Logistics-related Customer Complaints in the South African Retail Industry

ABSTRACT

Intense competition in the South African fast-moving customer goods (FMCG) retailing industry often results in price wars that encourage customer switching behaviour. Time and place utility provided by distribution, equates to customer service and forms part of the competitive strategy of retailers. Solving last-mile logistical problems in-store could be a valuable strategy in differentiation and building customer loyalty. The purpose of this study was to explore the nature of logistics-related customer complaints concerning South African mass grocery retailers (MGR) as lodged on customer complaints website Hellopeter.com, pertaining to the three largest MGR groups for the period of one year ending August 2016.

Secondary qualitative data (1871 cases of customer complaints) were firstly qualitatively analysed into nine categories and then quantitised. Product quality emerged as the most frequently raised customer complaint, followed by stock-outs, general till problems and shelf-teller price mismatches. Comparing the three MGRs, significant differences were found in the frequency of logistics-related problems per category. For some complaint categories, a time (month) relation could be established. The research provides insight into the type and extent of logistics-related problems in the final leg ('last mile') that customers consider important enough to raise written complaints on a public domain such as Hellopeter.com. MGRs could find value in addressing the problems identified in this study.

KEYWORDS

Last-mile logistics; Retail logistics; Customer complaints; Hellopeter.com

INTRODUCTION

Last-mile logistics is a metaphor for the final leg in the distribution of products to customers and is an important factor in the creation of value for retailers of fast-moving customer goods (FMCGs), such as food and beverage, and home and personal care items. In-store logistics can be referred to as the last '50 metres' in the retail supply chain and includes aspects such as product availability, product quality, product pricing, product positioning and customer interaction (source) and plays out in the retail store. These aspects fulfil a critical role in a customer's decision to buy from a specific retail store (Rafiq & Jaafar, 2007:172). More specifically, a direct positive association exists between in-store logistics performance of retailers and customer satisfaction. Furthermore, a positive relationship was also found between customer satisfaction and customer loyalty (Bouzabiaa *et al.*, 2013:119).

In South Africa (SA), FMCG products are still predominantly purchased in conventional brick-and-mortar retail stores. In 2014 only 48.7 per cent of South African households had Internet access (Stats SA, 2014), while in 2015, only one per cent of retail sales in SA were online (BusinessTech, 2015).

Grocery retailers contributed a major part (62%) of total retail sales in South Africa in 2016 and obtained the lion's share in profits made in the retail industry during the same term (Ernst & Young 2017:1). A Deloitte study (2015:9) identified three South African retail groups to rank among the top five largest retailers in Africa based on revenue. All three of these retailers predominantly operate in the food and beverage segment of the retail industry. A Gauteng Province report classified these retailers as part of the mass grocery retail (MGR) segment and provide their respective share of this segment collectively as 86 per cent (two retailers at 30 per cent market share each and one with 26 per cent market share) (Gauteng Province, 2012:7). These retailers formed the focal point in this study and are referred to as Business X, Y and Z (randomly ordered).

Customers are increasingly using online environments to connect with each other to voice their opinions regarding customer service failures or successes. Such interconnections keep them informed, and facilitates a learning process (Libai *et al.*, 2010). For this reason, secondary data from social media and complaint forums are increasingly used in identifying customer sentiment and underlying problems in different industries. In Australia, Bhattacharjya *et al.* (2016:659) studied online retail logistics complaints on Twitter. Beneke *et al.* (2015: 68) focused on the impact of negative electronic word-of-mouth on South African customers' brand attitude in the airline industry; Cho *et al.* (2002)) analysed web-complaint management; Ee Kim and Lehto (2012)

researched service challenges of disabled tourist mobility through an analysis of online complaints; and, Berndt and Koekemoer (2012) studied the prevalence of defamation in online customer complaints in the automotive industry. Although substantial research has been conducted on customer complaint behaviour, no research was found with a focus on an analysis of customer complaints regarding the last-mile FMCG retail environment.

In the South African context, few studies have focused on retail logistics issues. The closest study to this topic is by Vleggaar and Smit (2012:68) who studied the controllable factors of store success in a large food retail group in South Africa. Although the study included the impact last-mile logistical activities have on store performance, it did not aim to identify or prioritise these issues and only investigated the issues from a business perspective. If logistical activities positively contributed to store performance from a business perspective, it would be worth investigating what other logistical activities customers regard as important. Okanga and Groenewald (2015:838) researched the effectiveness of the delivery systems of e-retail enterprises in South Africa, but excluded traditional brick-and-mortar retailers. It is evident that there is a gap in South African research regarding traditional retailers and last-mile distribution challenges from a customer perspective. The fact that customers frequently complain about South African retailers on the Hellopeter.com platform, suggests that retailers' current last-mile logistics is regularly falling short of customer requirements and the extent thereof requires investigation. Research could provide insight to South African retailers on the in-store logistical procedures that contribute to a customer's evaluation of perceived service levels so that remedial action can be taken and loyalty be maintained or built on.

The purpose of this study is to explore the nature of last-mile logistical problems experienced by end customers of South African MGRs, with respect to problems that fall within the final leg, or last mile, of the supply chain as expressed on Hellopeter.com.

LITERATURE REVIEW

Supply chain management and logistics

The Council for Supply Chain Management Professionals (CSCMP) describes the supply chain as "the material and informational interchanges in the logistical process stretching from acquisition of raw materials to delivery of finished products to the end user" (CSCMP, 2017). Each supply chain participant's sequential activity contributes to the adding of value until the end user consumes the final goods. Logistics management can be defined as "that part of supply chain management that plans, implements, and controls the efficient, effective forward and reversed flow

and storage of goods, services and related information between the point of origin and the point of consumption in order to meet customers' requirements" (CSCMP, 2017). Getting products to markets comprises both inbound logistics activities for the management, storage and movement of material, and outbound logistics activities to distribute the final goods. Pienaar and Vogt (2016:17) added that customer service, although considered a marketing activity, is a key output of all logistical efforts.

Retail logistics and the last mile

Managing the distribution networks of FMCG retailers can be considered a unique and demanding task and may involve highly complex and advanced operations (Fernie & Sparks, 2014:5). Retailing "involves a direct interface with the customer ... from the concept or design stage of a product or offering, to its delivery and post-delivery service to the customer" (Bharathi, 2010:1). The roles of retailers have changed significantly in the last few decades. Retailers used to receive stock at stores delivered by manufacturers based on anticipated demand. Nowadays many retailers control large parts of supply chains based on known demand (Fernie *et al*., 2010:895), hence they are in a better position to revise their logistics processes in a competitive environment (Kuhn & Sternbeck, 2013:2). Contemporary retailers source thousands of stock-keeping units (SKUs) globally, moved by means of multiple transport modes through warehouses or distribution centres before products reach the retailer (Robinson, 2014). Robinson (2014) added that the latest stage of retail evolution is e-retailing, but that food is predominantly still purchased from brick-and-mortar retailers due to perishability.

Whereas large retailers conventionally emphasised the downstream activities in retailing, such as distribution and the last mile, a shift toward the control of the upstream retail supply chain is evident (GT Nexus, 2014:3). A demand-responsive supply chain has thorough insight into every activity within the process regarding its "product flow, delays, documents, inventory and costs" (GT Nexus, 2014:3). However, before improvements on upstream logistics and supply chain activities can be made in retail, it must first be established what aspects need improvement.

The retail last mile stretches from the hub; the retail distribution centre, to the final delivery place; often the customer's home (Conlumino, 2014:3). The last mile focuses on the 'how' and 'when' and is typically played out in retail spaces, retailer locations, retailers' web pages, customer service call centres, as well as the interactions between staff and customers (Soman, 2015: 217). The 'how' and 'when' aspects of retail spaces include packaging, transportation, inventory management and reverse logistics (Stock & Lambert, 2001:588) and are relevant to this study. The last mile in online

or brick-and-mortar retailing is defined as "the final leg in a business-to-customer delivery service whereby the consignment is delivered to the recipient, either at the recipient's home or at a collection point" (Gevaers *et al*., 2011:57). The last mile in the context of this paper refers to logistics activities that are prevalent at the retail in-store level. The conventional retail store, as a collection node for customers, is the focal point within this study.

Participants in the distribution channel include retailers, wholesalers, agents and brokers (Hugos & Thomas, 2006:32-33). The wholesalers/distribution centres provide the products and services to retailers and the retailers, in turn, provide products and services to the end customer (Dent, 2011: 247). The type of distribution channel is selected based on product lifespan, price and service requirements (Pienaar & Vogt, 2016:463). The perishability of food and beverages determines the type of distribution channel as well as the transportation mode.

Although retail distribution warehouses are usually located within a day's travel, retailers consider the trade-off between high transport cost of frequent shipments, and increased inventory cost of in-store product availability requirements (Stock & Lambert, 2001:588). Retail floor space is required to earn revenue. By increasing storage space within a retail store to increase product availability, another trade-off is made. Refrigerated transportation is imperative to maximise the shelf life of perishable goods in traditional brick-and-mortar stores. Three types of distribution intensity relate to the level of product availability within the retail channel or store, namely exclusive, selective and intensive distribution channels (Hugos & Thomas (2006:37-39). FMCGs, including food and beverages, normally resort under the intensive channel where product variety is high.

Specialised transport is essential for perishable FMCGs to avoid the potential risk of damage to the packaging (Tassou *et al.,* 2012:1-3). Packaging not only lengthens the shelf life of foods and beverages but contributes to economies of density when stowing goods in units inside the vehicle (Pienaar & Vogt, 2012:13). Apart from preventing damage to goods, packaging contributes to ease of handling and communicates product information, such as expiry dates. Owing to the high risk involved in transportation and the pressure on delivery speed and efficiency, retailers are increasingly making use of third-party logistics service providers (Hugos & Thomas, 2006:109). In addition, retailers have to deal with the complexity of reverse logistics, which refers to the reverse flow of goods or information (Hugos & Thomas, 2006:105) such as customer returns of defective goods, product exchanges, warranty of products and recycling of packaging – for which the receipt and movement is not planned.

Challenges in the retail last-mile distribution

In the supply chain, the last mile is often inefficient and may comprise of 28 per cent of the total delivery cost (Coupland, 2013). Additionally, last-mile problems include the difficulty in delivery of consignments to urban areas owing to road congestion.

A frequent problem in last-mile retail logistics is the prevalence of stock-outs. Fernie and Sparks (2009:190-191) stated that extensive research over the past four decades concerning the reaction of the customer when a stock-out occurs showed that 65 per cent of customers, in search of a particular grocery item, will react to a stock-out in three different ways: firstly, customers may purchase the item elsewhere; secondly, customers may delay purchasing the item; and lastly, they do not purchase the item at all. Dybell (2005), cited in Fernie and Sparks (20109192), stated that in-store shelf replenishment accounted for 35 per cent of retail stock-outs. Campo *et al.* (2000:219-220) found that revenue loss, owing to stock-out and unavailability of the product, affects both the manufacturer and retailer. Campo *et al*. (2000:219-220) added that stock-outs result in the loss of more than 50 per cent of manufacturers' buyers to other suppliers, whereas retailers may lose up to 14 per cent of customers if the product is not made available in the required quantity or time that the customer needs it. Fernie and Sparks (2009:3) stated that holding inventory in warehouses, as buffer stock, is an expensive activity as the stock may be of high value and could depreciate over time or even become obsolete over the period that the stock is kept as a buffer.

Another last-mile logistical problem that contributes to customer complaints at the retail in-store level is obsolescence. Obsolescence costs result from deterioration of product during storage (Bowersox *et al.,* 2010:163). When a product ages beyond recommended sell-by date, it is classified as obsolete. Products such as food and pharmaceuticals are at high risk of obsolescence and may cause considerable problems when the sell-by date is not managed in the retail store. According to a National Consumer Commission investigation (Wagner, 2014) the sale of expired goods seems to be persistent in the SA retail industry. Through efficient logistical practices such as inventory management, packaging and labelling, retailers can reduce obsolescence of perishable groceries while reducing the number of stock-outs (Fernie & Sparks, 2009:3). In addition, through the implementation of accurate information technology systems (ITS) the supply-demand gap can be reduced; resulting in improved customer service through product availability (Fernie and Sparks, 2009:3).

Huang (2015:48) studied the adoption of last-mile delivery modes by distribution centres to retailers as business customers, as well as to the final customer. The study measured the importance

rating of last-mile logistics problems by traditional brick-and-mortar retailers, as well as that of online customers (Huang, 2015:48). The most critical problems identified by Huang (2015:48) are damaged and lost goods.

Many problems associated with retail last-mile logistics are attributed to service reliability. It "concerns a firm's ability to perform all order-related activities, as well as provide customers with crucial information regarding logistical operations and status" (Bowersox *et al*., 2010:55). Reliability in the last mile may mean that consignments arrive on time, with no damage to product or packaging, correct invoicing, to the location specified by the customer and the precise product quantity that was ordered (Bowersox *et al*., 2010:56). Thus, when service reliability is effectively executed it might eliminate most of the problems associated with last-mile logistics in retail and contribute to customer satisfaction, and in return decrease customer complaints.

Customer behaviour in service failure

Although logistics service quality is a critical requirement for satisfying and retaining customers in the retail industry (Bouzaabia *et al.,* 2013:627) the analysis of customer complaints about the identification of logistical challenges is not an area that is widely researched in the retailing industry. However, the literature on general complaint behaviour and management is available. Customer complaint behaviour is defined as "a set of multiple (behavioural and non-behavioural) responses, some or all of which are triggered by perceived dissatisfaction with a purchase episode" (Singh, 1988:94). Behavioural and non-behavioural responses range in the degree of action taken. A behavioural response could involve the lodging of a complaint on an online forum, to a situation where no action is taken. Garding and Bruns (2015:4) expressed that the customer's complaint behaviour is an indication of the level of dissatisfaction with the service and is related to the nature of the service breakdown. The complaint should be taken seriously by the business as the customer's tolerance threshold has been exceeded; resulting in protest (Garding & Bruns, 2015:13). The customer's evaluation of a satisfactory experience has shifted from product-related criteria, such as quality, to value-added criteria, such as delivery and packaging (Flint *et al.,* 2011:219-228).

Customer reviews and complaints on social media such as Facebook, blogs, Twitter and Hellopeter.com can have a serious effect, whether positive or negative. Research conducted by Reevo on European retailers' product reviews found that an increase from 25 to 50 reviews increases the level of conversation, which is re-tweets or shares on the related product, by 18 per

cent (Smart Insights, 2011). The empowered customer can compare prices over the Internet and switch between the many alternative retail stores with little effort.

It is therefore increasingly important for retailers in the digital age, to monitor and respond to these reviews and complaints on social media, as they are publicly available. Rust and Chung (2006:566) highlighted the importance of complaint management, as it is an opportunity for service recovery to retain the customer's loyalty because dissatisfaction empowers the customer to either reduce or discontinue purchases.

Customer complaint websites in South Africa

In February 2016, according to SimilarWeb, Hellopeter.com had 842 700 visitors of which 42 per cent were South African (2016a); Getclosure.co.za had 15 000 of which 92 per cent were South African (2016b); and complaintsboard.com had 1 650 000 of which less than 2.3 per cent were South African (2016c). It follows that Hellopeter.com is the complaint website that is most frequently visited by South African customers, and this was the primary reason why it was used in gathering data for this study. Secondly, the website is not endorsed by any business, and thirdly, it provides complaints data in a structured way – all organised per business.

Hellopeter.com is a data aggregator that stores customer complaints (or compliments) regarding a product or service customers received from businesses. It is a source of secondary data for this study. When selecting a secondary source, its suitability and validity should be assessed (Saunders *et al.,* 2016:335). Access to Hellopeter.com is open to the public and the secondary data available through this portal were used to achieve the research objectives of this study. Validity of data relates to accuracy and its ability to reflect reality (Saunders *et al*., 2016:730). It is assumed that the customers' complaints on Hellopeter.com are valid as they are the 'customers' of the product, service or experience. However, complaints may not be authentic, as it cannot be ascertained whether the claim within the complaint actually occurred. Validity can further stem from high levels of participation, such as the high levels of website traffic on Hellopeter.com. From a business perspective, the complaint should be considered valid, as these complaints are visible to a large number of website users, and poses a risk to the business's reputation and perception of its brand. It can be argued that the complaint format of Hellopeter.com contributes to the validity of a customer complaint owing to the amount of effort spent by the customer in writing or typing out the issue. This study intends to identify logistics-related problems that customers consider

important enough to raise on a public website in written format, as opposed to verbal complaints that require less effort in sharing with other customers on social media platforms.

From a Hellopeter.com analysis of customer feedback to the retail industry (Figure 1), 23 per cent (9977) of complaints lodged by customers related to logistics activities (hygiene (1%), late/no delivery (9%), out of stock (1%), damaged goods (8%), pricing/barcodes (3%), and expiry date (1%). 'Late' or 'no delivery' and 'damaged goods' account for 17 per cent of the 23 per cent logistics-related complaints. Other functional complaints related to 'bad attitude' of a retailer employee (13%) and 'billing issues' (11%).
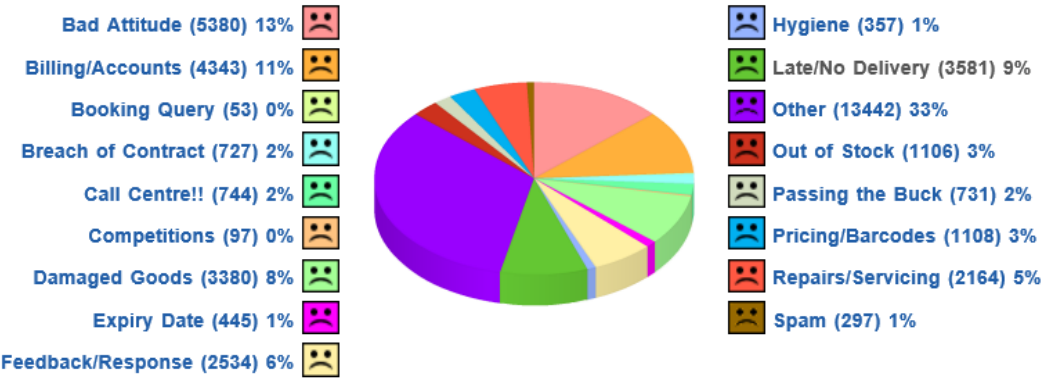

Figure 1: Hellopeter.com analysis by type of complaint about the South African retail industry over a one-year period ending 19 February 2016. Source: Hellopeter.com (2016a)

The results in Figure 1 are no longer available on the Hellopeter.com website owing to a change in the format and layout of the website. Although the Hellopeter.com analysis in Figure 1 provides an overview of the type of complaints raised on the website, it does not indicate the retailers to which the complaints relate or the specific retail segment. Furthermore, broad categories of complaint types are provided that are neither defined nor coded into logistics-specific subcategories. Thus, an in-depth analysis of logistics-related customer complaints on Hellopeter.com was required for specific MGRs.

This study focused primarily on the physical product and related information flows. Although the definition of supply chain typically includes reference to financial flows, in the retail environment the cause of the financial-related problem cannot be attributed directly to the retailer. These problems may result from the participation of other supply chain members such as financial and telecommunication institutions.

RESEARCH PROBLEM STATEMENT

Retailers need to monitor and evaluate the complaints of their customers in order to improve their service levels. The research problem is that there is limited information on   the last-mile logistics problems affecting the level of customer service provided by conventional brick-and-mortar MGR stores in South Africa. Additionally, it is not known whether customers experience the same logistical problems for each of the MGRs.

RESEARCH QUESTION AND OBJECTIVES

Main research question

With regard to conventional MGR stores, what is the nature of last-mile logistical problems experienced by customers who complain on the South African Hellopeter.com website?

Objectives

The primary objective was to explore the nature of last-mile logistical problems that are experienced by the end customer in South African MGRs, with respect to problems that occur within the last mile of the supply chain as expressed on Hellopeter.com.

The secondary objectives in support of the primary objective were:

- Identify the different categories of last-mile logistical problems that are prevalent in the complaints relating to the customer's service experiences, as raised on Hellopeter.com, against the major MGRs in South Africa.

- Establish whether there is a statistically significant difference in the number of complaints directed by customers to each of the largest three South African MGRs.

- Determine whether the frequency of complaints raised by customers are bound to specific months within the year.

RESEARCH METHODOLOGY

This exploratory study followed what can be considered a mixed method (Qual/Quants) design in the collection and analysis of data with the results from the quantitative part of the study being given prominence in this article. The study commenced with a qualitative analysis of secondary data collected from Hellopeter.com; a publicly accessible South African-based customer review website. Due to the high number of customer complaint incidents recorded and analysed (1871), it was possible to conduct a quantitative analysis of the qualitative results. According to Saunders *et al*. (2016:172), quantitising involves that "specific events in the data are counted as frequencies and numerically coded for statistical analysis". This description is supported by Grbich (201:5)

defining 'quantitising' as "the process of assigning numerical values to data conceived as not numerical".

Data sample and collection

The target population of this study is the MGRs of South Africa. Data was collected from the top three MGRs dominating the industry in South Africa. These three largest MGRs could be considered representative of the MGR industry owing to their collective share of the grocery market (86%). The sample frame included the various subsidiaries belonging to each of these companies and the authors ensured that customer complaints directed at all those subsidiaries were recorded and analysed. The secondary data sample used in the study comprised of customer complaints against the three MSRs lodged on Hellopeter.com for the one-year period between August 2015 and August 2016. More specifically, the data set consisted of 1871 last-mile logistics related customer complaints based on experiences in brick-and-mortar retail stores.

Research rigour

The social reality in this study refers to the complaint forum where customers spontaneously interact with the business through lodging complaints. Although the customer's complaint is subjective, an objective stance was taken to categorise the problems raised in the complaints.

Saunders *et al*. (2016) purported that for social media pages such as Hellopeter.com, it may be difficult to establish the trustworthiness as the complainant may not fully portray the real sequence of events, but rather the perceived. However, it is the perceived problem that the customer felt was significant enough to raise on the Hellopeter.com platform that this study aimed to identify. This confirms the suitability of the platform in achieving the research objective as it provides data from the customer's perspective.

Credibility is an important element in the establishment of trustworthiness in qualitative studies and requires that the study measures what it intended to measure. For this study, theme category descriptions are well defined and are mutually exclusive; facilitating consistency in analysis. All theme category descriptions were considered throughout data sourcing and data analysis. Researchers immersed themselves in the data in order to capture only the main problem raised by the customer for each customer complaint, in the case of more than one problem being raised per entry; contributing to the verifiability of the study. The researchers considered each complaint holistically. They considered the main problem as the problem that was most frequently mentioned

in the entry, mostly elaborated on, and the primary issue that provided a starting point for also raising other problems or those linked to the complaint's title.

Research ethics

The business which owns the Hellopeter.com website has given permission for the use of the complaints data in this research. The identities of the MGR companies studied have not been disclosed in this article. Neither have the sources of customer complains been identified. Formal ethics clearance was provided by the relevant ethics committee of the University of Johannesburg.

RESULTS

This section provides a description of the data analysis processes followed as well as the results thereof. For the purpose of this article, emphasis is given to the results stemming from the quantitative data analysis.

Qualitative data analysis

A template analysis was used to develop codes for logistical problems that were data and theory based (Saunders *et al.,* 2016:583). This process is described by Saunders *et al.* (2016:587-588) as a combination of precoding and coding during data sourcing to identify themes within the qualitative data. This method provided flexibility in adding, merging and removing themes as "new data suggests deficiencies in the codes being used" (Saunders *et al.,* 2016:588), which ensured that the main logistical problems were uncovered. Categories with clear scope boundaries allowed for the quantification thereof (refer quantitative data analysis section), as an issue raised in a customer review could only be recorded in one suitable category.

Various themes emerged during the data analysis that were coded into nine categories, as described in Table 1. The nine categories include: stock-out, expired goods, shelf-teller price mismatch, general labelling, quality, product exchange, general till, hygiene, and damaged packaging.

Quantitised logistics-related complaints on Hellopeter.com by category

The first secondary objective was to identify the different categories of last-mile logistical problems that are more prevalent in the complaints relating to customers' service experiences as raised on Hellopeter.com.

Table 1: Description of each qualitative category of complaint

Category of complaint	Theme description
Stock-out	• No stock available in store
Expired goods	• Sale of goods after the labelled expiry date
Shelf-teller price mismatch	• Price on the shelf does not match the price scanned at the till
General labelling	• No price tag • No barcode • Unethical labelling • Wrong product description on the label
Quality	• Sale of spoilt/rotten/mouldy/insect-infested/raw/stale/ goods before the labelled expiry date • Quality of product is perceived inferior/malfunctioning • Incorrect quantity/weight of the product
Exchange	• Exchange policy • Warranty/guarantee
General till	• Long queues • Closed tills/limited number of tills available • No packers available • Packer does not pack all items into plastic bags
Hygiene	• Dirty/unpleasant odour in store • Dirty tills and trolleys • Rat droppings/rats in the store • Dirty bakery and deli-equipment • Handling bakery and deli products without gloves • Blood stains on packaging/goods
Damaged packaging	• Packaging/seal is opened • Items are missing within the packaging of durable customer goods

The frequency of category occurrence for the unit of analysis was recorded, a process of content analysis explained by Silverman (2011:10) as "predetermined categories used to count content...". The categories were statistically analysed using descriptive and inferential statistics to establish whether there are significant differences between the three MGRs' problem categories.

Categories that were excluded are billing and account problems, as the primary focus was on information and physical flows of logistics-related activities. In addition, problems related to other business functions such as marketing (advertising, loyalty programmes), human resources (training, staff attitude) and financial (accounts) were excluded.

The percentage of each problem as a total of logistics-related problems is depicted in Figure 2. Of the 1871 complaints, most (641 = 34.3%) were about the quality of the product. Complaints related to sales of spoilt/rotten/mouldy/insect-infested/raw/stale goods before the labelled expiry date, the quality of the product perceived as inferior/malfunctioning, and incorrect quantity/weight of the product.
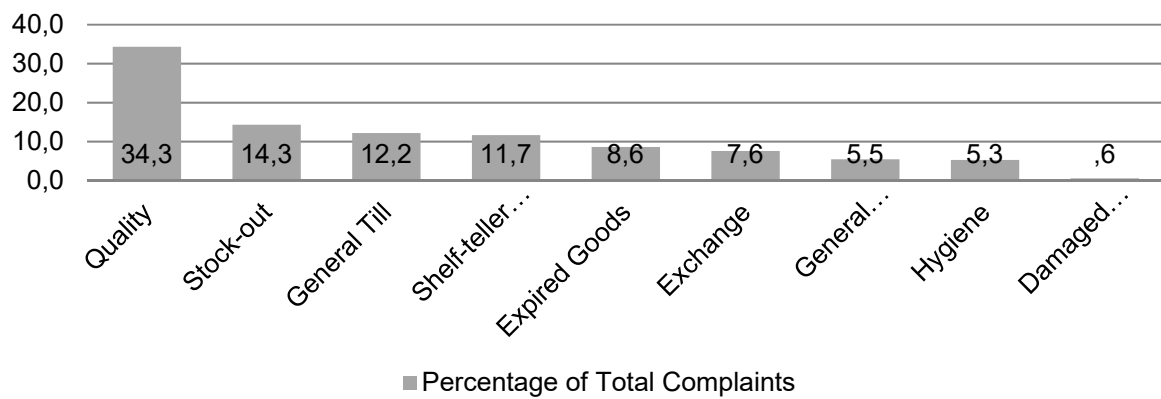
Figure 2: Quantitised logistics-related complaints on Hellopeter.com by category

Although not recorded as a subcategory, the vast majority of quality-related problems were about deli-, bakery or butchery products. It was evident that the customers viewed quality as the primary driver to lay a complaint on Hellopeter.com. This does not support the findings of Flint *et al.* (2011:228) who found that customer satisfaction has shifted away from product quality and is more frequently based on value-added criteria. It seems that in the South African MGR industry, customers place a significant value on product quality.

Complaints about stock-outs were the second most prevalent logistics-related complaint (14.3%). The significance of a stock-out on the customer's purchase behaviour and future loyalty to a retailer is highlighted by Fernie and Sparks (2009:192). Although not separately recorded, a number of customers' complaints regarding stock-outs were linked to items on promotion.

Complaints pertaining to general till problems (12.2%) are considered last-mile logistics-related complaints as it hinders the flow of items out of the retail store. Complaints included: long queues at the till; closed tills/limited number of tills available; no packers available; and packer does not pack all items into plastic bags. These complaints related to the level of service offered to the customers at the tills, causing inconvenience through increased waiting times.

Of the complaints, the mismatch of the shelf-teller price (11.7%) could further contribute to delays at the till as it requires the shelf price to be checked prior to completing the sale. Furthermore, the customer may formulate a price-expectation when picking groceries from the shelf and disappointment follows when the expectation is not fulfilled. Complaints about expired goods and products sold past their sell-by date comprised 8.6 per cent of the total number of complaints and relates to the issue of obsolescence in the last mile of logistics. Obsolescence in the logistics' last

mile is consistent with the findings of Bowersox *et al*. (2010:163) who found a high degree of obsolescence pertaining to perishable goods.

On Hellopeter.com customers complained least about general labelling (5.5%), hygiene (5.3%) and damaged packaging (0.6%). Although only 99 complaints about hygiene were lodged, the nature of these complaints are of serious concern, namely: dirty/unpleasant odour in a store, dirty tills and trolleys, rat droppings/rats in a store, dirty bakery and deli equipment, handling bakery and deli products without gloves, and blood stains on packaging/goods.

Frequency of complaints per mass grocery retailer

Of the 1871 complaints, 50 per cent (937) were for Business X, 32 per cent (590) for Business Y and 18 per cent (344) for Business Z. Although Business X and Y have similar market share, the number of complaints recorded for Business X far exceeded those for Business Y.

Statistically significant difference in the number of complaints between MGRs

To test whether significant differences exist in the number of complaints received per complaint category for the three MGRs, a Pearson Chi-square test for independence was used. According to Pallant (2007:212) this test allows the comparison of "the frequency of cases found in the various categories of one variable across the different categories of another variable". To identify significant differences between MGRs, whether much higher or lower, an asymptotic significance test was conducted, defined by Lane (2015) as the "probability computed considering differences in both direction". The alternate hypothesis (H_1) is accepted if the asymptotic significance is less than 0.05, as presented in Table 2.

> H_0: No statistically significant difference exists between the logistics-related complaints of the three MGRs
>
> H_1: A statistically significant difference exists between the logistics-related complaints of the three MGRs

Evident from Table 2 is that significant differences exist between the three MGRs – Business X, Business Y, and Business Z – for six of the nine complaint categories, namely stock-out, expired goods, general till, quality, exchange, and hygiene. Whereas Business X had significantly more complaints relating to four complaint categories, namely stock-out, general till, quality and exchange in relation to Business Y and Business Z, Business Y had significantly more complaints relating to two complaint categories, namely expired goods and hygiene. In all categories, the percentage of complaints about Business Z are the lowest of the three MGRs. No significant

differences exist between the three MGRs for the following complaint categories: shelf-teller price mismatch, general labelling, and damaged packaging.

Table 2: Significant testing of complaint differences between top three MGRs

Category of complaint	Pearson Chi-Square Value	Degrees of Freedom (df)	Asymptotic significance (2-sided)	Percentage of complaints				H₁
				Business X	Business Y	Business Z	Total	
Stock-out	$7,748^a$	2	0.021	57.1	29.3	13.6	100	Accept
Expired goods	$16,036^a$	2	0.000	38.6	45.2	16.3	100	Accept
Shelf-teller price mismatch	$2,711^a$	2	0.258	49.3	28.5	22.2	100	
General labelling	$3,871^a$	2	0.144	58.8	23.5	17.6	100	
General till	$15,207^a$	2	0.000	57.9	32.9	9.2	100	Accept
Quality	$27,171^a$	2	0.000	47.9	27.4	24.7	100	Accept
Exchange	$15,089^a$	2	0.001	59.2	34.5	6.3	100	Accept
Hygiene	$11,884^a$	2	0.003	33.3	43.4	23.2	100	Accept
Damaged packaging	$4,582^a$	2	0.101	18.2	54.5	27.3	100	

Relationship between the type of complaint and time of lodging

To determine whether the frequency of complaints raised by customers are bound to specific months within the year (third secondary objective), occurrences of complaints within each month are indicated in Figure 3. Except for damaged packaging, complaints are lodged in all the categories for each of the 12 months. Quality is the most frequently raised complaint for every month of the year, ranging between 23.6 per cent and 41.9 per cent of complaints. Although stock-out complaints peak in July (26.4%) it is second highest in November (20.4%). In June, exchange-related complaints reached 18.9 per cent. A logical pattern of complaints by month does not seem to emerge from the results in Figure 3.
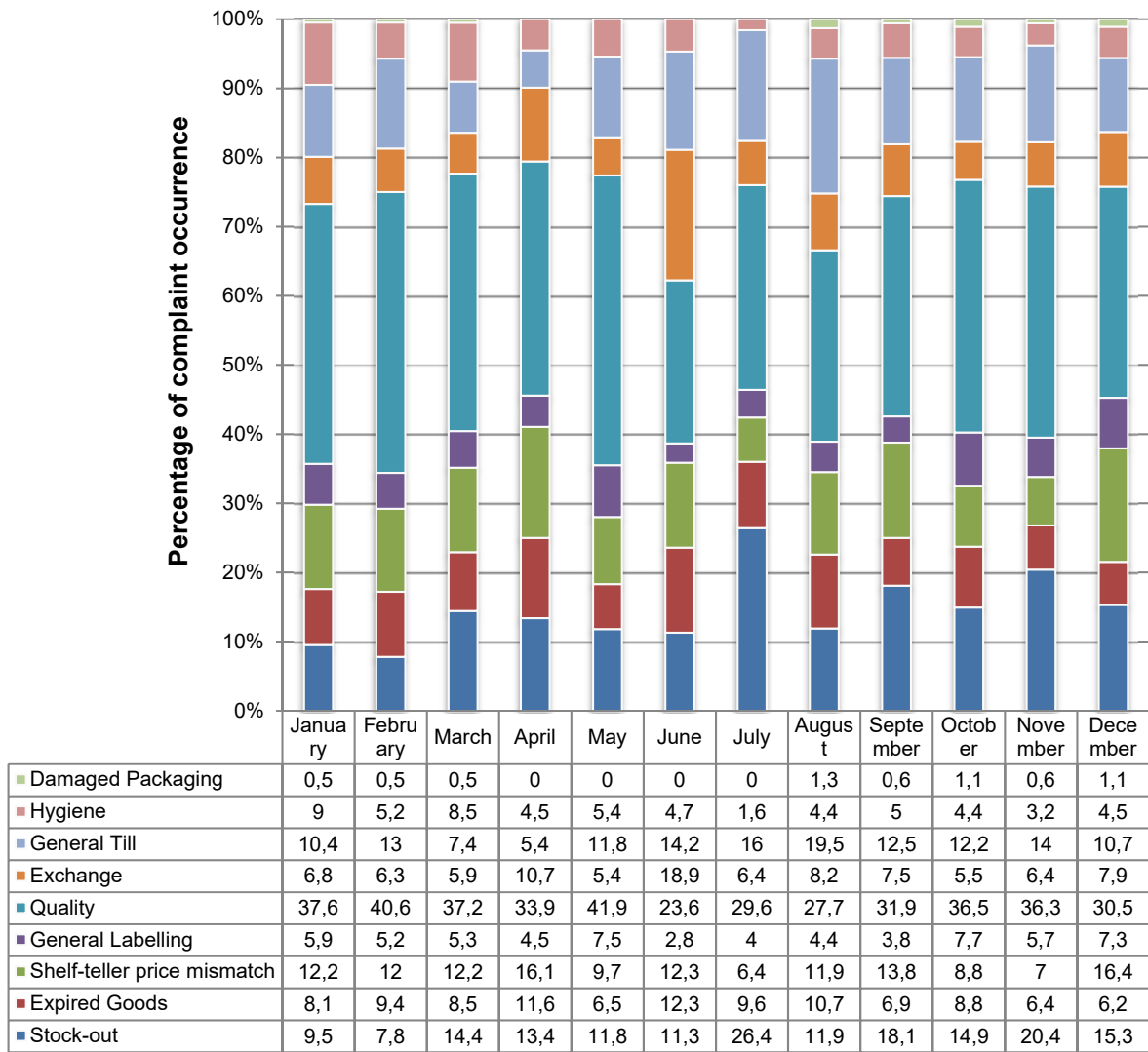
	January	February	March	April	May	June	July	August	September	October	November	December
▪ Damaged Packaging	0,5	0,5	0,5	0	0	0	0	1,3	0,6	1,1	0,6	1,1
▪ Hygiene	9	5,2	8,5	4,5	5,4	4,7	1,6	4,4	5	4,4	3,2	4,5
▪ General Till	10,4	13	7,4	5,4	11,8	14,2	16	19,5	12,5	12,2	14	10,7
▪ Exchange	6,8	6,3	5,9	10,7	5,4	18,9	6,4	8,2	7,5	5,5	6,4	7,9
▪ Quality	37,6	40,6	37,2	33,9	41,9	23,6	29,6	27,7	31,9	36,5	36,3	30,5
▪ General Labelling	5,9	5,2	5,3	4,5	7,5	2,8	4	4,4	3,8	7,7	5,7	7,3
▪ Shelf-teller price mismatch	12,2	12	12,2	16,1	9,7	12,3	6,4	11,9	13,8	8,8	7	16,4
▪ Expired Goods	8,1	9,4	8,5	11,6	6,5	12,3	9,6	10,7	6,9	8,8	6,4	6,2
▪ Stock-out	9,5	7,8	14,4	13,4	11,8	11,3	26,4	11,9	18,1	14,9	20,4	15,3

Figure 3: Logistics-related complaint occurrence by month as a percentage of total complaints per month

The occurrence of logistics-related complaints within a single month of the year is depicted in Figure 4. Overall, a higher number of complaints were recorded for the months January to March, and a lower number between April and July.
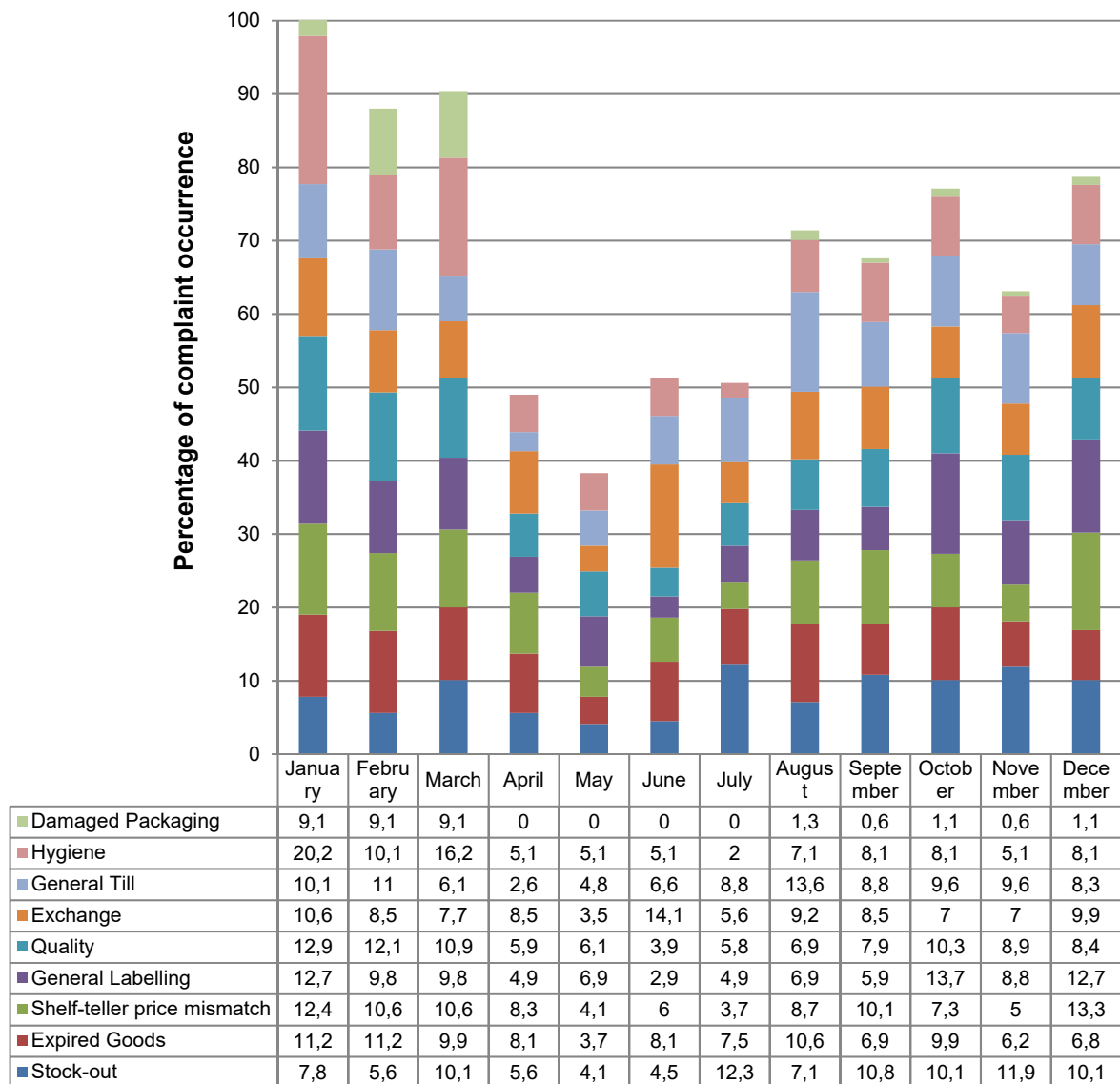
	January	February	March	April	May	June	July	August	September	October	November	December
■ Damaged Packaging	9,1	9,1	9,1	0	0	0	0	1,3	0,6	1,1	0,6	1,1
■ Hygiene	20,2	10,1	16,2	5,1	5,1	5,1	2	7,1	8,1	8,1	5,1	8,1
■ General Till	10,1	11	6,1	2,6	4,8	6,6	8,8	13,6	8,8	9,6	9,6	8,3
■ Exchange	10,6	8,5	7,7	8,5	3,5	14,1	5,6	9,2	8,5	7	7	9,9
■ Quality	12,9	12,1	10,9	5,9	6,1	3,9	5,8	6,9	7,9	10,3	8,9	8,4
■ General Labelling	12,7	9,8	9,8	4,9	6,9	2,9	4,9	6,9	5,9	13,7	8,8	12,7
■ Shelf-teller price mismatch	12,4	10,6	10,6	8,3	4,1	6	3,7	8,7	10,1	7,3	5	13,3
■ Expired Goods	11,2	11,2	9,9	8,1	3,7	8,1	7,5	10,6	6,9	9,9	6,2	6,8
■ Stock-out	7,8	5,6	10,1	5,6	4,1	4,5	12,3	7,1	10,8	10,1	11,9	10,1

Figure 4: Logistics-related complaint occurrence by month

Hygiene and quality logistics-related complaints seem to be highest in the hotter summer months of January, February and March, as well as in October, November and December, and lower in the winter months. In January hygiene-related complaints peaked at 20.2 per cent, followed by March (16.2%) and February (10/1%). In the colder months, between April and July, the complaints are less frequent and range from two per cent to 5.1 per cent. There seems to be a seasonal trend. Although warmer conditions can intensify odours in confined spaces, pertaining to the other components of hygiene (in Table 2), a logical reason for this trend is not evident. However, increased foot-traffic in warmer months, may contribute to an increase in odours, dirty floors and surfaces, and general hygiene problems.

Similarly, a higher frequency of quality-related complaints occurred in the summer months of January to March and October to December, with lower frequencies in winter months between April and August. Even though not specifically recorded, the majority of quality-related complaints concerned the deli-, bakery and butchery produce. Quality-related complaints included problems with insects; items expired before the expiry date, items containing mould, rotten meat or stale bakery items. As higher temperatures during warmer months contribute to the accelerated deterioration of fresh produce, it is possible for related complaints to be lodged in these months. The inverse is also true: a lower frequency of quality complaints occurred during colder conditions when fresh produce tend to last longer than in summer months. A logical relationship between the month of complaint and malfunctioning of goods and incorrect quantity of goods packed does not seem obvious.

A percentage of stock-out complaints occur between September and December (between 10.1% and 10.8%). A possible explanation may be that customers' purchase behaviour changes in the months preceding the December holiday as they stock up for Christmas and New Year festivities, which may lead to a higher degree of stock-availability related complaints. In addition, the random spikes in stock-out complaints throughout the year could be attributed to the 'bull-whip effect' that occurs owing to inconsistent ordering throughout the retail-chain.

The frequency of shelf-teller price mismatch complaints was higher during the months of December to March (10.6% to 13.3%), containing various holidays such as Christmas, New Year and Valentine's Day, during which promotions are offered by retailers. It seems that price mismatch complaints appear in months with higher levels of promotions. Lower levels of price mismatch complaints occurred in the months between May and July. The retailer's ability to correctly link the barcode price to the shelf price should not vary throughout the year.

General till-related problems were lower in the months from March to June (between 2.6% and 6.6%) compared to July to February (8.8% to 11%). Warmer conditions may encourage shopping behaviour, leading to increased foot-traffic, longer queues and fewer staff to pack groceries at the till.

From the complaints in the categories of hygiene, quality, stock-out, shelf-teller price mismatch, and general till there seems to be some degree of time relation. A time relationship could not be established for the complaint categories of expired goods, general labelling and damaged packaging.

CONCLUSIONS AND RECOMMENDATIONS

The purpose of conducting this study was to explore the nature of logistics-related complaints, raised by customers on Hellopeter.com. Firstly, from the thematic and content analysis of 1871, nine categories of complaints were identified and described in compliance with the first secondary objective. From the quantification of these complaints by category, it emerged that quality-related complaints were the most prevalent problem raised by 34.4 per cent of customers lodging complaints. This is followed by stock-out (14.3%), general till problems (12.2%) and shelf-teller price mismatch (11.7%). From these results, MGRs can gain an appreciation for the type and seriousness of logistics-related problems in the last mile (final leg) as experienced by in-store customers.

To benchmark last-mile logistics-related performance from a customer perspective against competing MGRs, the results of the significant testing of differences between the three MGRs could serve as a guide, as significant differences exist for six of the nine complaint categories. Whereas Business X had significantly more complaints relating to stock-out, general till, quality and product exchange in relation to Business Y and Z, Business Y had significantly more complaints relating to expired goods and hygiene. One may deduce from this result that the operations of MGRs had an impact on the last-mile logistics-related problems experienced by in-store customers and that clear opportunities for improvement exist for these retailers. Since the identities of the MGRs are not disclosed in this study, it is recommended that these companies collect and analyse complaints directed against them on Hellopeter.com in order to find improvement opportunities.

From an analysis of the number of complaints per category by month, it follows that the complaints in the categories of hygiene, quality, stock-out, shelf-teller price mismatch, and general till seem to display a time relation. The complaints regarding these categories are all higher in the summer months than in the winter months. Some of the complaints maybe be ascribed to the hotter weather affecting the products and the environment, in particular, hygiene and quality related-complaints, while others may be attributed to increased foot-traffic during these months, such as general till complaints. The results highlight the time period during which most of the logistics-related problems occur. This final finding may be used by MGRs to identify the time period in which these problems seem to be more critical to the customer's evaluation of service provision and to pre-empt any such complaints.

From this research, an insight into the nature of last-mile logistical problems raised by end customers of the three major South African MGRs has been gained in compliance with the main research objective. The results provide insight into MGRs on the type of problems that customers consider important enough to raise written complaints on a public domain such as Hellopeter.com. Companies that respond to complaints on Hellopeter.com have already recognised the importance of the role that these platforms play in reputation management. It is critical that South African MGRs address these logistics-related problems to retain customers and prevent switching. MGRs could regularly conduct an analysis of complaints on social media to identify problem areas and improve on the last-mile logistical problems valued by customers.

Limitations

The study has some limitations: only the main problem within the unit of analysis, namely customer complaint, was recorded. Some complaints may have contained more than one problem related to logistical activities. A further limitation lies in the fact that only a subset of the South African customer population was surveyed – those with Internet access and knowledge of the Hellopeter.com website who chose to lodge a complaint through the latter. These limitations should be considered in the interpretation and use of the study's findings.

Future research

Future research to provide greater insight into logistics-related complaints within the South African FMCG retail industry should focus on:

- unpacking the relatively large number of complaints identified within the 'quality' category into a greater number of sub-categories
- repeating this study on an annual basis to identify patterns whether the type and frequency of problems recur, increase or decrease and to monitor whether MGRs are addressing these problems

Contribution

This research study contributes to the body of knowledge on South African retail in general, but more specifically to FMCG last-mile logistics-related problems from the in-store customer's perspective. In addition, this study provides information on logistics-related functions, whether performed in-house or by third-party logistics (3PL), the effect of which are considered critical by customers. Such information could have management implications for South African FMCG retailers.

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