A STUDY OF THE IMPLEMENTATION OF A REVERSE LOGISTICS MODEL AT A RETAILER AND HOW IT CAN IMPROVE CUSTOMER SERVICE WHILE BEING COST EFFECTIVE

A Research Report
presented to

The Graduate School of Business
University of Cape Town

in partial fulfilment
of the requirements for the

Masters of Business Administration Degree

By
Craig Plowden (plwcra001)

December 2009

Supervisor: Fatima Hamdulay
ACKNOWLEDGEMENTS

I would like to extend a sincere thank you to the management and staff at Massdiscounters and at Reverse Logistics (Pty) Ltd for affording me the opportunity of researching a topic I am passionate about and involved with on a daily basis. In particular, I would like to thank Nina Madsen from Massdiscounters without whom this research report would not be possible.

Furthermore, I would like to thank my supervisor on this research report, Fatima Hamdulay. Without Fatima’s patience and guidance, this research report would have taken on a completely different form and I would not have gained as much valuable insight as I have with regard to collecting and reporting on data if it were not for Fatima’s guiding critique and commentary.

I would like to thank God for guiding me along this course and for enabling me to keep the faith and see the light at the end of the tunnel at times when all around seemed so dark.

I have made some wonderful friendships on this course and I would like to thank the MBA class of 2008/9 for making the experience such an exhilarating one.

I must thank my family for encouraging me to enrol on the MBA and having the confidence in me to see the course to completion while starting my business, Reverse Logistics (Pty) Ltd at the same time.

Finally and certainly not least, I would like to thank, from the bottom of my heart, my wife, Michelle. Thank you for all your support over the last year and a half. Thank you for believing in me when I didn’t and most importantly, thank you for loving me the way you have. Without your support and understanding, this report would have been very difficult to complete.
ABSTRACT

Reverse Logistics is a term given to the movement of product, going backwards through a supply chain. The concept of reverse logistics is relatively new in the South African retail industry when comparing the subject to their overseas counterparts.

A retail group in South Africa are in the process of implementing and rolling out a reverse logistics model that has not been used at the company before and is very different to the model the company had in place before this. The retail group expects to derive huge benefits from the implementation of the reverse logistics model. These benefits are expected to arise from improved customer services and better insight to the movement of repair product through the reverse logistics cycle.

As its primary objective, this research study tries to understand the reasons behind the implementation of this particular reverse logistics model as well as what benefits the company expects to derive from the model.

Furthermore, the researcher tries to understand the cost elements surrounding the implementation and whether these costs are immediately measureable.

KEYWORDS: Reverse Logistics, Supply Chain, Implementation, Customer Service.
TABLE OF CONTENTS

INTRODUCTION ........................................................................................................................................... 6
RESEARCH AREA AND PROBLEM .................................................................................................................... 6
RESEARCH QUESTIONS AND SCOPE ............................................................................................................... 8
RESEARCH ASSUMPTIONS ............................................................................................................................. 9
RESEARCH ETHICS ...................................................................................................................................... 10

LITERATURE REVIEW ............................................................................................................................. 10
DISCUSSION ................................................................................................................................................. 10
CONCLUSION ............................................................................................................................................... 30

RESEARCH METHODOLOGY ....................................................................................................................... 31
RESEARCH APPROACH AND STRATEGY ........................................................................................................ 31
RESEARCH DESIGN, DATA COLLECTION METHODS AND RESEARCH INSTRUMENTS .................................... 32
SAMPLING .................................................................................................................................................... 33
DATA ANALYSIS METHODS .......................................................................................................................... 34

FINDINGS, ANALYSIS AND DISCUSSION ........................................................................................... 36
RESEARCH FINDINGS ................................................................................................................................ 36
RESEARCH ANALYSIS AND DISCUSSION ..................................................................................................... 50
   Reasons For Implementation .................................................................................................................. 50
   How Implementation has Taken Place ................................................................................................... 51
   The Benefits of the Reverse Logistics Model .......................................................................................... 53
   Customer relations Management ............................................................................................................ 57
RESEARCH LIMITATIONS ............................................................................................................................. 58
RESEARCH CONCLUSIONS ....................................................................................................................... 59
FUTURE RESEARCH DIRECTIONS ............................................................................................................. 61
REFERENCES .............................................................................................................................................. 62

APPENDICES............................................................................................................................................. 65
   APPENDIX A – INTERVIEW WITH JOHN HART (SUPPLY CHAIN DIRECTOR AT MDD) ......................... 65
   APPENDIX B – INTERVIEW WITH NINA MADSEN (SUPPLY CHAIN EXECUTIVE AT MDD) ................ 71
   APPENDIX C – INTERVIEW WITH CAROLINE OELS (SUPPLY CHAIN PROJECT MANAGER AT MDD) .... 76
   APPENDIX D – INTERVIEW WITH LOUIS BIERMAN (OPERATIONS – GAME CENTURION) .................... 82
   APPENDIX E – INTERVIEW WITH EUGENE Braytenbach (OPERATIONS – GAME CRESTA) ................. 87
   APPENDIX F – INTERVIEW WITH CLAUDINE SCHREYER (DIRECTOR – REVERSE LOGISTICS (PTY) LTD) 91
   APPENDIX G – EXTRACT FROM MDD RETURNS POLICY MANUAL.................................................... 96
LIST OF DIAGRAMS

Diagram 1: Simplified Supply Chain Flow 13
Diagram 2: Reasons For Reverse Logistics Implementation 17
Diagram 3: Operational Flow of Reverse Logistics Model 40

LIST OF TABLES

Table 1: Characteristics of Items in a Reverse Flow 10
Table 2: Barriers to Reverse Logistics 14
Table 3: Differences Between Forward and Reverse Logistics 19
Table 4: Comparison of Forward and Reverse Logistics Costs 20
Table 5: Service Level Agreements with Service Providers 44
Table 6: Store Measurement Report 51
Table 7: Repairs Closed by Store 54
Table 8: Repair Agent Service level Achievement 55
INTRODUCTION

Reverse logistics is fast becoming a strong focal point in the supply chain business within the retail sector of South Africa. While there are various definitions of reverse logistics, they all commonly state that reverse logistics is forward logistics backwards. (Bernan & Cullen, 2007); (Lambert & Stock, 1981); (Rogers & Tibben-Lembke, 2002); (Rogers, 2009); (Stock & Mulki, 2009). In other words, reverse logistics is the movement of product from the point of consumption to the point of manufacture as opposed to movement from the point of manufacture to the point of consumption.

Corporate South Africa is a number of years behind their international counterparts with regards to the reverse logistics function. This seems to be evident from the large amount of international research carried out (see literature review) with very little to no local research content. One of the reasons for international focus as opposed to local focus is because the international environmental laws have not been as strictly implemented in South Africa as they have been internationally, according to the Consumer Goods Council of South Africa (CGCSA) (Nick Tselentis, private conversation). However, this scenario is quickly changing in the local retail industry. While the retail industry in South Africa operates very differently to international standards, in that the South African retailers have more power over manufacturers and suppliers with regard to returned goods when compared to their international counterparts. (A le Hane, Supply Chain Council of South Africa)

The researcher is very involved in the local reverse logistics industry and runs his own company, Reverse Logistics (Pty) Ltd (Revlogs). He has therefore held many conversations with senior management at most of the retail chain groups in South Africa. The literature review in this research report will show that internationally, managers are becoming more aware of the benefits derived from reverse logistics. However, many South African corporate organisations have not yet perceived any benefits from the reverse logistics function. Most of the South Africa retailers perceive reverse logistics to attract large costs and negative returns on sales, thereby adding to the cost of sales.

Research area and problem

Traditional supply chain services move and track product from point of manufacture through to point of consumption (consumer purchase). The traditional supply chain (or forward logistics) can be measured, rather easily, both logistically through a track and trace management which identifies
where product is through the supply chain process and financially, where the costs are easily identifiable and expressed as a percentage cost of goods sold. In South African retail, this is where the logistics cost allocation and measurement generally stops. However, a certain quantity of the product, which is sold into the retail chain by the manufacturer, is returned to the manufacturer again for various reasons. Some of the reasons are as follows:

- Over ordering on certain stock items
- Damaged stock on receipt at retail store
- Goods damaged in store
- Customer returns
- Obsolete stock in store

These returns are not measured in the same way that the forward logistics costs and movement of goods are measured. Therefore, most retailers are unable to identify exactly how much it costs them to return damaged, over ordered, returned or obsolete product. Furthermore, most retailers see the reverse logistics function as a “black hole” where there is no benefit to bottom line profit and therefore not worth spending time and money on.

However, this perception seems to be changing, albeit slowly, within some of the bigger retail groups in South Africa such as Massdiscounters, part of the Massmart group and holding company of Game and Dion Wired stores in South Africa and who have recently implemented a formalised reverse logistics system. At the same time, environmental legislation is changing which is forcing the retailers to pay more attention to the safe disposal of consumer returns according to Nick Tselentis from the CGCSA. (business meeting between Reverse Logistics and Nick Tselentis, 2008)

However, apart from the environmental influence, retailers are beginning to realise that there may be some strategic advantage to effective reverse logistics management. According to some retail executives, there should be an improvement in customer relations after implementing an efficient reverse logistics model. Furthermore, the costs may be more easily determined and managed. According to literature review in this document, the cost control and improved customer service are certain benefits that have been identified internationally. Therefore, this research proposes to identify what benefits have been identified at Massmart after the implementation of a reverse
logistics model there. The research goes on to try and identify other benefits and reasons why the company implemented their reverse logistics model.

**Research questions and scope**

The research will aim at answering the following research questions at Massdicounters (Pty) Ltd (MDD):

1. Why have MDD chosen to implement their current reverse logistics model?
   
   a. What efficiencies do MDD expect from the current model over the one they previously had in place.
   
   b. How have MDD implemented the reverse logistics model they are currently running?

2. What is the cost of implementing the reverse logistics management system at MDD?
   
   a. What are the cost drivers with regard to the current reverse logistics model and how does the company measure these costs and possible savings, to determine the cost benefits for the company?
   
   b. What are the tangible and intangible benefits derived from the installation of the reverse logistics model?

3. What increased efficiencies, if any does the current reverse logistics model offer to MDD and its customers?
   
   a. How does MDD measure the impact the reverse logistics function has on the company and its consumer?
   
   b. How does MDD determine whether there is any improvement to customer service as a result of the model implementation?
The scope of this research will be limited to the retail industry and more specifically to MDD. The research will concentrate on how the current reverse logistics model has been implemented at the company and how the policies regarding the reverse logistics function have and continue to benefit MDD from a cost and customer satisfaction point of view. The research proposed, will be carried out on products which are returned to supplier from retailer due to over-orders on stock lines, damages in retail stores and product returned by retail customers which have broken or merely stopped working while still under guarantee.

The research project will be researching the implementation process of the current reverse logistics model at MDD and how that model introduces efficiencies in costs and customer relations management involved in product returned for credit as well as product returned for repair.

While the research will be limited to one case, the results will add to a pool of knowledge and it is intended that this knowledge will become best practice for implementation purposes at other retail chains and retail stores.

The research has been conducted at the Game stores in Gauteng where the reverse logistics model has been implemented.

A limit in the research is the fact that MDD did not want the researcher to contact any of MDD’s customers. The reason therefore is that MDD would like the project to run over a longer period before any of its customers are contacted for comment or review.

**Research Assumptions**

The following assumptions have been made regarding factors that might impact the success of the research:

1. The data collected will be able to distinguish between the periods before and after implementation of the current reverse logistics model in place at MDD.
2. It was assumed that the data collected would be of a qualitative nature with some quantitative data to substantiate the qualitative data.
3. It was assumed that the data would be easily analysable.
4. MDD staff would happily co-operate and share data with the researcher.
Revlogs have a very good professional relationship with MDD, which has been built up over a time period in excess of a year and a half. The senior management of both companies are in regular contact and readily share any and all information that will improve the reverse logistics operation. It should be noted that the researcher is the founder and managing director of Revlogs. The company is currently a year old and is a start up. The company has grown to 30 employees with an extrapolated turnover of approximately six million rand per annum, over the last three months. Revlogs, together with the MDD supply chain executive have been instrumental in implementing the current reverse logistics model at MDD.

Research Ethics

The research involved the interviewing of senior supply chain employees at MDD as well as the operations director at Revlogs. The research also considered the reverse logistics policies and procedures which have been implemented at MDD. All research and analysis carried out was done so with the consent of MDD and Revlogs, where appropriate. This research will not pose any physical, psychological, social, legal, economic, or other risks to any research participants.

Permission has been obtained from MDD to publish in the final report, including all data that was pertinent to this report. The reported data will not in any way infringe MDD, Revlogs or their intellectual property.

LITERATURE REVIEW

Discussion

There is new interest in reverse logistics activities in South Africa. However, as mentioned above, in the introduction to this report, our local reverse logistics policies, procedures and operations are not as advanced as the international operations with regard to implementation at consumer stores, retail chains. South African managers are less aware of the benefits associated with the implementation of an efficient reverse logistics model. While there is no literature, which states as much, the researcher is very involved in the reverse logistics industry and through trying to sell the services of his company, Revlogs, the above perception from retail management is very obvious.

The literature has many variations of how reverse logistics can be defined. One of the earliest definitions of reverse logistics was by Lambert and Stock, in 1981 where they defined reverse logistics as “going the wrong way on a one way street, because the great majority of product
shipments flow in one direction” (Lambert and Stock, 1981, quoted in Rogers and Tebben-Lembke, 2001). However, the definition of reverse logistics seemed to evolve with the science and Rodgers and Tibben-Lembke provide the most recent and accurate definition of reverse logistics. They define reverse logistics as “the process of planning, implementing and controlling the efficient, cost effective flow of raw materials, in-process inventory, finished goods and related information from the point of consumption to the point of origin for the purpose of recapturing or creating value or proper disposal” (Rogers and Tibben-Lembke, 1999. P.2). While it is accepted that there are other definitions in the literature, the above definition is the most precise and the one that is most often quoted by other authors. Therefore, the above definition is the one that is used in this research report.

Tibben-Lembke goes on to identify the characteristics of items in a reverse flow. The below table summarises the most common reasons why a product or packaging may be sent backwards through the supply chain.

<table>
<thead>
<tr>
<th>TABLE 1</th>
<th>CHARACTERISATION OF ITEMS IN REVERSE FLOW BY TYPE AND ORIGIN</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SUPPLY CHAIN PARTNERS</strong></td>
<td><strong>END USERS</strong></td>
</tr>
<tr>
<td><strong>PRODUCTS</strong></td>
<td><strong>PACKAGING</strong></td>
</tr>
<tr>
<td>Stock balancing returns</td>
<td>Re-usable totes</td>
</tr>
<tr>
<td>Marketing returns</td>
<td>Multi-trip packaging</td>
</tr>
<tr>
<td>End of life/season</td>
<td>Disposal requirements</td>
</tr>
<tr>
<td>Defective/unwanted products</td>
<td>Reuse</td>
</tr>
<tr>
<td>Stock recalls</td>
<td>Recycling</td>
</tr>
<tr>
<td>Warranty returns</td>
<td>Disposal Restrictions</td>
</tr>
</tbody>
</table>

There are typically two types of items that are returned through a reverse flow, and they are identified in the table as:

- Products – the physical saleable stock items
- Packaging – protective wrapping in which product is transported and/or sold.
The product and packaging may be returned from two different origins, namely:

- Supply chain partners – retail stores, retail distribution centres and warehouses
- End users – typically, the consumer who purchases product from the retailer.

The top left quadrant describes product that is returned through the reverse cycle by supply chain partners such as retailers, their distribution centre and their warehouses. This product includes:

- Stock balancing returns – over orders of stock are returned to the manufacturer/supplier in order to balance the order book with stock on hand.
- Marketing returns – items used during product promotions are returned after the promotion is finished and excess stock is left unsold at the retailer.
- End of life/season – this describes product which has either expired on the retailer shelf, such as perishable goods. It also describes product that has become outdated and replaced by newer models or fashions.

The top right quadrant describes product that is returned by end users or consumers and this type of return includes:

- Defective/unwanted product – product which has been returned by the consumer because it no longer operates in the manner in which it was intended or product returned because the consumer has had a change of mind and no longer wants that particular item.
- Stock recalls – this type of return is generally one initiated by the manufacturer after the product has been sold to the consumer. Generally, the manufacturer discovers material defects in a product model and recalls the product from consumers to limit damage to the brand and manufacturer.
- Warranty returns – these returns by the customer are made while the item purchased is still under warranty. Generally, the items are either swapped out for new ones of the same model or a refund is given to the customer provided the warranty is still valid.

The bottom left and right quadrants refer to packaging that is returned by either the supply chain partner or end user. Supply chain partners may return product for the following reasons:

- Re – useable totes – where totes may be used over again to carry a variety of product.
- Multi-trip packaging – this describes packaging which may be used for more than one trip from the supplier to the retailer for different products.
Disposal requirements – depending on legislation, some packaging must be returned to the supplier for correct disposal and law governs the disposal method.

Consumers, on the other hand generally do not return packaging to the retailer or supplier. However, environmentally aware consumers may follow certain disposal methods that are environmentally friendly. This is often done through re-cycling companies and waste disposal companies.

Reverse logistics encompasses products in different states of return per the above definition. The returned product from customers will also include goods, which are out of their guarantee period and have been returned to the retailer for repair in any case.

There are many reasons why product is returned by both consumers and the retail companies involved in the supply/distribution chain. The retailers may return product that is damaged on arrival (in transit), product that has expired or has been discontinued as well as product that has been over-ordered or damaged in the retail store. Consumers tend to return product due to quality issues or failure to meet the consumer’s needs. Some of the product which has been returned soon after sale can still be resold profitably – provided the product is returned in its original packaging. Other returns may be re-manufactured, refurbished or repaired (Markov, Sarah, Ryan, Juan, 2007).

The below diagram has been compiled to show the basic supply chain flow and how reverse logistics fits into that flow. All along the forward flow of product from Supplier to Consumer, there is reverse flow of product. The product that enters the reverse flow chain does so at different stages in the product life cycle. In other words, product entering the flow as early as Supplier stage, is more than likely still in raw material form whereas product entering the flow at Consumer stage is more than likely finished product which has already been through the manufacture and sale processes.

---

1 In developed economies, product, which has been damaged in store, does not seem to fall into a returns bin. This practice is more unique to developing countries.
Unfortunately, there is very little local literature on these types of returns due to little to no research or implementation of formalised reverse logistics systems having been carried out in this area for the local market. However, literature is available on the broader spectrum of reverse logistics on a global scale.

Minhanan states that reverse logistics activities account for 3% to 4% of a companies’ total logistics cost. (Minhanan, 1998)

Raimer declares, “Returns are, and always have been, a fundamental part of retailing.” His estimate was that “reverse logistics account for between 5% and 6% of total logistics costs in the retail and manufacturing sectors. (Bernon and Cullen, 2007).

Rogers and Tibben-Lembke (1988) have identified the return rate of product for different industries. In the magazine publishing industry, the return rate is 50%. In the book publishing industry, the rate is 20-30%, for the catalogue retailers, 18-35% and 10-12% in the electronic distribution industry.
Given the above, it is clear that reverse logistics can have a significant bottom line impact on a company when considering the cost of returning product which is either not saleable or must be destroyed according to company policy or government legislation. However, the ability to address opportunities within reverse logistics may depend ultimately on the retailer management’s perceptions of reverse logistics. (Stock, 1998). Furthermore, the ability to address opportunities within the reverse logistics function also depends on the specific reverse logistics model and the implementation thereof. (Stock, 1998).

It is the researcher’s experience, through working in the reverse logistics industry on a daily basis after starting a company specialising therein, that the above statement holds very true in the South African retail industry.

According to Rogers and Tibben-Lembke, “the exact amount of reverse logistics activity is difficult to determine because most companies do not know how large these are” (Rogers and Tibben-Lembke, 1998).

Some of the barriers to reverse logistics are included in the below table along with the percentage of respondents in a survey conducted by Rogers and Tibben-Lembke in 2001.

**TABLE 2**

**BARRIERS TO REVERSE LOGISTICS**

*(AN EXAMINATION OF REVERSE LOGISTICS PRACTICES)*

<table>
<thead>
<tr>
<th>BARRIER</th>
<th>PERCENTAGE OF RESPONDENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance of reverse logistics relative to other issues</td>
<td>40%</td>
</tr>
<tr>
<td>Company policies</td>
<td>35%</td>
</tr>
<tr>
<td>Lack of systems</td>
<td>35%</td>
</tr>
<tr>
<td>Competitive issues</td>
<td>32%</td>
</tr>
<tr>
<td>Management inattention</td>
<td>27%</td>
</tr>
<tr>
<td>Personnel resources</td>
<td>19%</td>
</tr>
<tr>
<td>Financial resources</td>
<td>19%</td>
</tr>
<tr>
<td>Legal issues</td>
<td>14%</td>
</tr>
</tbody>
</table>
The above barriers to reverse logistics conducted on an international survey, may also apply to the South African market and more specifically to MDD within the retail sector. As is depicted in the table, the biggest barrier to reverse logistics is the perceived importance of reverse logistics when compared to other sectors and issues within a business. Financial resources become a barrier when allocating budget spend to different business areas. Reverse logistics is more expensive than forward logistics. (Rogers and Tibben-Lembke, 2002). A further constraint, are legal barriers which is also coupled somewhat to the financial resources. There is often government legislature that governs how product is to be returned and what should happen to the product after the return thereof. Legislature will govern how the product must be destroyed at disposal sites or how the product should be re-worked in order to extract secondary value from the returns.

According to Bruce Tompkins, in his article about best practices for returns processing (date unknown), he identifies the top six reasons for returns. These are:

- Customer ordered incorrect product or size
- Customer decided product not needed or wanted
- Customer returned with no reason given
- Product did not fit description on website or in catalogue
- Product did not fit customer’s expectations
- Company shipped incorrect product or size.

Tompkins goes on to mention that one should review a companies return policies and customer service practices in order to reduce returns. With the use of information technology, a company can track and monitor the process and provide information on returns to their customer. The customer is then able to identify at what process in the reverse cycle the returned product is in. In this instance, the customer would be a retailer who can in turn inform their consumers of the repair status.

According to the author of a UPS (United Parcel service of America) white paper in 2005, (Reverse Logistics – the least used differentiator), the reason many companies do not have an awareness of their reverse logistics costs is due to poorly designed processes and lack of systems support. (Moore, 2005). Furthermore, a reverse logistics programme is also complicated by vast amounts of paperwork and poor workflow processes which is exacerbated by the multiple entities involved in the reverse logistics flow. Communication must efficiently take place between:

- the customer,
• the retailer,
• the manufacturer,
• the disposer/repairer and
• the reverse logistics service provider.

Shibesh Banerji, a principle consultant at Tompkins Associates considers the key problem to reverse logistics implementation to be that retailers and manufacturers do not have their focus on the reverse logistics cycle because they believe that it does not generate profit. (Rogers, 2009)

Another obstacle, according to Rogers is the absence of high-level managers overseeing returns activities. Due to the fact that companies have historically not paid much attention to the reverse logistics cycle, the process has not been thought out as well as it should have been. As a result of this, companies have been leaving “money on the table” (Rogers, 2009)

According to Stock, Carter and Ellram, “innovator firms” that develop expertise in reverse logistics activities and recognise them as a set of business processes that add value can potentially generate revenue, improve customer satisfaction, achieve significant cost savings and deliver a competitive edge in their particular markets. (Stock 1988, Carter and Ellram 1988).

Dekker and de Brito cite three reasons as to why a company will implement a reverse logistics model. The reasons for implementation are:

• Economic (both direct and indirect)
• Corporate Social Responsibility
• Legal reasons

Companies can gain directly from implementing a reverse logistics model by adding value through product recovery or by reducing disposal costs. (Dekker and de Brito, 2003).

Some of the indirect economic gains are gathered anticipating legislative changes, marketing protection, what is called reverse marketing where a company donates returned yet useable product to charities. In that way, the company is able to attract positive publicity toward it. A very important indirect gain from reverse logistics implementation is better customer service. Customers are more likely to shop at a retailer where it is easy to return the product after sales in cases of product defects or when a customer changes their mind. (Hsu, Alexander & Zhu, 2008).
With the looming implementation of the Consumer Protection Bill in South Africa next year, the legal requirements for a reverse logistics solution will become more important still. Already on an international scale, home-shoppers are legally entitled of returning the ordered merchandise. (Dekker and de Brito, 2003).

Corporate social responsibility revolves around a set of principles or values which impel a company to become more environmentally friendly. While most of the literature reviewed by the author point to a green environment being an integral part of and reason for, reverse logistics, Dekker and de Brito consider green logistics to be very different to reverse logistics and they argue that green logistics exist in both the forward and reverse supply chain. (Dekker and de Brito, 2003)

The below diagram depicts the relationship between the three reasons cited above with regard to implementing a reverse logistics model.

**DIAGRAM 2**
**DEKKER AND DE BRITO**
**REASONS FOR REVERSE LOGISTICS IMPLEMENTATION**

Within industries, reverse logistics models and activities can prove critical to a specific company. Naturally, when the product value is high, or the product return rate is large, there is much more emphasis placed on the returns process and the possible improvements of that process. In 1988, the
remanufactured auto parts industry was estimated at US$36 Billion by Automotive parts Rebuilders (APRA). A conservative estimate then was that there were 12,000 auto dismantlers and remanufacturers operating in the USA. (Automotive Parts Rebuilders Association, 1988). The above is an example of where logistics models and activities are critical to a company’s survival.

According to Chan, reverse logistics has gained strategic attention over the last decade. One of the driving forces for companies to adopt a well implemented and managed reverse logistics model is improved cost savings from the reverse logistics activity. Chan goes on to mention that an effective implementation of a working model requires co-operation of more than one company. (It is assumed here that Chan is referring to both the company where the model is to be implemented as well as the service provider of the reverse logistics function). Chan states, “a pro-active and collaborative approach to reverse logistics is demanded” (Chan, 2007).

In trying to compile a reverse logistics model to meet customer and consumer needs, many authors and scholars have concluded that the reverse channel is very different to the forward channel within the supply chain. To date, none of the literature researched discloses any models where the reverse logistics function takes place in the forward logistics infrastructure. Furthermore, more than one author has stated in their literature that they are unaware of any research or practices that reveal the same. (Tibben-Lembke, Rogers, Anderson, Krumwiede, Sheu, de Brito and Dekker)

Tibben-Lembke and Rogers discuss the differences between forward and reverse logistics in a retail environment. Most of the models discussed in the literature separate the reverse and forward logistics at the distribution centres. Forward logistics are supplied through a forward distribution centre (DC), while the reverse logistics are managed through a centralised returns centre (CRC). Tibben Lembke (1999) found that many retail companies used CRC’s to process returned product. Reverse logistics is “not necessarily a symmetric picture of forward distribution” (Fleischmann, Bloemhof-Ruwaard, Dekker, van der Laan, van Nunen, van Wassenhove, 1997). Some of the differences between forward and reverse logistics operations are discussed below:

1. **Differences in Forecasting:**

Forecasting forward demand is relatively easy and will follow a trend over time, depending on seasonality and other demand factors. However, it is very difficult to forecast reverse logistics. There is far greater uncertainty involved with reverse logistics. In a retail context, future
planning and forecasting for reverse logistics are difficult because the individual customers ultimately initiate the reverse logistics activities. (Tibben Lembke & Rogers, 2002)

2. **Many to one Transportation:**

One of the biggest differences between forward and reverse logistics is the number of origin and destination points. Forward logistics is the movement of product from one origin point to many destination points whereas reverse logistics is opposite – from many origin points to one destination point.

3. **Product and Packaging materials:**

Products moving forward through the supply chain from vendor to retailer come in complete packaging which protects the product during transit. The reverse product travelling back through the supply chain very seldom comes in complete packaging and more often than not the packaging is either damaged or non-existent.

There are more differences than the ones explained above. The following two tables depict the differences between forward and reverse logistics at a glance.

<table>
<thead>
<tr>
<th>TABLE 3</th>
<th>DIFFERENCES BETWEEN FORWARD AND REVERSE LOGISTICS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FORWARD</strong></td>
<td><strong>REVERSE</strong></td>
</tr>
<tr>
<td>Forecasting relatively straightforward</td>
<td>Forecasting more difficult</td>
</tr>
<tr>
<td>One-to-many transportation</td>
<td>Many-to-one transportation</td>
</tr>
<tr>
<td>Product quality uniform</td>
<td>Product quality not uniform</td>
</tr>
<tr>
<td>Product packaging uniform</td>
<td>Product packaging often damaged</td>
</tr>
<tr>
<td>Destination/routing clear</td>
<td>Destination/routing unclear</td>
</tr>
<tr>
<td>Standardized channel</td>
<td>Exception driven</td>
</tr>
<tr>
<td>Disposition options clear</td>
<td>Disposition not clear</td>
</tr>
<tr>
<td>Pricing relatively uniform</td>
<td>Pricing dependent on many factors</td>
</tr>
</tbody>
</table>
**TABLE 4**

**COMPARISON OF LOGISTICS COSTS**

**REVERSE TO FORWARD LOGISTICS**

<table>
<thead>
<tr>
<th>Cost</th>
<th>Comparison to Forward Logistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation</td>
<td>Greater: lower-volume channels</td>
</tr>
<tr>
<td>Inventory holding cost</td>
<td>Lower: lower-value items</td>
</tr>
<tr>
<td>Shrinkage (theft)</td>
<td>Much lower: limited use without repair</td>
</tr>
<tr>
<td>Obsolescence</td>
<td>May be higher: depends on delays</td>
</tr>
<tr>
<td>Collection</td>
<td>Much higher: less standardized</td>
</tr>
<tr>
<td>Sorting, quality diagnosis</td>
<td>Much greater: item-by-item</td>
</tr>
<tr>
<td>Handling</td>
<td>Much higher: nonstandard sizes and quantities</td>
</tr>
<tr>
<td>Refurbishment/repackaging</td>
<td>Significant for RL, nonexistent for forward</td>
</tr>
<tr>
<td>Change from book value</td>
<td>Significant for RL, nonexistent for forward</td>
</tr>
</tbody>
</table>

Most of the literature determines that the actual costs associated with the reverse logistics function are very difficult to calculate. The common reason given is that most companies do not monitor or document the reverse logistics costs in any detail. However, reverse logistics programmes are able to assist companies in finding problem areas and patterns of defects or faulty product, thereby enabling a company to minimise its returns received.

An article published by Lee Norman and Warren Summer at the Reverse Logistics Association identifies six hidden costs of reverse logistics (2009):

1. “Hidden Labour Costs”
   
   a. Customer relations Costs

   Costs are incurred when manually deciphering the return policies of product on a once-off basis when determining the eligibility for the return as well as determining the timing of credits back to the customer and determining what warranties apply, if any. More importantly, however, is the risk that the company will gain the reputation of only being interested in customers who purchase products and not those who return product.

   b. Customer Service

   Costs are incurred in determining what warranty policy exists, what the credit rules are and how a product should be coded when it is replaced with a new one. Furthermore, the handling of return related communications is very time consuming. “On average, customers call up to four times to enquire about each return” (Norman and Summer, date unknown)

   c. Finance

   The issuing of credit attracts a cost as does the reconciliation process with regard to customer returns.

   d. Sales

   In many cases, sales reps spend too much time dealing with returns as opposed to spending their time making new sales and generating money for the company.
e. **Traffic and Shipping**

The preparation time in wrapping and assigning the returns to a shipping method is a costly and laborious exercise.

f. **Receiving and Warehousing**

Inventory, which is held up in the warehouse attracts costs with regard to space and labour costs involved in managing the “dead” inventory. Further labour costs are expended on the sorting and preparation process for the returned product.

2. **“Grey Market Items”**

Even in cases where a warranty program is controlled by serial numbers and SKU’s, manual lookups are costly and grey market contamination is a risk. Controlling the asset history and disposition mechanism effectively minimises the grey market risk. However, there is a cost associated with that control and monitoring procedure. In order to minimise this risk, Norman suggests that a company implement a rigorous returns authorisation process that grants the user the ability to deny any unacceptable returns and offers advanced knowledge of what is coming in as a return. However, advanced knowledge of the returned product is difficult to near impossible in the consumer-retailer environment.

3. **“Lack of Visibility”**

This cost tends to effect a couple of functional across the company. Customers want visibility of their returned product. If they do not have that, the customer calls or emails repeatedly for repair updates. Merchandising and sales want to know which product lines are experiencing high volumes of returned product due to component failure and marketing are wanting visibility on the instructions of use for new products to explain to customers how to use their products correctly.

4. **“Inability to Forecast Accurately”**

Detailed historical information for returns is generally unavailable according to Summers. Sales staff, are generally unable to forecast which products should have reserves geared up to meet the return demand. Inaccurate predictions in this regard can cost a company dearly in cash outflow and staff-focus on the forecasting exercise.
5. **“Credit Reconciliation”**

Large customers often calculate their own credits and deduct this off their next payment. The reconciliation process thereof is a very labour intensive exercise in the accounts department. Furthermore, the reconciliation process may detect that a customer has deducted too much off their payment, which results in further costs and time in recovering the over-deduction.

Further reconciliation costs are attributed to the fact that while returns may be authorised, they are not valued or matched against actual receipts.

6. **“Poor Response Time and Brand Toxicity”**

Poor response times create a delay in the cash to cash cycle of returns. Therefore, the working capital, or cash flow is tied up in physical product as opposed to have liquid cash in order to purchase more products to boost the sales revenue.

Brand toxicity arrives in circumstances where consumers become irritated with the delay in the process and the time taken to validate a return. Customers expect the retailer to stand by the products they sell during the entire lifecycle.

Norman and Summer go on to advise that retailers and manufacturers are able to reduce the hidden costs associated with reverse logistics by automating the process.

From the same association (Reverse Logistics), Paul Rupnow, the Director of reverse logistics systems at Andlor Logistics Systems Inc, has written and article, describing six tips for better replacement management. (Rupnow, 2009). This article is concerned with minimising the replacement cost of a return through holding the least amount of inventory while at the same time maximising customer relations by ensuring the customer is immediately satisfied with a replacement product. While this article may appear to deviate slightly from this case study, the six tips are very relevant in a retail environment when dealing with the reverse logistics issues. The six tips are as follows:

1. **Satisfy the customer as quickly as possible**

When something goes wrong, immediate effort is required to win back the customers loyalty. In order to do so, Rupnow suggests that instead of asking a customer to bring a
damaged product back to the store and hand it to the customer services desk, rather send the customer a replacement product straight away and take the damaged product at the same time. While arranging for the customer to return the damaged product may be appropriate in some circumstances, it is a much slower option and results in the customer being without a product for a longer period of time.

2. **Keep the customer informed**

The customers must perceive that they are important to the company whether they are buying a product form the company or whether they have returned that product for repair. Common sense states that a customer is far more satisfied when he/she is aware of the status of a repair. Furthermore, by closely monitoring the repair status, the company is able to call the customer and discuss any alternative solutions when it is disclosed that the repair is going to be delayed due to the unavailability of spare parts or any other validated reason.

3. **Promise to deliver**

According to Rupnow, many customers are left wondering the type of service they really will receive against company promises. This is interesting in light of the current case study because MDD promise their customers a 21 day turn around time with regard to repairs carried out on items under warranty.

4. **Keep alternative options organised**

Securing inventory for replacements is one of the biggest challenges for most companies according to Rupnow. Sometimes the repair unit has become outdated and replaced with a newer model. Therefore it is important for the company to be able to make an alternative arrangement in order to satisfy its customer. Some alternative arrangements may be to issue the customer with an upgraded model or to issue the customer with a refurbished model, depending on the individual situation at the time.

5. **Keep a close eye on the costs**

It is imperative to maintain the costs with regard to returns, repairs and replacement of defective product. Included in the reverse logistics costs are the hidden costs mentioned above as well as the processing and freight costs which are more obvious in the process.
Good cost management enables the company to have good alternative solutions in place for its customers while at the same time reducing the cost of inventory.

6. **Predict future requirements**

Rupnow acknowledges that it is very difficult to plan which returns will come back to the company at any one time. However, through a documented process and effective information flow, over time it may become easier to predict the return rates for some products or brands. This will remove some of the uncertainty with regard to returns planning. However, while the uncertainty with regard to volume may be removed slightly, the uncertainty with regard to brand volumes is far more difficult to remove.

Alan D. Smith lists ways in which a company can use the reverse logistics function to be more competitive in a retail environment. (Smith, 2005). Some of these strategies are as follows:

1. **Assessing the role of Reverse logistics**

The reverse logistics programmes can and should play a very important role in overall strategy. Reverse logistics enables the company to recapture value from products which would otherwise have been unavailable or lost. A company that manages its reverse logistics function well will entice customers to their retail outlets. Reason being is that if the customers see that they are able to return unwanted goods easily, they are more likely to do business with that company again. Furthermore, customer satisfaction will increase dramatically.

It has been estimated that companies who manage their reverse logistics efficiently can save up to 10% on their logistics costs. (Smith, 2005). Companies that do not recognise the importance of reverse logistics efficiencies face the risk of seriously damaging customer relations together with the company brand image. (Autry, Daugherty, Richey, 2001).

2. **Information Support and Performance:**

According to Daugherty (2002) and Richey (2004), information support is critical in achieving efficient reverse logistics operations. While operators generally do not know when product will be coming back, they must be in a position to handle and process the returns quickly on demand. Therefore, prompt and accurate exchange as well as access to information should be considered top priority. (Smith, 2005).
Furthermore, there is a need for co-ordination between all parties involved in the reverse logistics process. Therefore, communication becomes particularly important to promote longer-term business relationships. (Meade and Sarkis, 2002).

Once the product has been returned, rapid decisions must be made as to what to do with the product with regard to re-manufacture, repair, re-distribute, and retire or disposal procedures. The operators will need that information at hand.

“One of ten differentiators between leading edge logistics organisations and average firms is the leading edge performer’s ability and willingness to invest in state-of-the-art information technologies (Daugherty et al., 2002, p.88)” (Smith, 2005).

3. **Relationship Commitment:**

“Increased commitment tends to make firms resist attractive short term alternatives” (Smith, 2005).

The reverse logistics process is more likely to succeed over the long term where all parties involved are striving to promote the most efficient reclamation of assets.

Furthermore, where a consumer is ensured of a good relationship with the retailer on returning a product, the likelihood of repeat business from the consumer is boosted enormously. This again, is a competitive advantage within the reverse logistics strategy.

Organisations are beginning to realise that a better understanding of product returns and efficient management of reverse logistics can provide them with a competitive advantage in their industries. (Stock and Mulki, 2009). This competitive advantage begins with better customer relations.

Through the development of sound customer return policies, a company is able to increase their customer loyalty. (Rogers et al, 2002) By increasing customer loyalty, the company is able to improve product sales. (Mukhopadhyay and Setoputro, 2005) It goes without saying that a better understanding of issues related to product returns can help to identify areas in both marketing and manufacturing where corrective actions may be taken. (Stock and Mulki, 2009) Most companies want a way to distinguish themselves from their competitors and reverse logistics has the potential to do this. (Smith, 2005)
As competitive and economic pressures take their toll on business operations, an increasing number of companies have looked to reverse logistics implementation as an avenue to manage costs, minimise risk and drive additional revenue by actively managing and tracking the return, repair, refurbishment and remarketing of assets. (Pollock and Dutta, 2009)

An example of where a reverse logistics programme has put a company at a competitive advantage is given by Jayaraman and Luo in their article “Creating Competitive Advantages Through New Value Creation: A Reverse Logistics Perspective”. They describe that Estee Lauder used to dump more than sixty million US Dollars of its products into landfill sites every year. After investing in a reverse logistics system, costing just over one million US Dollars, the company were able to save five hundred thousand US Dollars in labour costs per year and reduced destroyed product by more than 10%. According to the article, Estee Lauder has managed to create a two hundred and fifty million US Dollar business from returned goods. This business is now the third most profitable business line in the company. (Jayaraman and Luo, date unknown)

When it comes to implementing a reverse logistics model that will result in a company creating a competitive advantage the literature was all very similar and implemented models varied very slightly. The above results were expected because the reverse logistics supply chain is rather uniform per industry. Basically, the flow is the reverse of the more conventional and traditional forward flow of products. In general, the practice of reverse logistics involves three distinct stages. These stages are retrieval, transportation and disposition (Krumwiede and Sheu, 2002). Each stage is discussed in a bit more detail below:

1. **Stage 1 – Retrieval**

   Retrieval is the process of collecting and removing goods from a customer. There are several different operations within the retrieval process, depending on the type of product collected and how it is collected from the customer. The operations within retrieval include:

   a. **Store level retrievals**

      These are returns that are retrieved from any type of store and they consist of product recalls, inventory returns, warranty returns, damaged goods and return of seasonal items.

   b. **Consumer retrievals**

      These are returns that are collected from the ultimate consumer and consist of product recalls, warranty returns and damaged goods.
c. *Collection centre retrievals*

These retrievals involve product recalls, warranty returns, inventory returns, core returns, reusable container returns, damaged goods and seasonal items.

2. **Stage 2 – Transportation**

This is the actual movement of goods from one location back to another location. This stage is extensively involved in the implementation of reverse logistics. Very few manufacturers are willing to have their goods returned to their premises. Therefore, there is generally a third party reverse logistics service provider (RLSP) who provides the transportation as well as the method of disposing the product. As a result, RLSP’s are generally left holding the goods waiting for disposition instruction.

3. **Stage 3 – Disposition**

This process involves decisions and actions associated with the product after the customer has demonstrated dissatisfaction with it. Disposition can occur either on-site or off-site. On-site disposition includes repair or replacement of the product at the customer’s premises.

Off-site disposition occurs at a site away from the customer’s site. This type of disposition can be one of repair, remanufacture or disposal. Off-site processing centres can be responsible for many aspects of the reverse logistics function which include:

a. *Repairs*

   Returned goods, which are in need of a repair at a repair centre or a repair agent of the supplier or manufacturer.

b. *Inspection*

   Returned goods are shipped to the processing centre which require visual inspections or mechanical and/or electrical testing.

c. *Salvage*

   This concerns goods returned which must be physically destroyed, disposed of or dismantled.

d. *Reworks*

   These are returned goods which are modified at the processing centre. The modification can take the form of an upgrade, refurbishment, remanufacture or simply repackaging.
The disposition phase can also include liquidation centres and secondary market outlets. This involves the sale of repaired or reworked goods through second hand dealerships and WEB based sales venues.

Conclusion

On a global scale, reverse logistics methodologies, definitions and implementations have been widely researched. The above literature review has looked at the strategic implementations of implementing a reverse logistics model as well as the areas where a reverse logistics model may be beneficial to an organisation.

The expected benefits of implementing a solid reverse logistics model are certain reasons to research the subject and understand how and why a business should implement a reverse logistics model.

It has been noted above that there are some very pertinent differences between the traditional forward logistics and reverse logistics. It has been suggested that these differences have been some of the stumbling blocks in implementing an efficient reverse logistics model.

While it is granted that forward and reverse logistics are two very different functions with different cost elements and operating procedures, where companies have managed to close the loop through effective reverse logistics models, they have noted improved customer service and other forms of income from otherwise unwanted and dead stock.

Some of the reasons for the implementation of a model are because of economic gain, government legislature or good corporate citizenship. However, it is also suggested that over time, all three of these reasons become intertwined, as reverse logistics is able to satisfy all three reasons simultaneously.

By effectively implementing a reverse logistics model, a company may have better visibility over the product it sells that is later returned for a number of reasons. It is expected that an effective model will therefore have intangible benefits as well, most importantly, improved customer service and through improved customer service, a better bottom line profit. That is what this research paper has investigated and analysed in a real life scenario. This research case looks at the returned product for repair from customers to a retailer where the product was originally purchased. Furthermore, the
mentioned product is then sent to repair agents from the retailer, or returned to the supplier/manufacturer for credit.

RESEARCH METHODOLOGY

Research approach and strategy

The research approach was inductive and takes a case approach. While there is a vast amount of literature regarding reverse logistics and the implementation thereof on an international scale, there is very little local content. Therefore, the author has tried to add to the pool of knowledge with regard to the implementation of a reverse logistics model in the local environment.

There is no settled view concerning the parameters of case study research (Yin, 2003). However, broadly speaking, case study research tries to explore and depict a setting with a view to advancing the understanding to it (Cousin, 2005). The researcher is a participant observer when conducting case study research (Goffman, 1991). The researcher and author of this dissertation is very much a participating observer with regard to the research undertaken at MDD.

Case research has consistently been one of the most powerful research methods in operations management. (Vos, Tsikritskis & Frohlic, 2002). According to Yin, case study research has been recognised as being particularly good for examining the how and why questions. (Vos et al., 2002).

Following the above discussion, the case study method has been chosen because it answers the questions why, what and how which have been posed in this research project. Furthermore, the researcher has, through his own company had direct involvement is implementing the reverse logistics model which is in operation at MDD. Furthermore, the conducted research is a qualitative strategy, which is consistent with case study research (McGloin, 2008)

Qualitative data was collected through a process of structured interviews with senior management at the MDD head office. Further interviews were conducted with middle management and operating staff at the Game stores. An assumption was also made that an interview would be conducted with a senior staff member at the company who are providing the reverse logistics services to MDD. This interview was also granted and the assumption proven correct.

An assumption that was not met, was that the data which was gathered, would be able to show the quantitative effect the implemented reverse logistics model has had on the company’s bottom line.
This data will only be available after a longer period of reviewing and assessing the reverse logistics model which extends beyond the final submission date of this research report.

**Research design, data collection methods and research instruments**

The research took the design of a case study. Again, according to Yin, “case study research aims to explore and depict a setting with a view to advancing understanding of it” (Cousin, 2005).

A research design should deal with at least four problems. Namely:

- What questions to study
- What data are relevant
- What data to collect
- How to analyse the results

(Philliber, Schwab, & Samsloss, 1980)

In trying to remain uniform with the above insight into case research, the research questions were specifically structured to gaining a better understanding of how the reverse logistics solution has been implemented at MDD, the reasons for implementing the reverse logistics model as well as the benefits to the company from a customer relations management point of view as well as the perceived cost benefits associated with implementing such a model.

The research questions of “why”, “what” and “how” have led to data being collected through structured interviews. Interviews were carried out with senior management, middle management and operational staff at MDD. An interview was also carried out with the Operations Director at Revlogs. The research questionnaires are attached in the appendices to this research report. The interviews have been transcribed and are also attached to this report.

In an attempt to keep data credible, data were also collected from company documentation, including MDD product return policies for both repaired product and product returned to supplier. These policy extracts are also attached as appendices. Further data were collected from product flow information which is held by the company providing the reverse logistics solution. (See appendix G)

The results have been analysed using qualitative techniques where interviews were conducted and the results of the interviews were compared to what others in the same organisation relayed about the implementation of the reverse logistics model. Unfortunately, due to the fact that MDD do not allow direct access to their customer base, no customers were contacted in this study. However, the
Operations Director from Revlogs was interviewed in an attempt to get a view from outside the company. Any quantitative data that has been collected has been used to back up and support the qualitative research that has attempted to answer the research questions asked at the beginning of this research report.

Yin (2003) proposes three types of case study that can form a conceptual framework, namely:

1. *Exploratory Case Study:* 
   This debates the value of further research and suggests various hypotheses
2. *Explanatory Case Study:* 
   This explains aspects and causal arguments identified by the descriptive research.
3. *Descriptive case Study:* 
   This describes the phenomenon. (McGloin, 2008)

However, Stake (1995), identifies three other, more easily understandable types of case study research namely:

1. *Intrinsic:* 
   Where the researcher holds an interest in the case
2. *Instrumental:* 
   When the case is used to explain deeper issues
3. *Collective:* 
   Studying a group of cases” (McGloin, 2008)

Taking the above into account and the fact that the researcher holds a personal and professional interest in the case, the case study approach was intrinsic in nature as opposed to the other approaches to case study research.

**Sampling**

According to Miles and Huberman (1994), data sampling involves two actions. The first action is to set boundaries that define what the researcher can study and connect directly to the research questions, while the second action involves the creation of a sample frame to help uncover, confirm or qualify the basic processes or constructs that underpin the study. (Vos et al., 2002).
In light of the above and in keeping within the boundaries set by the research questions, the data was collected in the area of the business which has implemented the reverse logistics model being researched. More specifically, data was collected from the stores in the greater Gauteng area where the reverse logistics model has been implemented.

Qualitative data was collected by way of structured interviews. (Appendices A to E). The below table shows the sample of interviewees and describes the positions of the interviewees in the company structure:

<table>
<thead>
<tr>
<th>POSITION IN COMPANY STRUCTURE</th>
<th>INTERVIEWEE</th>
<th>NUMBER OF INTERVIEWS CONDUCTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDD Supply Chain Director</td>
<td>John Hart</td>
<td>1</td>
</tr>
<tr>
<td>MDD Supply Chain Executive</td>
<td>Nina Madsen</td>
<td>1</td>
</tr>
<tr>
<td>MDD Supply Chain Project Manager</td>
<td>Caroline Oels</td>
<td>1</td>
</tr>
<tr>
<td>Game Store Operations (Centurion)</td>
<td>Louis Bierman</td>
<td>1</td>
</tr>
<tr>
<td>Game Store Operations (Cresta)</td>
<td>Elsje Breytenbach</td>
<td>1</td>
</tr>
<tr>
<td>Revlogs Operations Director</td>
<td>Claudine Schreyer</td>
<td>1</td>
</tr>
</tbody>
</table>

Data analysis methods

According to Yin, there are five different analytical techniques a researcher may use while doing case study research. The five techniques are listed below with a brief description of each.

1. **Pattern Matching**

Pattern matching logic compares an empirically base pattern with a predicted one. (Trochim, 1989). When the patterns coincide, the results strengthen the internal validity of the case study.

This technique is best applied to a case study where pre-established benchmarks are set and the value of the actual outcome can be compared to and measured against the benchmark.
There have not been any benchmarks set in this research document prior to obtaining the data. This research document seeks to answer the questions posed in the beginning of the document in an attempt to add to the pool of knowledge regarding reverse logistics mechanisms and model implementation.

Therefore, this technique has not been chosen as a method of analysis.

2. **Explanation Building**

   This technique is described as a special type of pattern matching. The goal of this technique is “to analyse the case study data by building an explanation about the case”. (Yin, 2009).

   This analysis technique looks at the “how” and “why” something has happened and concludes the study by having developed ideas for further study.

   Considering the researcher’s interest in this case study and the possibility of taking this study further into the academia, this technique is the one used for this report.

3. **Time Series Analysis**

   The logic to this technique is that there is a match between the observed (empirical) trend and a theoretical trend specified before the onset of the investigation, or a match between the empirical trend and some rival trend, also specified earlier.

   This technique requires events to have taken place over time. While this case study looks at the “how” and “why” something has happened, a time series analysis would be more appropriate when looking at the data to this case in another years time after more quantitative data is available for analysis.

4. **Logic Models**

   This model deliberately stipulates a complex chain of events over an extended period of time, which is staged in repeated cause-effect, cause-effect patterns, where a dependent variable at an earlier stage becomes an independent variable at a later stage.
This technique has not been considered given that the data collected has not been done over a lengthy time period. Therefore, the analysis results, using this method may not be substantial.

5. **Cross-Case Synthesis**

This technique applies specifically to the analysis of multiple case studies and for that reason; the technique is not appropriate to this case study.

**FINDINGS, ANALYSIS AND DISCUSSION**

**Research Findings**

Massdiscounters (MDD) is a subsidiary company of the Massmart Group. The Massmart Group is a listed entity, which owns a number of retail and wholesale chains.

MDD owns and manages the Game chain stores as well as the Dion Wired chain stores in South Africa and the MDD head office is situated in Kwazulu Natal. At the time of this report, there were a total of 118 Game stores under the MDD banner and 97 of those stores are operational within the country’s borders. Game was established as a brand in 1974. The latest annual turnover is in the region of R11 billion per anum and the company employs a total of around 12 000 people.

Prior to 2008, MDD did not concentrate too much on their reverse logistics. The process they had in place to deal with the reverse logistics function was more like a courier service where returned product, was collected by a service provider, and transported directly to either the repair agent or supplier. Once the repair had been carried out on the product, the courier was then instructed to collect the item from the repair agent and return it to the store. Game store staff initiated both the collection from store and return to store process.

In September of 2008, MDD embarked on the implementation of a dedicated reverse logistics management system with Revlogs.

The reverse logistics model is currently operational in 24 game stores within the greater Gauteng region. There are approximately 30 stores in Gauteng and 80% of the Gauteng stores have implemented the reverse logistics model being researched. Game as a company claim to be very customer focussed. This is evidenced by the service guarantee they give to all customers “We will have any item under warranty repaired for you – should that take longer than three weeks, the item
will be replaced or refunded. We also ensure ongoing service on any product bought from Game even after the warranty expires. Costs will be kept to a minimum” (http://www.game.co.za/guarantee.aspx).

By providing such a guarantee to their customers, Game management have realised that they needed a system that will reliably track:

- All faulty customer returns needing to be repaired, both in and out of warranty
- All store breakages which must be sent to repair agents
- All store stock returned to suppliers due to overstocks or incorrect stock ordered or obsolete stock items.

According to John Hart, the MDD Supply Chain Director and Nina Madsen, the MDD Supply Chain Executive, Game did not have a system in place that managed the tracking of product through the return cycle before the implementation of the current model. Game did not have a system that was able to measure and manage the service level agreements it had in place with the repair agents and the logistics service providers. Before the current model was implemented, the company enlisted the services of a freight courier to transport the returns. The courier was tasked to collect and deliver the returns only. There was no visibility or tracking of the collections and deliveries and the courier did not have a warehouse where the returns could be sorted and loaded into different cages and bays. Basically, the courier provided a “bakkie brigade” service with no further infrastructure.

The MDD reverse logistics process can be differentiated into the following processes at the Game stores:

- Product sent for repair to repair agents
- Product returned to supplier
- Product returned by customer and sent to auction (auction stock)
- Product repaired in store

This research report deals with the first two processes. The second two processes are not areas of concern for the current Game management team at this stage because those processes have far less
of an impact on their customer service when compared to the first two processes. The second two processes do not affect the customer because once the old product is received in store; it does not go back to the customer. The customer is issued with a new product and goods that are repaired on site (in store) are items, which have not yet been sold and are used for display stock.

The current reverse logistics model that has been implemented in the 24 regional Gauteng stores has been phased in over a period of time. The researcher’s company, Revlogs has been key in implementing the current model together with the MDD management.

The phase in approach took place over ten months from September 2008 to July 2009. However, MDD were introduced to Revlogs nearly a year prior to September 2008. The initial meeting between the two companies took place in the office of Nina Madsen, the MDD supply chain executive. The encounter was a follow up from a meeting that took place between Revlogs and the Massmart CEO, Grant Patterson a week prior, in October 2007.

Nina Madsen was the catalyst at MDD who introduced Revlogs and the reverse logistics model to the MDD board of directors.

Before Revlogs could begin implementing the services as discussed with Nina Madsen that day, many hours of research and trying to understand how the Game stores managed their repair returns were entered into. Game Cresta was the store chosen where the research was carried out. The Cresta store was chosen because it was the biggest store in the region at the time with the highest returns volume. The research into the Game returns operations consisted of physical observation as well as gaining an understanding of the store documentation used in order to initiate a repair return to repair agents and back into the store after the repair was complete (from repair agent to store).

After the research had been carried out, a detailed business plan on the implementation process was submitted to MDD, and with Nina Madsen’s assistance and influence, the board voted in favour of a pilot project being implemented in three stores within the Gauteng region.

The three pilot stores were:

- Game Centurion
- Game Cresta
- Game Eastgate
The above three stores were specifically chosen after taking into account their distances from one another and their distances from the Revlogs warehouse, coupled with the size of the stores and the amount of returns coming out of each store. At the time of selling the implementation to MDD, the service provider, Revlogs wanted to prove that they were able to manage the reverse logistics process for the company. The MDD staff at store level (service centre and customer service supervisors and their clerks) was not convinced that the proposed Revlogs model being implemented would be able to handle the volume of returns coming from the Game stores. Therefore, the stores that were chosen for the pilot were somewhat strategic. The three stores formed a tri-angular route around the Revlogs warehouse. Further to that, the longest distance between two stores was just over 50km. The three stores chosen varied in size and between the three of them, they covered the furthest most points of the Gauteng region. All the other Gauteng stores fell within the tri-angular border of the three chosen stores. This distance tested the travel time from one store to the next and tested whether the Revlogs vehicle would be able to collect product from and deliver product to all three stores in a day. The timing needed to be tested because the Revlogs vehicle, a single truck had to get to all three stores in one day and to and from the Revlogs warehouse. If Revlogs were successful in getting to the three chosen stores, then it was expected that Revlogs would be able to cope with rolling out the service to other stores within the region. This phenomenon had not yet been tried in the MDD reverse supply chain. The old system allocated one bakkie per store. The Revlogs system proposed to allocate one truck to at least three stores. The pilot phase was only concerned with returned goods from customers for repair. The pilot phase was not concerned with “good stock” being returned to the supplier. Good stock is defined as items, which have been over ordered, by the retailer or stock, which is not selling at the required or forecasted volumes. This stock is returned to the supplier of the stock. Good stock is opposite to damaged or faulty stock. At MDD, the good stock is referred to as a customer credit voucher (CCV).
The Cresta store was by far the biggest store with a large majority of the returns coming out of that store on a weekly basis. The following table shows the average number of repairs being collected by Revlogs per week during the pilot phase.

<table>
<thead>
<tr>
<th>GAME STORE</th>
<th>AVG REPAIR VOLUME PER WEEK</th>
<th>% OF TOTAL WEEKLY VOLUME</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAME CRESTA</td>
<td>230</td>
<td>46%</td>
</tr>
<tr>
<td>GAME CENTURION</td>
<td>167</td>
<td>33%</td>
</tr>
<tr>
<td>GAME EASTGATE</td>
<td>102</td>
<td>20%</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>499</strong></td>
<td></td>
</tr>
</tbody>
</table>

SOURCE: Reverse Logistics (Pty) Ltd

The model, which Revlogs proposed to implement, was based on a centralised warehousing/distribution centre approach. Revlogs was appointed after many discussions with the MDD management and more specifically, Nina Madsen, the MDD supply chain executive. The appointment can be attributed to the passion shown by the owners of Revlogs and the willingness to adapt the business model to best suit the MDD processes. Revlogs is a small enough company to be able to adapt quickly. Furthermore, Revlogs were prepared to invest in the project with MDD and spent large sums of money setting up systems and infrastructure, which included vehicles and in house developed computer software. It should also be noted here that the Revlogs owners drove the truck themselves and took time to stand at the receiving bays and understand the business of MDD returns from ground up. MDD management and staff at their head office in Durban also spent many man-hours in trying to ensure the pilot phase ran as smoothly as possible and any concerns were quickly dealt with. Concerns were generally raised by store level staff from a MDD point of view together with Revlogs staff from a service provider point of view. The MDD head office management and staff collated the concerns and built processes, which addressed the concerns by both parties (store and service provider), ensuring a smoother pilot operation. This approach adopted by MDD and Revlogs is similar to the one described by Tibben Lembke and Rogers in
their article; The Differences Between Forward and Reverse Logistics (Tibben Lembke & Rogers, 1999). The below diagram shows the operational flow of the reverse logistics model.

**DIAGRAM 3**

**OPERATIONAL FLOW OF THE REVERSE LOGISTICS MODEL**

The flow of product in the above diagram is explained as follows:

- A customer returns defective product to the game store

- The defective product moves from the Game customer service department to the service centre department where it is prepared for collection by the reverse logistics service provider (RLSP)

- The RLSP collects the product from the Game store. The RLSP collects product from all three pilot stores in one day using the same vehicle.

- The returned product is then transported to the Revlogs centralised warehouse and checked into the warehouse. At this stage the product from all three Game stores was checked into the Revlogs warehouse.

- The returned product is then manually sorted into different cages at the Revlogs warehouse, depending on where the returns must be sent for repairs.
Once sorted and entered into the Revlogs tracking system, the product is despatched from the Revlogs warehouse and delivered to the various repair agents.

While the product is being repaired at the agents, the Revlogs staff follows up with the repair agents three times per week as to the status of the repair. This information is then fed into the Revlogs system and made available to MDD Head Office on a weekly basis.

Once the products have been repaired and are ready for collection from the repair agent, Revlogs prepares a collection sheet and a vehicle is despatched to collect the repaired product.

The Revlogs vehicle then delivers all the repaired product from various repair agents back to the Revlogs warehouse.

The product is then checked into the Revlogs warehouse again and manually allocated to different Game store bays within the Revlogs warehouse.

The following day, the repaired product is despatched from the Revlogs warehouse and returned to the various Game stores.

The above process is tabled below to show what action took place on the various days of the week.

<table>
<thead>
<tr>
<th>WEEKDAY</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACTION</td>
<td>Revlogs collected all returned goods from the three stores and sorted the product at their warehouse</td>
<td>Revlogs delivered all repairs to the repair agents and collected the items that had been repaired from the</td>
<td>Revlogs delivered repaired product into the three stores and collected new returns</td>
<td>Revlogs delivered repaired product into the three stores and collected new returns</td>
<td>Revlogs delivered repaired product into the three stores and collected new returns</td>
</tr>
<tr>
<td>WEEKDAY</td>
<td>Monday</td>
<td>Tuesday</td>
<td>Wednesday</td>
<td>Thursday</td>
<td>Friday</td>
</tr>
<tr>
<td>---------</td>
<td>--------</td>
<td>---------</td>
<td>-----------</td>
<td>----------</td>
<td>--------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>repair agents</td>
<td></td>
<td>repair agents</td>
<td></td>
</tr>
</tbody>
</table>

During the pilot phase, communication between MDD management and Revlogs management took place on a daily basis and was ad-hoc during the day. Eventually, after processes were more formalised, telephone conference meetings were set up between the MDD management and the Revlogs management on a weekly basis. These meetings would last from between an hour to an hour and a-half. Communication took place via email, fax, telephone and face-to-face meetings. The MDD management paid monthly visits to Johannesburg from Natal and any implementation actions were dealt with swiftly and communicated to the operations staff at the various stores. It was during this phase, too where Revlogs and MDD worked together in order to produce a scorecard which is now used by MDD in the management of the product, the Game store operations, The RLSP service level agreements and the repair agent service level agreements. Unfortunately, the scorecard is too large to place in this report, however, some detail regarding the compilation of the scorecard follows.

The scorecard consists of many different tables and has been developed using Excel. The tables are compiled from information, which is supplied to MDD Head Office from Revlogs on a weekly basis. The information supplied by Revlogs includes some of the following detail:

- Date on which item was returned to a Game store by a Game customer. This detail is entered directly off Game documentation (repair note) by Revlogs staff at the Revlogs warehouse.

- Date on which Revlogs collected the returned item from a particular Game store. Returned items prepared for delivery to repair agents can sit in the Game stores for up to five days before collection, depending on circumstances (weekend and public holidays).

- The unique repair number allocated by the individual Game store to the item

- The Game store from which each item has been collected

- Date on which Revlogs delivers the product to a repair agent.
• Status updates while a particular item is at a repair agent. Some examples of the status updates loaded onto the Revlogs system are:

  o Product awaiting spares.
  
  o Product outside guarantee – quote been submitted to Game.
  
  o Product in process of being repaired.
  
  o Not economical to repair item.
  
  o Item repaired and ready for collection.

• Date on which item was collected from the repair agent by Revlogs.

• Date on which item was delivered back to a Game store by Revlogs.

From the above information, MDD are able to produce a scorecard which details:

• The length of time an item has been at the store before collection by Revlogs

• The length of time it takes Revlogs to deliver the item to a repair agent after collection from the store

• The length of time an item has spent at a repair agent

• The reasons why an item has spent a longer time than allowed by the service level agreement between the repair agent and MDD.

• The length of time it takes Revlogs to return a repaired item back to a particular Game store.

MDD have set up service level agreements with Revlogs and the various repair agents to ensure the repaired product is back in store within the time stipulated per the service guarantee to the Game customers. The individual repair agents are not appointed by MDD but are rather appointed by the suppliers as approved repair centres who have the authority to repair the supplier’s products. However, MDD do have a certain amount of authority over the repair agents in the form of service level agreements through their supplier network. The below table summarises the time frames each service provider has in order for the product to be repaired and returned to the relevant Game store.
# TABLE 5

## SERVICE LEVEL AGREEMENTS WITH SERVICE PROVIDERS

<table>
<thead>
<tr>
<th>Step</th>
<th>Action</th>
<th>Owner</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>MDD identifies Warranty Goods, enters in POM</td>
<td>MDD</td>
<td>Day 1</td>
</tr>
<tr>
<td>2</td>
<td>MDD prepares Warranty Goods to be collected by Contractor and notifies Contractor of collection</td>
<td>MDD</td>
<td>Day 3</td>
</tr>
<tr>
<td>3</td>
<td>Contractor collects Warranty Goods from Collection Point</td>
<td>Revlogs</td>
<td>Day 4</td>
</tr>
<tr>
<td>4</td>
<td>Contractor consolidates Warranty Goods in its warehouse</td>
<td>Revlogs</td>
<td>Day 5</td>
</tr>
<tr>
<td>5</td>
<td>Contractor delivers Warranty Goods to Repairer</td>
<td>Revlogs</td>
<td>Day 6</td>
</tr>
<tr>
<td>6</td>
<td>Contractor gives MDD a copy of the Delivery Note with Repairer's job number, if applicable</td>
<td>Revlogs</td>
<td>Day 9</td>
</tr>
<tr>
<td>7</td>
<td>Contractor corresponds with Repairer to ensure Warranty Goods ready for collection</td>
<td>Repair Agent</td>
<td>Day 17</td>
</tr>
<tr>
<td>8</td>
<td>Contractor collects Warranty Goods from Contractor</td>
<td>Revlogs</td>
<td>Day 19</td>
</tr>
</tbody>
</table>
Per the above table, Revlogs had been contracted by MDD to manage the following timelines:

- Delivery of repair item to repair agent – 2 days
- Communicate with the repair agent regarding the status of the update – ad hoc but continuous
- Delivery of the repaired product back to store – 3 days

The repair agents have been contracted to repair the defective items within 15 days after receiving the items from Revlogs.

The pilot phase of the reverse logistics implementation was used to iron out as many operating challenges as possible. Some of the operational challenges faced by MDD during the pilot phase are listed below:

- Because MDD are general merchandisers, they have many suppliers on their books. The challenge is to manage all the suppliers different goods return policies and collate the information thereon. (Interview with Caroline Oels, 2009)
• Collating all the information on repair agent physical addresses and goods receiving policies. (Interview with Claudine Schreyer, 2009)

• Communicating the new process with Game stores and winning their trust that the model being implemented would be beneficial to the stores over time. (Interview with Caroline Oels, 2009). Game store staff, were trained to be very process driven. Therefore, any change in process initiated from Head Office to the stores needed to be implemented via re-training of the staff in store. At times, this communication was very tedious, especially when dealing with clerical operating staff at store level.

Initially, there were very mixed feelings from the store operating staff with regard to the implementation. The Centurion store was very accommodating and as a result, the implementation ran most smoothly at that store. One of the reasons for the smooth implementation at Centurion was that the store had very capable and competent administration and store manager. The reverse logistics implementation was driven by the admin managers at store level and backed up by the store managers. However, exactly the opposite was the case at the Cresta store. Because the owners of Revlogs drove the vehicles and loaded all the returns onto the truck for the first couple of months, this behaviour was very apparent at ground level.

The staff member in charge of the service centre at Cresta felt very threatened by the arrival of Revlogs and she felt that her job was under threat. That was a reasonable concern because the MDD management were suggesting that with the new Revlogs model, they could do away with the service centre altogether. While that communication was never transferred to the store level staff, they were wise enough to see that the abolishment of the store service centre may indeed be the next logical step. However, given today’s economic environment and the reliance MDD Head Office placed on competent store staff, that was not a real threat during the implementation of the reverse logistics model. Even after implementation, the replacement of service centres is not a threat to the Game staff at store level.

As a result of this perceived threat, the Cresta staff tried to sabotage and derail the Revlogs project by constantly reporting to the head office at MDD that the project was not working and the store customers were irate at the delays in receiving their returns back from the Game customer service desk.

However, through constant discussion, collaboration and communication, the MDD management and Revlogs management were able to turn the situation around at the Cresta store. Daily
communication took place between the Cresta store service centre supervisor and Revlogs staff. The communication generally covered some of the following issues:

- Reasons for delays in getting items repaired by repair agents. Revlogs acted as a go-between for repair agents and the Cresta store.
- The physical whereabouts of items that had been collected from the Cresta store.
- Constant explanation for slight change in process at store level that was needed to accommodate the Revlogs service.
- Constant re-assurance that the planned implementation could not work without the co-operation and assistance of the Cresta service centre supervisor.
- Taking into advisement all suggestions made by the Cresta service centre supervisor to improve the implementation process.

At the time of submitting this research report it is suffice to say that the Cresta store are now one of the strongest stores that Revlogs deals with as far as processes are concerned. The researcher can even go so far as to mention that along with one other store, he would consider Cresta to be one of the flagship stores with regard to a successful reverse logistics model implementation.

The other challenges were overcome through consistent communication with all players in the process. Meetings were held between the players to discuss and analyse the most effective way of managing the reverse logistics process with the Game customer top of mind. The players who are involved in this model include:

- MDD Head Office
- All Game stores where the model is implemented
- Revlogs
- Repair Agents (about 80 repair agents)
- Suppliers’ of product to the Game stores (well over 100 suppliers)

Through constant collaboration with all the players in the model, the pilot phase of the project was successful. Meetings were held on a weekly basis between MDD and Revlogs to discuss any store
issues, which may be hampering the returns process. These meetings were generally held between Head Office management, Revlogs management and individual store administration managers and service centre supervisors via telephone conference. Through these discussions it was decided that the Revlogs vehicle would gain preference at all the Game store receiving and despatch bays. Thereby, the waiting time at the stores was greatly reduced so that the vehicle had enough time to still get to the other two stores during the day.

Further meetings were held between MDD, Revlogs and the repair agents on a monthly basis. The repair agents involved in these meetings were only the top 5 agents from a volume point of view. At these meetings discussions were held around granting preferential treatment to the Revlogs vehicle at the repair agents receiving centres as well. This preferential treatment was granted for the same reason – to be able to get to all the repair agents in a day. On average, Revlogs was stopping at 10 to 15 repair agents in a day during the pilot phase. The suppliers of product were generally the repair agents for that product as well. In the cases where specialists, other than the supplier of product, carried out repairs the suppliers appointed the repair agents. These agents were appointed in line with warranty and guarantee policies where the products under repair retained their guarantees as long as the appointed repair agents were used in order to carry out the repair.

Through the pilot phase implementation, the MDD moulded the reporting format it required from the RLSP. The report is sent to MDD on a weekly basis. Unfortunately, the report is too large to include in this document. If any reader would like a copy of the report, please do not hesitate to contact the researcher who will gladly email an extract from the report.

Once MDD were happy that the pilot project was operating efficiently and the initial operating snags mentioned above had been managed, the company rolled the project out to a further 21 stores in the Gauteng region. The stores in the region where the reverse logistics model have been implemented are tabulated below, according to the month in which the model was installed at the stores.

<table>
<thead>
<tr>
<th>SEPTEMBER 2009 IMPLEMENTATION</th>
<th>NOVEMBER 2009 IMPLEMENTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Game Eastgate</td>
<td>Game Alberton</td>
</tr>
<tr>
<td>Game Cresta</td>
<td>Game Boksburg</td>
</tr>
<tr>
<td>Game Fourways</td>
<td>Game Benoni</td>
</tr>
</tbody>
</table>
Research Analysis and Discussion

The research data has been sourced from four different areas. The following data has been sourced

- Structured Interviews with key informants at MDD and at their service provider, Revlogs
- Scorecard data dating from August 2009 through to November 2009. This scorecard data has been compiled from. ........(Next point follows from here)
- Master data, which is compiled by Revlogs on an ongoing basis and received by MDD on a weekly basis.
- An extract from the MDD policies and procedures with regard to returns for repair and returns to supplier.

The interviews, which were carried out with the various employees as mentioned under “research methodology” in this research paper, were analysed. The answers which were derived from the interview process have, to some extent been backed up with other data which is more qualitative.

Reasons For Implementation

There is not currently one person at MDD who is ultimately responsible for the reverse logistics function. More specifically, this function is shared between the logistics and operations divisions within the company. (Interview with John Hart)
Information gathered from the staff interviews cite the reason for implementation as better view of the entire product that moves through the supply chain. By having the view of the product movement, the MDD management are empowered to make necessary changes where they see that a process is not working. Furthermore, they are able to pinpoint why a product has not been returned to a customer in a specified time frame. This information then enables the Game stores to provide a better service to its customers, which is one of the benefits of reverse logistics, mentioned in the literature review. The lack of visibility in the process is also mentioned as one of the hidden costs in the literature. (Norman, 2009) Before the current model was implemented, neither the Game stores, nor the management at MDD Head Office had any sight of the repaired product and product to be returned to suppliers.

The previous operation before the current implementation was not managed or controlled as effectively from a financial point of view. According to John Hart, the head office accounting department were accounting for unexpected costs from the stores on a monthly basis. The reverse logistics costs were not managed and constantly exceeded budget. The cost inconsistency was as a result of ad hoc transport expenses being incurred over and above the courier services MDD had contracted for. The current model is charged at a fixed monthly amount per store. All the charges are the same and in that way, there are no more freight or logistic surprise costs from any of the stores where the model has been implemented.

**How Implementation has Taken Place**

Implementation of the reverse logistics model has taken place by employing a reverse logistics service provider to provide the service of managing and tracking returns.

The process, which has been implemented, is carries out on product returns from customers, which are faulty and must be sent for repairs. This is in accordance with the Game customer guarantee on warranty items and on out of warranty items.

After the completion of the pilot project and during the full implementation of the model, MDD included the returns of good stock to their suppliers. This stock are products which are not returned by Game customers, but rather stock which may have been over-ordered or damaged in store. The stock is referred to as CCV (Customer Credit Voucher) stock and is returned from the Game store directly to supplier without going through the repair process described under findings of this research report.
According to all interviewees from the Game stores and MDD, there are policies in place, which determine how the customer returns and CCV returns are handled. These policies and procedures revolve around the reverse logistics process mentioned above.

Communication of the above policies takes place through training sessions with the Game store staff who were handling the returned product as well as with the store managers and store admin managers. All correspondence is done electronically or telephonically when training is not conducted. (Interview with Nina Madsen and with Caroline Oels)

The policies are measured using key performance criteria. (Interview with Caroline Oels). Further to that, the RLSP reports to MDD Head Office on the weekly basis and sends through a store measurement report, which is used by MDD to measure the performance at the stores against their KPI’s. Below is an example of the weekly report received by MDD from Revlogs.

### TABLE 6

**STORE MEASUREMENT REPORT**

<table>
<thead>
<tr>
<th>OPERATION CONTROL</th>
<th>Mon 30</th>
<th>Tue 01</th>
<th>Wed 02</th>
<th>Thu 03</th>
<th>Fri 04</th>
<th>Sat 05</th>
<th>Sun 06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time fax received</td>
<td>14:40</td>
<td>12:16</td>
<td>11:54</td>
<td>12:53</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality of fax</td>
<td>G</td>
<td>G</td>
<td>G</td>
<td>G</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correct trip sheet</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is stock ready</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time at store</td>
<td>0:55</td>
<td>2:13</td>
<td>1:15</td>
<td>1:10</td>
<td>0:43</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Correct rep agent info</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Packaging</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Revlogs scorecard report, 2009

The stores are measured against the following criteria which is reported back to the MDD head office on a weekly basis:

1. **Time fax Received:**

   The stores fax a collection document to Revlogs on a daily basis for whatever items are to be collected from the store the following day. The store KPI is for the fax to reach
Revlogs by 13H00 every day, this report lets MDD know what time the store faxes arrived at Revlogs during the week before

2. **Quality of Fax:**

   The Revlogs staff must be able to read what items to collect off the fax in order to prepare the trip sheets for the following days collections. Therefore, if the fax is of poor quality, the trip sheet cannot be completed. This report allows head office to ascertain the quality of faxes that are being sent.

3. **Correct Trip Sheet**

   When the Revlogs driver arrives at the Game store despatch to collect the repairs, it is very important that the trip sheet prepared by the game store corresponds to the fax from the day before. If these two documents do not correspond, then there is an opening for pilferage, which is unacceptable to both companies.

4. **Time at store**

   Because the Revlogs vehicles have, on average, four or more stores to get to during a day, it is imperative that they are seen to and despatched promptly once at a game store. This description measures the time spent at a store and really should not be more that an hour, depending on the store and return volume. Anything more than that is investigated by MDD.

5. **Correct Packaging**

   This measures whether the item is wrapped in bubble wrap as per policy.

**The Benefits of the Reverse Logistics Model**

MDD are of the opinion that the reverse logistics model in place has the potential of providing the company with a competitive advantage in their industry. The reasons cited are consistent with the three management interviewees at MDD. Namely, by providing better customer service, the company will ensure repeat business from the customer and better customer loyalty. After the implementation of the model, there is more attention given to the reverse logistics function at MDD from a senior management point of view. Senior management involvement, or lack thereof, is an obstacle pointed out by Rogers as a stumbling block to implementing a reverse logistics process.
(Rogers, 2009). However, MDD have overcome this obstacle through the implementation of their current process.

There is much stronger information support with regard to the reverse logistics process at MDD as a result of senior management focus on reverse logistics. According to Alan D. Smith, this information support is one of the ways in which a company can be more competitive in a retail environment through the use of a reverse logistics function. (Smith, 2005).

Another viewpoint given by Nina Madsen was that they would gain a competitive advantage by freeing up cash through the process, which will enable the business to purchase more saleable product.

The biggest tangible benefits for the company from installing the reverse logistics model is visibility of product and being able to manage the service level agreements with the repair agents and reverse logistics service providers. This intangible benefit seems to overcome one of the barriers listed by Rogers and Tibben-Lembke, namely lack of systems. (Rogers and Tibben-Lembke, 2001).

The intangible benefits are also gathered through the information being made available to MDD from their RLSP. From that information, Head Office management are able to pull together Key Performance Indicators at different levels of the organisation who deal with the reverse logistics product. By doing this, the company were able to quickly pinpoint any weaknesses in the system and take corrective action.

While there are perceived cost benefits to the system, the company will only be in a position to measure these benefits after a couple more months of operation. However, that fact that the reverse logistics model now attracts a monthly fixed cost, the company are in a much better position to forecast a reverse logistics budget than they were before.

Attached is an extract from the monthly scorecard, which is compiled from the information received by MDD from Revlogs.

The extract shows the number of repairs, which have been closed for a particular store within the 21-day time period in that month. A repair is considered closed once it has been returned to the store after being repaired. Therefore, the repaired item has been through the entire reverse logistics cycle. Game did not have sight of this information with the old reverse logistics function. Game is
now able to identify the number of closed items within 21 days in any one-month as shown below. The items which are not closed within the 21 day period are then investigated and reasons given for non-closure. Some of the reasons for non-closure are as follows:

- Awaiting spares – when the repair agent is awaiting spare parts
- Awaiting confirmation of quote – where the stores must give the go ahead for the repair
- Awaiting payment – where there is payment due for the repair

Again, MDD did not have the above reason codes with the old reverse logistics function. With the new model installation, Game are in a much better position to feed the above reasons for delays in repairs back to their customers and manage the process effectively, thereby giving better customer service. This service follows Tompkins views in his article, best practice for return processing (date unknown) that better visibility of returned product can be fed back to customers, resulting in better customer service.

**TABLE 7**

**TOTAL REPAIRS CLOSED BY STORE**

<table>
<thead>
<tr>
<th>Store</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eastgate</td>
<td>114</td>
<td>115</td>
<td>151</td>
<td>135</td>
<td>515</td>
</tr>
<tr>
<td>Cresta</td>
<td>218</td>
<td>227</td>
<td>344</td>
<td>247</td>
<td>1036</td>
</tr>
<tr>
<td>Fourways</td>
<td>73</td>
<td>113</td>
<td>125</td>
<td>100</td>
<td>411</td>
</tr>
<tr>
<td>Festival</td>
<td>83</td>
<td>99</td>
<td>113</td>
<td>94</td>
<td>389</td>
</tr>
<tr>
<td>Greenstone</td>
<td>96</td>
<td>98</td>
<td>127</td>
<td>120</td>
<td>441</td>
</tr>
<tr>
<td>Midrand</td>
<td>100</td>
<td>137</td>
<td>126</td>
<td>117</td>
<td>480</td>
</tr>
<tr>
<td>Sandton</td>
<td>72</td>
<td>123</td>
<td>149</td>
<td>111</td>
<td>455</td>
</tr>
<tr>
<td>Brooklyn</td>
<td>77</td>
<td>90</td>
<td>113</td>
<td>90</td>
<td>370</td>
</tr>
<tr>
<td>Centurion</td>
<td>120</td>
<td>113</td>
<td>175</td>
<td>131</td>
<td>539</td>
</tr>
<tr>
<td>Kolonnde</td>
<td>100</td>
<td>124</td>
<td>152</td>
<td>127</td>
<td>503</td>
</tr>
<tr>
<td>Menlyn</td>
<td>162</td>
<td>171</td>
<td>225</td>
<td>156</td>
<td>714</td>
</tr>
<tr>
<td>Wonderpark</td>
<td>107</td>
<td>99</td>
<td>152</td>
<td>111</td>
<td>469</td>
</tr>
<tr>
<td>Grand Total</td>
<td>1322</td>
<td>1509</td>
<td>1952</td>
<td>6322</td>
<td></td>
</tr>
</tbody>
</table>

The researcher has not included the phase two stores in the above table because they have only implemented the reverse logistics model a month ago.

A further benefit of the information received by MDD from the RLSP is that the company is able to measure the service level agreements and plot a graph of the movement from month to month. The
The below graph depicts the monthly service level achieved by the RLSP with regard to getting repaired product from the Game Store to the repair agent within the stipulated time period of two days.

**REVLOGS SERVICE LEVEL MEASUREMENT FROM GAME STORE TO REPAIR AGENT**

![Graph showing service level measurements]

Another measurement, which is very important to MDD, is the service level achieved by the repair agents on a monthly basis. Each month the repair agents are ranked in accordance to the service level achievement reached. As described under “Research Findings”, the repair agents must repair the product within 17 days. Below is an extract from the November month, ranking the repair agents by service level achievement.

**TABLE 8**

**REPAIR AGENT SERVICE LEVEL ACHIEVEMENT**

<table>
<thead>
<tr>
<th>Repair Agent</th>
<th>0-17 days</th>
<th>17+days</th>
<th>Total Repairs</th>
<th>% in SLA</th>
</tr>
</thead>
<tbody>
<tr>
<td>MM All Electronics CC</td>
<td>319</td>
<td>65</td>
<td>384</td>
<td>83.07%</td>
</tr>
<tr>
<td>Tedelex (Pty) Ltd</td>
<td>248</td>
<td>68</td>
<td>316</td>
<td>78.48%</td>
</tr>
<tr>
<td>VHF Electronics CC</td>
<td>138</td>
<td>70</td>
<td>208</td>
<td>66.35%</td>
</tr>
<tr>
<td>CN – Tronics</td>
<td>126</td>
<td>6</td>
<td>132</td>
<td>95.45%</td>
</tr>
<tr>
<td>Trimtech</td>
<td>78</td>
<td>3</td>
<td>81</td>
<td>96.30%</td>
</tr>
<tr>
<td>Stevens and Co</td>
<td>67</td>
<td>7</td>
<td>74</td>
<td>90.54%</td>
</tr>
<tr>
<td>Partserve</td>
<td>23</td>
<td>42</td>
<td>65</td>
<td>35.38%</td>
</tr>
<tr>
<td>SOS Mobile</td>
<td>57</td>
<td>2</td>
<td>59</td>
<td>96.61%</td>
</tr>
<tr>
<td>Electronat Trading CC</td>
<td>29</td>
<td>29</td>
<td>58</td>
<td>50.00%</td>
</tr>
<tr>
<td>Mastercare (Midrand)</td>
<td>23</td>
<td>26</td>
<td>49</td>
<td>46.94%</td>
</tr>
<tr>
<td>Panasonic (Phone Repairs)</td>
<td>16</td>
<td>22</td>
<td>38</td>
<td>42.11%</td>
</tr>
<tr>
<td>Incredible Solutions CC</td>
<td>43</td>
<td>7</td>
<td>50</td>
<td>86.00%</td>
</tr>
</tbody>
</table>

MBA Research Report – Craig Plowden (Plwcra001)
The above table shows the percentage of repairs, which were repaired within seventeen days against the total repairs, received by the repair agent in that month. The repair agent is then ranked from best to worst in the far right hand column. MDD now have a much stronger negotiating standpoint when it comes to managing the service levels it is receiving from the repair agents. This information is used by the MDD management when entering into trading agreements with the suppliers. Furthermore, where the repair agent is in breach of the service level agreement, MDD can claim all costs from the repair agent when replacing a product for a customer who has been promised a twenty-one day turn around.

While the cash savings from having this information available to MDD are not immediately apparent, there are certainly savings being made which is one of the cost benefits to the current reverse logistics model.

**Customer relations Management**

MDD and the Game stores claim that they are very customer focused. These claims are very evident on their website and in every Game store where the Customer Promise and the Customer Guarantee are prominently displayed.

MDD consider that by getting the repair and returns process right, they will be giving their customers the service they deserve. Unfortunately, MDD would not allow the researcher to interview any of their customers for this report, stating that they would like the reverse logistics model to run a while longer before they approach their customers for feedback.

However, the turn around times with regard to completed repairs have improved drastically across most stores. Unfortunately we do not have the numbers from before the current model was
implemented so this statement is difficult to confirm from a research point of view. However, Louis Bierman is of the opinion that the turn around times have, on average reduced from 40 days to less than 21 days where a repair goes ahead without any glitches. Nina Madsen and the store staff who were interviewed are of the opinion that customer satisfaction and consumer relations can only be improving if the repair turn around times are improving.

Improved repair turn around times point toward a more satisfied consumer who perceive the Game stores as keeping their Guarantee promise. This perception is believed to create a more loyal customer toward game. According to Paul Rupnow, Director of reverse logistics systems at Andlor Logistics Systems, Inc, two of the six tips for better returns management, are satisfying the customer as quickly as possible and keeping the customer informed. (Rupnow, 2009). MDD seem to be following the two tips mentioned above.

According to all the interviewees, there is a much stronger senior management focus on the reverse logistics function since the installation of the current model. From a store perspective, the increased management focus is most welcome. Previously, the stores were left to manage the process alone and independently of Head Office involvement at MDD. So, it appears that the current reverse logistics model even has internal company benefits between stores and Head Office management.

Research Limitations

A major limitation in the research is that there was not enough quantitative data available to understand how the reverse logistics model implemented, has added value to the companies bottom line. While the MDD management perceive value to be added, there is no data that has been used or gathered in order to qualify the statement.

While this concern was discussed with the MDD management, the researcher does understand that the model and reporting methods are new and have only really been in circulation for the last four months. However, it will be interesting to take the data in another four to six months and analyse the improvements. By that time there should also be more data available to analyse the effect the model has on the company’s bottom line.

Further limitations are that none of the Game customers were interviewed in order to obtain their views on whether the customer service has been positively affected by the implementation of the model. This too, will be an interesting exercise to carry out in a number of months time.
Limitations with the data that was collected may be that some of the interview questions were slightly leading in their approach. Bearing in mind that the researcher is intimately involved with the reverse logistics model at MDD, after implementing it himself through his company, Revlogs, there may be some perceived bias to the data collected. It must be noted however, the researcher has been very cognisant of this perception throughout the process and has done his utmost to ensure there is no bias in the research whatsoever. This was overcome through an extensive literature review where as much data as possible has been gathered by the researcher concerning reverse logistics models, methods and definitions. The questions used in the interviews were compiled from the literature research.

**RESEARCH CONCLUSIONS**

From the above research, it is evident that there is at least one company in South Africa who are taking the reverse logistics function seriously and who are beginning to see and reap the benefits of implementing such a function.

MDD chose to implement the reverse logistics model for a few reasons:

- The company wanted better sight of their returns
- The company wanted to be able to track the returns through the reverse flow
- The company wanted to pinpoint sections of the reverse flow areas that were not working effectively and take action to rectify the inefficiencies.
- The company wanted a better hold on the reverse logistics costs
- The company hold their customers in extremely high esteem and customer service is very important to MDD. Through an effectively implemented and managed reverse logistics model, the company expect to be able to deliver a better and more complete service to their customers

The research has indicated that it is difficult (at this stage) to effectively measure the cost benefits that are expected from the implementation of the model. However, it is evident that the current model in place enables MDD to have a better handle on the costs associated with the implementation of the model. Where the company management were before unable to forecast the costs of returns, MDD are now in a much better position to forecast and manage the return costs.
The costs of the service provider supplying the return management services are now fixed where before the costs were very erratic and unknown. Labour costs are the same as before and nothing has changed from that point of view because the stores are operating more or less the same way they always have with regard to the return process. It has however, been mentioned by senior MDD staff as well as operational staff in store that the returns process is now more structured and more formalised. If that is indeed the case, then there must be some type of cost saving through better efficiencies. However, that cost benefit has not been researched and is only assumed at this stage.

The company is not in a position yet to measure the exact cost benefit of the reverse logistics process that has been implemented. However, as a direct result of having a better sight of product movement and information of product status while at repair agents, the company are in a much better position to pin-point possible areas where they were losing money before due to inefficient systems. An example of this is where a product lies at a repair agent and exceeds the 21-day turn around guarantee. MDD, according to their customer guarantee, will then replace the product free of charge. Now, with sight of the repair status and the reason codes for a repair taking longer than it should, the company is able to communicate that to their customers. If the customers still demand a replacement, then MDD have a case against the repair agent who was in breach of the service level agreement and MDD are no longer out of pocket.

A final and very important benefit of the Reverse logistics model implemented at MDD is the fact that customer service is improved. Firstly, the service is improved through better turn around time of product. This improved turnaround time is not because the company managing the reverse logistics for MDD are moving the product more quickly. The improved turn around time is mainly driven by the fact that MDD have been able to put service level agreements in place with the repair agents. They have been able to do this because now they are able to manage the time the repair agent takes to repair a product. This is made possible because the company’s reverse logistics service provider manages the repair agent on MDD’s behalf, which is a service that was not previously offered.

If the product is not repaired within the time stipulated by the service level agreement with the repair agent, the company have sight of the reasons why the repair is outstanding. The company may then take these reasons to their customers who are then far more informed than they were before as to the status of repair on their items.
It is expected that the company, together with their service providers will be able to expand on the reverse logistics model, which has been implemented, and pioneer the model in the local South African environment.

**FUTURE RESEARCH DIRECTIONS**

The above research has taken place over a number of months since the initial pilot phase was started at the company in September last year (2008).

Further research can and should be carried out to fully understand the bottom line impact of implementing the reverse logistics model. At this stage in the research there is only an assumption, which can be made that the implementation adds value to the bottom line.

Furthermore, by applying lean standards and methodologies to further research, it will be possible to map the entire process, incorporating all aspect of the reverse logistics function and thereby developing value added actions to improve the model further.
REFERENCES


Jayaraman, V., & Luo, Y. (Date unknown). Creating competitive advantages through new value creation: A reverse logistics perspective. Academy of Management Perspectives.


53.


UPS Supply Chain Solutions. (2005). (Moore, R). *Reverse Logistics – the least used differentiator*


APPENDICES

Appendix A – Interview with John Hart (Supply Chain Director at MDD)

INTERVIEW QUESTIONS

KEY INFORMANT: JOHN HART

REASONS FOR IMPLEMENTATION

1. Is there one person who is ultimately responsible for the reverse logistics function at your company? If so, what is their position?

   Ok, just so that... I would probably say there is not just one person accountable. You can divide it into two areas, probably. Which is around operational stores, that owns it. Because they essentially set to the stock issue. Logistics division sits with the... HOW. How to move it, how to control it, how to create a little bit of credibility around it. The benefits are derived essentially from the store operational team. So they are so to say the key owners and logistics they make sure that it kind of fits together and it all happens.

2. What is your definition of reverse logistics?

   Well, for me it's about that kind of... uh, probably around three areas. The first one is around fixed return, which is saleable stock. That moves back from stores to ourselves. I'm just giving you the broader context of it. Then it is about product returns or repairs. Which could be either warranty products or products that are effected by legal constraints or changes that need to be made that need to be moved back from a store through the network back to the supplier. And the third one is where the customer returns which is fairly similar to product return except the difference is that customers could return products through different channels back to a retailer that needs to be handled. So anything that flows back through the supply chain from a store back to a repair agent or back to suppliers.

3. According to literature, some of the driving forces for why companies implement a reverse logistics model are individually, or a combination of economic reasons, legal reasons, or just good corporate citizenship. Can you explain why, in your opinion MDD has chosen to implement a reverse logistics model?

   Well, my factors are firstly about great visibility, see what the hell is going on. It is also linked to my earlier comment around managing costs. And then therefore if you manage costs, we don't have surprises on the months basis and the costs for managing these goods. And then ultimately it is about developing a level of competitive advantage that our customers feel comfortable with that when we say something, we can actually deliver which we haven't been able to do I think historically.
4. How long has your company been operating the current reverse logistics model?

_Uhmm, let me just clarify what that means first. Because we have currently ... by two different models, the one that is around creating a new network. Which are going through the installation steps and there are old existing network that have been there for a very long time. Since the beginning of my existence, which is about forty years ago. Which essentially was suppliers linking direct from the stores, as opposed to us creating a more centralised model and to bring it through a proper closed network that we could have visibility on. And that is fairly new. That is probably the last ten months or so._

5. So there was a different model in place before the current model was implemented?

_Ja, if I just reflect on, you know this reverse logistics has always been in my opinion in retail for twenty years. This has always been seen as the key weakness in the industry. The industry is fairly good at managing product flow to stores in terms of the customers, but very poor in managing the flow back of goods, back to customers. Which leads to a lot of risk and challenges._

6. Are there any major operating differences between the previous reverse logistics model and the one currently in place?

_Ja, I there are some critical differences. I mean the one, the old model, there was essentially no control of costs. Stores could return what ever they didn't want to use back to suppliers, there was no clear visibility on goods being received by a store and collected in any particular time windows... so things were kind of left to the store team to manage. And the business itself had no view of if he was doing well of badly. He had no view other than reporting post month end and essentially had a huge effect on actual true service to customers. We had no view whether we were supporting what we said in our visual material, making time windows for customers in returns whether we were actually achieving that or not. Which stores were totally one thing but the reality was, we had no view what store was returning what product and we had nothing in place to make sure we were accountable._

7. What were MDD’s deciding factors in choosing to implement the company’s current reverse logistics model?

_I think the fundamental thing is, for us, It is about the service we deliver. There is more risk around products we sell through our network. The customers have a view, first of all we have a view what customers return to us. We then have a view how well the suppliers are managing it through the chain and I can assure we can improve our service we have committed to doing for customers. The second thing would be around financial risk. We believe that the, because we don't have a clear handle on it and no one is clearly focused on this, either we can then rather improve the controls on our stores and thereby improve the financial risk we have today. And probably the last thing is, as I've mentioned slightly earlier, was around... is a weakness in the industry and no one is particularly doing it. And we believe that we can freaking' get better at doing this. Where we at least improve the customer service dimension but improve the way the industry functions around managing these returns._
HOW HAS IMPLEMENTATION TAKEN PLACE

1. Where has the current reverse logistics model been implemented at MDD?

   *Currently its being implemented it in the greater Gauteng region. There is a storing point that is part of the project. And obviously in time we have to roll it out further.*

2. Which levels of staff across the company are instrumental in the successful operation of the reverse logistics model at MDD?

   *This has got to be a top down view of the world. This kind of initiative can never work if it is a bottom up. It has got to be top down and it effects both the operational team, store team, from store management, from CD management, director level right down to understand what we are trying to achieve, right down to the guys who are receiving it at the back door. It's the one area, and there is also logistics, to make sure that we develop the capabilities so we can move products and whole products effectively through the supply chain.*

3. How has the reverse logistics model been mechanically implemented from a functional and operating point of view?

   *I am assuming the way it has effected the store team, uhm, it has effected various areas from the admin of controls, that existed in our stores that had to change, as well as those achieving areas where we actually had a KJ that manages that particular stock area. That had to change in terms of monitoring, capturing information, keeping things up to date and far tidier than ever done before. And then the logistics side the implication has been around understanding how we move the physical product through the network back from a store. And I think that, in a phase of ... state of change essentially, the ultimate product network that is being created at the time, as we are rolling out a broader network, is easier to do.*

4. Does MDD have documented policies and procedures with regard to the reverse logistics operation at MDD?

   *Ja, for the old and the new. In the... obviously a store without 25% of a business or 80% of a business is probably working the old way. Which there is documentation in fact which is still not going through the new way. The new way is fairly clearly documented and has scorecards in place that allows us to track performance to date and see how it is doing relatively to the old one. But the overall initiative is raised upon both areas.*

5. If not, please will you describe the reverse logistics operation?

6. How does MDD senior management communicate the mechanics of the reverse logistics operation to their operating staff?

   *Ok, there is a kind of... we use various methods. Bottom up... lets take top down first. Top down at an executive level, the communication was clearly around wanting to initiate this particular project to improve overall management of stock and returns in our business. So it was done into a workshops kind of structure, how best to do it and to involve both internal*
and external people to understand the best process to implement. I think once this defining clearly understood internally, we spend a lot of time to seek clarity on what to do before we were going to implement. And then we communicated through we call PBWC, which is our business process weekly communiqué and kind of determine or stipulate exactly how this process will work. And that's then as a level of ownership on store level. That's then what you're going to implement and then through that we create visibility that the executive can see how the projects are performing.

7. If there are policies and procedures in place, how do senior management measure the effectiveness of the policies and procedures?

Ja, in the new way. Obviously we have created a level of scorecards that give us operational view of how stores are performing and we are able to compare last year to this year in terms of number of items that we move and control. That's on operational level and see whether we meet the customers expectations. And the second level is on the financial side where we look at the costs, related this year to last year and see whether we've made improvements in those particular areas. And that gives us a level of comfort. On the old operating level, the only real key measure we have on the financial control side, we can see whether the stores are doing any differently and we can measure the amount of stock sitting in these areas to see what they are doing better than last year.

And those documents you'd have...

We have it at executive level. We share them at executive level. But most of the... at operating level, in other words in the store teams, they would be shared in their forums that meet on a monthly basis. The performance was set up against the particular store that initiated this project.

THE BENEFITS OF REVERSE LOGISTICS

1. Does MDD hold the opinion that the reverse logistics function gives them a competitive advantage in the market?

Thinking in today's terms, yes it would. Today. If we get it right and it all works well for us. Because we'll be able to meet at least our customers expectations where I think many other channels they do not have started this. But I do think in time as people wake up to this service dimension, and do things, we may lose the competitive advantage but maybe we win it at being at a very different place and types of services that we offer of reversed logistics.

2. If so, in what ways does MDD perceive this advantage over its competitors as a result of implementing their reverse logistics model?

Well, you've kind of answered the second question as well. (Laughing.)

So, just to elaborate a little bit further. It's to be more cost efficient, being able to deliver better service to our customers, and ultimately being able to measure the improvements between the suppliers networks around products as well as our networks. That's broader than just how we do it, it's also about to manage suppliers, which we are not able to do today.
3. If not, how does MDD perceive the reverse logistics model being advantageous to the company?

4. In your opinion, what are the cost benefits of implementing and operating the reverse logistics model that has been implemented at MDD?

   *I think there are two triggers. One is moving to a fixed cost bases, which allows to have a better handle on a month bases for stores. And the other one is about uhm... probably three actually... The second one is about reducing inefficiencies, that tells us how much stock there is anyway. But I think quite honestly a lot of the time products are being given to customers because we haven't met windows, so we've had to take write offs on stock. And I think the third area is probably around management, how many people are involved in the management process? I think there are too many hands involved. And in time I think we can reduce the number of hands involved in managing this reverse chain to... back to customers.*

5. What are the cost drivers associated with the implementation of the current reverse logistics model?

   *Uhm, ja. Three, and I can just touch on them; transport cost, people cost, cost for stock. Cost for stock meaning write offs and products we have to get rid of, 'cause we're not managing the process well enough.*

6. How does MDD identify and measure the cost benefits derived from the reverse logistics model that has been implemented?

   *We are beginning to do that through the new model. To understand where those cost were and where they are today. We haven't seen the key change on the people side but it will evolve as we improve the total network. And the costs of stock. Yes, you can see that there is a difference of how much stock has been kept and the level of what we call auction stock. Which is stock we get outside people to come buy off us. We see some change in that already.*

7. Are the above measurements documented for management information?

   *They're documented and then used as information for us to step up the process faster.*

---

**CUSTOMER RELATIONS MANAGEMENT**

1. MDD is a company which is very customer focussed. Does the company perceive any improvements in customer service through the implementation of the current reverse logistics model?

   *No, I think this is where we want to see the greatest judge. This is where we believe, we are doing this to improve our service levels. The other key drivers are just benefits who will get right when we get better at doing it.*

2. And do you measure that at all? I mean I know it is very difficult to measure improvement in customer service.
We can actually measure from the new model 'cause we can measure the turn around times. The times taken between the store sending it to uhm, through a provider and on to the supplier. Getting it back from the supplier, back into the network. So we get a... now we got better visibility on turn around times. And this makes us able to evaluate on a monthly bases for a particular store, or that region in terms of its uhm, the service back to customers. So whether we made the time window on our commitments and our turn around.

3. If no formal measurement takes place, how does MDD gauge the effect the reverse logistics function has on customer relations?

4. Finally, in your opinion, is there an improved management focus at MDD on reverse logistics after the implementation of the current model?

I would say that there is more visibility, much more visibility. I think there is a sentiment that this can work and it will work for us. So yes, there is certainly more management focus as we start to see the benefits of one region working. We all see the benefits being rolled out
INTERVIEW QUESTIONS

KEY INFORMANT: NINA MADSEN

REASONS FOR IMPLEMENTATION

1. Is there one person who is ultimately responsible for the reverse logistics function at your company? If so, what is their position?

   We don't have really anybody responsible at the moment. But we are getting there. So I think it will become the responsibility of our logistics executive.

   Ok, great.

2. What is your definition of reverse logistics?

   If anything that leaves the backdoor, either good stock going back to suppliers or things to be repaired and to come back again. Or it is also in the light of the new consumer protection law, you can't get rid of waste material. So it would be to transport, I don't know what they call it, they've got a name for it. But I suppose all those things that they have to be disposed of in an environmentally friendly way. And included in that is the disposal of all wrapping material. So we are doing all the packaging and the plastic and all that sort of thing.

   Ok, super. And that's all part of reverse logistics?

   Ja, it's sort of fragmented now, I mean you know that, at the moment the DC is doing, you know our logistics team are doing all the packaging and that. And I don't think they are doing it a hundred percent but they are building up because in the DC's we've got facilities to compress and compact and give up all the waste. So, they are doing that. And then they are also doing enterprise transfers.

3. Now, according to literature, some of the driving forces for why companies implement a reverse logistics model are individually, or a combination of economic reasons, legal reasons, or because of corporate citizenship. Can you explain why, in your opinion MDD has chosen to implement a reverse logistics model?

   Well initially it was for economic reasons. And since then, you know, we've had – almost simultaneously – we had the, you know, the consumer protection law come out. So that's
going to be a legal requirement. And then the good corporate citizenship, I suppose that's the environmental issues around the waste so it is a combination of all of them.

I don't think you need to write this down, but you know what? I don't think anybody sat down and said 'we're going to do reverse logistics for these three good reasons'. I think they've all sort of happened by chance really.

4. And how long has MDD been operating the current reverse logistics model that you've got in place?

Well, since you started! (Laughing) Which is what? Since last year.

5. Ok, and was there a different model in place before the current model was implemented?

It is a very fragmented and done badly, well you know what it was, very expensive...

6. And what were MDD's deciding factors in choosing to implement MDD's current model?

I think we realised that once we had the DC's in place that we would need to do something to get the stuff back to suppliers, 'cause suppliers weren't delivering. They weren't hardly likely to come back to the stores to collect stuff that we wanted them to take back. And that was probably the driving force.

HOW HAS IMPLEMENTATION TAKEN PLACE

1. Where has the current reverse logistics model been implemented at MDD?

In 24 stores in Gauteng, in case you didn't know. (Laughing.)

2. Which levels of staff across the company are instrumental in the successful operation of the reverse logistics model at MDD?

Ok, currently I think we must say that it is admin managers in the stores, you know. Because, you know, the service centres report into them. And then, our head office, our team driving it for now but it will eventually move over to logistics.

3. Ok, and how has the reverse logistics model mechanically been implemented from a functional and operating point of view? So in other words, how does it work?

What do you mean 'from a functional and operating point of view'? I mean, I just... I think it was... I think you need... I would say that we need, we started with a pilot in three stores where we tested it and we tried to implement it with making as few changes as possible to any systems that were in place. So I think it's worth commenting on that. And then, we've got two systems really in parallel at the moment, which is not optimal. But once we are clear on the whole model, then we'll take it further and put the other processes in place... I mean systems in place that will make it easier to manage.

So when you say two systems running, you mean the systems...
I mean POM and then your Excel spreadsheet.

4. Ok, (laughing) and then; does MDD have documented policies and procedures with regards to the reverse logistics operation at MDD?
   
   Yes.
   
   Great. And are they all documented?
   
   Yes.
   
   So if I needed a copy, I would be able to get one?
   
   Yes, just ask Caroline, 'cause it has been updated and everything with your role in it.
   
   Ok... ok... great, I'll ask Caroline.

5. Does MDD have documented policies and procedures with regard to the reverse logistics operation at MDD?

6. If not, please will you describe the reverse logistics operation?

7. How does MDD senior management communicate the mechanics of the reverse logistics operation to their operating staff?

   Well, I think you can say we had training sessions. We've met with them and then we report weekly to them on the progress that they're making both from a process point of view. And then on the statistical view of the number of repairs that are being returned and within service levels or not.

8. How do you measure the effectiveness of the policies and procedures?

   Well, I think that is... we've got that score card which you... uhm, with reverse logistics every week on how the stores are performing from a process point of view and then we use the... yeah, so that measures quality and procedures. And then of course we've got the 21 day promise to our customer what says they, you know, any in warranty product they will have within 21 days, so we measure all the service along that logistics supply chain so that everyone can perform adequately so that we can meet that promise to the customer.

THE BENEFITS OF REVERSE LOGISTICS

1. Does MDD hold the opinion that the reverse logistics function gives them a competitive advantage in the market?

   I don't think yet, but ultimately it will. Because once we've got our whole distribution network in place, which we've described to you remember in Cape Town, we'll probably be using that revert... that distribution network to do some of that reverse link. And then it will definitely gives us a competitive advantage.
2. And... the next question isn't going to be so relevant then. Well you've answered it anyway I think: in what way do you perceive this advantage over its customers?

*Its competitors. I think the advantage will be that we will be hopefully not carrying any stock which is aged and old and we'll be getting that back to the, uhm... because remember, our good stock returns also going in our reverse logistics leg so we won't be holding any stock that we don't need. We will be giving that back to the suppliers. So as soon as you've got that, it frees up money to buy fresh new stock, you know. And if you keep your stock fresh, it's got to do something for sales. So that would be the competitive advantage I believe. And then also of course the approved customer service. At the moment we're only getting like 50% of the things back to the customers within 21 days. If we can focus on this and get it back to 90% of the time within 21 days, that... We don't understand the value of that. But I am sure it's in order.*

3. If not, how does MDD perceive the reverse logistics model being advantageous to the company?

4. In your opinion, what are the cost benefits of implementing and operating the reverse logistics model that has been implemented at MDD? According to what you just said now, I presume, to free more cash to buy more stock?

*Yes and then satisfying the customer, that's the one. And then the other thing of course is just the cost of it now versus what it was costing us before. So using one vehicle to service three stores instead of one vehicle per store and all the costs that go with that is getting us benefit immediately.*

5. What are the cost drivers associated with the implementation of the current reverse logistics model?

*Well, I think the cost driver initially was just to reduce the costs of that reverse leg that we've got at the moment, you know, one truck per store. That was what hit us immediately... you know, that we could reduce the cost of that.*

6. Does MDD identify and measure the cost benefits derived from the reverse logistics model that has been implemented?

*Yes, we are. But again, at the moment it is very simple. We are measuring the reduced cost of managing the transport that was used to deliver either good stock or repair stock back to suppliers or their repair agent. So that is something we can definitely measure. And then we've also noticed a significant improvement in reduced queries around credit claims because we are following a more strict uniform process around credit claims against suppliers. And it is saving us money because we're not fighting about it, we are doing our job properly.*

7. Are the above measurements documented for management information?

*Yeah I think they are going to.*
That will be great, because it will show if something goes wrong.

*When do you need that Craig, 'cause I'm away now for a week, remember? Because if you need it, you're gonna have to ask Caroline.*

Yeah, I will. I'll ask Caroline. I'll get to Caroline just now, when I am finished here.

**CUSTOMER RELATIONS MANAGEMENT**

1. From a customer relation’s point of view, what we've just been mentioning now, MDD obviously is very customer focussed. Do you at the moment, I know they are going forward, do you perceive any improvements in customer service through the implementation of the current reverse logistics model?

  *Yes.*

  Good.

2. Is it possible to identify and measure any improvement in customer service? And if so, how is this measurement documented?

  *It is very hard to measure improvements. I mean we can measure the fact that we are getting more repaired items back to the customer within the 21 days that we promise. So we can give you that. But a Rand value is difficult to give.*

  Yeah, so the customers are getting their product back more quickly than they were before?

  *Yes.*

  Ok, and there is somewhere where we can put that into a document?

  *Yes.*

3. If no formal measurement takes place, how does MDD gauge the effect the reverse logistics function has on customer relations?

4. And then finally, in your opinion... I think question three of Customer Relations Management doesn't matter because you do have measurement. In your opinion is there more management focussed on the reversed logistics as a function after implementing the model than there was before?

  *Oh, absolutely! Now they want us to do it everywhere! But like tomorrow.*

  So the management is aware of whatever benefits are coming through?

  *Oh, yes they are. (Laughing.)*
INTERVIEW QUESTIONS

KEY INFORMANT: CAROLINE OELS

REASONS FOR IMPLEMENTATION

1. Is there one person who is ultimately responsible for the reverse logistics function at your company? If so, who is that person?

   No, it is all the team members that are involved in the process and responsible for the process that are responsible for the functioning.

2. What is your definition of reverse logistics?

   My definition is the service of products moving from an end destination either back to the supplier or back to another service provider for repairing, returning or recycling.

3. According to literature, some of the driving forces for why companies implement a reverse logistics model are individually, or a combination of economic reasons, legal reasons, or just good corporate citizenship. Can you explain why, in your opinion MDD has chosen to implement a reverse logistics model?

   Our first reason was to get visibility of what was happening so that we could manage and improve our services. And from that... it’s also to provide a better service to our customers. And also to get economic benefits out of it. So either short term and long term reductions of costs where possible.

4. How long has your company been operating the current reverse logistics model?

   Just over one year.

5. Was there a different model in place before the current model was implemented?

   Yes.

6. Are there any major operating differences between the previous reverse logistics model and the one currently in place?

   The reporting and the management of the service provided by the company that is now doing it for us is, much better than before. With the previous company we didn’t have any
visibility or reporting. So now we have that and we have more management and support by the company that provides the service now.

7. What were MDD’s deciding factors in choosing to implement the company’s current reverse logistics model?

Better visibility of the whole reverse logistics process.

**HOW HAS IMPLEMENTATION TAKEN PLACE**

1. Where has the current reverse logistics model been implemented at MDD?

In Gauteng.

Aha, so all the stores in Gauteng?

It’s implemented across all the stores in Gauteng, yes. We’ve got stores in Mpumalanga, Limpopo and a couple of areas out there... we’ve got a few stores which aren't covered in this model at the moment.

2. Which levels of staff across the company are instrumental in the successful operation of the reverse logistics model at MDD?

In my opinion all levels. Because if you've got the management pushing it and the team not carrying it out, it's not going to work. And if you've got the team trying to carry it out but not getting the support and the right information, then it’s just not going to work.

3. How has the reverse logistics model been mechanically implemented from a functional and operating point of view?

Ok, on this one... Our main process within the stores hasn't changed. Our customers bring faulty items back to the stores or the store finds an item faulty and they capture the information in our system, they prepare the unit either for repair or for return. And then they’d get to the suppliers process requirements and contact our RLSP which is our Revers Logistics Service Provider with the collection notes. They will then come in and pick up the items and either take 'm back to the supplier as a return or take 'm back to a service centre for repair. Then they manage some of the turnarounds time in... parallel with the store. And pick up the items when it is ready and take it back to the store.

4. Does MDD have documented policies and procedures with regard to the reverse logistics operation at MDD?

We do, in connection to all these procedures and requirements and we've got a lot of the information packs together regarding the supply requirements and authorisation rules for example. So... stores are all in place and we're just getting more information packed together.
5. If not, please will you describe the reverse logistics operation?

6. How does MDD senior management communicate the mechanics of the reverse logistics operation to their operating staff and stores?

   *By email, by fax and by telephone.*

   Ok, is there training that you guys carry out on a periodic bases?

   *We do. With this being new to the company, we've done a lot of implementation training. We've done around a professional training and when we need more training we will put it in place in a routine manner.*

   *Ok, that's great.*

7. Do you measure the policies and procedures at all?

   *Yes we do. We have KPI reporting across the different requirements within the process.*

   Ok, you get that from a store managers etcetera, because you...?

   *Some of it we... create ourselves from the information we get from our Reverse Logistics Service Provider. They've picked up turn around times from repair agents and return times into the stores. Also when the stores receive the item from the customer how long does it take them to dispatch it to the Reverse Logistics Service Provider? That's all measured and reported on.*

8. What difficulties were encountered at the company in implementing the reverse logistics model you have in place?

   *There were challenges. I believe our main challenge was because we are a general merchandiser, we have a huge amount of suppliers and suppliers have different procedures, different ways of managing returns, managing repairs. So going back to that basic, and getting all of that information together was a big challenge. As far as the stores were concerned, they were already doing the process, so it was kind of business as usual for them. And obviously with the being new for a Reverse Logistics Service Provider it was also a learning curve for them to get up to speed but all of us working together, managed to put all the information together. And it's just been a great opportunity for us to improve our processes from our side and our information.*

9. How did you overcome these challenges... from an implementation point of view?

   *Mainly with communication. That was the main force of solving it. Because we knew we had to find out where they were, how they were happening and then just speaking to all the parties involved, to get a good solution and get everyone to implement that solution.*

   *Great.*
10. After 14 months of implementing the model, is there anything you would have done differently, in retrospect?

_Not much. We started of with a trial with three stores, which gave us the information and gave us visibility on the gaps. I think it would possibly have been a good idea to have a bit more resource available, but then I think most projects are like that, companies are trying to keep costs down. It... worked. But if we would have had a bit more focus on it, it might have been easier to make a success of it in a shorter period._

11. What advice would you give when looking forward to improve the reverse logistics implementation?

_The advice I would give there is, start with a very solid foundation. Make sure that you've got a good process, you've got a good understanding of the process. You've got good master data, so your information is available and then also make sure that you've got very completely documented training. And make sure that that is implemented so that everyone is aware of what's changing and how it needs to be changed and what their roles and responsibilities are in those changes._

**THE BENEFITS OF REVERSE LOGISTICS**

1. Do you hold the opinion that the reverse logistics function gives you a competitive advantage in the industry?

_On a competitive side, I'm not too sure. I'm struggling with this question slightly, because our promise to our customer is very strong and our customer focus is very strong, it is a priority for us. So that promise will always be there, whether we’re using uhm, a good logistic solution or not. Uhm, so... it will probably help us provide a better service so in that way; yes it will be an advantage in the market. But as to a competitive advantage... yeah, I'm torn between..._

Not yet.

_Yeah, not yet. I think once we get it more streamlined and throughout the rest of the country then I think we'll definitely see a lot more advantage there._

Ok, great.

2. What, in your opinion are the tangible benefits to implementing the reverse logistics model in MDD?

_The biggest benefit that we found from it is visibility. Just having that visibility of what is happening, is enabling us to manage it and to work with the team at head office and work with the teams in the stores to improve the process._

Ok.
3. Are there any intangible benefits to implementing the model?

There is a lot of that. Obviously with the visibility, with the reporting that we are getting from our Reverse Logistics Service Provider, we are now being able to pull together KPI reports, pull together performance percentages and say 'ok, this is where we are now, this is where we need to be.' And we can set those goals because we've got the information to look at and that is obviously a great benefit for the stores and all of the management.

4. In your opinion, what are the cost benefits of implementing and operating the reverse logistics model?

The cost benefits are more of a long-term benefit and at the moment, it is definitely long term cost benefits.

5. What are the cost drivers associated with it?

Main cost drivers are transport, logistics and... ok, people would describe it as a cost driver, but to me efficiency. And by improved efficiency we are gonna... our goal is to reduce our losses. And also happy customers, hopefully we're going to increase money coming in for the business.

6. Do you measure the cost benefits derived from the reverse logistics model that has been implemented?

Not yet. We've measured transport costs, but the efficiency and leading to reduce losses that is going to be a more long term saving that we're going to be able to report on a later date.

7. Are the above measurements documented for management information?

CUSTOMER RELATIONS MANAGEMENT

1. MDD is a company which is very customer focussed. Does the company perceive any improvements in customer service through the implementation of the current reverse logistics model?

Yes we do.

Ok, so you can see that in the numbers?

Yes.

All right.

2. Does MDD identify and measure any improvement in customer service at all?

Yes we do. We've got as I said the KPI measurement we do, we measure the turn around times, and our MDD promise to the customer on in-warranty repairs is a turn around time
of 21 days. So having a reporting that we've got... well we've always had reporting in store before, but now at a higher level with using the Reverse Logistics Service Provider. That visibility is being sent out to a lot more managers and the focus is on supporting the stores and also dealing with the repair agents, where the repair agents aren't getting the repairs done in time. We're being able to go up to them now and say 'look, a lot of your repairs aren't coming back to the store to achieve our promise to our customer.' So it's all being reported and being actioned accordingly.

3. If no formal measurement takes place, how does MDD gauge the effect the reverse logistics function has on customer relations?

4. And in your opinion, is there an improved management focus on reverse logistics after the implementation of the current model?

   Yes, I believe there is. It could be naive, because I am involved in it so I can see people being more involved with it, so uhm... But I believe now because we've got the reporting, because we've got score cards and we've got reports going out to management, they are paying more attention to it where we had gaps and where we had problems. It's being highlighted to head office and to management to fix those gaps and improve focus.

Ok, super. That's it, thank you very much.

Pleasure.
INTERVIEW QUESTIONS

KEY INFORMANT: LOUIS BIERMAN

REASONS FOR IMPLEMENTATION

1. Is there one person who is ultimately responsible for the reverse logistics function at your company?

   Ok, now are we talking now store level or company level? Are we talking store level?

   Lets say company level and store level, that's fine.

   Ja, company level I'd suppose would be Nina and at store level actually, that's the manager.

2. What is your definition of reverse logistics?

   My definition would be anything that's, that has a negative cost to it and otherwise anything that is leaving the store, uhh, defective supply or suppliers for repair as far as repairs are concerned.

   Ok, great.

3. According to literature, some of the driving forces for why companies implement a reverse logistics model are individually, or a combination of economic reasons, legal reasons with regards to the green effect, or just because of good corporate citizenship. Can you explain why, in your opinion mass discounters have chosen to implement a reverse logistics model?

   I think that is to due savings and also to have a dedicated situation looking after the repairs and after the stock sent to suppliers.

   Ok, super.

4. How long has your company been operating the current reverse logistics model?

   We were part of the pilot stores, we started September last year.

5. Was there a different model in place before the current model was implemented?
Yeah, we had our own vehicle... We had to manage our own vehicle, our own drivers, our own expenses and all that is connected to that.

6. From what you’re saying I am presuming that there are any operating differences between the previous reverse logistics model and the one currently in place?

Oh yeah definitely, because of the experience so far, because of the dedication it was.... It's now become measurable. In the past we were just... it was a real mission! To get the repairs back within 21 days, it was a real mission.

7. If you had to do this in store, what would the deciding factors be in choosing to implement the current reverse logistics model you using?

If I had to do it in store?

Yeah, if it was your decision alone. What factors would you choose to implement the model?

Now, I would be able to do it how the company is going. To give the data edit company who's doing it, the responsibility for.

HOW HAS IMPLEMENTATION TAKEN PLACE

1. Where has the current reverse logistics model been implemented at MDD?

In all the stores in Gauteng.

2. Which levels of staff across the company or across stores are instrumental in making sure that the model that has been implemented is made successful?

At company level Nina and Caroline. For instance rental and driving, that sort of thing. Which is to my perception, well to the facts it was very successful. Now, at store level, the basic upper manager and then the supervisor and service centre supervisor in that department.

3. How has the reverse logistics model been mechanically implemented from a functional and operating point of view?

4. Does Mass Discounters have documented policies and procedures with regard to the reverse logistics operation at MDD?

Ja, we've got the normal uhhh, repairs uhhh, CCV that used to be used that was the preferred one before the implementation and the drive such as it is now.

5. If not, please will you describe the reverse logistics operation?

6. How do you guys communicate the workings of reverse logistics?

On a day to day situation?
Yeah.

The day is a route that the company does per day. We begin with number one in the morning. Now when it became bigger I suppose they couldn't move from the companies side it's not reverse logistics, they changed the route a bit, so now it is in the afternoon. That's the first thing. Then at a certain time in the afternoon a vehicle arrives. We must be there. The driver collects, all the repairs, the previous day and faxing through all the details the next day when the vehicle arrives, they've been instructed. They know exactly what, they know the volume and then everybody needs to do what must be done.

Ok, super.

7. How do you, as a store admin manager make sure that the store is following policy and procedures?

On a day to day situation I walk the departments. I will make sure that everything is done that should be done. They give me feedback and I also give orders in the store.

8. In the beginning when this was implemented, were there any difficulties that you encountered with regards to implementing the model?

We were so positive to this. There were actually no problems from this store... since day one. There were no problems! Because the communication was so perfect! I did my best to have my people always ready and in line and we had these regular sessions and get together with everyone involved. Giving feedback, fixing what needed to be fixed. As I said, it actually went very well from day one.

9. How did you overcome these difficulties?

10. After 14 months of implementing the model, is there anything you would have done differently at all?

That's the only thing, and I am doubting that's a practicality; we had a bit of a... Well, not us. I think there was a general problem that the pilot started with not enough vehicles, but was more a practical situation. Which now has been resolved now anyway, so that is not a problem anymore. No, I wouldn't change anything. I think everything was done correctly.

11. What advice would you give when looking forward to improve the reverse logistics implementation?

I don't have anything to advise, it's just a perception... well, no it's not a perception. It's just a thought. The situation has gone bigger now. I think from reverse logistics side, it's just be some... well, I'm not saying it's not focussed, but just to insure that it doesn't get too big and then we start topping situations here and there. I've no experience with this and I don't expect to but it is just something that I was thinking about.

Ok, it's a good point.
THE BENEFITS OF REVERSE LOGISTICS

1. Do you hold the opinion that the reverse logistics function gives you a competitive advantage in the industry?

   Oh ja, the feedback that Nina has given us regarding the situations that we had, the situation... uh, the 21 days and repairs not being collected, that has improved drastically compared to the previous model.

   Ok, super, so that's positive.

   Yeah.

2. What, in your opinion are the immediate benefits you see to implementing the reverse logistics model in your company?

   Ok, there is a situation where we don't have to have that vehicle at the store anymore. We don't have to have the driver anymore and everything connected to that. Meaning vehicle accidents, bakkies breaking down, stuff that is getting stolen while in transport so all that is then away from us so we can manage the company at an individual, for instance... one person is appointed to look after the store. We then liaise with that one individual and things happen from there.

3. Are there any hidden benefits to implementing the model, so benefits that are not immediately seen?

   Ja, the customer service has improved a lot. And I expect it will improve all the way, going forward. For customers not having to wait for what happens, the store having savings, not having to refund items, because the collection and everything is so much more effective now.

4. In your opinion, what are the cost... I presume that some of the cost benefits of implementing the model, is the fact that while the model is costing all this money, so benefits maybe that customers are receiving their product in time unless CCV’s are being issued?

   No, the fact that they didn't get their item in time, because our policy most recently was 21 days, they had to redefine that and each item then adds up, I don't have the costs available at this point but also the savings on the vehicle and everything connected to that.

5. What are the cost drivers associated with the implementation of the current reverse logistics model? What are the things that cost your store money with regards to the current reverse logistics?

   Basically the monthly costs that we are driving, that's the only cost.

6. So... you obviously identify the cost every month?

   Ja, now, it is a fixed cost I see it now, it’s there and it gets managed.
7. Are the above measurements documented for management information?

CUSTOMER RELATIONS MANAGEMENT

1. Mass Discounters is a company which is very customer focussed. Do you perceive any improvements in customer service through the implementation of the current reverse logistics model?

   There is a huge improvement. In the past success rate might have been 30% but it is pushed high up to 80 or 90%.

   Ok, well that's good.

2. Does MDD identify and measure any improvement in customer service? If so, how is this measurement documented?

3. If no formal measurement takes place, how does MDD gauge the effect the reverse logistics function has on customer relations?

4. Finally, in your opinion, is there an improved management focus from head office on the reverse logistics after the implementation of the current model?

   Absolutely! In the past we were left on our own, but now we’ve got Nina and Caroline and July and everybody there assisting, giving us emails, sending us emails when we are off line, and that is then for getting back into line. Absolutely, the support has been wonderful.

   Good, great, That’s it. Thank you very much.
INTERVIEW QUESTIONS

KEY INFORMANT: EUGENE BREYTENBACH

REASONS FOR IMPLEMENTATION

1. Is there one person who is ultimately responsible for the reverse logistics function at your company? If so, what is their position?

   Ja, we’ve got a person. She is the service centre supervisor.

   Ok, and she is the sole person in your store?

   Ja, she reports to the admin manager, which takes total responsibility of the whole operation, yeah. At the service centre supervisor, he is the actual person, ja.

2. What is your definition of reverse logistics?

   It’s the function of returning defective and unwanted product back to the supplier. We also send products back that’s got to be repaired

3. Some of the driving forces for why companies implement a reverse logistics model are individually, are either for economic reasons, legal reasons, or just good corporate citizenship. Can you explain why, in your opinion Mass Discounters has chosen to implement a reverse logistics model?

   That is obviously to save costs you know, from a company point of viewpoint and they are trying to cost saving exercise, to have it... uhm, one central company doing it, then you don't have hassles you know with regards to our own transport, drivers go on strike... you know, that type of things.

4. How long has your company been operating the current reverse logistics model?

   We’ve been operating with the reverse logistics since September last year, 2008.

5. Was there a different model in place before the current model was implemented?

   Yes, there was. The bakkie brigade... No it wasn't a bakkie brigade! It was Freight Equipped.
Ok, so what was the different model in place before the current model was implemented?

*Eh, ja. We used Freight Equipped.*

6. Are there any major operating differences between the previous reverse logistics model and the one currently in place?

*Yes, major differences. Because they never gave us information and with the reverse logistics we get prominent feedback.*

7. What were MDD’s deciding factors in choosing to implement the company’s current reverse logistics model?

**HOW HAS IMPLEMENTATION TAKEN PLACE**

1. Where is the current reverse logistics model been implemented?

*Uhm, in our region two. In the whole region of..., in the Jo'burg region.*

2. Which levels of staff across are instrumental in making the reverse logistics model successful?

*The operations from the reverse logistics side you know, needs operators from your offices and then the drivers and the personnel that is picking up goods at our places.*

3. How does the reverse logistics model function? In other words, how does it work? Within the store, so let's say from the point of where a customer brings a return back.

*When a customer brings a return back to the stores, we get all the.. uhhh, every day we get all the stock, prepare it for reverse logistics, we then fax it through to reverse logistics and reverse logistics then the following day pick up the goods that we faxed before twelve o'clock the previous day.*

*Ok, super.*

4. Do you guys have policies and procedures that you need to follow in stores with regard to returns?

*Yes we do, we've got a policy which states that if a customer brings in a return, that within 21 days we have to see that the goods are returned and repaired into the store and that 21 days starts from the day the customer brings the stock in and the next day, from the next day you know, we have to contact reverse logistics, the agent and everything. So ja, we have a 21 day policy, so within 21 days the whole cycle has to be completed.*

*Ok, super.*

5. If not, please will you describe the reverse logistics operation?
6. How do you guys communicate how the reverse logistics operation, the returns operation, works to the rest of the staff? Did you guys have training or is it...?

_We had intensive training on reverse logistics. Even all the admin managers were now briefed at the meeting, specifically in... regarding the, you know, operation of reverse logistics. So we were all informed and trained._

7. If there are policies and procedures in place, how do senior management measure the effectiveness of the policies and procedures?

8. Were there any difficulties implementing the reverse logistics model?

_At first we had teaching problems, you know, communication was one great concern. But that I think is now all been handled._

9. How did you overcome the problems?

_It's just about communicating better. You know, we had a meeting with our head office and they told us exactly what to do. So you know, with faxing, information through when they should pick up and when they should deliver... that's all been taken care of._

Oh, good.

10. Uhm, this might be a difficult question to answer. After 14 months of implementing the model, are you aware of anything that should have been done differently?

_No, not really because we were quite happy with the feedback we were getting and ja, the way forward, the company is looking at implementing it, you know, country wide. So just communication was a great concern, but that is now, I hope been finalised and sorted out._

11. What advice would you give when looking forward to improve the reverse logistics implementation?

**THE BENEFITS OF REVERSE LOGISTICS**

1. Do you think that the reverse logistics function gives you guys a competitive advantage in the industry?

_Ja, definitely, I think so._

2. What, in your opinion are the benefits from implementing the returns model that you’ve guys got in place, that you can actually see... The benefits that you can actually see in store.

_Well, the benefits I think is... if it is a uhm, how am I gonna say... a combined... if it is under the whole company countrywide, there is minimal expenses, you know, varying from our own vehicle and staffing problems to that as well._
3. And any benefits that you can't immediately see? Are you aware of any?

*Ja, I think it's a long-term solution to the problems that we had in the past. Look... uhm... You know, maybe you can't see it now. But if you take it year by year then we will obviously pick up these huge cost savings from the company point of view, if it's run according to the policies and the procedures.*

   Ok.

4. In your opinion, what are the cost benefits of implementing the model that you have?

   *[phone ringing in background]*
   *Uhm, the benefits that I see, well that's from my point of view, that you can then spend... you know, save money and spend it on other things in order as buying stock or spending it wisely on... on... on running the company more efficiently.*

5. What are the cost drivers associated with the implementation of the current reverse logistics model?

6. Do you identify the cost that you are saving and uhm, measure them?

   *Personally Craig, I... I don't know, you know because I am only two months in this. I don't have, how can I say, any.... I can't see anything that the admin manager is booking with the P&L, it comes up on the P&L you know, the profit and loss account. If it wasn't cost saving they wouldn't have gone through with it.*

   Ok, super.

CUSTOMER RELATIONS MANAGEMENT

1. You guys are a company which is very customer focussed. Does the company perceive any improvements in customer service through the model that has been implemented?

   *Yes, we definitely see an improvement and we are even trying to up it more. You know, where communication is concerned.*

   Ok, good!

2. Are you guys able to measure any improvement in customer service? I know that is a difficult thing to do.

   *Yeah, we can measure it by, you know if we view the customer complaints against maybe last year, there is definitely improvement on that... and that is the way we measure it. We measure it with customer complaints.*

3. And do you guys document the customer complaints?

   *Yes, we have, we do now. We have a system now that guys got trained on. It is on our POM-system that..., everything that we do gets transmitted to our head office and they can see, call back a request, customer complaint procedure.*
4. Finally, in your opinion, is there a better management focus on reverse logistics after the implementation than there was before?
   Yes, there is definitely.

Appendix F – Interview with Claudine Schreyer (Director – Reverse Logistics (Pty) Ltd)

INTERVIEW QUESTIONS

KEY INFORMANT: CLAUDINE SCHREYER (RLSP)

INTRODUCTORY QUESTIONS

1. What is your definition of reverse logistics?
   
   *Returned goods.*

2. According to literature, some of the driving forces for why companies implement a reverse logistics model are individually, or a combination of economic reasons, legal reasons, or just good corporate citizenship. Why, in your opinion has MDD has chosen to implement a reverse logistics model?
   
   *To credit by their customers, so... that would be the last one.*
   
   So corporate citizenship and probably economic as well I presume?
   
   *Yes.*

3. What is the size of your warehouse where the returned product is processed?
   
   *It’s just over four hundred square meters.*

4. How long has your company been operating the current reverse logistics model?
   
   *One year and three months.*

5. Who is your biggest customer with regard to managing their reverse logistics function?
   
   *Massdiscounters, the holding company for Game and Dion Wired. They are a subsidiary of the Massmart Group.*

6. How many employees do you have managing the reverse logistics function at MDD?
   
   *You mean everybody in the Johannesburg branch?*
Yeah, including drivers and crew.

30

7. Reverse logistics consists of returned product for repackaging, repairing, re-manufacturing, destruction or salvage, third party/secondary marketing, donations to charity, good stock returns to supplier. For which aspect of the reverse logistics function is your business contracted to MDD?

Only on the repair side of the business.

And the good stock returns? That'll be CCV's.

But that's not good stock?! That's damaged stock.

Oh, is it? CCV's?

Ja, CCV's is damaged stock, or it is not working in any way. It's not good at all. They can't resell that, they've got to fix it.

Ok, so that just bypasses the whole repair process and goes straight back to them?

Ja.

8. Please will you briefly explain the service you offer to MDD from a repairs point of view and a CCV point of view?

Well, basically the repairs is a centralised repair service centre. So instead of having individual service centres at each office, that's centralised in a warehouse and all the activity that would have taken place at a store now happens in our warehouse. We then get the product repaired, we bring it back to the warehouse and back to Game store. It's a more centralised service centre.

And from a CCV's point of view? That just goes straight back?

It is also part of the service centre but it just a straight forward leg from the store to the supplier. There's no further involvement from them.

THE RETURNS PROCESS

1. How does MDD communicate with your company in order to initiate a return from one of their stores? Do they phone, do they fax, do they...?

Well, return as in the CCV’s or...?

All repair, so if you guys are going to pick up a ...

We are notified from the stores by fax. That's either repairs or CCV’s that need to be collected.
Alright, and then the drivers go out and collect them?

Ja, and once we're notified we then we complete the documentation for the driver to go and collect from the stores.

2. Can you describe the process of collecting a return once the order has been initiated?

We notify it a day in advance. So once we've been notified we complete our documentation and they give our drivers authority to uplift it uh, the return from the store. They then present that documentation to the store and on the documentation it’s cross-referenced to their internal trip sheets and CCD numbers. And that then is cross-checked to the amount of product that they say; either being repaired or CCD'ed. And once that all balances we then remove the items from the store, with their security monitoring the whole process and doing a second check from Game to ourselves.

3. What authorisations must first be obtained before a store return may be collected? So their facts serve as authorisation for you to have lift the product from the store?

Yes.

Ok.

4. Once collected from the store, how are the returned products received in the warehouse?

The drivers bring the product deck to us. We then prepare labelling so that it corresponds with the trip sheets that have been faxed through from the game store. On the documentation we know what the repair number is, what the item is and who is going to repair it. So we can get the labels done before the truck actually comes back to the warehouse. When it's at the warehouse we then cross check what's on the vehicle and we label each product by repair number, by repair agent and by type of product. So we cross check that if we are being given a CD player that is what is being taken off the vehicle onto our floors.

Ok, so there is a lot of control in place there?

Yeah.

5. Are repairs on the returned products carried out at your warehouse or is that function outsourced?

That is outsourced. So we take it to the repair agent to be effected.

6. Please describe what happens to the returned product that is received at your warehouse? Does it all go to the repair agents; does it go... it's obviously not prepared at the warehouse so the return product goes to the repair agents or back to the supplier right?

It depends on whether Game has been labelled it as a repair or they’ve asked for a request for credits. So we will just differentiate between a repair and a CCD, a request for credit. And we will then, if it is a repair, take it to the nominated repair agent and if it is a request for credit, we will take it to the supplier.
And in the warehouse, are all the... is everything sorted into a repair section and a request for credit section?

Yes, and then by area as well.

7. What is the process once the product has been repaired at the repair agents and how do you know when a product is ready for collection from the repair agents?

Well there are two processes really. The first one is uhm... our drivers are going to the repair agents every day. So they have agreed with us that they will give our drivers any repairs that are ready. Our drivers have a control sheet, whatever they collect from the repair agent that is not put on a collection slip, is noted down on a control sheet by repair number, by store, by repair agent and by type of product. Which is when they bring it back into the warehouse, that's crosschecked to the documentation to the unit that is put on the floor. The other way is, we phone ahead and we inquire on the status of the repair and when we are told something is ready for collection we complete the collection note with the repair number on, the store, the repair agent and we send that with our drivers to collect the repairs.

8. Do you keep accurate records on the product movement through the reverse supply chain?

Yes we do. We monitor the day the customer hands the unit in. We then monitor the day that we collect the unit from the store. And also the day that the unit is handed in to the repair agent. Once the repair agent notifies you that it is ready, we collect it and that date is also captured in our system as well as the date that the unit it handed into the store. So each process, each leg of the repair can be monitored in number of days.

9. I have been advised by MDD that your company’s reverse logistics model is unique within the industry. Can you describe how your model is unique?

Ok, our model is custom made and build to MDD’s requirements. So their whole process is generated around a repair number and we've insured that our system is virtually copied in that whole process. We record the serial number as well which is also another check for us when we are handling any unit that we can cross check what's the unit is to the repair number and to the serial number. But everything that we have done is virtually going in conjunction with what Game required. So it is very unique and custom built to their requirements.

Ok, and the fact that you pick up from more than one store using one vehicle, is that unique as well?

Yes, that's unique because we are able to cut the cost down effectively for each store, if we can get one vehicle to five different stores, it cuts out a lot of traffic out of their backdoor as well. So that is also something different that we offer.

10. Do your senior management communicate often with the senior management of MDD? If so, how often is this communication carried out and what is typically discussed/communicated.

Yes.
How often would you say they carry it out?

*Well, there are conference calls every second week. But apart from that, we have management reporting that goes off weekly.*

And that management reporting revolves around what product is where, I presume?

*Yes, any movement whatsoever, any product we've handled is recorded on the management reporting. Open and closed off, so they have complete visibility.*

**THE BENEFITS OF REVERSE LOGISTICS**

1. Do you believe that a well-implemented reverse logistics model gives your customers a competitive advantage in the industry?

   *Yes, definitely.*

2. If so, in what ways do you perceive these advantages for your customers? What I've heard from MDD are... they've got more sight of the product from an information point of view and they have more sight of their stores from a score card.

   *Ja.*

3. In your opinion, do you believe that the implementation of your reverse logistics model has resulted in improved senior management focus on the reverse logistics function at MDD?

   *Definitely. They in fact stand on that. Well, just from dealing with the staff at store level, they have never felt that anybody took any notice or put any focus on the repair side of the business. Now, when we deal with the staff members, they say that too much focus is put on. So they can't get away with what they were getting away with in the past. So if they had a unit that had charges on it, they could get the customer a new unit and hide that, because the charge led to the repair agent. Where as now, the visibilities on information gain between ourselves and MDD and it is very visible for their management to see exactly what is happening on a ground level of their business.*
EXTRACT FROM MDD RETURNS PROCEDURE MANUAL

Goods to be collected by Reverse Logistic Service Providers (RLSP) for delivery to supplier

Despatch Clerk

1.1 Faxes the Proforma CCV and the uplift document, to the RLSP on a daily basis if applicable.

NOTE: To ensure that the CCV number is visible on the faxed document, write the CCV number and the supplier authorisation number/credit note in the comments section of the CCV before faxing it to the RLSP.

The RLSP will confirm the validity of the authorisation number with the supplier before collecting the CCV from the store.

1.2 Actions a Store CCV, when a Supplier Representative/Transporter calls to collect the goods.

1.3 Completes the Repair/CCV/ITB Out Control Schedule with the relevant information.

1.4 Stamps all three copies of the CCV with the Despatch Out Stamp.

1.5 Hands the actioned Store CCV to the Security Officer.

Security Officer

1.6 Checks that the description, quantity and barcodes of the physical stock, correspond to that of the actioned Store CCV.

1.7 Validates the details that are recorded on the Repair/CCV/ITB Out Control Schedule, by signing the register in the security sign column and complete the Despatch Out Stamp on all three copies of the CCV.

1.8 Hands the actioned Store CCV’s back to the Despatch Clerk.
Despatch Clerk

1.9 Hands the goods to the RLSP and ensures that his/her full name and surname, signature, vehicle registration number and supplier authorisation number/credit note number is recorded on all three copies of the actioned Store CCV and in the Repair/CCV/ITB Out Control Schedule.

NOTE: The required information must be clearly recorded by the RLSP on all three copies of the actioned Store CCV. A Copy of ID or Drivers Licence of the driver must be attached.

1.10 Hands all three copies of the actioned CCV to the RLSP.

1.11 Places the signed Proforma CCV and the signed RLSP collection note (POD) in the CCV Pending Batch Tray awaiting the signed copies from RLSP as POD that the stock has been received by and signed for by the supplier.