primary objective, which was examining RL best practices in the FMCG industry was achieved and was the key contribution. Moreover, the achievement of the secondary objective made it possible to achieve the primary objective of the study. The study also discussed the findings that revealed that RL best practices are moderately implemented. The contributions from this study were also discussed. Also, the recommendations to the FMCG retail sector, implications, limitations, as well as future research for scholars was made. The study likewise encourages future researchers to investigate RL best practices in other countries, provinces, and sectors. Additionally, future researchers can employ alternative research designs and methods, such as qualitative and mixed methods, as well as the use of probability methods. This study will have positive implications for the FMCG retail sector and theory.

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