

# BUILDING SUSTAINABILITY INTO THE TOWNSHIP RETAIL SUPPLY CHAIN – AN EXPLORATORY STUDY OF THIRD PARTY DISTRIBUTION

**Justin Henley Beneke**

School of Management Studies, University of Cape Town, Rondebosch, South Africa.

Corresponding author: justin.beneke@uct.ac.za

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**Abstract:** In the South African retail market, Township retail outlets have different needs to ordinary retail stores, thus creating a challenge for manufacturers of Fast Moving Consumer Goods (FMCG) on how to effectively distribute their products to these retailers. This study aimed to investigate the various forms of Third Party Distribution and how effectively they are able to service the Township retail sector. In so doing, sustainability in the supply of such merchandise can be built and maintained.

The literature determined that using Third Party Distributors allows manufacturers to focus on their core activities as well as reduce costs. Three models of Third Party Distribution were identified, namely Asset-Based Vendors, Warehouse clubs and Hybrid Models. With regards to Township retail, three major typologies of retailers operate in that sector, namely Hawkers, Spazas and General Dealers.

Upon conducting the empirical research, a large portion of findings coincided with that of the literature however, previously undocumented findings were also recorded. Some major findings include the improved access to facilities that township retailers possess, as well as new unique forms of distribution discovered within the townships. In terms of FMCG companies, it was found that costs were not significantly reduced when outsourcing distribution. However, a significant increase in market share, sales and customer satisfaction was confirmed. Based on the findings, relevant conclusions and recommendations were constructed and are presented at the end of this paper.

**Keywords:** retailers, manufacturers, third party distribution, township, South Africa

## INTRODUCTION

The Townships of South Africa represent a unique trading environment for both manufacturers and retailers alike. While the typical resident forms part of the lower end of the Living Standards Measure (LSM) classification, the sheer number of people who live in these areas makes this a viable market for the Fast Moving Consumer Goods (FMCG) sector in South Africa.

With the fragmented nature of Township retailers, manufacturers experience problems in getting their products to the market place. Stores are typically very small, under-equipped in terms of Point-of-Sale systems and refrigeration facilities, carry low levels of stock and, most importantly, are often widely spread. This all serves to drive up the costs of getting the product to the retailers (i.e. the customers) and, ultimately, consumers. It also results in low levels of customer satisfaction as manufacturers are simply unable to service all the outlets which stock their particular products. Although the literature suggests that using a Third Party Distributor to distribute products is more efficient and effective, no research is available to confirm this fact for the Township market in South Africa. In addition to this, there appears to be a number of differing Third Party Distribution models available, as well as some discord as to which is the most effective approach.

As part of the investigation, this study sought to identify the adoption rates of Third Party Distribution within Townships, as utilised by the FMCG sector in South Africa. This was done from both a manufacturer and retailer perspective. Additionally, this study aimed to identify the nature of Third Party Distribution used, the location relative to customers, transport methods deployed, as well as storage facilities and additional services offered. Moreover, the investigation aimed to identify whether additional retailers (and therefore consumers) were reached via Third Party Distribution, compared to the self managed distribution models. The effect on customer satisfaction from the manufacturer's perspective and the overall effect on performance – by means of cost and sales metrics – were also investigated in order to provide information to other businesses that may wish to use similar distribution models in the future.

## LITERATURE REVIEW

### Retailing in the Townships

A major growth area in South Africa is the Townships, which has created new demand for consumer goods and services. The result is a fast growing informal sector, known as the 'Second Economy' (Thomas, 1999). Furthermore, the importance of the black middleclass (i.e. the 'Black Diamonds') is growing substantially as they now account for almost half of South Africa's spending power. This has caused manufacturers and wholesalers to acknowledge the informal retailer as an important delivery channel of goods to consumers (Ligthelm, 2004).

### Types of Township Retailers

It was determined in a study conducted by Ligthelm (2003) that only 17.1% of Township retailers reported access to refrigeration facilities, 22.2% had access to deepfreeze facilities and fewer than one in every ten confirmed access to a telephone and cash register. The literature has determined three types of informal retailers in the Townships, namely Hawkers, Spazas and General Dealers. Hawkers or street vendors are retailers operating from a temporary or permanent structure on a street, at a taxi rank or train station (Ligthelm, 2003). Spaza shops are the main form of retailing in the Townships and Ligthelm (2004) defines these retailers as: "...businesses operating in a section of an occupied residential home or in any other structure on a stand zoned or used for residential purposes and where people permanently live." These retailers sell a greater range of products than Hawkers and approximately 75% of township residents make use of these stores everyday largely for the convenience of their close location (Tladi and Miehlabrad, 2003). The General Dealers are stand-alone businesses with a brick and mortar superstructure, often located in a business area, but also in residential sections of Townships. They carry a wider product range than Spazas and have more fixtures and fittings allowing self-service to clients (Ligthelm, 2004).

### Township Retail Procurement

Wholesalers and mobile supplier units are recorded as the most important suppliers of merchandise to Township retailers. In terms of mobile supplier units, more than eight in ten of all three types of retailers are serviced by Manual Distribution Centers (MDCs). These are distribution centers that serve their local neighborhood and are able to deliver products in smaller quantities (Ligthelm, 2004; Pfitzer & Krishnaswam, 2007). Other channels of distribution include the fresh produce market and direct delivery from manufacturers, with a small percentage of retailers obtaining merchandise from supermarkets and hypermarkets (Ligthelm, 2003). Furthermore, Tladi and Miehlabrad (2003) found that manufacturers prefer using agents living in the Townships to distribute their products due to theft. In an experience interview conducted with Mr C. Baartman, a distribution manager for MTN, he stated that for Township retailers it is not so much about the product as it is about the service. Thus, it is particularly important to treat these retailers with respect, provide good quality products and offer first-rate service in order to have a significant presence in the Townships. Second-rate service is not condoned, even if order quantities are small. Thus, manufacturers must look at their supply chain and determine where to make changes. They need to know what types of Third Party Distributors are available and work best in these areas, as well as the benefits and drawbacks to outsourcing distribution. The following sections describe these issues in some depth.

### Supply Chain Management

A supply chain consists of multiple firms, both upstream (i.e. supply) and downstream (i.e. distribution), and the ultimate consumer. The most adept definition is provided by Mentzer *et al* (2001) where they state that: "A Supply Chain is a set of three or more entities (organisations or individuals) directly involved in the upstream and downstream flows of products, services, finances and/or information from a source to a customer". This

investigation is aimed specifically at the downstream flow of products from the FMCG manufacturers to the Township retailers within South Africa. The definition includes the association of Third Party Distributors.

### **Overview of Third Party Distribution**

Many companies are now using Third Party Distributors to take care of their distribution needs. Blanchard (2007) states that Third Party Distribution is the process whereby an organisation hires the services of a third party logistics (3PL) company, which will then manage one or more of the logistics processes or operations – such as warehousing and/or transport – for that company. Maloney (2004) states that in recent years 3PL providers have gone beyond mere distribution, as many now act as consultants to the whole company supply chain. They will evaluate every activity in the supply chain and outsource them to specialist sub-contractors (Fredholm, 1999). These companies, working together, create a highly beneficial exchange of fresh ideas. However, the key to this relationship is companies trusting the 3PL provider with their data, customers and products (Maloney, 2004). The potential advantage can be substantial.

### **Rationale for Outsourcing**

The use of Third Party Distribution allows the company (i.e. manufacturer) to focus on their core business activities while the third party concentrates on the non-core activities (i.e. distribution), as well as obtaining the best pricing for their clients. The company is thus able to free up capital to further invest in their core activities (Millar, 2000). Furthermore, Armstrong and Associates Inc, a logistics management consulting firm, states that companies can expect to achieve cost savings of between 10% and 20% through the use of a Third Party Distributor (Verespej, 2002). Moreover, a competitive advantage may be achieved due to the improved transportation solutions, cost savings, customised services, reduced inventory, penetration of new markets and the taking on of new product lines (Watson and Pitt, 1989; Sheffi, 1990; Foster and Muller, 1990; Bardi and Tracey, 1991; Maltz, 1995). Third Party Distribution is also beneficial to small companies in that it allows them to expand into new markets without incurring the costs of developing their own distribution systems (Fredholm, 1999). However, Verespej (2002) contends that the catalyst for companies outsourcing their distribution is often due to a change in their distribution model brought about by market developments or if their infrastructure (i.e. physical assets or information technology or both) become out of date, as redevelopment is expensive. There are, however, certain drawbacks and obstacles firms could experience when making use of Third Party Distributors. These are identified in the following section.

### **Drawbacks of Outsourcing**

The most commonly cited problems amongst firms outsourcing distribution are a lack of control (Bardi and Tracey, 1991) and the inadequate sharing of information (Byrne, 1993). Furthermore, while cost reduction is cited as a primary reason for outsourcing, evidence suggests that costs are not necessarily reduced as expected (Beaumont and Sohal, 2004). Additionally, an implicit cost to a company – if outsourcing for a long period of time – is the loss of critical skills in product distribution. If the market landscape changes, requiring more in-house distribution, this may not be immediately possible as acquiring these skills takes time (Beaumont and Sohal, 2004). Third Party Distributors are also claimed to be inflexible to the changing needs of the organisation (Bradley, 1995). Thus, it is essential to use a Third Party Distributor with the same logistics view as one's company, that understands the distribution needs and the industry that its client is based within. In developing economies, such as within Africa, there are a number of additional problems that could impact logistics operations, be it in-house or Third Party Distribution. These include armed robbery, poor road infrastructure and police check points, all of which lead to higher costs and added complications (Oke and Long, 2006). However, it has been reported that even though South Africa is a developing nation, the road networks and infrastructure are in good condition and the issues stated previously are not highly problematic (Oke, 2003). There are various types of FMCG Third Party Distributors in South Africa – these are explored below.

### **Types of Third Party Distributors**

There are mainly three categories of Third Party Distributors prevalent in the South African FMCG logistics environment. These being Asset-Based vendors, Warehouse Clubs and Hybrid Models. Each of these will be addressed in greater detail in the ensuing discussion.

### **Asset-Based Vendors**

If the distribution company owns most of the assets used to service the manufacturing company, then it may be defined as an Asset-Based vendor (Bottani and Rizzi, 2006). This is particularly beneficial to small companies which cannot afford capital intensive assets (e.g. trucks), as it could result in greater sales and the ability to reach more customers by using Asset-Based vendors than if they handled the function of distribution themselves.

### **Warehouse Club**

A Warehouse Club is defined as a cluster of units accounting for over 50 000 square feet of floor space (Ferne, 1995). They are tall, free-standing, metallic superstructures located in suburban areas or on the outskirts of smaller towns, and are largely located along highways or other major transport routes, providing easy access to their consumers (Jones and Doucet, 2000). Morris (1992) affirms that a cash and carry wholesaler, which is a type of wholesaler selling a somewhat limited range of products, forms an important link between Spaza shops and manufacturers. He states that this applies particularly to the informal retailer, which is showing vast growth opportunities due to population growth. These wholesalers, as well as Warehouse Clubs, limit manufacturer risk (by offering retailer credit, etc) and minimising costs, whilst maintaining access to these retailers. For small retailers they are beneficial as bulk orders may be broken up (Morris 1992).

### **Hybrid Models**

Hybrid models do not fit entirely into any of the categories identified previously. This model involves cooperation between the company and Third Party Distributor whereby the core competencies of each party occasionally overlap. An example of this model, as found in Kenya, involves Manual Distribution Centers (MDC's). MDC owners are Third Party Distributors who are actively supported and managed by the manufacturing company. This system provides access to fragmented markets where many small retailers exist. Apart from Kenya, this system is used relatively extensively in Africa and parts of Asia (Pfitzer and Krishnaswam, 2007). In an interview with Mr. D Curran, Managing Director of Coca Cola Fortune, whose company pioneered the use of the MDC system in Africa, he stated that he believed this model to be the way distribution was heading in emerging markets, particularly in Africa. He stated that there are various advantages namely lower costs, greater market coverage, improved customer service and thus greater sales revenue in fragmented markets. He claimed that this model is able to be adapted so as to meet the ever-changing needs of emerging markets.

Bearing in mind the differences in the types of Third Party Distributors mentioned above, a number of performance metrics are profiled and analysed to determine which of these provide the optimal method of distribution for FMCG companies to the Townships in South Africa.

### **Performance Metrics**

Performance metrics are the measures used in order to determine whether a FMCG firm's overall performance has been enhanced, reduced or remained unchanged by embarking on the use of a third party to distribute their products to the Townships. These performance metrics are costs, market share, customer satisfaction and sales – all of which are discussed in further detail beneath.

### **Costs**

Verespej (2002) states that for many companies, outsourcing their distribution results in costs and time being simultaneously stripped from the supply chain. He states that it is for this reason, as well as other value added services, that many companies have begun to use Third Party Distribution to manage more aspects of their supply chain. Based on the cumulative literature addressed to date, and focusing on the marked differences between Third Party Distributors identified, it is hypothesised that:

Hypothesis 1: The type of Third Party intermediary used has an effect on the costs of distribution for FMCG manufacturing firms supplying Township retailers in South Africa.

### **Market Share**

Overall market share is said to be a company's sales expressed as a percentage of total market sales (Kotler and Keller, 2011). In the context of this research, the definition will be confined to the sale of FMCG products within the Township market. Research conducted by Daugheny *et al* (1998) found that logistics service is indirectly

related to market share through customer satisfaction and loyalty. Firms obtain a higher market share if they are able to maintain customer satisfaction and loyalty. In analysing past literature, it is evident that many companies embark on the use of Third Party Distribution not only for cost savings but also for the improved performance that they provide, which will thus have a positive effect on customer satisfaction and loyalty. Thus, it seems reasonable to assume that the use of a Third Party Distributor has the potential to increase market share. Taking this into consideration, as well as the inherent differences between Third Party Distributors, it is hypothesised that:

**Hypothesis 2:** The type of Third Party intermediary used has an effect on market share for FMCG manufacturing firms supplying Township retailers in South Africa.

### **Customer Satisfaction**

Customer satisfaction is said to be the extent to which the results produced for a customer, and the process that the customer has gone through in order to obtain these results, actually meet that customer's expectations (Harvey, 1998). Research conducted by Daugheny *et al* (1998) determined that improvements in a firm's logistics service quality is able to improve customer satisfaction. Moreover, Mr. D Curran stated that service quality, and hence customer satisfaction, was greatly improved after the adoption of their MDC system. Many outlets receive a higher level of support (and hence service), thereby facilitating improved operations. This demonstrates that making use of Third Party Distribution for the delivery of FMCG products into South African Townships has potential to improve company operations as well as the satisfaction of their retail customers. Taking this into consideration, as well as the inherent differences between Third Party Distributors, the following hypothesis is advocated:

**Hypothesis 3:** The type of Third Party intermediary used has an effect on customer satisfaction for FMCG manufacturing firms supplying Township retailers in South Africa.

### **Sales**

For the purposes of this research the annual percent change in sales (in terms of quantity sold) for the surveyed areas will be measured and analysed. Various sources state that the use of Third Party Distribution creates a competitive advantage, which includes the penetration of new markets. This translates into increased sales due to the wider reach obtained (Watson and Pitt, 1989; Sheffi, 1990; Foster and Muller, 1990; Bardi and Tracey, 1991; Maltz, 1995). Taking this into consideration, as well as the inherent differences between Third Party Distributors, the following hypothesis is formulated:

**Hypothesis 4:** The type of Third Party intermediary used has an effect on sales volume for FMCG manufacturing firms supplying Township retailers in South Africa.

### **Methodology**

The sample for this study was chosen using a non-probability sampling technique, that of convenience sampling. The reason for this choice was that the manufacturers and retailers surveyed were chosen with accessibility and budget constraints in mind. The research targeted both Township retailers of FMCG goods in the Western (Khayelitsha) and Eastern Cape (Motherwell) as well as FMCG manufacturers who operate in all nine of South Africa's provinces. Causal research was conducted with the manufacturers enlisted in this study, probing a number of hypotheses linking various distribution models and performance metrics. The data collected was both quantitative and qualitative in nature. The goal was to achieve a sample size of 50 individuals in this phase of the research process. In total, 44 responses were achieved, representing an 88% response rate. Descriptive research was conducted using the Township retailers of FMCG goods. The empirical research aimed to characterise these retailers and provide a description of how these small businesses obtain their trading stock. A sample size of 50 Township retailers was attained in order to pursue this aspect of the research.

In order to conduct the research, an internet-assisted questionnaire was made use of for the FMCG manufacturers and in-depth interviews were conducted with the Township retailers. In terms of the former, the data collected was primarily numeric, although a few questions were qualitative in nature. Performance metrics were tested based on the respondent's opinion and/or best estimation. In terms of the latter, the retailers were surveyed using a questionnaire based primarily on open-ended response questions. The majority of the data collected from these retailers was qualitative in nature. A translator was employed in conducting the interviews –he explained where we came from, the purpose of our research and facilitated in the interview process.

Descriptive statistics were made use of in order to obtain a broad overview of the collected data and make tentative inferences about any significant statistical relationships that may have existed in our data set. Analysis of Variance (ANOVA) was made use of in order to test for significant differences in means across segments. This technique was specifically used when testing for differences in performance metric means. Furthermore, correspondence analysis was utilised to represent the sizes of FMCG companies (i.e. small, medium, large) versus the varying models of Third Party Distribution in use, thus highlighting any significant relationships.

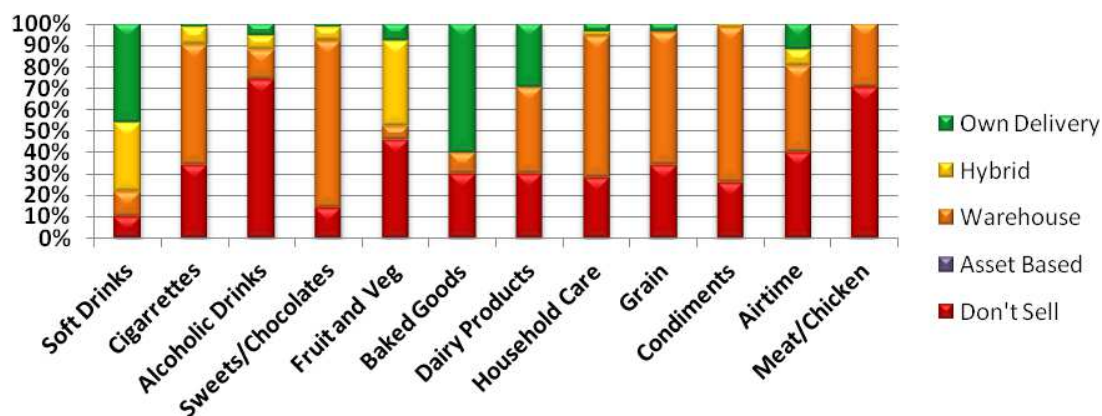
## Findings

### Township Distribution

Through in depth interviews conducted in the townships it was noted that an outlet's decision process of which goods to stock was influenced by a number of variables. The first and most important variable was the ease with which items were obtained. For instance, if one brand was delivered directly, it would be given preference over any other brand which required the store owner to obtain the product themselves.

As part of the survey, the means of products procurement were interrogated. The chart below, Figure 1, is a graphical representation of the results obtained.

**Figure 1: Contribution of Third Party Distribution to Overall Product Procurement**



It was determined that the three main products receiving deliveries directly from the manufacturers were Soft Drinks, Dairy Products (e.g. milk) and Baked Goods (e.g. bread). Product categories such as Cigarettes, Alcoholic Drinks, Sweets/Chocolates, Dairy Products, Household Goods, Grains, Condiments, Airtime and Meat/Chicken were mostly obtained from Warehouse Clubs such as Makro and Metro Cash & Carry. It is evident from Figure 1 that Warehouse Clubs are the most prevalent source for obtaining FMCG products for Township retailers, as they are made use of for virtually every product category except Soft Drinks, Fruit & Vegetables and Baked Goods. It is also evident that the use of Asset-Based vendors was not prevalent within the Townships. This might be due to the fact that it is difficult to distinguish between this type of distribution and other forms (such as own deliveries), as manufacturers might dictate that Asset-Based vendors brand their vehicles with their insignia or that the retailers assume it to be that company making the delivery, not a contracted third party. Finally, the Hybrid classification approach was found to be used largely by the Soft Drink and Fruit & Vegetable retail sectors.

For example, Coca Cola's hybrid model of distribution (particularly in the Eastern Cape) involves independent third parties receiving deliveries from the manufacturer in the form of direct service delivery. These third parties are large General Dealers with established premises in the Townships. The customer (i.e. retailer) must then travel to the General Dealer in order to obtain their products, although in selected cases the General Dealer may deliver. Another, although possibly unintended hybrid model of distribution, involves the procurement of SAB products. A number of the shebeens (taverns) that were visited stated that while SAB did deliver directly, they often obtained merchandise from other taverns when stocks ran out unexpectedly or they overused their credit facility with SAB.

### **Types of Transportation Used**

The question was posed to the Township retailers as to what type of transportation the FMCG companies used to distribute their products to their stores. Direct deliveries were typically made to the larger retailers, although certain goods (bread, soft drinks, etc) were delivered to all store sizes. Store owners who made use of Warehouse Clubs to source their products typically obtained the goods themselves. Interviewees made use of trains, taxis and their own transport to obtain the goods. Although access to vehicles appeared limited, a share scheme was often found to be in place, whereby a neighbour with a bakkie or panel van would purchase goods for all the surrounding Spaza shops and charge a small fee for the service. In terms of Hybrid Distribution Models, a number of transportation options were uncovered. Firstly, one of the smallest store owners made use of a wheelbarrow to obtain a small volume of Coca-Cola products per week from the MDC located closest to his store. Most store owners obtained their own goods from the MDC, shebeen, market, etcetera and one of the MDC's in Port Elizabeth delivered goods with their own truck to some of their bigger customers.

### **Companies**

Reasons why FMCG Companies use Third Party Distribution included the following:

**Company Performance:** Lower capital investment, improved production efficiency, staff motivation tool, increased focus on primary activity of the manufacturing firm.

**Customers:** Improved customer service and customer satisfaction through wider delivery networks, faster response times, more frequent delivery and greater after delivery support.

**Costs:** Greater cost control, lower vehicle maintenance costs, economies of scale through small volumes distributed to many outlets efficiently. Third parties also provided storage that many small companies could not afford.

**Economic Empowerment:** Part of companies BEE and BBBEE (Broad Based Black Economic Empowerment) initiatives. BBBEE is similar to traditional BEE but broadening the base of people who share in the economic benefits. Local people typically formed part of the distribution network and this serves to benefit the community in the areas where the company operates.

**Safety Concerns:** Several companies indicated that in certain areas, where it is too dangerous for their drivers to deliver, they are inclined to adopt Third Party Distributor.

**Expansion Opportunities:** One manufacturer indicated that by partnering with a Third Party it allowed for seamless expansion into other African markets as their operations were already established there.

### **Correspondence Analysis of Company Size versus Third Party Used**

To ascertain whether the size of a company influenced what type of distribution they might use, a correspondence analysis was conducted. From the dataset, the variables indicating a company's turnover, number of employees and number of provinces they operate in, were used to classify them as being either a Small, Medium or Large company. Please refer to Figure A in the appendix for the complete correspondence map. In viewing the results, it is evident that "Large" companies correspond strongly with the use of a hybrid model on both dimension 1 and dimension 2. "Medium" companies correspond with the use of Asset-Based Vendors and not using a Hybrid Model. Finally, "Small" Companies correspond strongly with not using Asset-Based Vendors or Warehouse Clubs, on the first dimension only. From visual inspection of the dataset, this could be explained by the fact that "Small" companies do not tend to use one particular type of distribution.

### **Hybrid Models Used by FMCG Companies**

As stated previously, the hybrid model has no set definition and is usually comprised of a combination of in-house distribution, Asset-Based vendors and Warehouse Clubs. With the unique characteristics of the South African Townships, some interesting results were obtained.

The vast majority of the companies in the study claim to make use of a combination of Third Party Distributors, in terms of using Asset-Based vendors, wholesalers, leased trucks, leased warehouses and contracted distributors. One company stated that in the past they only used wholesalers to supply their products to the Townships. However, this was a passive form of distribution and many of the Township retailers did not stock their products on the shelves because of this. More recently, they have also come to use Asset-Based Vendors, an active form of distribution, to transport their products. This has ensured that they have a significant presence in the

Townships. A multitude of companies stated that they used a variety of distribution models depending on the geographical area, with one company noting that “mechanisation is cost”. This would appear to suggest that more manual forms of distribution still prevail in the townships.

Another unique form of distribution found was that of a bread manufacturer that has been established for a substantial amount of time in the Townships and already has excellent distribution networks. Recently, it struck an agreement with a well-known cellular company that is relatively new to the Township retail market. The agreement is that the bread manufacturer, which makes use of owner-drivers (individuals usually from the Townships who use their own vehicles to transport goods to the Townships for payment) to distribute their products, will distribute their own products along with that of the cellular stock to the Townships. This, in effect, saves both companies a substantial amount of money and improves distribution reach and efficiency for the new player in the market.

A key aspect of Hybrid distribution is that the resources required to set up these models are fairly considerable. This was established in a number of experience interviews as well as indicated on the questionnaire responses received. It seems that – on a formal level – it is primarily the large FMCG manufacturers that have the resources to establish such models of distribution, as well as the negotiating power to establish mutually beneficial relationships with other members of the supply chain.

### Effect of Third Party Distribution on Costs

Based on the responses received, the following are the perceived effects on the costs of distributing goods to the Townships:

**Table 1: Effect on Costs of Distribution**

Effect on Costs of Distribution in the Townships	Increase	Decrease	No Effect
Asset-Based Vendors	27.27%	59.09%	13.64%
Warehouse Clubs	26.67%	26.67%	46.67%
Hybrid Models	38.46%	53.85%	7.69%

It can be seen in Table 1 that disagreement exists as to the effect that the use of a Third Party Distributor has on the costs of distribution. Asset-Based Vendors resulted in the greatest decrease in costs (7.25%), followed by Warehouse Clubs (4.60%) and finally Hybrid Models (1.04%). An ANOVA was also conducted, the results of which can be seen in the appendix. Based on these findings, the following conclusion may be drawn:

Hypothesis 1: As the p-value >0.05, it cannot be concluded that the type of Third Party intermediary has an effect on the *costs* of FMCG firms supplying to the Townships.

### Effect of Third Party Distribution on Market Share

Based on the responses received, the following are the perceived effects on the Market Share in the Townships.

**Table 2: Effect on Market Share**

Effect on Market Share in the Townships	Increase	Decrease	No effect
Asset-Based Vendors	63.64%	0.00%	36.36%
Warehouse Clubs	60.00%	0.00%	40.00%
Hybrid Models	69.23%	0.00%	30.77%

As is evident in Table 2, the majority of respondents indicated that the use of a Third Party Distributor increases a company’s Market Share in the Township retailing environment. Warehouse Clubs result in the greatest



increase (10.20%), followed by Asset-Based Vendors (9.73%) and finally Hybrid Models (7.69%). Once again, after analysing the ANOVA results presented in the appendix, the following conclusion may be drawn:

**Hypothesis 2:** As the p-value  $<0.05$ , it can be concluded that the type of Third Party intermediary does indeed have an effect on the *market share* of FMCG firms supplying to the Townships.

#### Effect of Third Party Distribution on Customer Satisfaction

Based on the results obtained, the table below presents the effect that each identified type of Third Party Distributor has on Customer Satisfaction.

**Table 3: Effect on Customer Satisfaction**

Increase of Customer Satisfaction	Yes	No
Asset-Based Vendors	81.82%	18.18%
Warehouse Clubs	73.33%	26.67%
Hybrid Models	92.31%	7.69%

Based on the results within Table 3, it is evident that the majority of respondents indicated that Customer Satisfaction was increased as a result of using a Third Party Distributor. The results also indicate that while Hybrid Models result in less of an increase in Market Share and Sales, they have the greatest increase in Customer Satisfaction. This may be because these models involve more personalised contact between retailers and members of the Hybrid supply chain. Warehouse Clubs have the lowest increase in customer satisfaction. This seems to indicate that while very cost effective for manufacturers, the use of Warehouse Clubs does not necessarily satisfy customers. This is most likely because of the impersonal nature of wholesalers and the fact that consumers must obtain the products themselves, something they would avoid if they are able to do so. Based on the ANOVA conducted (see appendix), the following conclusion may be drawn:

**Hypothesis 3:** As the p-value  $<0.05$ , it can be concluded that the type of Third Party intermediary does indeed have an effect on the *customer satisfaction* of FMCG firms supplying to the Townships.

#### Effect of Third Party Distribution on Sales

Based on the results obtained, the table below presents the effect that each identified type of Third Party Distributor has on the Sales of FMCG companies in the Townships.

**Table 4: Effect on Sales Volume**

Effect on Sales in the Townships	Increase	Decrease	No effect
Asset-Based Vendors	68.18%	0.00%	31.82%
Warehouse Clubs	86.66%	0.00%	13.33%
Hybrid Models	69.23%	0.00%	30.77%

In viewing Table 4, it is evident that the majority of respondents indicated that the use of a Third Party Distributor increases the Sales Volume of a FMCG company in the Township retailing environment. Not one respondent indicated that the use of such distribution methods would result in decreased Sales. Warehouse clubs once again appear to have the greatest impact on performance for an organisation (16% increase). This is followed by Asset-Based Vendors (13.95%) and, finally, Hybrid Models (9.77%). Once again, an ANOVA was conducted on the above means (see appendix), which resulted in the following conclusion being drawn:

**Hypothesis 4:** As the p-value  $<0.05$ , it can be concluded that the type of Third Party intermediary does indeed have an effect on the *sales volume* of FMCG firms supplying to the Townships.

## Conclusions

Certain products seem to be delivered through specific models. Staples such as milk and bread are most likely to be delivered by the company concerned, whereas most other products are obtained from Warehouse Clubs (as much as 80% in some cases). In terms of the performance of a business, it can be seen that there are no significant cost savings associated with the use of a Third Party. Another effect of Third Party Distribution indicates a direct and positive relationship between outsourcing the distribution function and market share, where the greatest gains tend to be obtained from the use of Warehouse Clubs, followed by Asset-Based Vendors and then Hybrid Models. A similar relationship was discovered between outsourcing and sales (by volume) as well as in customer satisfaction, which was found to be improved. Asset-Based Vendors were found to be the most accessible form of distribution for companies. They are the most extensively used method and provide moderate to good improvements in Sales, Market Share and Customer Satisfaction. This is largely due to them being able to meet the unique requirements of Township retailers, namely smaller volumes at higher delivery frequencies, at a lower cost than that of the FMCG Company.

Based on the results obtained, it is evident that Hybrid models present significant benefits to companies. This may be linked to the fact that they result in high levels of customer satisfaction and as such, a market orientated company will wish to satisfy their consumers to the greatest possible extent. This may have long-term strategic implications as satisfied customers create entrenched loyalty. Furthermore, as the design and implementation of Hybrid Models becomes more efficient, the companies which pioneered these systems may well benefit from significant first mover advantage.

It is clear that many different forms of Hybrid models exist. However, in the course of this research, the following definition was found to be apt: *“A multi-layered co-operative relationship between manufacturers and many small, independent retailers. These retailers are then responsible for further distribution of the products by many varied transportation methods. Clients of the primary retailers may be responsible for even further distribution of the products or they may sell direct to the public”*.

It is evident that Third Parties can play an active role in establishing a manufacturer as a market leader in the township retailing environment. Recommendations in this respect are postulated below.

## Recommendations

Based on the results obtained, it is apparent that Hybrid models present significant benefits to companies who are able to establish and maintain such a system. Thus, this research recommends the undertaking of such a distribution model as it would provide for excellent first mover advantage, particularly in categories where this distribution is not particularly common (e.g. household products). With this long-term strategic view, companies may be able to achieve significant improvements in performance, especially as these models become more efficient. However, it is recommended that these models should not completely replace all other forms of distribution, as the costs inhibit its adoption as a solution to service Township retailers exclusively. Furthermore, it is still more efficient to conduct direct deliveries to some of the larger retailers as the transportation methods typically employed (note small trucks, etc) by hybrid models do not allow for large volumes of goods to be transported at any given time.

Additionally, it is recommended that organisations making use of Hybrid Models should involve the local communities as part of the model design, as companies are able to benefit the local communities through the investment and infrastructure they establish, draw from employees' knowledge of the area and the relationships they have formed therein, as well as positively influencing the organisation's BEE status. Conversely, small and medium sized enterprises should critically evaluate the feasibility of using Asset-Based Vendors to distribute their products as these may facilitate significant market share increases, as well as sales gains, while providing a means of differentiating products. Township retailers prefer products that are delivered directly and thus are more likely to stock that company's products than those which they need to purchase themselves from a Warehouse Club (i.e. wholesaler).

It is vitally important that companies should gain an understanding of all the costs involved when deciding to outsource the distribution function as, in this study, respondents could not arrive at unanimous agreement on whether or not costs increased or decreased. This suggests that some manufacturers may not have fully understood all the costs associated with the adoption of such systems. If they were aware that costs would increase, this is likely

to have a substantial impact on their decision to retain or forgo the distribution of their products as an in-house function.

### Acknowledgements

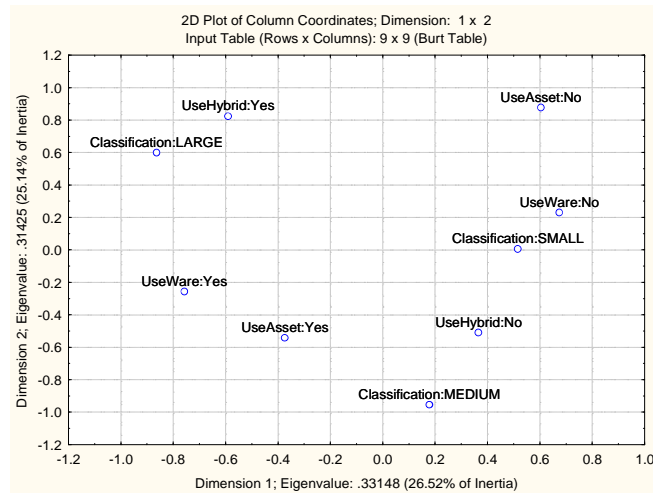
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### References

- [1] Bardi, E.J. and Tracey, M. 1991. Transportation Outsourcing: A Survey of US Practices. *International Journal of Physical Distribution and Logistics Management*, 21(3).
- [2] Beaumont, N. and Sohal, A. 2004. Outsourcing in Australia. *International Journal of Operations & Production Management*, 24(7), 688 - 700.
- [3] Blanchard, D. 2007. Dukal Outsources Its Logistics Nightmare. *Industry Week*, 256(7), 51-51.
- [4] Bottani, E. and Rizzi, A. 2006. A fuzzy TOPSIS Methodology to Support Outsourcing of Logistics Services. *Supply Chain Management: An International Journal*, 11(4), 294 - 308.
- [5] Bradley, P. 1995. Buying Third-Party Services? Beware the Bells and Whistles. *Traffic Management*, December, 34.
- [6] Byrne, P.M. 1993. A New Road Map for Contract Logistics. *Transportation & Distribution*, Apr, 58-62
- [7] Daugheny, P.J., Stank, T.P. and Eliinger, A.E. 1998. Leveraging Logistics/Distribution Capabilities: The Impact of Logistics Service on Market Share. *Journal of Business Logistics*, 19(2), 35-51.
- [8] Fernie, J. 1995. The Coming of the Fourth Wave: New Forms of Retail Out-of-Town Development. *International Journal of Retail & Distribution Management*, 23(1), 4 – 11.
- [9] Foster, T.A. and Muller, E.J. 1990. Third Parties: Your Passport to Profits. *Distribution*, 89(10).
- [10] Fredholm, P. 1999. Focus on Your Core Business. *Automatic I.D. News Europe*, 8(8), 32.
- [11] Harvey, J. 1998. Service Quality: A Tutorial. *Journal of Operations Management*, 16 (5), 583-97.
- [12] Jones, K. and Doucet, M. 2000. Big Box Retailing and the Urban Retail Structure: The Case of the Toronto Area. *Journal of Retailing and Consumer Services*, 233 - 247.
- [13] Kotler, P. and Keller, K.L. 2011. *Marketing Management*. Pearson Prentice Hall, 13, 119
- [14] Ligthelm, A.A. 2003. Informal Retail Structures in South Africa: An Exploratory Study. *Southern African Business Review* 7(1), 54 - 63.
- [15] Ligthelm, A.A. 2004. Profile of Informal Microenterprises in the Retail Sector of South Africa. *Southern African Business Review*, 8(1), 39-52.
- [16] Maloney, D. 2004. Retail Distribution Strategies to Watch. *Modern Materials Handling*, 59(2), 38-43.
- [17] Maltz, A.B. 1995. Why You Outsource Dictates How. *Transportation & Distribution*, March.
- [18] Millar, A. 2000. Trust Them to Deliver. *Works Management*, 53(2), 34.
- [19] Mentzer, J.T.; DeWitt, W.; Keebler, J.S.; Min, S.; Nix, N.W.; Smith, C.D. and Zacharia Z.G. 2001. Defining Supply Chain Management. *Journal of Business Logistics*, 22(2).
- [20] Morris, R. 1992. *Marketing to Black Townships*. Durban: Butterworths.
- [21] Oke, A. and Long, M. 2006. An Analysis of the Downstream Logistics Operations of a South African FMCG Producer. *International Journal of Production Economics*, 108(1-2), 176-182.
- [22] Oke, A. 2003. Drivers of Volume Flexibility Requirements in Manufacturing Plants. *International Journal of Operations and Production Management*, 23(12), 1497-513.
- [23] Pfitzer, M. and Krishnaswam, R. 2007. The Role of the Food and Beverage Sector in Expanding Economic Opportunity. *Corporate Social Responsibility Initiative Report*, 20.
- [24] Sheffi, Y. 1990. Third Party Logistics: Present and Future Prospects. *Journal of Business Logistic*, 11(2).
- [25] Thomas, W. 1999. *Strategies for Township Retailing: Micro & Macro*.
- [26] Tladi, S. and Miehlabrad, A. 2003. Triple Trust Organization Spaza Shop Project Case Study.
- [27] Verespej, M. 2002. Logistics' New Look? It's Now Service. *Frontline Solutions*, 3(6), 25.
- [28] Watson, R. and Pitt, L. 1989. Remarrying Marketing and Logistics with Information Systems Technology, *Industrial Management and Data Systems*, 1.

### Appendix

**Figure A: Correspondence Analysis: Size of Company and Type of Distribution used**



The table presented below (Table A) represents the summary of an ANOVA conducted on the mean cost change provided by each method of distribution. The following hypothesis was used for the statistical test:

$H_0$ : There is no difference in the means

$H_A$ : At least one of the means differ

**Table A: ANOVA for Costs of Distribution**

Univariate Tests of Significance for Cost_Change (Spreadsheet2)					
Sigma-restricted parameterization					
Effective hypothesis decomposition					
Effect	SS	Degr. of Freedom	MS	F	p
Intercept	878.70	1	878.6959	2.888889	0.095802
Dist_Type	316.51	2	158.2571	0.520302	0.597724
Error	14295.71	47	304.1640		

It can be seen that the p-value > 0.05, therefore we cannot reject  $H_0$  and we conclude that no significant difference exists in the mean cost savings presented by using the different methods of Third Party Distribution in the Townships.

Using the same hypothesis test as included above, Table B considers the impact on market share.

**Table B: ANOVA for Market Share**

Univariate Tests of Significance for Share_Change (Spreadsheet23) Sigma-restricted parameterization Effective hypothesis decomposition					
Effect	SS	Degr. of Freedom	MS	F	p
Intercept	4035.251	1	4035.251	21.43612	0.000029
Dist_Type	49.687	2	24.844	0.13197	0.876687
Error	8847.533	47	188.245		

It can be seen that the p-value < 0.05, therefore we can reject H<sub>0</sub> and we conclude that there is a significant difference in the mean Market Share increase presented by using the different methods of Third Party Distribution in the Townships.

Using the same hypothesis test as included above, Table C considers the impact on customer satisfaction.

**Table C: ANOVA for Customer Satisfaction**

Univariate Tests of Significance for Cust_Satisfaction (Spreadsheet2) Sigma-restricted parameterization Effective hypothesis decomposition					
Effect	SS	Degr. of Freedom	MS	F	p
Intercept	158.5404	1	158.5404	1045.203	0.000000
Dist_Type	0.2509	2	0.1254	0.827	0.443654
Error	7.1291	47	0.1517		

In viewing the results, it can be seen that the p-value < 0.05, therefore we reject H<sub>0</sub> and conclude that significant differences exist between the mean levels of Customer Satisfaction presented by the differing models of Third Party Distribution.

Using the same hypothesis test as included above, Table D considers the impact on sales volume.

**Table D: ANOVA for Sales Volume**

Univariate Tests of Significance for Sales_Change (Spreadsheet2) Sigma-restricted parameterization Effective hypothesis decomposition					
Effect	SS	Degr. of Freedom	MS	F	p
Intercept	8347.14	1	8347.136	22.87652	0.000017
Dist_Type	279.22	2	139.609	0.38262	0.684178
Error	17149.26	47	364.878		

It can be seen in the results that the p-value < 0.05, therefore we reject H<sub>0</sub> and conclude that a significant difference in means does exist between the various distribution models and the increase in sales these models provide.

