PRODUCT RETURNS MANAGEMENT:
A STUDY OF VALUE CREATION AND APPROPRIATION IN
THE SUPPLIER-RETAILER-3PL TRIAD

A thesis submitted in fulfilment of the requirements for the degree of
Doctor of Philosophy

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Declaration

I certify that except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program; any editorial work, paid or unpaid, carried out by a third party is acknowledged; and ethics procedures and guidelines have been followed.

Gianpietro Dapiran
October 2015
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Abstract

Value creation and value appropriation are key aims of business organisations. While value has been studied in many management contexts, the value creating potential of product returns management remains under-researched.

Extant literature on product returns management has concentrated on the cost dimension of the returns process, with limited attention given to exploring the nature of value, its creation, and appropriation. The boundary spanning scope of product returns management has also been ignored, with most studies focussing on the activity of a single party in the product returns chain. Further, despite the increasing use of 3PLs in product returns management, the role of the 3PL in value creation remains little understood.

This research examines what value means in the context of product returns. It explores how value is created and appropriated in a product returns chain using a triadic case study composed of a retailer, two of its suppliers, and a 3PL engaged by the retailer, in the consumer electronics sector. The research extends the understanding of product returns value beyond a single party in the returns chain to a triad of entities.

Using an inductive qualitative methodology, this study found that value in the product returns chain was multi-dimensional. Value consisted of tangible (financial) and intangible elements; residual product value was of little importance to the suppliers and the retailer in the study. The main drivers of value involved the structure of the product returns chain, a
collaborative orientation of the parties, and information management. The study also identified a process of value evolution that explains changes in value for the product returns chain parties when the returns chain changed from a decentralised configuration to a centralised structure.

The study has two major contributions. First, it offers a comprehensive explanation of the nature of value in product returns, and contributes a value evolution matrix to explain how value in a product returns chain could be realised, based on the value orientation of the returns chain members, and the nature of facilitation in the product returns process. Second, it develops a value creation and appropriation framework to explain how value orientation of the parties in the product returns chain and external facilitation by a 3PL could bring about process alignment to increase resource effectiveness and operational efficiency, and how trust, power, and relationship quality could affect value appropriation.

These findings challenge the traditional cost-based view of product returns, offering insights on how a 3PL could facilitate to align the operations of a retailer with those of its suppliers to create value in the product returns chain. The study contributes to our theoretical understanding of the product returns process, and reveals a practical managerial path to value creation and appropriation in product returns management.
Chapter 1 Introduction

The value of returned products is typically underestimated, to the extent that their worth is perceived to be no more than the residual value obtained through reclaiming and recycling the products (Pokharel & Mutha, 2009). Considered a burden and a non-core activity, product returns management has been preoccupied with cost control, and a focus on operational and tactical issues (Pokharel & Mutha, 2009; Rubio, Chamorro, & Miranda, 2006). This narrow cost perception, however, is fast changing as more firms continue to liberalise their product returns policy, forcing them to review their product returns management practices, and to explore ways to recapture value from the returned products. Outsourcing product returns management to third party logistics service providers (3PLs) has become a financially attractive option (Power, Sharafali, & Bhakoo, 2007), and has begun to take root in recent years (Langley Jr, 2012). The engagement of a 3PL to manage product returns has accorded firms an opportunity to re-appraise the value embedded in the product returns process. This research explores what value means in the context of product returns. It studies how value is created and who appropriates it in a product returns chain using a case study of a triadic product returns chain formed by a retailer, two of its suppliers, and a 3PL engaged by the retailer. The case organisations operated in the consumer electronics sector, a sector that is being forced to pay more attention to managing product returns as a result of increasing regulation to control electronic waste, consumer pressure for a cleaner environment, and rapid technological change that creates redundant
products. These factors are increasing the flow of returned products, making the sector a fertile context for research.

1.1 Managerial Motivation

Managing product returns is an extremely costly exercise for both the supplier and retailer. In the USA, the amount of merchandise returned at the retail level is estimated at more than US$264 billion, which represents 8.8% of total sales (The Retail Equation, 2012). The cost to the US electronics industry of assessing, repairing, re-boxing, restocking and reselling returned merchandise is estimated to be US$13.8 billion a year in a market valued at US$160 billion wholesale (Accenture, 2007). In the UK, returns comprise between 4% and 30% of sales value (Bernon & Cullen, 2007). Internet suppliers experience return rates from 18% to 35% of sales (Ofek, Katona, & Sarvary, 2011), with a mail order retailer in Europe reporting a return rate as high as 75% for fashion items (Mostard & Teunter, 2006).

Product returns can also impose a cost on the consumer. There are costs associated with having to return the product, waiting for the correct product to be made available, and the direct cost of any re-stocking fees that some retailers impose (Ofek et al., 2011). In on-line retailing, consumers list their top frustration as having to manage and pay for returning product to the supplier (Forrester Consulting, 2008). Consumers have reduced their level of Internet shopping because of the hassle of product returns. Conversely, a flexible returns policy has seen sales and customer loyalty increase (Forrester Consulting, 2008).
To reduce the customers’ risks and thereby encourage sales, many retailers have instituted a liberal returns policy (Mukhopadhyay & Setaputra, 2007). A customer’s claims regarding product defects or malfunction are not carefully scrutinised in the retail store environment as the focus is on new sales. Customer claims of faulty goods are therefore accepted at face value by the retailer. Potentially burdened with the cost of carrying inventory of products returned by their customers, the retailer typically takes the expedient approach of returning the products to the supplier as faulty. In the US consumer electronics sector, there is a significant gap between customer (consumer) claims of faulty products and the traders’ later assessment of these claims (Accenture, 2007). As Table 1 indicates, while 25% of customers claimed products were defective, only 5% were found to be so by the trader, and 68% of claims were rejected by the supplier as being no fault found (NFF) (Accenture, 2007). An underlying concern is that fraudulent returns represent as much as 6.5% of all returns (The Retail Equation, 2012).

Table 1: Reasons for product returns.

<table>
<thead>
<tr>
<th>Return Reasons</th>
<th>Customer / Consumer Perspective</th>
<th>Supplier / Retailer Perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Defective product</td>
<td>25%</td>
<td>5%</td>
</tr>
<tr>
<td>Product not working as expected</td>
<td>49%</td>
<td>-</td>
</tr>
<tr>
<td>No fault found (NFF)</td>
<td>-</td>
<td>68%</td>
</tr>
<tr>
<td>Other</td>
<td>26%</td>
<td>27%</td>
</tr>
</tbody>
</table>

Source: Accenture (2007)

With such a high proportion of returned products being categorised as NFF, suppliers perceive that they are bearing an unnecessary cost. An indication of the perceived importance to industry of managing product returns is the
founding of the Reverse Logistics Association (RLA), USA, in 2002. The RLA was established as a trade association for 3PLs specialising in reverse logistics, with a proclaimed aim of educating and informing reverse logistics professionals (Reverse Logistics Association, No Date). As firms have recognised the importance of product returns, they have turned increasingly to 3PLs to assist them in managing this activity (Langley Jr, 2012).

Society’s current concern with the collection and disposal of waste and its impact on the natural environment adds a social dimension to the management of product returns (Hopkins, 2007). In the absence of return mechanisms through the supply chain, consumer products at the end of their useful life finish up in the waste stream. Waste generation in Australia has increased 42% from 1996-97 to 2002-03 (Australian Bureau of Statistics, 2006). Waste of electronic and electrical equipment (e-waste) is of growing global concern. The cumulative volume of televisions and computers in Australia reaching end-of-life by 2027 is estimated to be 44 million units (Australian Bureau of Statistics, 2013). The introduction of regulation in many jurisdictions around the world to divert the flow of electrical and electronic material from the waste stream is also forcing more organisations to investigate their product returns handling systems (PriceWaterhouseCoopers, 2009).

The managerial focus of suppliers and retailers has tended to be on the cost dimension of managing returns with both parties fixed on minimising their own costs and expending little effort to exploring the value potential of the product returns process (Mollenkopf & Dapiran, 2007). There is evidence
that some organisations are looking beyond the cost burden, and capturing value by reselling rather than scrapping returned products (Solomon, 2008). An even more mature perspective is the suggestion that returns policies can be crafted to lead firms to create competitive advantage (Forrester Consulting, 2008).

The growing managerial and regulatory complexity of the product returns process, the high levels of returns, the costs involved, the growing use of 3PLs to manage reverse logistics, and the evolving view that cost alone is not the only yard-stick by which product returns success can be evaluated, suggest that a deeper understanding of the product returns process between supplier and retailer is warranted.

1.2 Theoretical Motivation

In business-to-consumer markets, companies offering a liberal, or hassle-free, product-return policy have been observed to yield more profits than those applying restrictions to product returns (Petersen & Kumar, 2010). As retailers feel increasingly compelled to offer generous returns conditions to their customers, the need for suppliers to ultimately accept returned products from retailers also grows. A generous returns policy then becomes an intrinsic element of marketing strategy in business-to-business markets. It can protect brand value, avoid the damaging effects of writing down and discounting inventory (Padmanabhan & Png, 1995), and lead to competitive advantage (Jayaraman & Luo, 2007).
Given the managerial focus on costs, it is not surprising that research on product returns management has concentrated on the cost dimension of the returns process (de Koster, de Brito, & van de Vendel, 2002; French, 2008; Stuart, Bonawi-tan, & Loehr, 2005), generally focussing on cost-generating reverse logistics activities (Carter & Ellram, 1998; Dowlatshahi, 2000; Pokharel & Mutha, 2009; Rogers & Tibben-Lembke, 1998). However, reverse logistics activities are subsumed by the broader construct of returns management, in turn an integral part of supply chain management (CSCMP, 2010; Lambert & Cooper, 2000; Rogers, Lambert, Croxton, & Garcia-Dastugue, 2002; Supply Chain Council, 2008).

Returns management extends to gatekeeping and avoidance actions (Rogers et al., 2002). Gatekeeping involves the screening of products as they enter the reverse stream to ensure that only appropriate products are returned. This is a function that can be performed most effectively by retail store staff. Avoidance involves finding approaches that reduce the likelihood of items being returned through such actions as user education, product design and improved product quality. Gatekeeping and avoidance have also been viewed through the prism of cost minimisation (Rogers et al., 2002). A few studies have transcended the cost dimension and have explored the impact of reverse logistics on profitability, customer satisfaction, and the environment (Jayaraman & Luo, 2007), and the need for speed in processing returns to minimise potential loss of value (Blackburn, Guide, Souza, & Van Wassenhove, 2004).
Value creation and maximising value appropriation are key aims of an organisation (Anderson, 1995; Cox, 1999). A value perspective transcends the narrow cost view of business exchanges by considering benefits, tangible and intangible, in addition to costs. The trade-off between, or the net of, benefits and costs is one dominant perspective of value (Blois, 2003; Gabbott, 2004; Khalifa, 2004; Lindgreen & Wynstra, 2005; Ulaga, 2003).

The concept of value in forward supply chain research is not new. Value creation has long been recognised as an important innovative supply chain outcome that gives chain members competitive advantage (Dietl, Royer, & Stratmann, 2009; Walters & Lancaster, 1999), and the value-added concept has been studied as a mechanism for supply chain integration (Fawcett & Fawcett, 1995). By contrast, value in product returns management is not often studied. Where value creation studies in product returns have been conducted, the locus of value has centred on the product and product flows, with value conceptualised as residing in product disposal activities interpreted as the economic gains made from recycling, reuse and salvage (Bernon & Cullen, 2007; Huge-Brodin & Anderson, 2008; Pokharel & Mutha, 2009; Rogers & Tibben-Lembke, 2001).

A broader view of value was presented by Mollenkopf and Closs (2005) who extended their value investigation beyond costs alone to show the impact of effective product returns management on the revenue stream and company assets. Using evidence from seven case studies, Mollenkopf and Closs (2005) evaluated the impact on revenue beyond simply the cost of logistics activities, and illustrated the potential marketing advantage that can
flow from effective returns management, such as enhanced customer perceptions of quality. Organisations practising good corporate citizenship through product returns can also accrue goodwill (Mitra, 2007; Mollenkopf & Closs, 2005).

Importantly, value, or the benefits and costs from which value is assessed, is not necessarily tied to monetary units. Within the context of inter-organisational transactions, value can be derived from multiple sources: goods, services and the revenue they generate, and intangible elements, such as inventory information or demand forecasts (Allee, 2000), and relational elements (Aastrup, Grant, & Bjerre, 2007; Payne & Holt, 2001; Ulaga, 2003). Although Dapiran and Mollenkopf (2010) showed that intangible and tangible elements can play a part in understanding value creation in product returns management, the value creating potential of product returns management is generally under-researched (Mollenkopf, Frankel, & Russo, 2011). The characteristics of the product returns chain - lack of predictability, low volume (compared to the forward chain), and high variety involved in the flow of return products - have been cited as reasons for this lack of scrutiny (Mollenkopf et al., 2011).

Supply chain management, and, by implication, the management of returned products, is a boundary spanning process. Walters and Lancaster (2000) and Rainbird (2004) have argued the need to consider both customers and suppliers simultaneously to fully understand value creation in the supply chain. Extant studies on returns management, however, have been based almost exclusively on the perspective of one of the stakeholders in the
returns chain, such as the retailer (Autry, Hill, & O'Brien, 2007; Bonifield, Cole, & Schultz, 2010; Mollenkopf, Rabinovich, Laseter, & Boyer, 2007a; Piron & Young, 2000), the product supplier (Blackburn et al., 2004; Guide Jr, Jayaraman, & Linton, 2003; Mollenkopf, Russo, & Frankel, 2007b; Sciarrotta, 2003) or the 3PL that manages the product returns management process (Efendigil, Ö妞t, & Kongar, 2008; Krumwiede & Sheu, 2002; Meade & Sarkis, 2002; Min & Ko, 2008). While much has been reported regarding the nature of collaborative relationships within supply chains (Daugherty, 2011; Holweg, Disney, Holmström, & Småros, 2005; Whipple & Russell, 2007), with supply chain collaboration (Horvath, 2001), and supply chain integration (Tuominen, 2004) being implicated in value creation, the bulk of these studies has been conducted in the context of the forward product chain. Although Jayaraman, Ross, and Agarwal (2008) highlighted the need for collaboration in the product returns chain and Mollenkopf et al. (2011) concluded that internal firm integration needs to be considered if one is to fully understand the value implications of product returns, a multi-firm perspective on the collaborative management of the product returns process has not been closely examined. Self-interest of parties remain an obstacle in producing an effective product returns management process (Chan, 2007). Chan (2007) concluded that self-interest that impedes transparent sharing of cost and process information reduces the benefits that could flow from collaborative product returns management.

In sum, there are three major limitations in extant literature on product returns management. First, there is limited understanding of the nature of
value, its creation and appropriation in the product returns chain. Second, product returns studies have ignored the boundary spanning scope of product returns management with a predominant focus on value accruing to a single party in the returns chain. Third, although the outsourcing of product returns management to 3PLs has been increasing, the role of the 3PL in value creation has been significantly under-researched.

1.3 Research Questions

This research aims to increase understanding of value in the product returns process by overcoming the limitations in extant literature on product returns management identified above. First, it explores the nature of value, with the intention of proposing a framework for the creation and appropriation of value in the product returns process. Second, it applies a multi-firm focus to examine how value is created and appropriated in product returns using a triad of related organisations – a retailer, two of its suppliers and a third party logistics service provider. Third, a triadic study permits an exploration of the role of the 3PL in value creation and appropriation.

The primary research question explored in this research is:

- How is value created and appropriated in the product returns chain?

To understanding value creation and appropriation, a sub-question needs to be answered, namely:

- What constitutes value in the product returns chain?

Given the persistent confusion regarding an agreed definition of value (Bowman & Ambrosini, 2010), this research will adopt an approach that
views value through the prism of sacrifices and benefits. Such an approach recognises that costs and benefits are terms with which executives are familiar and are variables that they typically manipulate in managing their functions. This approach is further supported by Novack, Rinehart, and Langley Jr (1994) who concluded that executives found value a complex concept, and value outcomes difficult to quantify so that they more readily perceived logistics customer value in terms of the component parts of costs they could control, and the service levels they could deliver to customers.

To achieve this study’s overall aim, two secondary questions are posed, namely:

- Who appropriates this value in the product returns chain?
- What role does a 3PL play in value creation and appropriation in this chain?

This study was conducted in organisations in the consumer electronics sector, given the current interest and involvement in product returns by firms in that sector. Participants included a major Australian retailer, two Australian subsidiaries of its Japanese-based suppliers, and a 3PL engaged by the retailer to manage its product returns. The complexity and relatively unexplored state of value in the product returns process suggest that a qualitative research method is most appropriate. The primary source of data was semi-structured interviews conducted with executives of participant firms. Multiple secondary sources, for example, websites and company documents, were used to broaden understanding of the research context and the companies involved. The interview transcripts were analysed and coded
to identify patterns that could be developed into explanations for the topics under study following traditional qualitative methods as suggested, for example, by Eisenhardt and Graebner (2007).

1.4 Significance and Contribution

From a theoretical standpoint, this doctoral research adds in several ways to an understanding of value creation and appropriation in the product returns chain, a field that has been under-researched. First, it highlights the broad tangible and intangible dimensions of value in the product returns process, thus challenging the traditional cost-based view of product returns. Second, the research extends the understanding of the value of product returns from a single party in the returns chain to a triadic perspective. Third, the multi-firm focus offers insights on how external facilitation by a 3PL, and a firm’s value orientation converge to align the operations of the retailer with those of its suppliers to create value in the returned product chain. Fourth, with a proposed value creation framework, this study shows the contribution of relationship factors in value sharing between the retailer and supplier in the product returns process.

From a commercial perspective, an understanding of value in product returns is currently limited to the inherent value of reclaimed product or prevention of lost value of product consigned to landfill (Productivity Commission, 2006). The managerial problem is usually perceived as one of cost control. A clearer understanding of how value can be captured from product returns beyond the residual asset value would help in formulating appropriate organisational strategies. Further, the facilitating role that a 3PL
plays in value creation suggests that firms need to understand the extent to which their capabilities are lacking, and explore the contribution that a 3PL can make to value creation in the product returns process.

Beverland (2012) affirms that “although we now know more about value, we still have much to learn”, and calls for more empirical research on value creation in different business contexts. This doctoral study is one answer to that call. It contributes to our theoretical understanding of product returns management, and assists industry in increasing value creation and appropriation from product returns management.

1.5 Thesis Organisation

This thesis has six chapters and two appendices. This chapter, Chapter One, discusses the rationale for the research, explaining the managerial and theoretical motivations for the study that drive the research questions. The significance of the study is also highlighted.

Chapter Two is a review of the literature, with three main sub-sections that cover literature that examines the nature of value, the drivers of value in product returns management, and the role of 3PLs in the management of product returns.

The research approach is discussed in Chapter Three. The chapter describes and justifies the study context and the selection of the case organisations. An explanation of how the participants were chosen, and interviews conducted, is also given. Since an important element of any research is
establishing the rigour behind the study, the criteria used to evaluate rigour are described, including how they were met in this study.

Chapter Four reports the empirical findings of the research. It describes the product returns chain consisting of suppliers, retailer and 3PL and their roles in managing the flow of returned products. Extracts from the interviews serve to support the narrative, and form the foundation for the analysis and discussion in Chapter Five.

Chapter Five answers the research questions elaborated in Chapter One, distilling the nature of value in product returns management that flows from the case data. It also proposes frameworks for the creation and appropriation of value in the product returns chain.

Chapter Six concludes by discussing the theoretical and managerial implications of the research findings. It also discusses the limitations of this study and suggests direction for further research.

Appendix One contains the interview protocol used in data gathering, while Appendix Two lists the publications arising from this research.
Chapter 2    A Review of the Literature

2.1 Introduction

Product returns management is the “supply chain management process by which activities associated with returns, reverse logistics, gatekeeping, and avoidance are managed within the firm and across key members of the supply chain” (Rogers et al., 2002) (emphasis added). Product returns management encompasses the activities of reverse logistics, defined 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 & Tibben-Lembke, 2001) (emphasis added). These definitions suggest two important characteristics of the product returns management process. The first is that the process is boundary spanning, involving multiple parties in a supply chain. The second is that the ultimate purpose is to create and appropriate value.

Several literature domains were explored as a foundation for this doctoral research. There is an extensive literature in product returns that covers both marketing and operations areas, including the field of reverse logistics. An integral element of product returns is the increasing use of 3PLs in the management of product returns. It is appropriate therefore to examine selected studies on logistics outsourcing. The literature on value needs to be reviewed as it is core to the research questions. The boundary-spanning and multi-party nature of the product returns process also suggests that attention
needs to be paid to the value literature that recognises these characteristics of the value construct. The locus of interest in this doctoral research is at the intersection of these literature domains as shown in Figure 1. Each of these areas of the literature is reviewed in the following sections.

Figure 1: Literature domains of interest.

An iterative search of the peer-reviewed literature was undertaken. In the first stage, three major journal data bases - Emerald, Science Direct and Business Source Complete - were searched. Search terms used were different combinations of “value”, “customer value”, “supplier value”, “supply chain”, “reverse logistics”, “product returns”, “outsourcing”, “3PL”. As these data bases are not exhaustive, a second stage search was conducted using the reference lists of most recently published papers to fill gaps in journals not covered by the selected data bases. Peer-reviewed conference proceedings and research reports were also sourced.

During the time frame of the research, subscription to the table of contents services of the data bases, and to the American Marketing Association
(AMA) Elmar updates service, ensured that contemporary literature was being tracked.

2.2 *Product Returns and Reverse Logistics*

The acceptance of returned products is an intrinsic element of marketing strategy in business-to-business markets (Padmanabhan & Png, 1995). Very liberal sale or return policies are common in some industries such as newspapers and magazines. Suppliers recognise the need to accept returned products as a way of shifting risk of uncertain demand from their customers to themselves (Marvel & Peck, 1995), so that a retailer can carry a large range and high levels of the supplier’s products without the costs of overstocking. This helps boost sales revenues for retailers and suppliers.

Returns policies specify the boundaries of the returns, defining what returns will be acceptable and under which circumstances. Such a policy specifies the quantity and mix of product that may be returned, condition of the product and packaging, the time frame after purchase within which the returned product will be accepted, and the value that will be allowed for the returned product (Mukhopadhyay & Setaputra, 2007). The blend of these factors that a supplier adopts ultimately depends on the costs versus the benefits of the policy (Padmanabhan & Png, 1995). For risk averse consumers a generous returns policy allows them to experience the goods before making the actual buying decision, that is, the product can be returned if the in-use experience turns out to be negative (Che, 1996).
A generous policy, well-advertised to the buyer, is particularly important for experience goods, that is, goods that can only be evaluated after acquisition (Mixon, 1999). To avoid the costs of a physical return, a supplier might offer its retail customers a “markdown allowance” (Hahn, Hwang, & Shinn, 2004; Tsay, 2001), that is, a financial incentive to enable the retailer to keep the products and sell at a discount without experiencing a loss, thus allowing the supply chain to be cleared of stock efficiently without incurring reverse logistics costs. In a highly competitive business-to-consumer environment, retailers increasingly feel the need to offer generous returns conditions to their customers, with the subsequent need for suppliers to ultimately accept these returned products. It is in the context of these reverse product flows from retailer to supplier that this research is set.

A seminal report by Rogers and Tibben-Lembke (1998) on reverse logistics set a broad foundation for many subsequent studies in the field. Taking the perspective of product returns management as an integral core process in supply chain management (Croxton, Garcia-Dastugue, Lambert, & Rogers, 2001; Lambert & Cooper, 2000; Rogers et al., 2002; Supply Chain Council, 2008), this literature review focuses on returns chain issues, which include studies on product disposition decisions, reverse logistics chain design and operations, and the use of 3PLs in reverse logistics.

The rest of this chapter reviews the literature as follows. Section 2.3 What is Value? discusses the value literature. Studies on product disposition, and reverse chain design and operations implicitly or explicitly address value, which is the focus of this research. These studies are reviewed in Section 2.4
Value Drivers in Product Returns. Given the growing use and importance of 3PLs in the management of product returns (Stock, Speh, & Shear, 2006), this literature is reviewed in a separate main section, Section 2.5 3PLs in the Management of Product Returns.

2.3 What is Value?

Although customer satisfaction has long been accepted as central to marketing theory and practice, Woodruff (1997) suggested that the delivery of customer value is a much more relevant source of competitive advantage than customer satisfaction. Woodruff (1997) claimed that organisations have long been on a progressive search for competitive advantage, with quality management being one of the early sources of performance improvement. The pursuit of quality improvements in products and processes often led to an internal focus, and as many firms implemented quality management programs, quality delivery lost its competitive edge. Organisations then embarked on the pursuit of competitive advantage through the introduction of customer satisfaction measures. This, also, did not meet the promise. A key problem was that customer satisfaction did not always correlate with firm success, and often what customers valued changed over time with customer satisfaction programs failing to capture this change. To overcome this problem, Woodruff (1997) contended that organisations need to form a joint understanding of value with their customers, and then develop the capabilities to deliver that value.

While the concept of value has a rich research heritage in the industrial marketing literature (Anderson & Narus, 1998; Beverland, 2012; Grönroos
& Voima, 2013; Lindgreen, Hingley, Grant, & Morgan, 2012; Payne & Holt, 2001) and in supply chain studies (Childerhouse & Towill, 2000; Dietl et al., 2009; Fawcett & Fawcett, 1995; Hammervoll, 2009; Jayaram, Kannan, & Tan, 2004; Lambert & Burduroglu, 2000; Lusch, 2011), limited research has been undertaken to understand the role of value in the product returns process.

Although value is often discussed from two perspectives: value accrued by an organisation, evaluated in terms of shareholder value (Reimann, 1993), and customer value (Anderson & Narus, 1998; Khalifa, 2004; Woodruff, 1997), Ramsay (2005) observed that much of the value literature in economics, marketing, strategy, and operations presents an unbalanced view of the nature of value in that it concentrates on the customer’s perspective, lacking an adequate understanding of the supplier’s view. Studies that focus on customer value, Ramsay (2005) maintained, tend to suggest fallaciously that value is something that flows from a supplier to a customer. In so doing, such studies tend to ignore the active role a supplier plays in managing, transforming, and exchanging resources with a customer to deliver customer expected benefits.

Lindgreen et al. (2012) and Lindgreen and Wynstra (2005) reviewed value studies and concluded that there are distinctive streams pre- and post-2005. Pre-2005 research concentrated on an assessment of the customer or supplier value inherent in goods and services, expressed as a comparison of the benefits and the total costs associated with acquisition and use of the product or service. Post-2005 the research attention moved to exploring how
supplier and customer jointly contribute to value, and the influence of relational factors. The focus moved away from goods dominant sources of value to the role of service and value co-creation (Vargo & Lusch, 2008). This dyadic view suggests that value creation is neither the sole domain of the supplier nor the customer: both supplier and customer need to deploy their resources to create value. In recognising the value of dyadic relationships, Lindgreen & Wynstra (2005) observed that relational exchanges accrue more value than transactional exchanges.

Value creation and value appropriation vis-à-vis other entities in the supply chain are key aims of any organisation (Cox, 1999), but few supplier firms in business markets can define value, know how to measure it, or can explain how their products or services contribute to the customer’s perception of value received (Anderson & Narus, 1998; Bowman & Ambrosini, 2010; Francis, Fisher, Thomas, & Rowlands, 2014; Lepak, Smith, & Taylor, 2007). In a review of the state of value research in business markets, Lindgreen and Wynstra (2005) concluded that many firms can neither define nor measure value adequately, and therefore there were opportunities for further research in the field. Identifying which entities in the value chain create value was one clear avenue for further study (Lindgreen & Wynstra, 2005). The scholarly value literature is similarly beset with a wide interpretation of value and use of value-related terms (Francis et al., 2014; Ramsay, 2005). The multi-faceted, perceptual nature of value contributes to this multiplicity of interpretations (Bowman & Ambrosini, 2010).
A review of extant literature shows that the conceptualisation of value can be grouped under three broad areas. The first category builds on the notion of total product proposed by Levitt (1980). A second broader literature rests on the notion of value as a trade-off between benefits and sacrifices. Quality, of the offering and the service elements surrounding delivery, is considered a potential intangible benefit in these studies. A third group of studies expands the understanding of value by exploring how the relationship between the parties contributes to value. The salient features of these three approaches are summarised in Table 2 and discussed in detail in the following sections.
<table>
<thead>
<tr>
<th>Value Perspective</th>
<th>Main Concept</th>
<th>Concept Elements</th>
<th>Indicative References</th>
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<tr>
<td>Total product</td>
<td>Value derives from attributes and benefits beyond the core product.</td>
<td>Products consist of a generic core designed to fulfil basic customer needs. “Surrounding” this generic product are additional attributes or supplementary services that augment the core to deliver customer value. An amplified view considers the total product as the combination of the activities that produce benefits and the entities involved in those activities.</td>
<td>Levitt (1980) Lovelock (1995) Evans and Berman (2001) Frow, Ngo, and Payne (2014)</td>
</tr>
<tr>
<td>Benefits / costs</td>
<td>Value is assessed by comparing the benefits derived compared to the sacrifices made to acquire the offering.</td>
<td>Customers make sacrifices (or incur costs) to acquire products, both tangible monetary sacrifices and intangible costs, such as search costs. Benefits might also be tangible, as in the use of the product. Customers also can receive intangible benefits, such as from the quality of the product or the quality of the delivery service. The net of, or trade-off between, costs and benefits is the perceived value. Value can also be interpreted as the total cost of ownership.</td>
<td>Zeithaml (1988) Ravald and Grönroos (1996) Allee (2000) Parasuraman and Grewal (2000) Ulaga and Chacour (2001) Blois (2003) Cho and Pucik (2005) Babin and James (2010)</td>
</tr>
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2.3.1 Total Product

Early attempts to define value have been linked to the concept of the total product, proposed by Levitt (1980). In this concept, products are envisaged as multi-layered offerings with a generic or core product at the centre. The core product is what fulfils customers’ basic needs. But customers are also motivated to buy by the benefits and attributes associated with the core product, which they consider essential or that they expect, such as terms of trade, support services or logistics service. This layer has been termed the expected product. An organisation is not limited to delivering what the customer expects; it may differentiate itself from the competition by adding unexpected benefits, attributes, or features to produce an augmented product. A further layer was proposed, the potential product, which incorporates all that might be done beyond the augmented product to retain and grow the customer base into the future. Levitt’s (1980) lack of detailed guidance on how to augment the core product was redressed by Lovelock (1995), who suggested that firms offered customers a core product surrounded by eight clusters of supplementary services using the metaphor of a flower – the supplementary services forming the petals around the core product. Given the tendency for core products to become commoditised, it was the bundle of supplementary services that differentiated offerings among competitors and delivered value to customers. The supplementary services offered depended on the nature of the core product, and reflected the sequence of activities in the purchase cycle, from pre-purchase information to order taking and billing, to post-purchased support. Lovelock
(1995) observed that the delivery of supplementary services was heavily information dependent and that the adoption of information technology was necessary to deliver these value “petals”. What supplementary services to offer with the core product was a strategic decision that depended on the value content of the services and how the firm wanted to achieve a competitive advantage in the market-place. Importantly, these supplementary services had to reflect what customers believed was important. Empirical validation of Lovelock’s (1995) conceptual model was undertaken by Frow et al. (2014). Their study supported and extended the original Lovelock (1995) model and developed a planning framework to allow firms to provide appropriate supplementary services that deliver value to customers.

While these studies provide an insight into the nature of some intangible dimensions of value, they are essentially product-focused. This deficiency was overcome by Evans and Berman (2001) who utilised the total product concept to develop their model of value delivery in the business-to-business value chain. Evans and Berman’s (2001) model suggested two parallel components – the value chain and the value delivery chain. The value chain represents activities that create the bundle of benefits offered to customers, while the value delivery chain includes the parties that provide value, essentially the supply chain members. The output of these two chains, Evans and Berman (2001) suggested, was the total delivered product. It is this expanded notion of the total delivered product from which the final business customer derives perceived value.
These studies are useful because they provide an understanding of the role of total product in delivering value. However, the focus on supplementary services as value elements limits any expanded insights as it excludes the roles that product quality or service quality play in value delivery. The model also tends to emphasise benefits and downplays the cost side of the value equation. A view of value that incorporates a broad understanding of benefits and costs is therefore more fruitful.

2.3.2 Benefits and Sacrifices Trade-off

In a consumer marketing context, Zeithaml (1988) observed that customers interpreted value in four ways: 1. Value is represented by a product with a low price. 2. A product that delivers the benefits sought is of value. 3. A product is of value if perceived product quality is high for the price paid. 4. Value is judged by what customers get (the perceived benefits received) compared with what they have to give (the sacrifices made). Benefits can be derived from extrinsic attributes, such as brand or price, and intrinsic attributes such as perceived quality. Sacrifices can be both monetary and non-monetary, and, because perceived value is subjective, it will vary amongst customers, which implies that product development efforts needs to carefully track and match the needs of the customer over time.

Although value as a trade-off between, or net of, “get” (or benefits) versus “give” (or costs or sacrifices) has been widely accepted in the literature (Babin & James, 2010; Blois, 2003; Gabbott, 2004; Khalifa, 2004; Lindgreen & Wynstra, 2005; Ulaga, 2003), a supplier’s frequent failure to
understand how a customer perceives total costs and benefits leads to a focus on price alone as a surrogate for value (Anderson & Narus, 1998).

An important insight is that value, or the benefits and costs from which value is assessed, is not necessarily tied to monetary units, with the importance of intangible elements being stressed (Barber, 2008). Within the context of inter-organisational transactions, a number of studies have highlighted this broader understanding of value as a net of benefits and costs. For example, benefits might be evaluated along several dimensions: technical (e.g. how a product performs in use), economic (e.g. billing and invoicing practices), service (e.g. design and after-sales support) or social (e.g. ease of doing business) (Anderson, Jain, & Chintagunta, 1993; Anderson & Narus, 1998).

Quality is often identified as a benefit in the value equation (Babin & James, 2010). It is a product or service attribute that contributes to a customer’s perception of value. Reddy (1991) warned that quality should not be confused with value. Ulaga and Chacour (2001), in a study of the measurement of value in business markets, chose to define value as the trade-off between quality and price, identifying three components of quality – product, service, and marketing promotion components. Parasuraman and Grewal (2000) argued that since service quality is difficult for competitors to copy, it needs to be recognised as a key value driver, separate and distinct from costs and other benefits. Service quality enhances perceived value and subsequently leads to customer loyalty.
Cost sacrifices have been defined to include costs beyond the price alone, including acquisition costs and operational costs (Menon, Homburg, & Beutin, 2005), costs involved from the perspective of the product life-cycle (Reddy, 1991), and as the total cost of ownership (Ravald & Grönroos, 1996). Blois (2003) suggested that life-cycle costs for both the supplier and the customer should be considered in defining value. This is a useful approach since by simultaneously considering supplier and customer, relationship aspects of value are implied, although this was not made explicit in Blois’s (2003) study.

Acknowledging the dyadic nature of value creation, Grönroos (2011) contended that suppliers cannot create value for customers but can only provide service support that facilitates customers’ value creation. He claimed that supplier support that leads to customer value can be understood along three dimensions. A supplier can have an immediate and significant impact on a customer’s revenue (a benefit element), a customer’s costs (a sacrifice element), and perceptions the customer forms about the supplier. In defining value as the trade-off between benefits and costs, too much emphasis has been placed on increasing benefits as a way of increasing value, ignoring the potential for value increase by reducing customer costs (Cannon & Homburg, 2001; Ravald & Grönroos, 1996). One set of costs the customer incurs is associated with maintaining the relationship with the supplier (Ravald & Grönroos, 1996). These costs relate to the consistent delivery of product and service quality, which in turn affect indirect and psychological costs for the customer (Ravald & Grönroos, 1996). Cannon
and Homburg (2001) identified supplier communications, supplier accommodation to the customer, and supplier characteristics, as three areas that impact on customers’ costs in buyer-seller relationships. The nature and frequency of supplier communications with customers vary in complexity and so engage the customer at different levels with varying cost implications for the customer. Suppliers can make adjustments to their supply policies, or even make specific investments, to accommodate customer needs, which subsequently lead to reduced costs for the customer. Supplier characteristics, such as the ability to make high quality products, can impact significantly on a customer’s costs. High product quality allows the customer to invest less in monitoring activities and reduces the carrying cost of extra inventories that would be needed to buffer against uncertainties in quality of supplies. Understanding the customer’s costs is of prime importance because often buyers have financial limits within which they operate. In practice, firms tend to continue adding benefits without necessarily ensuring that these match changing customer needs over time (Ravald & Grönroos, 1996).

Allee (2000) elaborated on the nature of costs and benefits by identifying three broad categories – tangible goods and services, and the revenue they generate; knowledge; and intangible benefits. Allee (2000) suggested that traditional thinking about value, which focused on the exchange of goods and services for the revenue generated, had to be expanded to include intangible aspects. The knowledge category included such elements as strategic information, technical know-how, and process knowledge offered
by suppliers in exchange for customer usage data and feedback. Intangible benefits extended to areas that are not normally accounted for financially, such as customer loyalty and image enhancement. Suppliers and customers are involved in an exchange of benefits and costs that leads to value creation. Customers might receive benefits such as the goods (tangible) along with support services (knowledge), and association with a supplier’s brand (intangible). The sacrifices that buyers make, which can be seen as benefits to the supplier, include the provision of feedback (a knowledge component), and the surrender of their loyalty (an intangible component) to the supplier (Allee, 2000). The price a customer pays, a tangible sacrifice of the buyer, becomes a tangible benefit to the supplier.

Walter et al. (2001) took a more elaborate approach to the definition of costs and benefits, which they explained in terms of two sets of functions: direct and indirect. Direct functions contribute directly to value creation for the supplier. Customers deliver volume sales, profit, and long term stability to the supplier’s value. Indirect functions do not contribute directly to the supplier’s performance but are important for future growth and development of the supplier. These include functions that allow the supplier to gain technical know-how, access to new markets, and critical information about market changes that might be more accessible to the customer than the supplier. A supplier might be willing to suffer a profit reduction through discounting to gain access to these benefits.

Reddy (1991) presented a more complex perception of value, defining customer perceived value as a function of both product and supplier
attributes. Reddy (1991) concluded that perceived value is the totality of
economic (e.g. performance and reliability) and non-economic (e.g. brand
and appearance) product attributes, and supplier economic (e.g. operator
training and warranty) and non-economic (e.g. reputation and service)
support attributes. This suggests that intangible elements play a very
significant role in affecting how customers perceive value, and that
suppliers need to collaborate with customers and innovate constantly to
meet the latter’s changing needs (Barber, 2008).

Moving away from a concept of value arising from product attributes,
Vantrappen (1992) suggested that the key to a comprehensive appreciation
of value lies in understanding the customer’s processes so that the supplier
can tailor suitable offerings for the customer. Vantrappen (1992) identified
three linked processes - the product development process, the order delivery
process, and the post-sales support process. It is the quality of these
processes that drives customer value creation (Vantrappen, 1992). The
quality of order delivery and supply chain processes has also been
highlighted as important in creating customer value (Novack et al., 1994;
Sharma, Krishnan, & Grewal, 2001).

Novack et al. (1994) identified the quality of logistics activities within the
supply chain as the basis for delivering logistics service, expressed by such
factors as product availability, order cycle time, and timely and consistent
delivery (Langley Jr & Holcomb, 1992). When the quality of logistics
service meets customer expectations, value is created. Indeed, when
customers were asked to compare low cost against high quality logistics
service delivery, it was the high quality delivery that was perceived to be of greater value (Novack et al., 1994). Sharma et al. (2001) also concluded that understanding business processes led to an understanding of value. Three sub-processes - effective supply chain management along with technology delivery, and product delivery - taken together make up the value creation process. The technology delivery sub-process is concerned with delivering value though knowledge transfer, while the product delivery sub-process is concerned with delivering value through product design, development, and customisation, which is achieved by supplier and customer working closely together.

This literature domain contributes in several ways to understanding value. Value is perceptual and therefore different customers might perceive value in different ways derived from the same product. Value is a trade-off between benefits and sacrifices, which are not necessarily monetary. Benefits derived from quality of product or service can also feature as an important element of value. However, defining value as a trade-off between costs and benefits assumes a transactional view of value creation (Ulaga, 2003). A similar criticism has been made of the total product conceptualisation of value (Raval & Grönroos, 1996). In the context of supply chain operations, value creation involves two or more parties, which mandates that relationship factors need to be considered.

2.3.3 Relationships

In a review of the value literature, Payne and Holt (2001) concluded that research into perceived value as trade-off was limited by its concentration
on customer value. The implication is that value needs to be understood beyond the confines of a single organisation and explored within the dyadic interaction of supplier and customer (Grönroos, 2011; Ngo & O'Cass, 2010; Wilson & Jantrania, 1994). Value from the perspective of a supplier or a customer alone is problematic as the interaction between two parties implies mutual costs and benefits (Ngo & O'Cass, 2010). Henneberg, Pardo, Mouzas, and Naudé (2009) contended that a dyadic view of value suggests three levels of value creation: internal value, created and appropriated by a single actor; exchange value, which results from supplier activities but appropriated by the buyer (or vice versa); and relational value, which evolves from a collaborative relationship, and is created and appropriated within a relationship. This relational dimension of value is regarded as of increasing importance in business-to-business marketing (Haas, Snehota, & Corsaro, 2012; Lindgreen et al., 2012).

Relationship value is the result of the joint effort of partners to derive benefits from working together on process improvement projects that would not be possible if they worked independently (Wilson, 1995). Supply chain collaboration and integration (Horvath, 2001; Tuominen, 2004) need to be achieved across a range of supply chain functions, including processes (Evans & Berman, 2001), procedures, information flows, knowledge management (Wilson, 1995), and strategy (Barber, 2008). To jointly create relational value requires the resources of both the supplier and the customer to be deployed to develop the necessary competences (Möller, 2006).
To understand and create relational value the supplier needs to view its product offering from the customer’s perspective to better appreciate the sacrifices that the customer must make in the exchange. Taking the customer’s view also allows the supplier to appreciate the effect that the supplier can have on perceptions of relational characteristics - trust in the supplier, commitment to the supplier, comfort in supplier interactions, and attraction of supplier (Grönroos, 2011). These last two are similar to what Srivastava and Singh (2010) labelled relationship closeness. Relationship closeness is viewed as the person-to-person contact between supplier and customer personnel that results in close personal and working relations. Srivastava and Singh (2010) proposed a causal connection between value and relationship closeness, identifying trust and commitment as important antecedent variables to relationship closeness. Social bonding of individuals is an important first stage in deepening business relationships (Wilson & Jantrania, 1994). Personal interaction amongst individuals makes business relationships work (Ulaga, 2003) and, together with a supplier’s service support, are the main drivers of relationship value (Eggert, Ulaga, & Schultz, 2006).

Ravald and Grönroos (1996) claimed that supplier-buyer relationship affects the value perceived by the buyer. In a close relationship, the buyer’s focus could shift from evaluating the product to evaluating the relationship with the supplier, because, ultimately, competitive product attributes are comparable, and relationship factors become important in the perception of the value received (Ravald & Grönroos, 1996). Trust is one such factor that
is considered a key element for creating and developing long term relationships. Trust facilitates the sharing of resources, especially information, and increases willingness to participate in cooperative activities (Sánchez, Santos-Vijande, & Gutiérrez, 2010). Trust in a relationship signals that the parties involved will not act opportunistically. Trust, along with commitment, collaboration, flexibility, personal customer-supplier relationships were identified by Gil-Saura et al. (2010) as relational benefits that lead to value. Relationship quality moderates the perceived value in a relationship (Byramjee, Bhagat, & Klein, 2010). Byramjee et al.’s (2010) argument, set out in a series of propositions, is that better relationship quality leads to increased benefits and lower costs, and subsequently higher value for the supplier and the customer.

Relationship value is not simply the outcome of a series of independent transactions but the result of a dynamic time-dependent relationship - that is, cumulative transactions over time create value (Payne & Holt, 2001), which builds a customer’s trust in the supplier and a mutually satisfying relationship for supplier and customer (Ravald & Grönroos, 1996). This view is supported by Eggert et al. (2006) who recommended the need for longitudinal studies to better understand value.

Drawing on Reddy (1991), Wilson and Jantrania (1994) conceptualised relationship value as having three dimensions - economic, strategic, and behavioural. Each dimension can have several levels of relationship complexity. For example, along the economic dimension, parties in a relationship can engage in simple joint cost reduction activities to more
complex collaboration at the product design stage. Similarly, along the strategic dimension parties can develop joint goals or engage in the more complex task of creating a closer strategic fit between the parties. The behavioural dimension describes how the relationship matures over time, leading to the development of a shared culture. Wilson and Jantrania (1994) concluded that while the measurement of the strategic and behavioural dimensions of relationship value was difficult, their framework formed a useful first step. In a study of manufacturers as customers of suppliers, Ulaga (2003) identified eight dimensions of relationship value – product quality, service elements, time-to-market, post-sale service support, supplier know-how, personal interaction, price, and process costs.

Corsaro and Snehota (2010) were critical of extant research in the field of relationship value. Their criticism rests on their observation that those studies have focused on assessing the impact of different relationship dimensions on economic outcomes. Their study concluded that more fruitful avenues of research lay in understanding the perceptions of value that business partners have because perceptions shape relational behaviour and value outcomes. The value of relationships, therefore, cannot be explained by their form and content. A more useful contribution lies in understanding how value perceptions are formed and how these perceptions deliver value outcomes (Corsaro & Snehota, 2010).

This body of literature contributes significantly to an appreciation of the nature of value. It underscores the notion that value is an outcome of multiple parties involved in a long-term business association and is created
over time. Mutual value creation necessitates an understanding that relationship benefits and sacrifices contribute to value. These findings are in the context of marketing new products in the forward business-to-business chain. Managing product returns is markedly different from managing and marketing new products. The parties involved do not associate voluntarily – they are already bound by their forward supply chain activities, and there is a tacit understanding that the supplier will accept returns from its customers. The products involved in the exchange are not new, and therefore the value elements are assessed differently by different parties. Additionally, the returns process is seen as of secondary importance compared to the main tasks of forward marketing and supply. The next section discusses the literature on the association between value and the product returns process.

2.4 Value Drivers in Product Returns

While value has long been recognised as an important innovative outcome of supply chain management, supply chain collaboration (Horvath, 2001), supply chain integration (Tuominen, 2004), and in conferring competitive advantage (Dietl et al., 2009; Walters & Lancaster, 1999), the bulk of these studies has been conducted in the context of forward product flows. Comparable discussions in reverse logistics and product returns management are few and far between (Mollenkopf et al., 2011).

Although reverse logistics has been defined as the management of the reverse flow of product for the purposes of recapturing or creating value or proper product disposal (Rogers & Tibben-Lembke, 2001), the locus of that value has centred on the product itself and product flows. Value creation has
been predominantly focused on product disposal activities, with value being interpreted as the economic gains made from recycling, reuse and salvage (Bernon & Cullen, 2007; Huge-Brodin & Anderson, 2008; Johnson, 1998; Pokharel & Mutha, 2009; Rogers & Tibben-Lembke, 2001). Relatively few studies have transcended this cost dimension (Mollenkopf et al., 2011). However, the potential for value creation beyond product disposition, and arising from broader tangible and intangible elements, has been shown to be relevant for product returns (Dapiran & Mollenkopf, 2010). Studies that have taken a view beyond the product disposition horizon have explored the link between marketing and product returns, and have suggested that a well-managed product returns program could generate customer satisfaction and have a positive impact on the environment, which could be leveraged to extract value (Jayaraman & Luo, 2007). Blackburn et al. (2004) studied the product disposition decision from the perspective of the time taken for the retailer to return products, and the supplier to dispose of them. They observed that products lost value as they flowed down the returns chain, and that design of the reverse chain needed to take this into account.

Using evidence from seven case studies, Mollenkopf and Closs (2005) evaluated the impact on revenue beyond the cost of logistics activities, showing the impact of effective product returns management on revenue stream and company assets. Their findings illustrated the potential marketing advantage that can flow from effective returns management, such as enhanced customer perceptions of quality and the goodwill that can accrue to organisations practising good corporate citizenship through
product returns. Recent studies further highlight the need to consider internal firm integration if one is to fully understand the value implications of product returns (Mollenkopf et al., 2011).

Extant literature on value in product returns heavily overlaps the literature on reverse logistics, and can be grouped into four broad categories: product disposition, structure of the return chain, collaborative orientation of the return chain parties, and information management, as shown in Figure 2.

![Figure 2: Value drivers in product returns management.](image)

### 2.4.1 Product Disposition

Product disposition refers to the recovery decision that suppliers must make to process products returned from their customers. The aim of product recovery is to recoup as much as possible of the economic value of the returned product and so minimise waste (Ayres, Ferrer, & Van Leynseele, 1997; Johnson, 1998; Thierry, Salomon, Van Nunen, & Van Wassenhove, 1995). There are many options available to the supplier. In order of the extent of product disassembly, these are, resell, repair, refurbish,
remanufacture, reclaim parts, recycle, or dispose of the product or the remaining components (Mollenkopf & Closs, 2005; Thierry et al., 1995). Repair involves replacing broken components to allow the product to be returned to the buyer or resold, usually in secondary markets. Refurbishment brings the product up to a workable level, to a standard of quality usually below that of a new product. Products can be remanufactured to new product standards carrying the same warranties as new products but at a lower price. Government regulation and more environmentally aware consumers have driven the move to increased remanufacturing as a way to reduce the amount of product discarded in landfills (Mitra, 2007). If the returned product cannot be made operable, some of the components might be salvageable for use in the manufacture or assembly of new products, or the components sold into the parts replacement stream. Remanufacturing raises the complexity of the production and inventory planning functions in an organisation (Prahinski & Kocabasoglu, 2006). The aim of production planning is to match customer demand with production capacity and the supply of components and materials. Typically, supply rates of new materials are relatively predictable but the uncertain quality, quantity, and timing of returned products place a strain on the production planning process. Different approaches need to be applied to reduce uncertainty, such as inferring the return rate from sales data and combining this with technical knowledge of component wear rates (van Nunen & Zuidwijk, 2004). The underlying purpose is to recover product at the highest level of assembly to maximise the residual asset
value. Companies might use all of the above options depending on the variety and condition of the returned products, and the demand for remanufactured product, used components, and recycled material (Kumar, Shirodkar, Camelio, & Sutherland, 2007). The economic implications of these options need to be weighed up (Kumar et al., 2007), and ultimately the decision to adopt any of the recovery options depends on the overall costs and benefits involved (Guide Jr & Van Wassenhove, 2001). To avoid unnecessary transport costs and to lower processing costs, Tibben-Lembke (2004) suggested that disposition decisions are best made in centralised returns facilities.

Products fed back into the production stream reduce cost of goods sold and lower the need for inventory of parts or components used in production (Mollenkopf & Closs, 2005). However, research by Srivastava (2008a) showed that remanufacturing is not always economically viable, and that scale is an important factor that differs from product to product (Srivastava, 2008b).

The residual value of the product is also an important factor in deciding the economics of further processing returned products (Morana & Seuring, 2007). Product recovery often means that firms need to run joint manufacturing and re-manufacturing operations. A major problem is coordinating these two operations because of the variability in the timing, volume and condition of the returned products (Aras, Boyaci, & Verter, 2004). Modelling by Aras et al. (2004) showed that sorting and categorising the quality of returns before processing led to cost savings in the joint
operations. Modelling by Loomba and Nakashima (2012) not only supported this finding but also demonstrated that sorting carried out centrally at the manufacturer was more profitable than decentralised sorting. Prahinski and Kocabasoglu (2006) suggested in their study that much more empirical research needs to be undertaken to expand our understanding of production planning and control systems in these hybrid manufacturing environments. Non-recoverable parts can be recycled to reclaim the raw material content, and, ultimately, any remaining product must be disposed of in landfill or incinerated.

Some returned products are resold into secondary markets, defined as markets outside the primary sales channel, through a variety of dealers, brokers, and increasingly, through the Internet (Tibben-Lembke, 2004). Secondary channel sales increase revenue (Mollenkopf & Closs, 2005), offering a lucrative outlet for suppliers and retailers to re-capture the residual value of returned products.

The ability to incorporate returned products or components into the forward production stream, however, might be limited by technological obsolescence, such that returned components are no longer suitable or too aged to be useful (Lebreton & Tuma, 2006). Psychological factors also play a role in the demand for refurbished or remanufactured product. For example, remanufactured mobile phones have a lower demand than re-used industrial containers (Lebreton & Tuma, 2006).

Although product returns management is usually discussed in the context of hard goods, processing industries (e.g. chemicals, pharmaceuticals, cleaning
products) are also facing up to the problem of managing returns because of environmental and cost pressures (French & Discenza, 2006). A particular problem in processing-type industries in managing the return of products destined for reuse is the high level of technical expertise needed because of the nature of the products (French & Milliman, 2008).

The above studies on product disposition are implicitly about value but essentially limit their definition of value to that in the residual reclaimed product. This severely limits the notion of value. The other limitation is that these studies tend to focus on a single party in the returns chain, usually the upstream supplier (see for example, Blackburn et al. (2004) or Guide Jr et al. (2003)).

2.4.2 Product Returns Chain Structure

Clendenin (1997) long observed that a functional view of reverse logistics had to be replaced by a process management perspective in which the linkages among many activities are recognised, especially when returned products were to be reused in a closed-loop with the forward flow of product. A detailed analysis of these linkages exposed the productivity opportunities that existed. The use of quality management techniques also allowed the perspective of the customer to be incorporated in the reverse chain design. Managing returns as a clearly separate business process allowed the company to focus on return on assets as a measure of success (Clendenin, 1997).

It has been suggested that the design and operation of the product returns chain should be based on recovering value from disposed products (Gobbi,
There is net economic value creation in product returns management only if economic benefits outweigh the costs. An efficient and effective returns chain is therefore imperative to salvage a greater amount of returned products (Stock et al., 2006). Time is considered a key variable in this as it erodes the value of the product (Blackburn et al., 2004; Gobbi, 2011; Guide Jr, Souza, Van Wassenhove, & Blackburn, 2006; Rogers & Tibben-Lembke, 2001), with Jayaraman and Luo (2007) going as far as suggesting that all returned products should be treated as perishable. Blackburn et al. (2004) proposed the concept of the Marginal Value of Time (MVT) to express the extent to which value depletes over time, and that products with a high MVT should be handled more expeditiously than those with low MVTs. Gobbi (2011), however, contended that MVT is only relevant for products that have a high residual value. Further, the returns chain for products with high MVT and high residual value should have a decentralised structure, that is, processing should be carried out close to the point of product collection to increase speed of return and so retain maximum value. By contrast, low MVT and low residual value products should be processed in a centralised facility to reduce costs. Stock et al. (2006) supported the notion that a speedy disposition decision close to the point of product return needs to be made because the returned goods start losing value the moment they are returned to the retailer.

However, this logic seems relevant only if the main focus is the supplier as the ultimate recipient of the returned products, and who will be responsible for product disposition. In a retail context, the retailer’s main aim is to clear
the retail store of returned products, irrespective of the perceived or real residual product value, and so maximise a credit claim with the supplier (Mollenkopf & Dapiran, 2007). A study by Mollenkopf and Dapiran (2007) showed that retailers are motivated to adopt a centralised outsourced returns management configuration simply to minimise operational costs. Additionally, a centralised operation could remove many of the in-store administrative tasks associated with returns, freeing store staff to concentrate on selling new products and build relationships with its customers. It has been suggested that the trade-off between speed and efficiency might not be a structural one – efficiency could be achieved by centralisation of returns processing while the benefits of speed could be achieved by rapid information transfer (Mollenkopf & Dapiran, 2007).

Rapid return of product to a saleable condition reduces inventory carrying cost (Stock et al., 2006). Also, speedy decisions lead to rapid issuance of customer credits, and reduces reconciliation problems leading to improved customer satisfaction, which, in turn, increases revenue and repeat purchases (Stock et al., 2006).

The use of centralised return centres has been promoted to lower transport costs, increase labour efficiency, and improve customer service (Meyer, 1999; Rogers et al., 2002). Cost reductions can accrue from economies of scale realised through the use of a centralised returns centre (Jayaraman et al., 2008). Experienced and expert staff in a returns centre are in a better position to make the most appropriate disposition decisions with a subsequent flow-on to revenues (Rogers & Tibben-Lembke, 2001).
There is agreement that the responsibility for reverse logistics should be vested in a specific and identifiable group or department (Stock & Mulki, 2009), preferably with senior management oversight (Stock, Speh, & Shear, 2002). The argument is that elevating the status of reverse logistics to that of the forward chain should lead to a more equitable access to a firm’s resources and devotion of management time, thereby increasing effectiveness of the function. Management commitment to allocate managerial, financial, and technological resources to develop innovative approaches to handle returns was found to lead to efficiencies in the reverse logistics chain (Richey, Genchev, & Daugherty, 2005). The assignment of managerial resources was found to have the greatest impact. A complete understanding of the total costs associated with product returns is more likely to lead to corporate action (Accenture, 2007), and this is more likely to occur with a senior executive in charge of the process. Management resources in the form of systems to measure the extent and nature of product returns, product and service redesign to match consumer expectations of product performance, improved liaison with retailers to encourage more effective gatekeeping, and implementation of information technology, when led by a senior executive, could deliver substantial reductions in product returns and associated financial savings (Sciarrotta, 2003).

Avoidance and gatekeeping mechanisms are elements of reverse chain design that can lead to reduced levels of returns. Often, products returned by consumers to the retailer as faulty might be fully functional, and the solution to minimising returns lies in improved instruction manuals, availability of a
toll-free help line, and, in the longer term, making products that are easier to use (Meyer, 1999). Advertising and promotional material sometimes set high consumer expectations. Thus, when the complexity of the products are not clearly communicated, consumers may return products to retailers thinking that they are faulty when, in fact, they are not (Accenture, 2007). Returns that make it to the retail store can be prevented from going any further up the chain by well-trained and motivated store staff with the appropriate product knowledge and tools. Gatekeeping approaches need to be structurally built into the returns chain, sometimes with the use of information systems, and require the close cooperation of the supplier and the retailer to be effective (Jayaraman et al., 2008; Meyer, 1999). Effective gatekeeping avoids additional operational costs for the retailer and supplier by eliminating the transfer of product further up the chain to the supplier (Mollenkopf et al., 2011). A reverse supply chain needs to be structured so that genuine defective products are separated out from consumer-deemed faulty products as early as possible in the returns chain to avoid costly incorrect decisions. Early separation can ensure that faulty products are channelled to repairers instead of being returned to the supplier (Accenture, 2007). Establishing efficient operations, such as separating outbound and inbound flows of returned products in warehouses (de Koster et al., 2002), is an obvious source of economic value.

These foregoing studies capture the variety of ways that the design and operation of the return chain can create value. Appropriate design that leads to reduced product handling, fewer processing steps, and speedy return
contributes to lower operating costs, and reduces the erosion of product value because each step in the process subtracts value from the product (Stock et al., 2006). Studies that focus narrowly on cost elements contribute only partially to an understanding of value in product returns. Their main limitation is that non-logistics elements of value are ignored. This area of the literature is discussed in the following sections.

2.4.3 Collaborative Orientation

Supply chain collaboration leads to improved performance for all supply chain parties (Simatupang & Sridharan, 2005). Simatupang and Sridharan (2005) developed a framework that linked five features of a collaborative supply chain: a collaborative performance system, information sharing, joint decision making, aligned incentives, and integrated supply chain processes. A collaborative performance system rests on joint agreement of objectives, and the metrics that will determine when and how those objectives are met, essentially setting the compass for the collaboration. Joint determination of performance metrics by all supply chain partners is important to ensure that the measures reflect supply chain performance and not just individual firm performance (Barrat, 2004). Jointly developed objectives reflect key value elements, such as customer service, quality, costs, and responsiveness, which enhance economic value outcomes, such as profit, cash flow, and return on investment (Simatupang & Sridharan, 2005). Information sharing covers all activities of data collection, processing, and dissemination, and is essential to ensure visibility of performance metrics and process data, such as demand, inventory, and order status. Information visibility illuminates
managerial actions, and facilitates effective joint decision making (Simatupang & Sridharan, 2005). Joint decision making minimises conflicts that can arise when two parties have different objectives by maintaining focus on the main mutual objectives of meeting customer demand and enhancing supply chain profitability. Joint decision making contributes to ensuring boundary spanning functions, such as transportation and inventory replenishment (Simatupang & Sridharan, 2005), and demand forecasting (Barrat, 2004) are appropriately integrated. Incentive alignment, or the sharing of costs, risk, and benefits, motivates the parties involved to make decisions that meet their mutual goals for the benefit of the supply chain. Integrated supply chain processes ensure that boundary spanning activities could be undertaken efficiently to capture value that is often lost at the boundaries of organisations (Barrat, 2004). Barrat (2004) also warned that developing integrated supply chain processes should not be confined to the operational level, integration at higher tactical and strategic levels of the organisations are needed to maximise the value gained from operational integration.

Collaboration rests on a foundation of a collaborative culture (Barrat, 2004). Trust, understanding of the mutual benefits of collaboration, and information exchange help develop such a collaborative orientation (Barrat, 2004). The exchange of information between retailer and supplier has been credited with promoting closer working relations between parties in the product returns chain (Mollenkopf & Dapiran, 2007). Any ultimate product redesign as a result of sharing information regarding the nature of real or
assumed defective products, for instance, benefits both parties by avoiding future returns, and thereby increasing sales revenue. In a study of the Indian apparel aftermarket, Abraham (2011) found that collaboration between reverse supply chain stakeholders led to increased market knowledge, less business uncertainty and higher profit margins. A study by Olorunniwo and Li (2010) showed a direct relationship between collaboration and reverse logistics performance.

Close relationships are a precondition for coordination of reverse logistics activities to ensure effective closed-loop supply chains (Johnson, 1998). Research by Lee (2001) showed that without coordination between returns chain parties, information is not shared, leading to sub-optimal decisions that benefit the individual parties rather than the returns chain as a whole. Lee (2001) also found that the levels of trust between return chain parties affects the extent to which information is shared in a return chain.

Barrat (2004) pointed out that intra-organisational collaboration is also important, enabling functional integration. The need for strong internal integration, for example, between marketing and logistics functions, in managing product returns is supported by Mollenkopf et al. (2007b), who also concluded that firms with higher levels of functional integration were more pro-active in managing returns.

Interaction in departmental meetings is often mistaken for collaboration, but such interactions lack the common hallmarks of collaboration, such as joint goal setting and a common vision (Barrat, 2004). Internal collaboration needs to be expanded beyond supply chain related functions to marketing.
and product development functions (Barrat, 2004), and financial and administrative operations (Mollenkopf et al., 2007b). In a study of value creation in the product returns process, Mollenkopf et al. (2011) found that a supplier’s integration of its marketing and operations functions led to better internal alignment of goals and resources, leading to value creation for itself and its retail customers. Internal functional integration allowed the supplier to marshal its knowledge of sales and inventory levels across the supply network to help its retail customers improve their inventory decision making and so reduce the level of returns of excess stock (Mollenkopf et al., 2011). Internal integration helps address the upstream decisions that can result in product returns, such as poor demand forecasts, purchasing policies based on quantity discounts, and product quality issues (Bernon & Cullen, 2007).

Internal integration can lead to closer alignment of resources which allows a supplier to develop effective returns avoidance measures (Mollenkopf et al., 2011), that is, strategies to prevent products from entering the return product chain (Rogers et al., 2002). In a study to model an optimal product returns system, Yalabik, Petruzzi, and Chhajed (2005) concluded that absence of coordination, and hence alignment, between a retailer’s logistics and marketing functions led to over-investment in one function and under-investment in the other.

In their in-depth study of product returns management and supply chain strategy, Mollenkopf et al. (2007b) examined the link between supply chain orientation and internal integration in returns management. Supply chain orientation describes the extent to which an individual organisation sees
itself as part of an extended supply chain linked to upstream and downstream parties (Mentzer et al., 2001). Mollenkopf et al. (2007b) found that lack of a supply chain orientation impeded effective management of product returns, leading them to suggest that the definition of supply chain orientation needed to be extended to include both forward and reverse product flows. They tentatively concluded that both functional integration and supply chain orientation led to a more effective product returns management process. Viewing supply chain as a structure of collaborating parties suggests that supply chain orientation and collaborative orientation are interchangeable constructs.

2.4.4 Information Management

Whether collaboration leads to information sharing or information sharing leads to collaboration is contentious (Olorunniwo & Li, 2010). A strong collaborative relationship could lead to the sharing of sensitive information. On the other hand, an environment in which operational level information was being shared could lead to higher levels of collaboration between firms. Olorunniwo and Li (2010) found that information sharing led to collaboration in reverse logistics activities, and directly to improved reverse logistics performance.

Two types of information are considered in this context, operational and strategic (Gustin, Daugherty, & Stank, 1995). Operational information is process related, and tracks and manages the flow of returned products. Strategic information leads to knowledge creation. It provides insights into
the reasons for returns that can lead to improvements in product design or functionality, better packaging or improved product-use instructions.

Operational information reports on the quantity, timing, and condition of returned product, and identifies the reasons for the product being returned. Operational information on product returns, flowing from the retailer to the supplier, benefits the supplier directly and in the very short term, as it allows the supplier to plan for the imminent arrival of product and its disposition (Mollenkopf & Dapiran, 2007). This is especially important where product will enter a closed-loop manufacturing system and there is uncertainty surrounding the quantity and timing of returns (Krapp, Nebel, & Sahamie, 2013). In a closed loop manufacturing system in which product is produced from both new and returned material inputs, uncertainty surrounds the product demand, the level of returns, recovery yield, and capacity utilisation (Ketzenberg, 2009). Effective information systems allow suppliers to plan the resources necessary to handle the returns and plan for any disposition activities, with associated lower costs. Lee and Lund (2003) claimed that lack of an effective information system that can approve, track, and control the movement of product returns would result in reduced visibility along the reverse logistics chain, which is a major contributor to inefficiency in the chain. An appropriate information system also acts to integrate a supplier’s logistics, receiving, processing, and accounting departments. Sharing information about product returns among relevant departments in an organisation promotes joint analysis of what products are being returned and
the reasons for their return, leading ultimately to higher quality products and fewer returns (Meyer, 1999).

In the reverse supply chain, Hazen, Huscroft, Hall, Weigel, and Hanna (2014) found that, to be useful, the accuracy and timeliness of operational information was paramount. Its utilisation correlated with benefits to the product returns chain parties. Stock et al. (2006) reported that the use of information systems in the reverse supply chain has resulted in reductions in operating costs, reduction in amounts of dumped products, lower inventory levels, and an increased understanding of why a product was returned.

Jayaraman et al. (2008) observed that the use of specialised real-time information systems in retail stores allowed retail staff to rapidly identify products, locate suppliers’ returns policies, and capture the requisite details about the return. The increased speed of processing that this afforded contributed to customer satisfaction, and cost reduction for the retailer and supplier (Jayaraman et al., 2008).

Analysis of strategic information provides insights about the product, marketing programs, buyer behaviour or the adequacy of the returns chain design. Longitudinal data about product returns is invaluable in evaluating a range of attributes, including product functionality, labelling, reliability, and packaging (Jayaraman & Luo, 2007). Returns might expose the weakness in marketing or merchandising programs or provide a clearer understanding of customer expectations, allowing firms to tailor improved marketing programs or redesign products to eliminate perceived faults (Jayaraman & Luo, 2007; Stock et al., 2006). Aggregate data might also provide insights
into the way consumers use or misuse the product, which might suggest design changes or functionality problems (Lee & Lund, 2003). It might simply reveal the need for improved product use manuals and instruction pamphlets (Jayaraman & Luo, 2007). Retailers can also benefit from aggregate data to identify poorly performing products and their suppliers, allowing them to leverage their future negotiations with suppliers accordingly (Meyer, 1999).

Bernon and Cullen’s (2007) study of reverse logistics in UK retailing found that information and information technology, such as bar-coding, resulted in improved utilisation of storage facilities and reduced product damage, while technology-enabled transport delivered economic gains. Total cost of returns is often hidden in numerous functional budgets, and the absence of cost visibility is one reason why firms pay less attention to product returns than the forward product flow. Information systems are capable of collating such cost data to drive improvements in reverse logistics operations (Bernon & Cullen, 2007). Access to cost information can also lead to improved gatekeeping (Mollenkopf et al., 2011). With appropriate cost information, a firm can evaluate the trade-off at the retail store between returns processing and logistics costs, and the residual value of the product. If the residual value is less than the processing costs, the retailer can still be given a credit and the product can be disposed of at the store – the supplier avoids costs, the retailer maintains its margins, and relationships are strengthened.

Table 3 summarises the value drivers that have been reported in extant literature, together with the value implications extrapolated. It needs to be
noted that in spite of the abundant references, there are only 13 unique papers that explicitly discuss the value construct in the context of product returns management.
Table 3: Summary of literature on product returns value.

<table>
<thead>
<tr>
<th>Value Drivers</th>
<th>Value Implications</th>
<th>Key References</th>
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<tbody>
<tr>
<td><strong>Product Disposition</strong></td>
<td><strong>Economic</strong></td>
<td>* Thierry et al. (1995)</td>
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<tr>
<td>Use of secondary markets.</td>
<td>• Lower cost of material inputs.</td>
<td>* Ayres et al. (1997)</td>
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<td></td>
<td>• Reduced inventory write-downs.</td>
<td>* Johnson (1998)</td>
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<td></td>
<td>• Reduced disposal costs.</td>
<td>* Rogers and Tibben-Lembke (1998)</td>
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<td></td>
<td>• Free up firm resources for alternative projects.</td>
<td>* Güde Jr and Van Wassenhove (2001)</td>
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<td></td>
<td>• Increase sales revenue.</td>
<td>* Rogers and Tibben-Lembke (2001)</td>
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<td></td>
<td>• Higher inventory turnover.</td>
<td>* Aras et al. (2004)</td>
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<td></td>
<td>• Reduced obsolete stock and inventory write-downs.</td>
<td>* Blackburn et al. (2004)</td>
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<td></td>
<td>• Improved relationships through 3PL know-how.</td>
<td>* van Nuen and Zuidwijk (2004)</td>
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<td></td>
<td>• Help customers make better returns decisions.</td>
<td>* Mollenkopf and Closs (2005)</td>
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<td></td>
<td>• Prompt customer credits.</td>
<td>* French and Discenza (2006)</td>
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<td></td>
<td><strong>Time</strong></td>
<td>* Lebreton and Tuma (2006)</td>
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<td></td>
<td><strong>Returns avoidance and gatekeeping.</strong></td>
<td>* Kumar et al. (2007)</td>
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<tr>
<td><strong>Returns Chain Structure</strong></td>
<td><strong>Economic</strong></td>
<td>* Mitra (2007)</td>
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<tr>
<td>Design (3PL, centralised returns centre.)</td>
<td>• Lower operating costs.</td>
<td>* Morana and Seuring (2007)</td>
</tr>
<tr>
<td>Time (speedy returns, speedy disposition decisions, responsive returns chain.)</td>
<td>• Fewer facilities.</td>
<td>* French and Milliman (2008)</td>
</tr>
<tr>
<td>Returns avoidance and gatekeeping.</td>
<td>• Lower inventories.</td>
<td>* Huge-Brodin and Anderson (2008)</td>
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<td></td>
<td>• Reduced transport costs.</td>
<td>* Srivastava (2008a)</td>
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<tr>
<td></td>
<td>• Reduced administrative costs.</td>
<td>* Srivastava (2008b)</td>
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<td></td>
<td><strong>Relational</strong></td>
<td>* Loomba and Nakashima (2012)</td>
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<td></td>
<td>• Help customers make better returns decisions.</td>
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<td>• Prompt customer credits.</td>
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<td></td>
<td>• Improved information.</td>
<td>Stock et al. (2006)</td>
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<td></td>
<td>• Shorter lead times for returns.</td>
<td>Accenture (2007)</td>
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<td></td>
<td>• Improved retail store customer service.</td>
<td>Jayaraman and Luo (2007)</td>
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<td>Mollenkopf and Dapiran (2007)</td>
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<td>Stock and Mulki (2009)</td>
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<td>Gobbi (2011)</td>
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<td>Mollenkopf et al. (2011)</td>
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<td></td>
<td>3PL</td>
<td>Krumwiede and Sheu (2002)</td>
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<td>Meade and Sarkis (2002)</td>
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<td>Mukhopadhyay and Setaputra (2006)</td>
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<td>Selviaridis and Spring (2007)</td>
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<td>Efendigil et al. (2008)</td>
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<td>Min and Ko (2008)</td>
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<td>Sasikumar and Haq (2011)</td>
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<td>Langley Jr (2012)</td>
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<td>Bernon, Upperton, Bastl, and Cullen (2013)</td>
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<td>Vitasek, King, and Manrodt (No Date c. 2013)</td>
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<td>Shaharudin, Zailani, and Ismail (2014)</td>
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<td>Value Implications</td>
<td>Key References</td>
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</tbody>
</table>
| Collaborative Orientation | Functional integration.  
Returns chain alignment. | Economic  
- Margin improvement.  
- Improved cash flow.  
Relational  
- Improved customer service in after-sales support.  
- Returns avoidance.  
- Enhanced relations.  
- Relational benefits.  
Quality  
- Improved returns authorisation processing.  
- Increased market knowledge.  
- Identify quality issues.  
- Better decisions to avoid returns. | Lee (2001)  
Barrat (2004)  
Simatupang and Sridharan (2005)  
Yalabik et al. (2005)  
Beron and Cullen (2007)  
Mollenkopf et al. (2007b)  
Jayaraman et al. (2008)  
Olorunniwo and Li (2010)  
Abraham (2011)  
Beron, Rossi, and Cullen (2011)  
Mollenkopf et al. (2011) |
| Information Management | Process (timing, quantity, quality of returned products, return reasons.)  
Analytical (product performance, merchandising effectiveness, buying behaviour.) | Economic  
- Lower inventories.  
- Reduced costs.  
- Increased asset recovery.  
- Efficient use of storage facilities.  
Relational  
- Higher customer satisfaction and loyalty.  
- Better collaboration.  
Quality  
- Less damage to returned product.  
- Reduced uncertainty.  
- Improved product design.  
Stock et al. (2006)  
Beron and Cullen (2007)  
Jayaraman and Luo (2007)  
Mollenkopf and Dapiran (2007)  
Jayaraman et al. (2008)  
Ketzenberg (2009)  
Dapiran and Mollenkopf (2010)  
Olorunniwo and Li (2010)  
Beron et al. (2011)  
Krapp et al. (2013)  
Hazen et al. (2014) |
2.5 3PLs in the Management of Product Returns

The use of 3PLs or contractors to carry out various logistics and forward supply chain functions has been extensively reported in the literature (Dapiran, Lieb, Millen, & Sohal, 1996; Marasco, 2008; Marshall, Lamming, Fynes, & de Burca, 2005; Rahman, 2011; Razzaque & Sheng, 1998; Sahay & Mohan, 2006; Selviaridis & Spring, 2007; Vijayvargiya & Dey, 2010; Wang, 2002; Williamson, 2008). While a range of 3PL definitions has been used (Knemeyer & Murphy, 2005), essentially, the use of a 3PL in a dyadic business-to-business supply chain relationship refers to using a third party to fulfil the logistics needs of one or both parties in the chain (Marasco, 2008).

Although cost management might be the initial impetus to engage an outsourced service provider, clients value the broad range of services a 3PL can provide, the ability of a 3PL to offer technological solutions, and its ability to meet objectives beyond simply cost control (Power et al., 2007). The quality dimension of service delivery is a predominant factor in deciding the choice of 3PL (Gotzamani, Longinidis, & Vouzas, 2010). Outsourcing is also associated with the creation of value for clients (Narasimhan & Narayanan, 2009; Stauss & Jedrasczyk, 2008; Tadelis, 2007) as well as the 3PL itself. A study of forward supply chains by Bhagat, Byramjee, and Taiani (2010) noted that the reciprocal dyadic 3PL-client relationship resulted in mutual value creation by leveraging on each other’s resources, and labelled this relationship value. The 3PL’s specialised staff responsible for understanding the client’s needs and for delivering quality
outcomes was the foundation for value creation for the provider (Bhagat et al., 2010).

According to Prockl, Pflaum, and Kotzab (2012), value creation for the client arises through four mechanisms:

- Economic gains made through the ability of the 3PL to cut costs through efficiency measures and supply chain design.
- Quality improvements brought about by the distinct capabilities (specialisation) of the 3PL.
- Reduction of complexity for the client by unbundling of the client’s processes thereby allowing it to focus on its core competencies.
- Ability of the client to innovate through improvement of processes resulting from the 3PL’s know-how.

Increasingly, as quality and low cost are becoming an expected outcome of outsourcing, access to innovative ideas has grown to be an important requirement (Weeks & Feeny, 2008). For this reason, Feeny, Lacity, and Willcocks (2005) contended that service providers need to show competence in three areas:

- Delivery competence: the ability to deliver the day-to-day functional activities competently.
- Transformational competence: the ability to improve over time in areas of cost, quality, functionality.
- Relationship competence: the ability and willingness to work in a non-transactional manner to align their goals with the client’s.

This last characteristic is deemed most important for the success of logistics outsourcing (Gadde & Hulthén, 2009). Relational dimensions play an important role in the success of the provider-client relationship in
outsourcing. Five relational dimensions have been identified as being characteristic of outsourced relationships (Hofer, Knemeyer, & Dresner, 2009):

- **Extendedness**: the degree to which the parties expect the relationship to last into the future.
- **Information exchange**: the extent to which information is exchanged between the parties, which can be interpreted as an indicator of trust between parties.
- **Mutual operating controls**: the willingness of each party to allow managers to have a say in each other’s operations.
- **Sharing of benefits and burdens**: acceptance that both parties will be willing to bear short term hardships with the expectations that there will be long term gain.
- **Planning**: to coordinate and integrate the operations of the parties.

A client’s trust in a 3PL, and its dependence on the 3PL’s expertise, were found to be key drivers of these relational behaviours. Both factors increased a customer’s desire to form a close partnering relationship with the 3PL (Hofer et al., 2009). Hätönen and Eriksson (2009) observed a distinct evolution in outsourcing since the 1980s from a strict focus on costs to an approach that is more cooperative in nature. The concept of a fourth-party logistics service provider (4PL) has been advanced as a cooperative entity that manages a number of asset-based 3PLs (Win, 2008). A 3PL is conceived as a transaction oriented, short-term contractual arrangement as opposed to the long-term, strategic partnership focus of a 4PL that creates value by integrating and managing the resources of a number of 3PLs (Hingley, Lindgreen, Grant, & Kane, 2011; Win, 2008). The core of the 4PL concept is close partnering between the service provider and its clients.
An approach to outsourcing that draws heavily on the importance of close long-term relationships has been labelled vested outsourcing, which rests on three principles – relationship management (a collaborative, joint-planning approach with multiple contacts across the firm boundaries), transformation management (a focus on long term performance outcomes and innovation for continuous improvement), and exit management (which addresses how future unknowns may be managed through a fair separation, if necessary, that is not due to poor performance) (Vitasek, Stevens, & Kawamoto, 2012).

The positive outcomes of this approach have been show-cased in a case study in which Dell outsourced the management of its product returns and repairs to Genco, a large US 3PL (Vitasek et al., No Date c. 2013). Dell initially had engaged Genco to provide 3PL services under a typical transaction-based outsourcing contract. The inability of Genco to generate progressive cost savings to meet the needs of Dell led to an erosion of trust between the parties, and overall dissatisfaction with their arrangement. This led the parties to explore a strategic partnership business model under a vested outsourcing approach. The approach achieved the aim to implement a risk and reward sharing agreement that drove innovation, and created value for both parties (Vitasek et al., No Date c. 2013).

While outsourcing a firm’s functions and activities risks the loss of competencies, skills, and knowledge, which can impact performance (Agndal & Nordin, 2009), outsourcing can also allow an organisation to supplement logistics capabilities it might lack internally (Cho, Ozment, & Sink, 2008). Capabilities are recognised as intangible assets that can be
deployed to capture value (Teece, 2010). Outsourcing non-core functions allows a firm to gain complementary skills and to concentrate on its key strategies (Ahearne & Kothandaraman, 2009). This observation is congruent with the resource-based view of the firm as a unique bundle of resources and competencies (Wong & Karia, 2010). If a firm lacks the necessary skills and knowledge to carry out an activity it should outsource that activity (Gulbrandsen, Sandvik, & Haugland, 2009), since it can be faster to outsource such capabilities than develop them in-house (Teece, 2010). This is especially pertinent in outsourcing reverse logistics activities, the management of which tends to be of lesser priority in many firms (Ordoobadi, 2009).

Stock et al. (2006) recommended the use of a 3PL to manage the processing of product returns when a company lacked the necessary expertise, financial or labour resources, experience, or if the level of product returns was low. Additionally, they suggested that a 3PL’s level of specialisation could deliver lower costs, and speedier and more accurate handling of returns. With the growth in the level of product returns and the need to manage reverse logistics flows, logistics service providers have extended their services into managing these reverse flows (Shaharudin et al., 2014). In the US electronics sector, client firms reported that the provision of reverse logistics services is the third most important service being sought from a 3PL (Langley Jr, 2012). A study of outsourcing in the European consumer goods industry found that product returns and reverse logistics functions were amongst the top ten logistics functions most likely to be outsourced.
(Wilding & Juriado, 2004). Generally, however, studies focused on the use of 3PLs in product returns management are limited. Decision making frameworks have been developed for 3PLs wanting to move into this specialised area (Krumwiede & Sheu, 2002; Min & Ko, 2008), as well as for firms wanting to select and evaluate suitable 3PLs to handle their reverse logistics activities (Efendigil et al., 2008; Kannan, 2009; Meade & Sarkis, 2002; Sasikumar & Haq, 2011; Sharif et al., 2012).

A key tenet of supply chain management is that integration of supplier and customer supply chain activities is important for strategic and operational reasons (Lambert, García-Dastugue, & Croxton, 2005). As well as providing complementary logistics capabilities, 3PLs see themselves as playing integrator roles in the supply chain (Fabbe-Costes, Jahre, & Roussat, 2009). The provision of information technology is one means by which 3PLs contribute to supply chain integration (Hilletofth & Hilmola, 2010; Mukhopadhyay & Setaputra, 2006). Acting in a consulting role, some 3PLs work very closely with their clients to develop highly tailored logistics solutions for the latter (Hertz & Alfredsson, 2003).

Hertz and Alfredsson (2003) identified four types of 3PLs: standard provider, service developer, customer adapter and customer developer. The standard provider supplies traditional asset-based services, such as warehousing or transport. The service developer offers more advanced value-added services that could be differentiated for different customers. The customer adapter takes over some of the client’s existing activities focussing on efficiency gains. The customer developer was the most
advanced type. They work closely with clients to deliver solutions specific to each client. These 3PLs share risks and rewards with the clients and are claimed to be similar to 4PLs (Hertz & Alfredsson, 2003), with operations bearing a similarity with vested outsourcing.

In forming close partnerships with their clients, 3PLs act as facilitators to develop new structures, processes, and open information systems (Bask, 2001). Indeed, Zacharia, Sanders, and Nix (2011) have observed that more advanced 3PLs have emerged that form strategic relationships with their clients and act as orchestrators of supply chains. Drawing on a number of sources, Zacharia et al. (2011) described an orchestrator as a focal supply chain entity that facilitates the collaboration of supply chain parties, and develops a common agenda for the supply chain with a strategic focus on value creation for the network. Supply chain collaboration is typically made difficult because of the risk associated with sharing information. Zacharia et al. (2011) asserted that, as a neutral arbitrator, a 3PL could more readily act as a change agent, and facilitate collaboration across the supply chain, identifying standardisation and visibility as key roles of a 3PL. Standardisation of data, processes, and technology contributes to efficiency gains. Standardisation also enables visibility along the supply chain, and visibility provides the parties the information to identify opportunities for improvement and possible disruptions to the supply chain. Zacharia et al. (2011) concluded that a 3PL, as an orchestrator, creates value for the supply chain by standardising data and processes across firms, and providing supply chain visibility.
Many outsourcing studies take a single firm focus. A dyadic approach, while not common, is deemed important to highlight two sides of the outsourcing practice (Bhattacharya, Singh, & Bhakoo, 2013). Triadic studies are even rarer. A literature review by Selviaridis and Spring (2007) discovered only six studies in their literature sample of 114 that explored outsourcing at the network level. A study by Larson and Gammelgaard (2001) recognised the importance of the 3PL-client-customer triad defining the triad quite specifically as a collaborative three-way relationship among a buyer of goods, the seller and a 3PL. Emphasising the importance of collaboration in a triadic relationship, Larson and Gammelgaard (2001) concluded that significant barriers to collaboration include power imbalance between the parties, and conflict between the buyer and the seller. They also found that logistics triads led to improved customer service and lower inventories, and suggested further research was needed to understand more fully triadic relationships in supply chains.

In summary, several insights emerge from the literature on outsourcing logistics services:

- The importance of close relationship formation between client and provider leading to a 3PL acting as facilitator or orchestrator in the returns chain.
- The role a 3PL can play to create value for supply chain partners.
- The paucity of dyadic or triadic studies in the use of 3PLs in product returns management.
2.6 Concluding Comments

Product returns management is a key supply chain process, integrating operations and marketing activities. Extant literature shows that the process needs to be studied in the context of value creation. Studies on value in product returns to date, however, tend to be limited to the residual asset value (cost recovery) of returned products (Huge-Brodin & Anderson, 2008). Further, studies reported in extant literature are based almost exclusively on the perspective of one of the stakeholders, such as the retailer (Autry, Daugherty, & Richey, 2001; Bonifield et al., 2010; Mollenkopf & Dapiran, 2007; Mollenkopf et al., 2007a; Piron & Young, 2000), the product supplier (Blackburn et al., 2004; Guide Jr et al., 2006; Sciarrotta, 2003) or the 3PL that manages the product returns process (Efendigil et al., 2008; Krumwiede & Sheu, 2002; Meade & Sarkis, 2002; Min & Ko, 2008).

In the context of product returns management, the importance of collaboration and value co-creation (e.g. Jayaraman et al. (2008) and Vargo and Lusch (2004)) have been repeatedly highlighted. Yet, studies on product returns management have not attempted to explore these elements from a multi-firm perspective. Given the boundary spanning nature of product returns management, this seems a significant gap in the research.

This study addresses the various shortcomings of past research. It investigates the product return chain of a triad of organisations – a retailer, two of its suppliers and a 3PL specialising in reverse logistics management. The study recognises the boundary spanning nature of product returns management, and acknowledges the importance of both supplier and
customer, and the facilitating role played by a 3PL in value creation in the product returns chain. Taking a value perspective of the product returns management process, this study extends the analysis beyond a simple cost perspective to gain a richer understanding of value creation and value appropriation in product returns management.
Chapter 3  
Research Approach

3.1 Research Design

This research aims to understand what constitutes value in product returns chains, and how suppliers and retailers create and appropriate value in the product returns process. Several factors drive the choice of methodology.

Complexity is multi-layered in the product returns process. Within an organisation, the processing of returns typically involves many departments at different levels. These departments also tend to be poorly integrated in this task (Mollenkopf et al., 2011). Additionally, individual entities in the supply chain often have conflicting objectives. The conditions under which products are returned are often the result of a dyadic negotiation increasingly involving a third party service provider (Langley Jr, 2012). Also, value as a construct is variously understood by the various supply chain entities (Lindgreen et al., 2012), complicating the reaching of inter-organisational agreements about returns policies and credit claims. Such a high level of complexity on many planes needs to be understood through an exploration of multiple information sources, and is well suited to a qualitative study that aims at gathering rich information to add depth to the analysis (Creswell, 2007; Flyvbjerg, 2006; Gillham, 2000).

Given the paucity of studies on value creation and appropriation in the product returns chain, a qualitative approach is appropriate to understand how these processes work (Denzin & Lincoln, 2005; Yin, 2003). Not all supply chains organise their return processes in the same way. Such
diversity is best explored using qualitative methods (Barbour, 2001; Eisenhardt, 1989). A qualitative approach “enables the development of deep understanding of the complex interaction of people, processes and technology within organizations” (Carroll & Swatman, 2000, p. 236), from which useful theoretical models can be proposed (Eisenhardt, 1989). A qualitative method is more suited for capturing the experience of the parties involved in a business interaction setting (Barratt, Choi, & Li, 2011). Utilising a case study strategy to understand the issues involved is appropriate in such circumstances (Flyvbjerg, 2006; Gillham, 2000; Grunert et al., 2005; McMurray, Pace, & Scott, 2004; Stake, 2005; Yin, 1993, 2003).

A case study is an in-depth investigation of a particular situation from which we stand to increase our knowledge of a phenomenon (Ruddin, 2006). The fundamental characteristic of a case study is that one does not “start out with a priori theoretical notions” (Gillham, 2000, p. 2). The traditional view that case studies are of limited value because of lack of generalisability has long been discarded (Donmoyer, 2000), as the distinction between case inference and statistical inference has been understood (Ruddin, 2006).

3.2 Study Context

The consumer electronics industry was chosen as the context for this research. This sector is deeply concerned with the management of product returns, reverse logistics activities, and the handling of electronic waste (e-waste) (Hopkins, 2007). The growth of electronic and electrical waste is a problem endemic in a modern materialistic society. “Waste is what people throw away because they no longer need it or want it” (Australian Bureau of
Statistics, 2006, p. 5). Waste generation is also associated with changes in population demographics, consumption of durable goods, and the consumption of small-serve goods that have a relatively higher packaging component (Australian Bureau of Statistics, 2006). It is estimated that in Australia about 29 million televisions and computers reached their end-of-life in 2011-12, all of which eventually need to be handled and a decision made about their disposal (Australian Bureau of Statistics, 2013). The volume of computers sent to landfill every year is increasing at a rate three times that of other rubbish (Australian Bureau of Statistics, 2006). Computers and the growing range of other electronic devices are often simply “stored” at their end-of-life. The recovery and disposal of mobile phones are also raising serious concern. The problem of e-waste is recognised globally - the European Union, Japan and some states in the USA have legislated to control e-wastes (Environment Victoria, 2005). Most prominent is the European Union directive, recast in July 2012 (European Union, 2012), regarding the collection and proper disposal of electrical and electronic waste (Environment Protection and Heritage Council, 2010; Horne & Gertsakis, 2006). In Australia, regulation is minimal. Recovery, reuse, and recycling activities, mainly of mobile phones, computers and peripherals, have been left to large firms and industry associations.

Because of galloping technological change, the level of returns in this sector is high and the need to have effective systems in place has become more pressing. Additionally, the Internet has bred a new generation of consumers
that is receptive to a business model that encourages purchase, trial and return if dissatisfied. Internet consumers want to reduce the risk of purchasing on-line and so prefer retailers that have flexible, no-cost product returns policies (Forrester Consulting, 2008). Waste problems, rapid new product introductions, and changing consumer behaviour patterns make the consumer electronics sector more sensitive than many others to the need to understand and manage the product returns process, creating an appropriate context for this research.

A purposive sampling technique was adopted in the selection of participant organisations. Purposive sampling, or participant selection, in this situation is the selection of a set of organisations involved in product return relationships about which little is known regarding how these relationships lead to value creation in product returns management (Coyne, 1997).

3.3 Case Selection

Stake (2005) suggested that the case chosen should be one from which the most can be learned. Purposive or theoretical sampling, defined as the selection of a sample to fit a specific study need (Barbour, 2001; McMurray et al., 2004; Morse & Richards, 2002; Stake, 2005), has been suggested as an appropriate means for selecting cases. “Potential for learning is a different and sometimes superior criterion to representativeness. Sometimes it is better to learn a lot from an atypical case than a little from a seemingly typical case” (Stake, 2005). A single case design is justified when there is an element of uniqueness or it is an extreme or critical case (Flyvbjerg, 2006;
Yin, 2003. Flyvbjerg (2006) defines a critical case as one that is of strategic importance in the context of the problem under investigation.

A retailer, two of its suppliers and a facilitating 3PL constitute a single unit of study in this research. This single case can claim uniqueness on the basis that it is a triadic set of relationships in a supply chain that has just undergone change, and has a longitudinal dimension to it.

Five consumer electronics suppliers and four retailers were initially identified as potential participants. These were initially matched against selection criteria suggested by Curtis, Gesler, Smith, and Washburn (2000):

- Relevant to the research questions.
- Likely to generate rich information on the phenomenon under study.
- Likely to enhance analytical generalisability.
- Likely to produce believable descriptions.

The nine companies were further screened according to a number of criteria devised for this study:

- Forming supplier-retailer dyads in the same supply chain.
- Consumer recognition of the supplier and retailer brands to ensure the study was of wide interest and relevance.
- Probability of high consumer sales with subsequent potential for non-trivial product return issues.
- Having a sufficiently broad product range to have a variety of product return situations.
- Having non-specialist products to minimise the possibility of inadvertently exposing the identity of the organisations.
- Having had previous contact with the organisation to increase the probability of participation.
The two-stage screening resulted in a retailer and two of its suppliers being identified as suitable for this study. Initial contact with one supplier, AsiaTel\(^1\), was opportunistic as the researcher had had previous professional interaction with some of the logistic executives. The Group Manager-Supply Chain of AsiaTel was initially contacted requesting an interview with appropriate staff, and asking for an introduction to one of their retail customers, TVCity, identified previously through the screening process. AsiaTel agreed to participate in the study and also to supply contact details for TVCity.

TVCity was one of AsiaTel’s significant retail customers with which AsiaTel was then negotiating a newly introduced product returns process. Contact with TVCity resulted in their agreement to take part in the research. TVCity then advised that it had recently appointed LogBack, a 3PL specialising in product returns and reverse logistics, to manage a new centralised product returns process. Although it was initially planned to study dyads of supplier-retailer, this revelation presented a unique opportunity to study a triadic relationship of supplier-retailer-3PL. Coincidently, the researcher was already familiar with LogBack and its operations as a result of a previous study involving the management of product returns of a hardware retailer and a department store. LogBack, when contacted, also agreed to participate in the study.

\(^1\) The names of the participating organisations have been changed to protect their confidentiality.
Also, whereas studies often examine phenomena at a single point in time, the recent change of the product returns chain structure to include a 3PL delivered the opportunity for a quasi-longitudinal approach to explore value creation and appropriation before and after the appointment of the 3PL. A true longitudinal study would have tracked organisational variables with identical participants in real time. In practice, maintaining data consistency over time can be difficult (Eggert et al., 2006). Additional problems can arise with longitudinal studies – participants can forget the facts of the events and/or post-rationalise their understanding of the events (Voss, Tsikriktsis, & Frohlich, 2002). The clear “before and after” break in this case study overcomes this problem of collecting consistent data over time. The recentness of the change minimised the potential problem of data distortion as a result of the passage of time (Ruspini, 2000).

To supplement the data gathered from AsiaTel, a second supplier of TVCity, Sonic, was approached and agreed to also take part in the research. Two suppliers (AsiaTel and Sonic) to the retailer (TVCity) completed the return chain, which, along with the 3PL (LogBack), provided a triadic set of organisations for this study.

3.4 Data Collection

Data for this study was collected from multiple sources, including company supplied documents (such as organisation charts and product return reason codes), public domain information (such as annual reports, product returns policies, and newspaper reports), non-participant observation during site visits, and on-site semi-structured interviews.
Public and privately supplied documents were not subject to any formal content analysis. Rather, they were used as sources to triangulate the information obtained during the interviews and to fill any information gaps (Stavros & Westberg, 2009). Annual reports, web-based corporate data, and ample press coverage were available for TVCity, which was a publicly listed company in Australia. For the suppliers, that is, AsiaTel and Sonic, which were subsidiaries of Japanese companies, there was little publicly available information on the Australian operations. Company-supplied documentation supplemented the information obtained from the interviews, and allowed the interviews to be efficiently staged by not probing issues during the interviews which were already explained in the documentation. For example, organisational structures and returns policies were discussed briefly, and documentation to fill in the detail obtained later via email. Any clarification was followed up with the participants via email.

The researcher had become familiar with the operations of LogBack as a result of a previous study. In that earlier study, visits had been made to three facilities operated by LogBack – a product returns centre operated for a number of retailers, a returns centre operated for a hardware chain, and a computer recycling centre. These had been accompanied by an initial interview with the Managing Director of LogBack. That study provided a background understanding of the nature and operation of the returns chain, and the role that LogBack played in managing returns in the general retail space.
Site visits were made to two of TVCity’s retail stores. No formal interviews were undertaken during these visits. This non-participant observation was to gain an appreciation of the retail environment, the product lines on display and to observe the operations of the staff. The store visits were undertaken before the main interviews took place.

Site visits were made to the AsiaTel and Sonic facilities processing the product returns. Facilities were collocated with the administration offices where the interviews took place. The site inspections were followed by the formal interviews.

Site visits achieved several purposes. The initial visits to the 3PL partly informed the preparation of the interview protocol. Interview responses were later triangulated with site visit observations, for example, with regards to the quality of returned products and the extent of product and/or packaging damage. The visits also provided a vivid visualisation and a more comprehensive understanding of the flow of product, flow of information, and operation of the returns management procedures. Field notes and photographs were taken as appropriate and, when allowed, during all site visits.

Semi-structured interviews with executives in the participating organisations were the primary data collection strategy used. Semi-structured interviews create a level of formality above a casual conversational interview. The formality engenders considered responses, and the open-ended structure allows sufficient flexibility to follow a particular strand of the conversation deemed important by the participant or to probe unexpected responses in
depth. This flexibility is important when exploring new processes and complex areas. A semi-structured interview protocol was prepared beforehand informed by background literature and site visit observations. Initially, before the interviews took place, appropriate topics were identified and guiding questions prepared and checked. An interview document also acts as a useful aide-memoire during the interview. A summary of the interview protocol was sent to key executives of all the four case companies to explain the nature of the study, gain their agreement to participate, and allow them to prepare and gather any necessary data for the interview.

The key contact in each of the organisations or nominated staff participated in the interviews. Nine participating executives involved in some aspects of, or with managerial responsibility for, the product returns process in their organisation were interviewed:

- TVCity: General Manager Operations, Freight Manager, Business Analyst
- AsiaTel: General Manager Logistics, National Parts Manager
- Sonic: Dealer Support Manager
- LogBack: Managing Director, General Manager, Retailer Account Manager.

The TVCity and LogBack interviews were held concurrently with all informants, allowing real-time confirmation of the data provided. The use of simultaneous respondents versus individual ones has the strength that immediate triangulation of responses can be achieved and so reduces potential individual bias. The approach also allows respondents to supplement each other’s memories.
The Managing Director of LogBack was interviewed again some months after the first interview to confirm the role and contribution of the 3PL in the product returns process in this product returns chain, and to confirm the information collected in the earlier main interviews.

The sequence of interviews was as follows:

- Pre-study preliminary interview with LogBack’s Managing Director.
- Interviews with AsiaTel executives.
- Main interview with panel of LogBack and TVCity executives.
- Interview with Sonic executive.
- Follow up interview with LogBack’s Managing Director.

Data collected at each stage was reviewed and summaries prepared before the next batch of data was collected to allow reflection and flexibility in the next round of interviews (Eisenhardt, 1989).

Adopting the interviewing guidelines suggested by several authors (Granot, Brashear, & Motta, 2012; Jacob & Furgerson, 2012), the in-depth interviews were open-ended, allowing participants to discuss broadly the returns process.

The questions used and the discussion pursued were appropriately worded, depending on whether the supplier, retailer or 3PL was being interviewed. Table 4 summarises the case interview schedule, which is detailed in Appendix 1.
Table 4: Interview schedule summary.

<table>
<thead>
<tr>
<th>Area of Interest</th>
<th>Information Solicited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background and context</td>
<td>• Information on products, sales volumes, organisational structure, forward supply chain activities.</td>
</tr>
<tr>
<td>Product returns</td>
<td>• Returns management process, reverse logistics activities, returns policy, organisational locus of policy development and returns operations and administration.</td>
</tr>
<tr>
<td></td>
<td>• Measurement of product returns performance – metrics collected, analyses performed.</td>
</tr>
<tr>
<td></td>
<td>• Disposition of returned products.</td>
</tr>
<tr>
<td>Value</td>
<td>• Costs incurred and benefits accrued in the returns process.</td>
</tr>
<tr>
<td></td>
<td>• Perceptions of costs and benefits – emphasis on costs versus value.</td>
</tr>
<tr>
<td>Relationship issues</td>
<td>• Manner in which centralised returns process was implemented.</td>
</tr>
<tr>
<td></td>
<td>• Issues of trust and power.</td>
</tr>
<tr>
<td></td>
<td>• Role of the 3PL.</td>
</tr>
</tbody>
</table>

Interviewees were first asked to provide some context by describing the nature and scope of their firm’s operations, and then describe their forward supply chain activities. The discussion then moved on to the management of product returns, covering topics such as product returns policy, the product returns process, monitoring and measurement of product returns, disposition of returned products, and the relationship with other supply chain entities. Appropriate prompts, probes, and follow-up questions (for example, “will you explain in more detail?”) were used. Additional detailed interview questions were then posed, guided by the responses of the interviewees, as the case and context evolved during the interviews (Gillham, 2000). Each interview lasted between 60 and 120 minutes. The interviews were audio-recorded with permission, and the transcripts analysed to identify emerging themes, and develop theoretical frameworks.

Credibility of the analysis was gained from triangulation of descriptions and continuous interpretations throughout the study (Stake, 2005). Responses
from the interviewees of the four case companies were cross-referenced with each other. To seek convergence of data (Gillham, 2000), the interview responses were cross-referenced with company supplied documentation and relevant data available from corporate websites. These secondary sources provided additional insights into the operations of the case organisations, offering a means to triangulate the interview information “to discover the unifying concepts and patterns that give meaning to the data” (McMurray et al., 2004, p. 223). The chronological sequence of data collection is summarised in Table 5.
<table>
<thead>
<tr>
<th>Organisation</th>
<th>Data Collected</th>
</tr>
</thead>
<tbody>
<tr>
<td>LogBack (3PL)</td>
<td>Pre-study site visits to LogBack facilities and interview with Managing Director LogBack.</td>
</tr>
<tr>
<td>AsiaTel (Supplier)</td>
<td>Contact AsiaTel.</td>
</tr>
<tr>
<td>AsiaTel</td>
<td>Internet search AsiaTel: website review for product range and broad corporate information, environmental reports.</td>
</tr>
<tr>
<td>AsiaTel</td>
<td>Interviews with AsiaTel; post-interview site visit.</td>
</tr>
<tr>
<td>AsiaTel</td>
<td>AsiaTel documents received by email: consumer returns policy, retailer returns policy, retailer returns procedure, retailer returns process, product returns reason codes, list of key performance measures for product returns.</td>
</tr>
<tr>
<td>AsiaTel</td>
<td>First pass review of AsiaTel interview transcript.</td>
</tr>
<tr>
<td>TVCity (Retailer)</td>
<td>Contact TVCity.</td>
</tr>
<tr>
<td>TVCity</td>
<td>Internet search TVCity: website review for product range information, company annual reports, presentations to investment fund analysts.</td>
</tr>
<tr>
<td>TVCity</td>
<td>Site visits TVCity Melbourne CBD and suburban stores; observation, collection of in-store promotional material, in-store consumer protection policy.</td>
</tr>
<tr>
<td>LogBack</td>
<td>Internet search LogBack: website review for corporate information.</td>
</tr>
<tr>
<td>TVCity</td>
<td>Interview with TVCity and LogBack executives.</td>
</tr>
<tr>
<td>TVCity</td>
<td>First pass review of TVCity and LogBack interview transcript.</td>
</tr>
<tr>
<td>Sonic (Supplier)</td>
<td>Contact Sonic.</td>
</tr>
<tr>
<td>Sonic</td>
<td>Internet search Sonic: website review for product range and corporate information.</td>
</tr>
<tr>
<td>Sonic</td>
<td>Interview with Sonic executive; post-interview site visit.</td>
</tr>
<tr>
<td>Sonic</td>
<td>Sonic documents received by email: product returns policy, returns authorisation form, product returns reason codes, returns process, organisation structure.</td>
</tr>
<tr>
<td>TVCity</td>
<td>Internet search TVCity: access more recent annual reports and investor analyst presentations, TV Current Affairs program interview with Managing Director of TVCity, TVCity press reports, IBISWorld (independent research company) company report.</td>
</tr>
<tr>
<td>LogBack</td>
<td>Follow up interview with Managing Director LogBack.</td>
</tr>
<tr>
<td>LogBack</td>
<td>Internet search of US 3PL with whom LogBack had close working relationship and access to intellectual property.</td>
</tr>
</tbody>
</table>
3.5 Data Analysis

Analysis of the transcripts, following (Eisenhardt (1989); Gillham (2000); McMurray et al. (2004)), revealed patterns in the data from which theoretical frameworks have been proposed for the creation and appropriation of value in this product returns chain. QSR International’s NVivo 10 software (QSR International, 2012) was used to assist in the coding of text documents. The software facilitates the categorising, sorting, and coding of text, and also provides a means of generating and documenting an audit trail linking codes with transcript sources.

All the transcripts were first read quickly several times to gain a sense of the content, how the content of each related to the others, and to detect any themes or discussions that stood out. Coding of the transcripts was then undertaken. The aim of coding was to capture the essence of transcripts in key words or short phrases that summarise the meaning of the participant responses or to label participant attributes. First, descriptive coding was carried out according to Richards (2009). Appropriate descriptive codes were set up and descriptive information assigned to them. Codes were created to capture attributes about the participants, and information about the context and setting of the product returns management process, for example, the participant’s position in the organisation, the market context, and the products sold.

Topic coding was then undertaken by labelling portions of the text with the topic being discussed, for example, in this study, discussion about the benefits gained and costs incurred by the participants arising from the
change in the returns management process. Transcripts were read carefully multiple times until subsequent reading revealed no further insights (Richards, 2009). At each reading, sections of text were assigned to codes that related to the research themes (Carroll & Swatman, 2000; Marshall, 2002). Some codes arose from words interviewees used, known as *in vivo* coding, for example, “political returns”. Other codes were created from, and informed by, literature, for example, “power and dominance”. A third, analytical coding, step was then undertaken in which codes arose from interpretation of the text, for example, “trust” as an interpreted category arising from a respondent’s claim that some retailers were not always honest in the claims they made about the reasons for returning products. During the coding process notes were made about deeper levels of meaning of the data and about how the codes were related. Following Saldaña (2013), this final analytical stage involved re-reading the transcripts and reflecting on the coded extracts, which led to aggregation of the codes into higher level categories and themes, finally making linkages amongst constructs to develop conceptual frameworks. For example, “value” emerged as a higher level construct from an analysis of the cost and benefit categories, and drawing on the value literature. This stage exposed the multi-dimensional nature of value in this product returns chain. Further analysis suggested the need for the parties to internalise a value orientation, and the role that the 3PL played in facilitating process alignment between the retailer and its suppliers. Table 6 shows the codes used, their description, the categories
derived from the codes and the implications for the frameworks derived from the analysis, and elaborated in the following chapters.
Table 6: Categories used in the analysis of the interview transcripts.

<table>
<thead>
<tr>
<th>Code</th>
<th>Code Description</th>
<th>Category</th>
<th>Themes and Implications for Framework Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benefits 3PL</td>
<td>Benefits accruing to the 3PL.</td>
<td>Value.</td>
<td>Value is multi-dimensional and arises from intangible and tangible factors.</td>
</tr>
<tr>
<td>Benefits Retailer</td>
<td>Benefits accruing to the retailer.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benefits Supplier</td>
<td>Benefits accruing to the suppliers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Costs 3PL</td>
<td>Costs / sacrifices incurred by the 3PL.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Costs Retailer</td>
<td>Costs / sacrifices incurred by the retailer.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Costs Supplier</td>
<td>Costs / sacrifices incurred by the suppliers.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supplier-Retailer Issues</td>
<td>Issues that affect the retailer / supplier relationship.</td>
<td>Relationship quality.</td>
<td>Relationship quality, expressed mainly through statements on trust, appears to hinder suppliers’ ability to negotiate with the retailer.</td>
</tr>
<tr>
<td>Centralisation</td>
<td>Discussion of implementation of the centralised structure.</td>
<td>Power.</td>
<td>Power imbalance prevents retailer from gaining share of value.</td>
</tr>
<tr>
<td>Implementation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gatekeeping</td>
<td>References to gatekeeping.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry Approach</td>
<td>References to a standardised approach to handling product returns.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political Returns</td>
<td>References to returns made outside the official company returns policy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power &amp; Dominance</td>
<td>References to power imbalance between suppliers and the retailer and dominant role played by the retailer.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Returns Administration</td>
<td>References to administration of any existing product returns policy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Policy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return Categories</td>
<td>References to reasons for product returns.</td>
<td>Trust.</td>
<td>Trust inhibits suppliers from getting share of value.</td>
</tr>
<tr>
<td>Trust</td>
<td>References to retailers not always being truthful about reasons for product returns.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return Activity</td>
<td>References to product returns activity.</td>
<td>Facilitation.</td>
<td>Role of 3PL in facilitating change and aligning product return chains.</td>
</tr>
<tr>
<td>Supply Chain Structure</td>
<td>Description / explanation of the forward supply chain structure.</td>
<td>Alignment.</td>
<td>Different value outcome before and after engagement of LogBack.</td>
</tr>
<tr>
<td>Supply Chain - Reverse</td>
<td>Description of the operations of the reverse supply chain.</td>
<td>Value orientation.</td>
<td></td>
</tr>
<tr>
<td>Three PL</td>
<td>References to the operations and role of the 3PL.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Code</td>
<td>Code Description</td>
<td>Category</td>
<td>Themes and Implications for Framework Development</td>
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<td>Customers</td>
<td>References to customers, customer types and number of customers.</td>
<td></td>
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<tr>
<td>Internal Issues</td>
<td>Internal organisational issues affecting product returns management.</td>
<td></td>
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<tr>
<td>Interviewee Position</td>
<td>Organisational position and responsibility of individual interviewees.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of knowledge</td>
<td>Indication of interviewees’ lack of understanding of internal company processes.</td>
<td></td>
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<tr>
<td>Market context</td>
<td>Market context, competitors of participant organisations.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Order Processing</td>
<td>References to organisation’s order processing.</td>
<td></td>
<td></td>
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<tr>
<td>Organisational structure</td>
<td>Organisational structure of study participants.</td>
<td></td>
<td></td>
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<tr>
<td>Performance Measures</td>
<td>Discussion of performance measures used for forward and reverse supply chains.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Products</td>
<td>Product lines sold and types of products being returned.</td>
<td></td>
<td></td>
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<tr>
<td>Returns Policy</td>
<td>References to responsibility for development of product returns policy.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategy</td>
<td>Organisational strategy and role of returns management</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suppliers</td>
<td>References to supplier numbers and types.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supply Chain Forward</td>
<td>Description of the operations of the forward supply chain.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3.6 Quality of the Research

Establishing rigour is an integral step in any research endeavour (Lincoln & Guba, 1994). Findings and the research process need to be evaluated against quality criteria to demonstrate that the study is trustworthy (Halldórsson & Aastrup, 2003). In quantitative studies, the usual tests of rigour include internal validity, external validity, reliability and objectivity (Ali & Yusof, 2011). The classic case study research texts by Yin (2003) and Yin (2014) steadfastly continue to recommend these criteria for qualitative case study research. There has, however, been a concerted move to replace these criteria with parallel ones more appropriate to qualitative inquiry (Ali & Yusof, 2011; Lincoln & Guba, 1994). While there is no universal acceptance of the need to establish separate criteria for qualitative studies (Freeman, deMarrais, Preissle, Roulston, & Pierre, 2007), many studies on methodology suggest separate criteria would be beneficial (Creswell & Miller, 2000; Denk, Kaufmann, & Carter, 2012; Easterby-Smith, Golden-Biddle, & Locke, 2008; Halldórsson & Aastrup, 2003; Kaufmann & Denk, 2011; Lincoln & Guba, 1986; Whittemore, Chase, & Mandle, 2001). Additionally, there are many qualitative studies using alternative parallel criteria, suggesting that quantitative quality criteria need to be abandoned for assessing qualitative research (Flint, Woodruff, & Gardial, 2002; Gammelgaard & Flint, 2012; Pagell & Wu, 2009).

The arguments of the two camps essentially rest on the different world views of the researchers (Lincoln & Guba, 1994), that is, the ontological and epistemological assumptions behind qualitative versus quantitative enquiry
Realism and nominalism lie on the extremes of the spectrum of assumptions about the social world (Burrell & Morgan, 1979; Goles & Hirschheim, 2000). Burrell and Morgan (1979) argued that the realist ontological assumption is that the social world is an objective reality external to the individual. Associated with this world view is the epistemological assumption that knowledge about this world is tangible, and can be acquired through objective measurement. These assumptions, implicit or explicit, are primarily the foundation of quantitative studies which give rise to validity, reliability and objectivity as criteria for rigour (Halldórsson & Aastrup, 2003; Lincoln & Guba, 1986). On the other hand, qualitative studies are anchored at the nominalist end of the spectrum. The prime ontological assumption is that reality is socially constructed. As such, knowledge can only be acquired from the experiences and insights of human agents. The traditional criteria of rigour used in quantitative research are therefore inappropriate for qualitative studies. The underlying ontological and epistemological assumptions behind the research approach taken in any study have led to the conclusion that the rigour of qualitative studies needs to be judged by different criteria than those of quantitative studies (Creswell & Miller, 2000; Halldórsson & Aastrup, 2003).

The most enduring measure of rigour (Whittemore et al., 2001) is that proposed by, and derived from, Lincoln and Guba (1986), who concluded that qualitative studies need to be assessed against the broad criterion of trustworthiness. Trustworthiness is established through four factors: credibility, transferability, dependability, and confirmability (Bowen, 2009).
3.6.1 Credibility

Credibility is the confidence that can be placed in the truth of the findings. Triangulation of data collection through multiple sources increases credibility. da Mota Pedrosa, Näslund, and Jasmand (2012) defined credibility (or “truth-value”) as the extent to which the interpretation of the findings matches the information presented by the participants. They suggested that research meets this criterion if data categorisation and interpretation are explicit, and a detailed description of the data analysis has been reported. Credibility, in short, can be equated to internal validity in quantitative studies (Halldórsson & Aastrup, 2003).

3.6.2 Transferability

Transferability refers to the extent that the findings are applicable in other contexts as evidenced by documentation of theoretical aim, unit of analysis, and justification of the case selection (da Mota Pedrosa et al., 2012; Halldórsson & Aastrup, 2003). This can be established through the use of “thick” description in reporting cases (Ponterotto, 2006). This term has been understood in various ways since its first use in anthropological field studies. “Thick” description contributes credibility and transferability to the case story by including interpretation and context to what would otherwise be mere reporting of facts (Tracy, 2010). Transferability conveys what external validity or generalisability does in quantitative studies.

3.6.3 Traceability = Dependability + Confirmability

Dependability refers to the replicability and consistency of findings over time (Halldórsson & Aastrup, 2003). Confirmability, the parallel of
objectivity in quantitative studies, exists if there is coherence of the data with the study findings and interpretations, that is, the study is free from researcher bias (Halldórsson & Aastrup, 2003).

da Mota Pedrosa et al. (2012) used the single term traceability to include the criteria of dependability and confirmability in logistics case study research. Traceability can be evidenced by documentation of the research process and data sources, which gives transparency to the case study questions, data collection guidelines, number and selection of informants, data sources and types, and any changes made during the study (da Mota Pedrosa et al., 2012). An audit trail that records the research process undertaken, including the theoretical, methodological and analytical decisions made during the research, can point to the extent to which all trustworthiness criteria have been met (Bowen, 2009).

3.6.4 Trustworthiness of this Study

Credibility, transferability and traceability criteria were used to assess the extent to which rigour has been achieved in this research. Indicators of performance drawn from the literature were used to evaluate how well these criteria were met (Baxter & Eyles, 1997; Bowen, 2009; da Mota Pedrosa et al., 2012; Ponterotto, 2006; Tracy, 2010). These are listed and summarised in Table 7 along with an explanation of how these criteria were met in this study.
Table 7: Trustworthiness criteria used in this study.

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Definition</th>
<th>Indicators* (information required to address the criterion)</th>
<th>How Addressed in this Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credibility</td>
<td>Extent to which there is confidence in the truth of the findings.</td>
<td>Description of data analysis process.</td>
<td>Provided a full description of the research process and analysis.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Engagement - in-depth engagement with and study of the phenomenon.</td>
<td>Conducted extensive in-depth interviews with multiple participants, supplemented with site visits and use of secondary data.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Data triangulation – use of different data sources.</td>
<td>Data triangulated between participants and secondary data, and among interviewees.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Peer debriefing – evaluation by objective peers of study findings and process.</td>
<td>Presented three peer reviewed conference papers. Submitted peer reviewed journal paper; reviewer feedback obtained and incorporated in thesis. Preliminary findings subjected to the institution’s doctoral review panel.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Member checks – check with respondents the accuracy of findings.</td>
<td>Conducted follow-up interview with one participant firm. Conducted site visits prior to some interviews.</td>
</tr>
<tr>
<td>Transferability.</td>
<td>Extent to which findings can be transferred to other settings and contexts.</td>
<td>The following information should be provided as part of the study:</td>
<td>Aim of study clearly stated along with research questions being investigated. Purposeful sampling undertaken with clear justification for choice of qualitative case study. Research findings described in rich detail with extensive quotations to support interpretation and conclusions.</td>
</tr>
</tbody>
</table>

*Indicators include the information required to address the criterion.

95
<table>
<thead>
<tr>
<th>Criterion</th>
<th>Definition</th>
<th>Indicators* (information required to address the criterion)</th>
<th>How Addressed in this Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traceability.</td>
<td>Extent to which the findings can be shown to be consistent and determined by the participants, free from researcher bias.</td>
<td>Inclusion of case study protocol/database containing the following information:</td>
<td>Justification for selection of participants and selection criteria used detailed in Research Approach section of thesis.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Justification of informant selection.</td>
<td>How interviews conducted, and interview data collected described. Interview protocol used included in thesis appendix.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Number of informants.</td>
<td>Description of research process provides effective audit trail.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Description and/or inclusion of the data collection guideline.</td>
<td>Established audit trail of transcript analysis in NVivo software files so that conclusions drawn, and observations made can be related to participant responses.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Description of data collection techniques used.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Existence of an audit trail.</td>
<td></td>
</tr>
</tbody>
</table>

* Based on (Baxter and Eyles (1997); Bowen (2009); da Mota Pedrosa et al. (2012); Ponterotto (2006); Tracy (2010))
3.7 Ethics Considerations

All research conducted with human participants needs to consider the ethical issues involved in such research. RMIT University prescribes ethical guidelines for the conduct of research with human subjects, and mandates a rigorous process for vetting such research. The proposal for this doctoral study was submitted to the University’s Human Research Ethics Committee and approval was granted for the research to proceed.

The study is based on interview data collected from senior executives in the four case companies being investigated. A plain language statement of the research was made available to the participants to obtain their informed consent to the study. The interviews were digitally recorded with the agreement of the interviewees with the understanding that they were free to stop the interview and the recording at any stage. Additionally, to maintain confidentiality, the names of the interviewees have not been divulged in the thesis, and pseudonyms have been used for the names of the participating organisations. The research complies with the form and the spirit of RMIT’s ethical guidelines.
Chapter 4 Findings

4.1 Introduction

This study of product returns management involved a retailer (TVCity), two of its suppliers (AsiaTel and Sonic), and a third party logistics service provider (3PL) (LogBack) in the Australian consumer electronics sector. The case interviews were held about six months after the returns chain structure was changed to include the appointment of the 3PL. Prior to the change, a decentralised chain was used, in which each of TVCity’s retail stores was responsible for returning products to each supplier. The appointment of LogBack by TVCity to manage its returns created a centralised structure, in which stores Australia-wide returned all products to LogBack’s central returns processing facility in Melbourne. LogBack then managed the returns process with each of the suppliers. The following sections describe the case companies and the product returns process before and after the appointment of the 3PL.

4.2 Case Companies

4.2.1 The Retailer - TVCity

TVCity was an Australian publicly listed company with some 150 company-owned retail outlets around Australia, employing over 1,000 staff. Its stores were located in shopping malls and a number of main-street shopping strips. There were a number of major competitors but TVCity was one of the recognised names in electronic retailing in Australia. Total revenue growth over the 2005-2010 period was 31.5% with growth of net
profit after tax in the corresponding period of 43.5%. Its Return on Total Assets in 2010 was 16.6% compared to an industry average of 5.5%.

TVCity had high market shares in the segments in which it operated. For example, it had the highest market share in the recorded music segment and the second highest in the computer and software segment. Its main product lines were consumer electronic and home entertainment equipment, and associated software (games, DVDs and music CDs). The product ranges sold by the companies in the study are shown in Table 8.

Table 8: Product lines sold by firms in the case study.

<table>
<thead>
<tr>
<th>Case Company</th>
<th>Product Lines (Number of Products)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TVCity (Retailer)</td>
<td>TVs (122) &lt;br&gt;Sound and home theatre systems (183) &lt;br&gt;Digital cameras (158) &lt;br&gt;Car audio and electronics (156) &lt;br&gt;Car navigation equipment (19) &lt;br&gt;Cordless telephones (28) &lt;br&gt;Mobile telephones (33) &lt;br&gt;Computers and tablets (162) &lt;br&gt;Games and game electronics (1,200+) &lt;br&gt;Music CDs and DVDs (40,000+) &lt;br&gt;DVD movies and TV shows (14,000+)</td>
</tr>
<tr>
<td>AsiaTel (Supplier)</td>
<td>TVs (7) &lt;br&gt;Sound and home theatre systems (36 premium priced products) &lt;br&gt;Car audio and electronics (32) &lt;br&gt;Car navigation equipment (4)</td>
</tr>
<tr>
<td>Sonic (Supplier)</td>
<td>TVs (4) &lt;br&gt;Sound and home theatre systems. (4 low/medium priced products) &lt;br&gt;Digital cameras (25) &lt;br&gt;Car audio and electronics (7) &lt;br&gt;Cordless telephones (10)</td>
</tr>
</tbody>
</table>

TVCity’s strategic focus was low cost of operations. A forward supply chain, characterised by the absence of a warehouse network, in which suppliers delivered directly to the retail stores, exemplified its low cost
approach to business. Such a business model eliminated central inventory holdings, and removed the operational costs of, and capital investment in, a warehouse network. High pedestrian traffic in shopping centres boosted sales and reduced reliance on high cost advertising. There was a strong emphasis on retail stores moving inventory; retail staff were encouraged to “make the sale” even at the loss of some margin through discounting.

TVCity had about 200 suppliers. Fifteen software and 15 hardware vendors supplied the majority of its products. Another 20 suppliers were in a second category, and the rest formed a long tail mainly as a result of a large back catalogue of games and music CDs. Two of its top hardware suppliers were AsiaTel and Sonic.

In their retail stores, TVCity operated a voluntary returns policy anchored around Australian consumer law (Australian Government, 2014). The law confers on consumers certain rights when they buy goods or services. These include goods that are safe, durable, free from defects, fit for purpose, acceptable in appearance, match their description, and match any sample or demonstration model (Australian Government, 2010). Rights with respect to defective goods cannot be annulled by manufacturer or retailer warranties. The retailer must replace or repair faulty goods for minor defects or refund the purchase price of such goods for major defects. TVCity made explicit its approach to handling consumer returns, which went beyond the bare consumer law requirements. An in-store eight-page pamphlet available to its customers detailed the returns policy, the claims procedure, and the
expected conduct of staff in managing the return. The information pamphlet clearly explained the consumers’ rights under the law.

The refund policy detailed, by product category, the remedy that TVCity offered based on original purchase price of the product and the time after purchase that a fault became evident. For example, home entertainment equipment valued at more than $2,000 at purchase, and deemed faulty less than 60 days after purchase would be replaced or the purchase price refunded at the consumer’s discretion. For the same product showing a fault between 60 and 180 days after purchase, TVCity would, at no cost to the consumer, determine the cause of the fault. If a product fault was found that was not caused by the consumer, TVCity would repair the product free of charge, or, in the case of a major failure, the consumer could ask for a refund of the purchase price.

The TVCity staff code-of-conduct statement advised consumers that staff must not suggest in any way that the consumer was not entitled to any remedy or refuse to refund a faulty product. Staff had to assist in a timely and courteous manner with the processing of a return, and consumers were advised to ask to speak with the Store Manager on duty in case of any dissatisfaction with the process. Ultimately, in case of continued dissatisfaction, the consumer could escalate the dispute by writing to TVCity’s Warranty Claims Officer.

Consumer law does not give consumers the right to return products simply because they have changed their mind. TVCity's written returns policy, however, did extend this right to consumers who returned unused and
unopened products in good condition. In addition, TVCity’s store managers had discretion to accept any consumer return as an expression of the retailer’s goodwill. This unwritten policy was activated as a last resort to maintain goodwill and promote loyalty in the long term. TVCity’s business model was:

“To empower the guys at store level and regional level to make decisions about what it is that will keep that customer a TVCity customer for life. And I know that sounds like a cliché, but it kind of is true at TVCity. If you go back, and you are unhappy with that product, the guys will try and satisfy your needs.” General Manager Operations, TVCity

4.2.2 The Suppliers – Sonic and AsiaTel

AsiaTel and Sonic were two of TVCity’s major suppliers. Table 8 indicates the product types available for sale by these two vendors and the number of their product lines sold by TVCity.

AsiaTel was the Australian subsidiary of a Japanese manufacturer of a globally recognised brand of consumer electronic and home entertainment equipment. The products were manufactured in a number of Asian countries, typical of the globalised manufacturing environment. The Australian company imported, marketed, distributed, and serviced the products. Containerised freight was shipped to distribution centres in Melbourne, Brisbane and Perth. Minor local modification was carried out on some products to make them compliant with Australian electrical codes. In some cases, local language instructional manuals or marketing materials were included.
AsiaTel supplied premium quality products and could demand correspondingly premium prices. TVCity stocked these lines because they had high brand attraction. In some market segments, AsiaTel dominated the market, claiming over 40% market share. In the home sound system market, AsiaTel sold products in the premium range ($500+ per unit) and commanded around 20% market share. The consumer electronics market had been highly dynamic, with technological change constantly bringing new products and, along with competition, driving prices down. Market shares, therefore, had been constantly changing. As an AsiaTel executive explained:

“As far as things like DVD and DVD recorders ... a business that was huge and we dominated it for quite some time, but because of the contraction of the margin on the price ... we’re trying to exit as much as we can, and just play as much as we need to keep customers happy. So that market, at one stage I think we had something like 40% of that market, and probably these days it’s somewhere between 10 and 15. ... And there’re new things on the horizon, things like Blu-ray.” General Manager Logistics, AsiaTel.

Technological change increased the likelihood of product returns, while competitive pressure resulted in greater acquiescence to retailer pressure for changes in the product returns policy and procedures.

TVCity was an important customer for AsiaTel as it stocked and sold almost the entire range of AsiaTel’s products. Reciprocally, AsiaTel was an important supplier, in the top 15, to TVCity because of the quality of its products and the attractiveness of the brand to consumers.

AsiaTel’s consumer returns policy offered warranty protection to consumers against faulty products, with warranty periods from one to five years based
on product category. Exclusions typically related to normal wear and tear, incorrect installation or product misuse. Consumers were advised to return faulty products to AsiaTel authorised service agents. AsiaTel’s retailer returns policy specified the types of returns that were acceptable and the process by which products were to be returned by retailers. Only products damaged in transit, incorrectly supplied against an order or dead on arrival (DOA) were acceptable returns according to the policy. DOA claims could only be accepted if the product had been returned by a consumer to the retailer within 14 days of purchase. The policy allowed for fees to be levied by AsiaTel for non-compliance with the policy. For example, any product returned without authorisation would incur a fee of $40, deducted from any credit given to the retailer. Products had to be returned in their original packaging, complete with all accessories and manuals. In the first instance, retailers had to contact their AsiaTel Account Manager to obtain authorisation for the return. If the Account Manager was satisfied that the return was legitimate, AsiaTel’s Product Return Department was responsible for then handling the returns processing. The retailer had to provide contact details, product details, reason for the return, and original invoice details. AsiaTel then authorised the return and emailed product return labels that the retailer had to print and use for labelling return cartons. The retailer was responsible for arranging transport with AsiaTel’s preferred carrier. Communication was usually by email. The policy specified that credit for approved returns would be finalised within seven days of product receipt. The returns procedure allowed for the sales representative to inspect
the goods in the retail store to verify the reason for return before a product return authorisation was issued.

Sonic was a major competitor to AsiaTel in some product categories and in many respects its operations were very similar to AsiaTel’s – an Australian subsidiary of a Japanese manufacturer of another globally recognised brand. Product lines were also similar to AsiaTel. Like AsiaTel, Sonic’s products were manufactured in global factories and shipped to Australia. Sonic claimed to be a leader in consumer and commercial electronics. One of Sonic’s key objectives was to have top market share in the audio-visual market. Sonic was one of TVCity’s top 15 hardware suppliers, and Sonic had appointed a national key account manager for the TVCity group in recognition of its importance.

Sonic’s returned goods policy was not dissimilar to AsiaTel’s. The returned products covered by the policy were damaged goods, DOA products, and new unopened stock being returned for a variety of reasons including product wrongfully supplied by Sonic. Sonic’s DOA policy was slightly more generous than AsiaTel’s, allowing for products with faults found within 21 days of consumer purchase to be returned. The procedure also mirrored AsiaTel’s. Retailers had to email Sonic with product details, reason for the return, and original invoice details, and await authorisation from Sonic. Once authorisation was given by Sonic, the retailer contacted Sonic’s returned goods centre, which would arrange the carrier for product pick-up. Sonic’s policy allowed for Sonic to claim costs and fees from the
Both suppliers assigned reason codes to the product returns for internal analysis. AsiaTel assigned codes according to the organisational area deemed to be the cause of the product return as well as the reason for the return. Sonic was less specific about who in the process had caused the problem that led to a return. Some reason codes used by Sonic and AsiaTel were clearly equivalent; others had been set up to suit the needs of the individual supplier. The reason codes, aligning the common ones, are listed in Table 9.

Table 9: Supplier reason codes for product returns.

<table>
<thead>
<tr>
<th>AsiaTel</th>
<th>Sonic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrier - Damaged in Transit</td>
<td>Damage</td>
</tr>
<tr>
<td>Supplier – “Dead on Arrival” within Policy</td>
<td>“Dead on Arrival”</td>
</tr>
<tr>
<td>Supplier - Faulty Return</td>
<td></td>
</tr>
<tr>
<td>Supplier- Authorised Return</td>
<td>Political (Goodwill)</td>
</tr>
<tr>
<td>Retailer - Cancelled Order</td>
<td>Order Cancelled</td>
</tr>
<tr>
<td>Retailer - Unwanted Backorder</td>
<td>Consumer Related</td>
</tr>
<tr>
<td>Retailer - Store Rejected</td>
<td>No Longer Required</td>
</tr>
<tr>
<td>Retailer - Incorrect Store Order</td>
<td></td>
</tr>
<tr>
<td>Retailer - Unauthorised Return</td>
<td></td>
</tr>
<tr>
<td>Support - Not Ordered</td>
<td>Dealer Support Error</td>
</tr>
<tr>
<td>Support - Order Duplicated</td>
<td></td>
</tr>
<tr>
<td>Support - Incorrect Address</td>
<td></td>
</tr>
<tr>
<td>Warehouse- Incorrect Product</td>
<td>Warehouse Error</td>
</tr>
<tr>
<td>Warehouse - Short Delivery</td>
<td></td>
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<tr>
<td>Warehouse - Before Delivery Window</td>
<td></td>
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<tr>
<td>Warehouse - Late Delivery</td>
<td></td>
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<tr>
<td>Warehouse - Damaged in Warehouse</td>
<td>Miscellaneous Return</td>
</tr>
</tbody>
</table>

Initially, TVCity’s retail stores individually managed the return of products to each of their suppliers. A strategic review of the operations led TVCity to decide that the product returns process had to be improved. To this end, it
appointed LogBack, a 3PL, to advise it and restructure the returns chain. The detailed returns process, before and after the appointment of LogBack, is described in Section 4.3 Product Returns.

4.2.3 The 3PL - LogBack

LogBack was a large Australian 3PL specialising in reverse logistics management in the retail sector. It had expanded overseas and had offices in USA, China, the Indian sub-continent and Europe. It provided comprehensive supply chain services beyond simply the use of transport and warehousing assets. LogBack claimed to solve supply chain problems, and advised on product returns strategy. It offered services such as the management of retail accessories (e.g. garment hangers), processing of product recalls, the return of faulty products, and the disposal of unsold stock. LogBack’s links with overseas specialist firms had given it access to appropriate information technology (IT) systems and know-how on product returns management. LogBack counted close to 20 of Australia’s major retailers as clients for which it provided services similar to that offered to TVCity. The systems and procedures it had implemented simplified the returns management process for its retail clients. It had returns facilities equipped with product testing operations to enable large suppliers to test their products on site without the need to return product to supplier premises. Dedicated testing booths and storage facilities were allocated to a number of the larger suppliers. Supplier technicians attended on site and could make product disposition decisions as appropriate – destroy, repackage and return to stock, or return to the retailer for resale. This
avoided double handling of products and unnecessary product transfers. As
the Managing Director of LogBack explained:

“... you know, we’ve got TVCity in the shed, so if we get [other retailers] in the shed, then Sonic, AsiaTel and those other guys can come down and set up in the shed as well, and we can move straight from one area of the shed into another area of the shed. They can repair, or they can do whatever they’re going to do, and then it’s straight out.” Managing Director, LogBack.

LogBack also had their own testing facilities to allow it to gain a better
understanding of the nature of faulty products. Its testing could help
differentiate products with genuine faults from products that were claimed faulty by consumers simply because the products were difficult to use. This knowledge could assist retailers to handle consumer complaints more effectively or to avoid selling products that were prone to being returned by consumers.

“So what we’re trying to do is make sure someone like [TVCity] have got the power to say, ‘what is actually driving this?’ So we’ve got a bit of a testing lab where we can then take the product and then look at it and say, ‘is it a user functional issue? So, is it no-fault-found, in which case it could be, gee, we’d better tell the guys in the stores that if they want an easy-to-use camcorder, this isn’t the one to sell.’ Because you can start looking at what’s on the return note and actually start testing it independently so ... the retailer’s able to build up some independent data from the supplier in terms of what’s actually driving something around no-fault-found.”
Managing Director, LogBack.

LogBack provided TVCity with strategic advice on product returns management. It supplied the IT software system, designed the network structure, implemented store procedures, trained staff, designed the performance measurement systems, and provided benchmarking data and on-going advice on the most cost-effective approach to take to manage returns.
LogBack clearly understood the role of a product return 3PL to lie beyond simply offering the use of warehouse and transport assets, and cost reduction measures for its clients. It was fully cognizant that its broader strategic contribution extended to providing operational knowledge, and provision of product returns management competencies lacking in its client firms. LogBack’s Managing Director saw his organisation as a “one-stop” service provider, explaining: “I think ... it’s a bit of a turn-key in the sense that what we’ve said is, this is the model, this is what you need to do.” The role of LogBack is discussed further in the next section.

4.3 Product Returns

Products returned to TVCity’s retail stores by consumers were, if packaging was unopened, placed back on the shelves for resale. Others, deemed to be faulty by the retail staff, were returned to the suppliers. It is clear that some products thought to be faulty by the consumers in fact worked perfectly well but were beyond the skills or understanding of the consumers to make them work to their satisfaction or expectations. This could be the result of poor product design, poorly written instruction manuals or lack of understanding of the technology on the part of the consumers. These issues were becoming prominent with rapid advancement in technology bringing increasingly sophisticated capabilities to many innovative electronic products in the market. TVCity’s retail staff in these instances acted as a gatekeeper by instructing the consumer appropriately, and preventing the product from being returned:
“Satnavs are a perfect example. Most of the satnavs that come back are because people can’t pick up signals, and then get frustrated ‘coz in the first 30 seconds they can’t pick up Beijing on their satnavs, you know? So, the frustrations that customers feel are probably because ... they don’t understand the technology. Now, it’s our responsibility when they return the product to say, ‘Let’s test it; oh Mr. Smith, this is what actually has gone wrong. Let me explain to you how this works; right, you understand? .... Perfect. Let me box it up for you, thank you, sorry for having to come back, have a nice day.’” General Manager Operations, TVCity

There was no systematic reporting to the suppliers about these gatekeeping incidents, and so suppliers missed out on the opportunity to better understand consumer behaviour and any potential product shortcomings. TVCity contributed to a reduction in product returned to suppliers but was not receiving any credit for their vigilance.

Returns to the suppliers were handled and managed by each individual retail store, with each store having to negotiate and handle returns with each of its suppliers independently. In this product return chain structure, each store had to comply with the returns policies of scores of suppliers, each with various forms, authorisation methods and returns procedures.

“Returns, as with any retailer who does it at a store level, were a major time chewer for [TVCity] - an administrative nightmare.” General Manager Operations, TVCity.

Getting retail staff to handle returns was a distraction from their main task of selling new product, and more administrative activity was undertaken to process returns. A typical process required the store to contact the supplier by fax, phone or email and provide details of the return. The store then had to wait for a return authorisation. Once the authorisation was received, the store arranged return transportation of the product to the supplier. The priority for handling returns was obviously lower than the priority given to
selling, with the result that returned product tended to languish at back-of-store until staff had time to process the returns. This delay had an impact on inventory levels and holding costs, and on cash flow, and increased the probability of returned products being damaged. In this decentralised supply chain structure the supplier was responsible for paying the return freight for genuinely faulty goods. This often led to conflict with TVCity when products claimed to be faulty by TVCity were deemed not to be faulty by the supplier, so that the supplier should not have been liable for the return freight cost. Figure 3 show the decentralised product returns chain.

![Diagram](image)

**Figure 3: Schematic of the decentralised product return chain.**

Intuitively, TVCity felt that the decentralised product returns chain was costly to run but without data a more effective solution was difficult to design. With the guidance of LogBack, TVCity increased their understanding of the cost of their then decentralised process:

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“... really interesting journey ... to 1) go through the investigation process with all these guys [referring to LogBack] about how much time was being spent; 2) then to work out really, what the true...”
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volume was, because we actually had to sit down and go, ‘Eh, let’s have a real hard look at what actually the volume of returns is going through’; and 3) to actually move to a facility that actually gives us the transparency both in terms of holding stores accountable and in terms of holding suppliers accountable is equally as important. Got that visibility and transparency now, and we’re actually understanding what the real costs of a returns process is. And it is expensive!’ General Manager Operations, TVCity

Following their analysis, TVCity decided to engage LogBack to facilitate the processing of returns through a single returned product facility owned by LogBack, which provided a strategic and operational solution to handling product returns. The Managing Director of LogBack explained its role:

“What we do is … provide the infrastructure … provide the system … we have the sheds, we fit out the warehouses, and we manage the freight … we kind of held TVCity’s hand along the way in the sense of saying these are the agreements, this is how you can help doing the supplier negotiations. … have data-mining gurus ….” Managing Director, LogBack.

With the appointment of LogBack, the product return procedure was changed. All TVCity’s stores Australia-wide now returned product to LogBack’s central returns facility in Melbourne. From TVCity’s perspective, the process was greatly simplified: a single product return procedure was put in place for all stores regardless from which supplier the product was procured. Each store consolidated products for supplier return for regular weekly despatch to the LogBack facility. LogBack provided software that allowed each store to scan product to a carton and scan cartons to a pallet. This gave TVCity complete visibility of product in the returns chain. This information on status of product returns was also made available to the suppliers, improving the efficiency of the suppliers’ handling of returned product. The LogBack facility became responsible for managing
the return to each individual supplier. Additionally, LogBack undertook a secondary gatekeeping role by ensuring that returns made by the stores met returns guidelines set by TVCity management. LogBack undertook the responsibility to prevent non-faulty goods being sent back to the suppliers. The LogBack facility in essence performed a quality keeping role to ensure that TVCity’s retail stores met their corporate product returns policy. Figure 4 shows a schematic of the centralised product returns chain. Suppliers made simple disposition decisions of products returned to them. Non-faulty products with undamaged packaging were returned to stock for resale. Products that were deemed to be functional but not considered saleable as new were disposed of in a secondary market, while damaged unsaleable products were sent to recyclers.

![Figure 4: Schematic of the centralised product return chain.](image)

The appointment of LogBack introduced a significant change to the returns process for TVCity and its suppliers, with associated impact on costs, relationships between the parties, and perceived benefits arising from the
centralised network. LogBack provided TVCity with complete strategic and operational advice on the management of product returns. All these elements contributed to a reported improved economic performance for TVCity:

“When we sat down and looked at the numbers, the key criteria for TVCity was that there was to be no financial burden on TVCity by moving to it [the centralised returns chain], and in fact, there should be a benefit, … When we did all that, and we went through the cost/benefit analysis, and did the business case for it, we liked what we saw.” General Manager Operations, TVCity.

Implementation of the centralised network with the suppliers relied essentially on the power of TVCity to force the change. The top 100 suppliers were given advanced notice and the opportunity to discuss the pending change. Other suppliers were simply advised that the change would be implemented.

TVCity charged each supplier a fee for the new centralised returns process based on a percentage of the value of the returned product. The rationale for this fee was the claim by TVCity that there were benefits to be gained by suppliers from the centralised network. TVCity, through LogBack, could consolidate product returns claiming this delivered reductions in transport costs. TVCity claimed that having a single returns centre to deal with instead of all the individual TVCity retail outlets resulted in a reduction in administrative and transaction costs for suppliers, and the additional gatekeeping by LogBack ensured that only genuinely faulty products were returned to the suppliers.

“So, there was a vetting process we’ve implemented in terms of suppliers, there is a freight saving that we’ve implemented in terms
of suppliers, there’s an administration cost-savings in relation to the suppliers. Those were the key selling points, I guess, if we were trying to sell this proposition, and quite frankly we were, they were the key selling points to say, ‘the trade-off is, you need to pay a consolidation fee, and that consolidation fee will buy you this stuff.’” General Manager Operations, TVCity.

The new process and centralised facility also led to returned products arriving at suppliers’ premises in better condition than previously and with fewer instances of damaged packaging:

“‘They just like the fact that the product doesn’t look like an absolute shambles when it rocks in to their back door.’” General Manager Operations, TVCity.

“The only thing they do there, at [the returns centre], who we’re dealing with now, is they make sure the product is packaged properly, which is fantastic.” National Parts Manager, AsiaTel.

“But TVCity sort of did it a bit differently to [other retailers mentioned], they’ve got their own people working there and they do a lot of screening of their stock there. So the quality of their returns has been quite good.” Dealer Support Manager, Sonic.

Moreover, through the know-how and information software provided by LogBack, TVCity had access to consolidated reports providing statistics on product defects by supplier and product model, which allowed TVCity to better identify poorly performing or poorly designed products, and under-performing suppliers. This gave TVCity buyers better leverage in negotiating prices and terms of trade with suppliers.

The data collected also allowed TVCity to analyse the performance of the retail stores, as was explained,

“We’ve been spending a lot of time lately doing more and more mining of the analytics of this data, and so what we’re kind of working with … TVCity having quarterly report cards. And what that report card does is, kind of helps us look at stores, for example, and kind of saying ‘gee, you know, sales to returns, where are we seeing some anomalies?’… starting to [expose] leakage points.
You're saying, ‘why have I got stores here that have got a much higher rate of return vis-à-vis other stores?’, which could be back to training, or ‘where are return policies being more liberally managed?’ General Manager Operations, TVCity.

AsiaTel was particularly displeased by the introduction of the centralised network. It was dissatisfied by the way the scheme was introduced and the outcome, which it thought was a more costly and less effective solution. It was particularly galled by the imposition of the fee, which it considered far too high, especially for high value TV products. AsiaTel also felt that it had lost some level of control over the returns management process; essentially TVCity was exercising supply chain leadership and determining the returns policy. AsiaTel did concede that some transport consolidation savings were achieved but felt that the volume of returns had increased since the introduction of the new network. AsiaTel was not convinced that there was a net benefit overall:

“... we don’t think we’re necessarily getting the benefits out of it that they told us we would get, and ... more work needs to be done.”
General Manager Logistics, AsiaTel.

Though not fully convinced that the benefits of the centralised return process did outweigh its costs, Sonic was more receptive to the centralised process. It acknowledged that some benefits had accrued to it from the new approach:

“OK, we’re saving money because we’re not raising as many con notes and we’re not having to pick up from the individual stores, less transactions, less con notes, less credit notes, and all the rest of it.”
Dealer Support Manager, Sonic.
4.4 Perceptions of Costs and Benefits

All parties in the triadic relationship – the retailer, the suppliers and the 3PL – incurred costs and accrued benefits. TVCity quite clearly perceived that the benefits from the centralised network outweighed the costs – that was the rationale and the objective behind the change they initiated. Although there was a high tangible cost in the use of the 3PL, the cost was largely recouped by the fee charged to the suppliers. Intangible elements were the ones that contributed to a net value gain for TVCity. LogBack’s involvement enlightened TVCity on the nature of value. LogBack’s facilitation and strategic data analysis enabled TVCity to perceive the extent of the intangible benefits possible from centralising the processing of product returns.

The streamlined procedures and LogBack’s centralised facility allowed TVCity to lessen its administrative burden. By centralising the gatekeeping function of the fragmented product returns chains emanating from TVCity’s individual retail outlets, LogBack standardised the disparate processes between TVCity and each of its suppliers:

“Under the old model, 90 TVCity stores were contacting [each supplier] individually. ... there was individual pieces of documentation being faxed across ... fill it out, fax it back, call, resolve issues ... it was a large burden on their administration function ... Now there’s one person ... sending one document, once a month. That’s it.” General Manager Operations, TVCity.

LogBack’s recommended procedures streamlined the process of handling product returns in TVCity’s stores, freeing staff to concentrate on their core
function of selling and educating customers about product usage and functions.

The centralised facility and the IT systems put in place by LogBack gave TVCity the ability to measure performance of the returns process, enabling the latter to accurately determine the level of returns for different products from different suppliers, and hence the leverage to negotiate the returns policy with suppliers:

“... the LogBack group and the information they’ve been able to give us ... has allowed us to actually identify what the trends [of returned products] are ... the products, the suppliers, go back to them and have a conversation with them about why it is that, ... ‘All Satnavs seem to have a return rate of X and that is 20% more than any other product that we sell. Why is this happening?’” General Manager Operations, TVCity.

The system put in place by LogBack also allowed TVCity to better understand the cost of managing returns:

“Got that visibility and transparency now, and we’re actually understanding what the real costs of a returns process is.” General Manager Operations, TVCity.

Further, LogBack’s international connections gave it access to performance statistics on product returns experienced by retailers overseas. LogBack shared this information with TVCity, allowing the latter to benchmark its performance. This was not possible prior to the facilitative intervention of LogBack. While TVCity was seeing benefits accruing in the returns management process through the facilitation role of LogBack, AsiaTel and Sonic, however, reckoned otherwise.

According to TVCity and LogBack, AsiaTel’s and Sonic’s displeasure with the centralised product returns process was primarily attributable to their
strongly held cost-focused view of returns management. TVCity had been fighting an uphill battle in trying to convince its suppliers of the benefits associated with the engagement of LogBack:

“Those guys [the suppliers] were more adamant that the cost of their reverse logistics supply chain was already quite low and that a facility like the one we’ve established could potentially have an additional cost burden to them. … in that case, we had to sit down with them and talk through what those concerns might be, understand what their cost structure is, and then come to an amicable resolution regarding that.” General Manager Operations, TVCity.

According to TVCity, the suppliers’ cost focus prevented them from identifying some of the tangible benefits, and not recognising any of the intangible benefits accruing to them. This was understandable, as the suppliers perceived that the fee being asked by the retailer for the centralised service was excessive. The fee was calculated as a percentage of the product value, which for expensive products, like plasma TVs, was high. In addition, the suppliers’ return policies had essentially been supplanted by TVCity’s policy, giving rise to their feeling that they had lost control of the returns management process, as the General Manager Logistics of AsiaTel put it:

“… we had more of a control … before, we have … one of our representatives, or one of our account managers go in to the store, vet the product first, and say ‘yes, that is deemed to come back to be refurbished or whatever’, and be put back in to stock.” General Manager Logistics, AsiaTel.

And again:

“We’ve lost that ability to actually control what’s going on through that side of things, because essentially they’re doing all of that, charging us a fee for it, and sending stuff back to us that we probably wouldn’t have got before.” General Manager Logistics, AsiaTel.
TVCity claimed that the consolidation action of the central facility created the illusion of a higher return level compared to the previous decentralised process in which products were returned from individual stores around Australia in an *ad hoc* manner. TVCity also claimed their store staff had improved their gatekeeping skills through training and procedures provided by LogBack, and a secondary gatekeeping activity at the returns centre, and that the flow-on to the suppliers was that some returns had been avoided. The suppliers, however, were convinced that the level of returns had increased:

“... *we found both hi-fi products and car sound products have come back in, I suppose, droves, as compared to before [the centralised network].*” National Parts Manager, AsiaTel.

The absence of any effective measurement system on the part of the suppliers also gave rise to the perception that the level of returns had increased.

Reluctantly, AsiaTel and Sonic admitted to having gained some benefits. Administration of product returns had improved as well as the speed of returns. Also, training had improved the condition of the products and packaging of the returns from TVCity’s stores via LogBack’s returns centre. However, AsiaTel was not convinced of the overall benefits to it:

“*There are definitely some benefits in it; my jury’s still out on whether the benefits outweigh some of the drawbacks, so we still have to work on that.*” General Manager Logistics, AsiaTel.

Consolidated returns from LogBack’s centre had resulted in tangible transport cost savings. Testing facilities at the centre provided the opportunity for the suppliers to assess products more efficiently and to make
appropriate disposition decisions, thus preventing some returns flowing on to the suppliers’ premises. LogBack’s information systems that benefited TVCity were also capable of providing AsiaTel and Sonic with aggregate information about the frequency of returns at the product and model level. There appeared to be a net gain for AsiaTel and Sonic, but this was being clouded by their cost focus:

“Any advantages that we may have had ... are negated by the fact that you [TVCity] are charging us. If you weren’t charging us for it, yes, there’d be heaps of advantages.” Dealer Support Manager, Sonic.

The costs and benefits of the centralised returns network as experienced, or perceived, by the product returns chain entities are summarised in Table 10. It needs to be noted that not all of the tangible and intangible benefits in the table attributed to AsiaTel and Sonic were acknowledged by them.
Table 10: Summary of costs and benefits - centralised returns network.

<table>
<thead>
<tr>
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<th>AsiaTel and Sonic</th>
<th>TVCity</th>
<th>LogBack</th>
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</thead>
<tbody>
<tr>
<td><strong>Costs - Tangible</strong></td>
<td>• Fee demanded by TVCity for managing returns and running the decentralised process.</td>
<td>• Fee to LogBack for services provided.</td>
<td>• Cost of running the returns centre and supplying know-how, strategic advice, operational expertise, and IT systems to TVCity.</td>
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<td></td>
<td>• Payment of returned product transport charges.</td>
<td>• Cost of implementation of the centralised network.</td>
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<tr>
<td><strong>Costs - Intangible</strong></td>
<td>• Perceived loss of control over returns.</td>
<td>• Conflict with suppliers generated during implementation of centralised network.</td>
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<td></td>
<td>• Perceived higher level of returns.</td>
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<td></td>
<td>• Returns procedure supplanted by TVCity’s returns procedure.</td>
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<tr>
<td><strong>Benefits - Tangible</strong></td>
<td>• Less product and packaging damage of returned products.</td>
<td>• Revenue from fee charged to the suppliers.</td>
<td>• Revenue from fee charged to TVCity.</td>
</tr>
<tr>
<td></td>
<td>• Consolidated returns and associated transport savings.</td>
<td>• Freeing up retail labour resources to focus on selling, not handling returns from consumers.</td>
<td>• Revenue from product disposal and recycling activities.</td>
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<td></td>
<td>• Reduced returns administration costs.</td>
<td>• Reduced returns administration costs.</td>
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<td></td>
<td>• Access to centralised testing facilities at LogBack’s returns centre.</td>
<td>• Reduced un-saleable stock.</td>
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<td>• Speedier resolution of returns credit.</td>
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<td>• Improved cash flow</td>
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<td></td>
<td></td>
<td>• LogBack-supplied services: returns facility, IT systems, returns management procedures, retail staff training.</td>
<td></td>
</tr>
<tr>
<td><strong>Benefits - Intangible</strong></td>
<td>• More effective gatekeeping by TVCity’s store staff.</td>
<td>• Strategic and negotiation advice from LogBack.</td>
<td>• Association with strong retailer brand.</td>
</tr>
<tr>
<td></td>
<td>• Enhanced product value through TVCity retail staff advice to consumers during gatekeeping.</td>
<td>• Visibility and traceability of product returns.</td>
<td>• Expanded experience from implementing and running this returns network.</td>
</tr>
<tr>
<td></td>
<td>• Feedback from TVCity on product defects, functionality and usability useful for improving product design.</td>
<td>• Data allows better identification of poor performing suppliers / products.</td>
<td>• Ability to leverage this experience to position LogBack’s process as an industry standard.</td>
</tr>
<tr>
<td></td>
<td>• Speedier returns.</td>
<td>• Data allows monitoring of retail stores for unusual levels of returns.</td>
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<td></td>
<td>• New returns management process provides more clarity on product returns and contributes to formation of closer relationship with TVCity.</td>
<td>• Supplier / product returns data provides leverage during negotiations with suppliers.</td>
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<tr>
<td></td>
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<td>• Access to LogBack’s performance and process benchmarking data.</td>
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<td>• New returns management process provides more clarity on product returns and contributes to formation of closer relationship with suppliers.</td>
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<tr>
<td></td>
<td></td>
<td>• Competitive advantage over other retailers.</td>
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4.5 Relationships

Relationships between AsiaTel and Sonic, and TVCity, were tense as a result of the way the centralised system had been implemented. Both AsiaTel and Sonic mistrusted the motivation behind TVCity’s move to a centralised system and were angered by the fee being levied on them by TVCity.

TVCity was quite optimistic about its relationship with its suppliers:

“But what we do have is a reasonably good relationship with our suppliers. Now, I think that can take you a long way.” General Manager Operations TVCity.

On the other hand, AsiaTel and Sonic were not as confident that the relationship was as strong as TVCity imagined. In short, there was an undercurrent of mistrust in the suppliers’ discussion of their relationship with TVCity:

“So [retailers] go for the path of least resistance. So I wouldn’t put it past some dealers [like TVCity] to actually say that stock is faulty because that’s an easier path. … so if you were slightly shrewd, as a salesperson, that’s what you’d be doing.” Dealer Support Manager, Sonic.

“There needs to be that trust thing. I mean, we’ve got a long relationship with TVCity. … if they’re not doing the right thing…it’s supposed to go back. But they don’t appear to be honouring that side of it at the moment. So, we’ve got to do some work on that with them.” General Manager Logistics, AsiaTel.

The centralised returns system was perceived as interposing another layer between the supplier and TVCity, allowing TVCity to avoid its responsibility in handling returned product accurately and honestly:

“And our concerns were the same as we’ve had with the other ones, which is, once the dealer is not dealing with us direct it gives them an opportunity to just dump something somewhere else. So therefore
something that they would never choose to return to us directly they would return to the central returns area because they think it will just get lost in the system.” Dealer Support Manager, Sonic.

An integral and more important element of the relationship equation is the relative power of the parties involved. The suppliers in this triadic relationship considered TVCity to have the balance of power. Referring to a retailer (not one in this study), the General Manager Logistics, AsiaTel, explained in strong language,

“... they’re a fairly powerful retailer ... absolutely. They are. And they are in many ways, rogues in the industry. There’s virtually nothing that any of the suppliers can do about it. Because they’re just....they just sort of run their own set of rules ... they pretty much dictate all the terms, and if you don’t want to play, there are plenty of other people who do.” General Manager Logistics, AsiaTel.

More specifically, the perception that the power balance was strongly in favour of the retailers was palpable:

“But nobody, no one manufacturer, distributor, or wholesaler, really has significant power in any of the relationships with the big guys.” General Manager Logistics, AsiaTel.

TVCity was clearly the dominant party in this relationship, and was perceived to be so by AsiaTel and Sonic. Market size was the dominant source of this power, as expressed by AsiaTel:

“TVCity, yep, they’re an important customer of ours. They’re the only customer we have who takes all of our products (other than the computer stuff), but they actually take the full range of our products.” General Manager Logistics, AsiaTel.

At the same time, AsiaTel seemed not to be aware of the power that lay in their hands through their brand and quality products, something that TVCity was conscious of,

“Not only are [AsiaTel] big, they’re actually a premium product. ... a very high price point for [the large panel TV], but they can charge that...
because they’ve got a very good product. ... a really quality product like AsiaTel... .” General Manager Operations TVCity.

The way the centralised system was introduced and implemented was one expression of TVCity’s power. TVCity was quite confident it could push through the implementation of the system with minimal resistance from the suppliers. This was evident in the way the centralised returns network was introduced:

“What we did was, the way in which we approached it was, we did the conversation by exception. ... We’re gonna say ‘OK guys, we’re going to send you the document that explains the [centralised returns network] and then off the back of that document, you need to return to us with any queries that you may have. You’ve got a deadline to which that queries can be escalated to the buyers, to me ...” General Manager Operations TVCity.

Sonic was cynical about TVCity’s proposal but resigned to the fact of its ultimate implementation, explaining,

“Yes, you’re often left with little choice. It’s interesting the way that they word their proposals, but yes, you’ve basically got no choice.” Dealer Support Manager, Sonic.

An element of the new returns procedure required the supplier to respond to a request for a returns authorisation (RA) from TVCity within a certain time frame. If this did not occur, TVCity felt confident in returning product without any official authorisation from the supplier:

“If they choose not to take up that opportunity to respond to that RA [Returns Authorisation] on a timely basis, then we have to take measures to ensure that we protect our cash flow as the company. And that may mean that the authorization is generated for them by us.” General Manager Operations TVCity.

Other elements of the new procedure were also essentially mandated by TVCity as this exchange between the Interviewer (I) and the National Parts Manager, AsiaTel (N) shows:
I: So you’re not vetting it before it comes back now? [referring to the checking of returned products].
N: No, no.
I: OK, and why did you make that change?
N: Well, they [TVCity] told us they wanted to make that change.

Information systems provide by LogBack gave TVCity a new source of power. The systems provided TVCity with previously unavailable data on product returns statistics, and information on the quality of products down to the model level. It was quite clear that TVCity knew this data placed them in a most favourable position relative to its suppliers:

“I remember [Managing Director, LogBack] distinctly saying during the conversation regarding us getting this up and running, it puts the retailer much more in a position of power that we haven’t had before.” General Manager Operations TVCity.

TVCity and its suppliers, in spite of apparent setbacks, felt a commitment to succeed in the long term.

“From a TVCity point of view, we wanted to be collaborative and we wanted to make sure that it was supposed to be a win-win ... ” General Manager Operations TVCity.

“... as long as we can get the relationship there, that it’s not abused.” National Parts Manager, AsiaTel.

“There needs to be that trust thing. I mean, we’ve got a long relationship with TVCity.” General Manager Logistics, AsiaTel.

Power, trust, and a commitment to long term success marked the relationship between TVCity and its suppliers.
Chapter 5  

Discussion

5.1 Introduction

This analysis explores the nature of value in the product returns chain, and how it was created and appropriated. The first section of this chapter discusses how value was interpreted in the context of product returns, confirming that value has tangible and intangible dimensions. How value was created is discussed in the second section, which elaborates on the key role that the 3PL played in facilitating the alignment of the returns process between the retailer and the supplier, and engendering a value orientation in the parties. A value evolution matrix is proposed linking value orientation and facilitation that explains the change in value outcomes in the transition from a decentralised to a centralised returns chain. A framework proposing causal links between facilitation and value orientation, and value creation is also presented. Created value needs to be appropriated by the returns chain entities. This is discussed in the final section, in which the creation framework is extended to show how appropriation is determined by relationship factors, the most important of which are power and trust.

5.2 Nature of Value

An analysis of the findings in this study concludes that a multi-dimensional view of value is evident in this product returns process, which is consistent with a multi-dimensional perspective of value found in extent literature (Allee, 2000; Anderson & Narus, 1998; Wilson & Jantrania, 1994). The net of costs and benefits, including tangible and intangible elements, in this returns chain represents value for all the parties in this study.
As value is a perceptive construct (Wagner & Benoit (née Moeller), 2015), it is not surprising that the different entities in this chain interpreted the value equation differently. Although AsiaTel and Sonic did not openly accept having received a net benefit from the centralised return process, the findings indicate that the appointment of LogBack to manage product returns had resulted in value creation for all parties, beyond any residual asset value of the returned products. In fact, residual product value, unlike the focus of several reverse logistics studies (Hodge, Ochsendorf, & Fernández, 2010; Huge-Brodin & Anderson, 2008; Srivastava, 2008b), was of little importance to AsiaTel or Sonic in managing their total product returns chain. This could very well be because both companies, as marketing arms of international manufacturers, had little option regarding the disposition of any returned products. Pristine products were resold; damaged products were either simply recycled or disposed in landfill when legally permitted. Return to the overseas manufacturing location for remanufacture or re-use was economically not viable.

The focus of AsiaTel and Sonic was steadfastly on the cost side of the value equation, perceiving benefits only as cost offsets. They seemed incapable of coming to a holistic view of value, one that encompasses a broader perspective of costs and benefits, both tangible and intangible. As evident from Table 10, Section 4.4, many more benefits were available to them if they had taken a value orientation. As Anderson and Narus (1998) observed, absence of a comprehensive understanding of value leads to a focus on financial elements. The challenge for TVCity had been to convince its
suppliers that they also participated in that value creation process, as TVCity’s General Manager Operations explained:

“There was some battles in there. ... I sat there with the general manager of the business and explained to our suppliers why ... we thought this was a valuable thing for us, and why ... it was a valuable thing for them, ... some things push had to come to shove on a couple of them, ... it’s just the nature of the beast.” General Manager Operations TVCity.

The apparent reluctance of AsiaTel and Sonic to engage fully with TVCity with regards to implementation of the centralised process suggests that relational benefits that lead to value also were not being recognised. Trust, relationship commitment, and collaboration have been identified as being important dimensions of value (Aastrup et al., 2007; Gil-Saura et al., 2010; Wilson & Jantrania, 1994), but these factors did not emerge in a positive way for the suppliers in this study. The perceived dominant position of TVCity resulted in the suppliers being mistrustful of TVCity, leading to a strained relationship.

TVCity’s engagement of LogBack was a significant step in the value creation process for TVCity. TVCity’s close collaborative relationship with LogBack, and the strategic advice provided by the latter enabled TVCity to gain a more nuanced understanding of the value dimension of product returns. In the process, both TVCity and LogBack accrued value. Acquisition of the expertise and management skills to understand a client company’s operations and needs placed LogBack in a position to deliver a high level of customised service quality, which gave them the ability to acquire higher value for their services. TVCity accrued value by outsourcing its non-core activities, allowing it to deploy its resources in other greater
value-adding directions. This mirrors the findings of Bhagat et al. (2010) in their study of forward supply chains.

Prockl et al. (2012) provide a useful lens through which to view the nature of value in the TVCity and LogBack relationship. They identified four different ways in which a 3PL could create value for its clients in the forward supply chain:

- Economic gains made through the ability of the 3PL to cut costs.
- Quality improvements brought about by the 3PL’s specialisation.
- Reduction of complexity for the client by unbundling the client’s processes thereby allowing it to focus on its core competencies.
- Ability of the client to innovate through improvement of processes resulting from the 3PL’s know-how.

These four elements of value are reflected in the returns chain in the case of TVCity. TVCity made tangible economic gains. The very structure of the centralised returns system was designed to ensure that the tangible cost equation was positive, through cost reductions in its reverse logistics operations and by levying a fee on its suppliers. TVCity viewed an economically neutral outcome as a key criterion in engaging LogBack, as its General Manager Operations explained,

“The key criterion for TVCity was that there was to be no financial burden on TVCity by moving to [LogBack’s centralised facility], and in fact, there should be a benefit, obviously, in terms of some of those additional costs that we found at the store level; that those no longer become part of TVCity’s world.” General Manager Operations TVCity.

TVCity achieved quality improvements through the improved in-store product handling procedures implemented by LogBack. LogBack’s specialised services allowed TVCity to focus on its prime objective as a
retailer, i.e., sell new products, while LogBack managed the product returns process. Intangible elements maximised value creation for TVCity. LogBack’s information systems provided visibility and traceability of product return flows, and greater insight into the suppliers and the products that contributed more to the product returns load, which gave TVCity leverage when negotiating with suppliers over product returns. Finally, TVCity adopted LogBack’s recommendations to implement innovative procedures in its retail outlets to manage gatekeeping and improve back-of-store operations.

For LogBack the clear tangible value element was the fee it charged TVCity for its services. A minor benefit was the ability to generate a revenue stream from the disposal of unsold stock and recycling activities. An important intangible value element was its association with a prestigious retail brand, TVCity, which it could leverage in acquiring other clients. LogBack recognised the experience it gained from handling TVCity’s returns could increase its efficiency in managing future accounts. LogBack had an ambition to present a centralised approach as some sort of industry standard for managing returns. Success with TVCity was seen to contribute to realising this ambition:

“You know, it’s important to take what we always feel is an industry-wide view of this. Because you can get one isolated supplier who says “oh no no, I’ve got this amazing model,” but if you’ve got every single supplier that says that, then the retailer is opening and shutting their door....To me, you’ve got to look at it on an industry-wide basis. You want to standardise as much as possible, which is what you achieve through centralisation. So, to me, ... if you look at it from a holistic perspective, you know, the pie is certainly a smaller pie of costs when everyone is collaborating and working together.”

Managing Director, LogBack.
This study of TVCity, AsiaTel and Sonic, and LogBack clearly illustrates the dimensions of value for all parties in the product returns chain. Both tangible and intangible, give-and-get elements contributed to this value calculus.

A review of the returns value literature discussed in detail in Chapter Two revealed four sets of value drivers: product disposition, return chain structure, collaborative orientation, and information management. These four value drivers provide a framework for categorising the nature of value discussed in this section. Utilising Table 3, Chapter Two, as a framework, Table 11 summarises the nature of value elaborated in this section for each of the parties in this triadic study along dimensions of benefits/costs, relational issues, and quality.
Table 11: The nature of value in the product returns chain.

<table>
<thead>
<tr>
<th>Value Drivers</th>
<th>Value Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product Disposition</strong></td>
<td><strong>AsiaTel and Sonic</strong></td>
</tr>
<tr>
<td></td>
<td>• Minimal revenue benefit.</td>
</tr>
<tr>
<td></td>
<td>• Associated disposition costs.</td>
</tr>
<tr>
<td><strong>Returns Chain Structure</strong></td>
<td>Benefits/Costs</td>
</tr>
<tr>
<td>Design (3PL, centralised returns centre.) Returns avoidance and gatekeeping. Efficient operations.</td>
<td>• Reduced transport costs.</td>
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<tr>
<td></td>
<td>• Reduced administrative costs.</td>
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<tr>
<td></td>
<td>• Fee demanded by TVCity for managing returns and running the centralised process.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td><strong>Relational Issues</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Returns procedure supplanted by retailer’s returns procedure.</td>
</tr>
<tr>
<td></td>
<td>• Perceived higher level of returns.</td>
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<tr>
<td></td>
<td>• Perceived loss of control over returns.</td>
</tr>
<tr>
<td></td>
<td>• Access to centralised testing facilities at LogBack’s returns centre.</td>
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<tr>
<td><strong>Quality</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Improved condition of returned products and packing.</td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Relational Issues</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Conflict with suppliers generated during implementation of centralised network.</td>
</tr>
<tr>
<td></td>
<td>• Speedier resolution of returns credit.</td>
</tr>
<tr>
<td><strong>Quality</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaborative Orientation</td>
<td>Functional integration. Returns chain alignment.</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Relational Issues</td>
</tr>
<tr>
<td></td>
<td>More effective gatekeeping by TVCity’s store staff.</td>
</tr>
<tr>
<td></td>
<td>Enhanced product value through TVCity staff advice to consumers during gatekeeping.</td>
</tr>
<tr>
<td></td>
<td>Feedback from TVCity on product defects, functionality and usability, useful for improving product design.</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>LogBack-supplied services: returns facility, IT systems, returns management procedures, retail staff training</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Information Management</th>
<th>Process (timing, quantity, quality of returned products, return reasons.) Analytical (product performance, buying behaviour.)</th>
<th><strong>Value Drivers</strong></th>
<th><strong>Value Implications</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Relational Issues</td>
<td>Benefits/Costs</td>
<td>Benefits/Costs</td>
</tr>
<tr>
<td></td>
<td>Increased market knowledge.</td>
<td>• Reduced uncertainty.</td>
<td>• Operating costs.</td>
</tr>
<tr>
<td></td>
<td>Identify product quality issues.</td>
<td>• Efficient use of storage facilities.</td>
<td>• Visibility and traceability of returns.</td>
</tr>
</tbody>
</table>
|                       | Speedier returns.                                                                              | • Less damage to returned product. | Supplier and product returns data provides leverage during negotiations with suppliers. | |}

|                       | New returns management process provides more clarity on product returns and contributes to formation of closer relationship with TVCity. | **Quality** | **Quality** | **Quality** |
|                       | Quality                                                                                       | • Potential for improved product design. | • Product quality information. | • Access to LogBack’s benchmarking data. |
|                       | • Potential for improved product design.                                                       | • Better identification of poor performing suppliers and products. | • Data allows monitoring of retail stores for unusual levels of returns. | |
In this case study, there was an exchange of costs and benefits in the triad leading to value creation for all parties, shown schematically in Figure 5. Because there was no direct commercial exchange between the 3PL and either supplier, there was no direct value exchange between these parties. It is clear, however, that the suppliers were in a position to appropriate the value mediated through the retailer. The value exchange indicated in the figure is notional because of this mediation. This notional exchange is indicated by the dotted box in Figure 5.

![Figure 5: Value exchange in the supplier-retailer-3PL triad.](image)

### 5.3 Value Evolution

The before-and-after situations pertaining to LogBack entering into TVCity’s product returns chain suggest that two factors were critical in creating value in the product returns management process: a firm’s value orientation or focus, and a facilitation role played by an internal or external agent to bring about alignment between the product returns processes of the retailer and its suppliers.
5.3.1 Value Orientation
Organisations can either have a value orientation or essentially be focused on costs. A value orientation means that a firm focuses on value outcomes rather than cost minimisation alone, and this provides the motivation to develop appropriate capabilities to create a value outcome (Beverland, 2012). Therefore, a value focused organisation understands that value creation is not simply an exercise in cost containment and control, but requires an appreciation of the intangible, in addition to the tangible, benefits accruing from the product returns management process. Although TVCity had started on the value journey before the complete involvement of LogBack, it is clear, from the description given by LogBack and TVCity, that LogBack was instrumental in fully sensitising TVCity to the potential for value creation in the returns chain. This can be interpreted as TVCity acquiring a value orientation, through LogBack, without which it would not have had the motivation to develop the necessary capabilities to implement the centralised returns system.

5.3.2 Alignment
However, a value orientation alone is not sufficient to be able to maximise value creation in the returns process relationship. Orientation needs to be operationalised. Operationalisation involves alignment of supplier and customer chains, which has been recognised as a key element of business success (Jüttner, Christopher, & Baker, 2007). Alignment is the process of integration, which builds linkages and explores ways of working towards common goals (Kanter, 1994; Pagell, 2004), by synchronising and
coordinating supply chain activities and information flows (Kehoe, Dani, Sharifi, Burns, & Backhouse, 2007).

Bernon et al. (2013), who studied supply chain integration-enabling practices, benefits, and barriers in the product returns process, concluded that integration practices in returns chains were similar to that in the forward supply chain, though the barriers were specific to the product returns process. In the context of the forward supply chain, Wong, Skipworth, Godsell, and Achimugu (2012) identified a number of alignment enablers, including organisational structure, internal relational behaviour, customer relational behaviour, top management support, information sharing and business performance measurement systems. Forward supply chain examples of upstream and downstream process integration include customer and supplier relationship management, joint demand planning and forecasting, new product introduction, common performance metrics, and shared transport and distribution operations (Barrat, 2004).

These studies illuminate the findings of this research, which shows that, in the returns management process, alignment was enabled by a number of factors after implementation of the centralised network. The key enablers were found to be: a common product returns policy based on the suppliers’ default acceptance of the retailer’s returns policy, and standardised procedures including shared information on the reasons for returns. Procedure standardisation evolved from jointly negotiated reverse logistics activities. There was also a strong attempt by TVCity to encourage the
suppliers to adopt a common understanding of what constituted value as an approach to evaluating the new centralised returns process.

5.3.2.1 Common Returns Policy

Enforcement of AsiaTel’s return policy by its logistics staff had been hampered by their own sales department’s attention to increasing sales rather than managing product returns. The sales department, understandably, followed a path to maximise sales by maintaining a good working relationship with its customers, which essentially meant ignoring their own product returns policy, and being lenient on returns if it meant increasing their sales. As a result, TV City’s product returns policy and procedure became, by default, AsiaTel’s policy:

“Our sales side of the business don’t really want to...they don’t want to upset the relationship, as much as possible; you know, their main interest is in getting more product into the retailers, and ‘you guys [role playing sales staff addressing logistics staff] worry about the stuff that’s coming back.’” General Manager Logistics, AsiaTel.

“Yeah, we could have any policy you like, but if it doesn’t line up with the retailer’s policy, you might as well go and you know ... blow in the wind, because it’s not going to do you any good. Because at the end of the day, whether you’ve got a 14-day return policy or a 30-day return policy, if they’ve [the retailer] got a 12-month swap-over policy, it’s coming back!” General Manager Logistics, AsiaTel.

Sonic was hampered by a similar internal conflict between its sales department and its customer service department to the extent that one of their product return reason codes was a category called “Political Returns”. This code covered returns that were contrary to the company policy but were felt to be necessary because of the importance of the customer to the business, essentially a goodwill gesture made at the discretion of the sales
department. Inter-departmental conflict in the supplier organisations led effectively to the retailer’s policy being accepted as the *de facto* policy for all.

### 5.3.2.2 Standardised Returns Procedures

Standardisation of the product returns procedure through the centralised network implemented by TVCity and LogBack was an important element in gaining operational efficiencies:

“*You want to standardise as much as possible, which is what you achieve through the centralisation.*” Managing Director, LogBack.

“*It [the pre-centralisation network] was a large burden on their [suppliers’] administration function, from a call centre and returns process department. Now there’s one. There’s one person that’s sending one document, once a month. That’s it.*” General Manager Operations, TVCity.

“*You’re talking tens of thousands or hundreds of thousands of transactions. So, it’s both ends. You’re saving them all, as is the supplier. And associated with every transaction is all the associated costs in terms of the freight and the admin and the opening and closing the door.*” Managing Director, LogBack.

The flow of information in the centralised network benefited all parties by providing the basis for a more complete understanding of the reasons for product returns. This allowed a move towards a solution to reduce the level of product returns.

“*Yeah, visibility is a good thing. ... Makes a huge difference. ... now we know about 99% of the product coming back now, which is great.*” National Parts Manager, AsiaTel.

“*So ... TVCity sends ... a consignment note beforehand, or a list of products ... by email, which is fantastic ... so you know what’s coming before it arrives. So you can plan.*” General Manager Logistics, AsiaTel.
“... we had transparency, but they [suppliers] also had transparency. ... allowing you to focus more on what it is you need to do to improve ...” General Manager Operations, TVCity.

“But then that [a knowledge of the reasons for returns extracted from the data provided by LogBack] at least enables the retailer to take that [returned product] out of the process, so that you can actually go back to the supplier and eradicate that return.”

Managing Director, LogBack.

Product returns chain alignment through common returns policies and standardised procedures helped bring about resource sharing, and operational effectiveness and efficiency.

5.3.3 Facilitation

Alignment of processes is complex, and needs to be facilitated by an external or an internal agent. The use of internal facilitation (Holt, Self, Thal, & Lo, 2003; Nassar, Al-Khadash, Sangster, & Mah'd, 2013) or external facilitation (Rytter, Boer, & Koch, 2007; Taylor, 2006) is not uncommon in the implementation of operational change. If organisations in a supply chain cannot achieve alignment by themselves, Gattorna, Chorn, and Day (1991) suggested the use of an intermediary - in their study, the use of a wholesaler. If a firm has the necessary capabilities, it can facilitate operationalisation internally; otherwise it must rely on external facilitation.

In this study TVCity, because of its simple forward supply chain structure, lacked any logistics capabilities on which it could draw to manage effectively its product returns process. LogBack provided the necessary external facilitation. This is evident in the description by both TVCity and LogBack of the role played, and services provided, by LogBack.
5.3.4 Value Evolution Matrix

This study identifies two scenarios in the management of product returns – a decentralised network and a centralised network. The two scenarios reveal an evolutionary path to full value realisation in the product returns process. Before the full implementation of the centralised returns network by the retailer, product returns were essentially viewed as a cost burden by the retailer and the suppliers. TVCity’s lack of forward supply chain management expertise also inhibited any value orientation in their approach, as its General Manager Operations explained succinctly: “because good old logistics is not particularly sophisticated at good ol’ TVCity”. The focus of AsiaTel and Sonic was on the activities and the transactions associated with returns. The benefits comprehended by the Dealer Support Manager, Sonic, were brushed aside in transactional terms:

“Well OK, the benefits are that we don’t have to pick up from the individual stores.”

TVCity also noted the myopic view of its suppliers:

“Those guys [suppliers] were more adamant that the costs of their reverse logistics supply chain was already quite low and that a facility like the one we’ve established could potentially have an additional cost burden to them.” General Manager Operations, TVCity.

Before the appointment of LogBack, TVCity and its suppliers were trapped in a sub-optimal cost minimisation strategy. Their cost-containment mindset blinded them to the value creation possibility of an effective management of product returns, which persisted until the intervention of LogBack.

Circumstances forced TVCity to explore and understand the value implications of the returns process:
"But, when we did a global perspective of what it was costing us to do an individual return, ... and we started multiplying it out by each individual return, each individual store, each individual supplier, woof! It was big bucks in terms of labour, big bucks. Significant dollars were being chewed up in this process." General Manager Operations, TVCity.

This led to an appreciation of alternative returns processes available to them, and to an evolution of a value orientation in their thinking. While TVCity was enlightened to the possibility that more could be gained from a holistic understanding of the returns management process, neither Sonic nor AsiaTel had reached this level of understanding. More in hope than in fact, TVCity in a sense rehearsed the insight that they wanted their suppliers to gain:

“I think a lot of educated suppliers I speak to find it a great benefit to have a consolidated return. They understand the benefit of the freight saving and administrative saving. They just like the fact that the product doesn’t look like an absolute shambles when it rocks in to their back door, and they can actually get some confidence that we’ve actually heeded the procedures.” General Manager Operations, TVCity.

TVCity needed to move from a state of enlightenment to one in which it could realise full value but not until the appointment of LogBack, and its external facilitation, did TVCity get to maximise its value potential. Data analysis driven by LogBack’s know-how and experience also expanded TVCity’s appreciation of value:

“And, the LogBack guys were very good at giving us some transparency on how much it was costing us to actually have that facility to store base level. ... [referring to adoption of the LogBack centralised returns proposal.] ...” General Manager Operations, TVCity.

Although the suppliers did not experience direct external facilitation, they did derive some of the benefit of external facilitation by its association with
the retailer and the 3PL, thereby accruing some cost efficiencies but not quite making the leap to a full value orientation. The suppliers were essentially still caught in a cost oriented view of the product returns process.

Sonic continued to focus on cost:

“So that’s the way they sell it [the cost savings] to you as being a huge supplier advantage. But then that gets negated because they charge you for that.” Dealer Support Manager, Sonic.

As did AsiaTel:

“The fact that it’s really not, we don’t think we’re necessarily getting the benefits out of it that they told us we would get. … So all we can try to do is be as efficient as we can.” General Manager Logistics, AsiaTel.

AsiaTel clearly summed up its dilemma:

“My jury’s still out on whether the benefits outweigh some of the drawbacks, so we still have to work on that.” General Manager Logistics, AsiaTel.

In sum, the suppliers spurned the full value potential inherent in the product returns process. This analysis suggests a more general relationship between a firm’s value orientation and the type of facilitation adopted as indicated in Figure 6, and explained below.
In Quadrant 1 of Figure 6, firms have only a cost orientation and rely on internal facilitation. They will be unable to maximise the benefits from process alignment and will therefore achieve sub-optimal cost minimisation. The suppliers and TVCity were in this initial position before TVCity’s search for a more cost-effective solution to managing returns. They were in a state of Value Blindness.

Where there is a value orientation but only internal facilitation there will be sub-optimal value creation since there will be a deficit of capabilities to bring about effective alignment of the returns process (Quadrant 2). This state of Value Enlightenment is the situation TVCity found itself in prior to the appointment of LogBack.

In a product returns chain in which all parties hold a value orientation and there is external facilitation, as demonstrated by the facilitation of LogBack
in this case study, value can be fully realised (Quadrant 4). Conversely, in a returns chain, parties that are supported by external facilitation but are bent on a strong cost orientation, will achieve a level of alignment that will result in optimum cost control but will miss the intangible contributions to value creation (Quadrant 3). The suppliers’ reluctance to appreciate the value potential of the centralised system had deprived them of the opportunity to fully capture a share of the value created. This state of Value Spurned was the situation in which AsiaTel and Sonic found themselves after the engagement of LogBack.

The value evolution matrix for the product returns process with supporting evidence is expanded in Table 12.
Table 12: Expanded value evolution matrix - product returns process.

<table>
<thead>
<tr>
<th>Facilitation</th>
<th>Firm Orientation</th>
<th>Attitude Towards Product Returns</th>
<th>Illustrative Evidence</th>
<th>Value Construct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal (before LogBack)</td>
<td>Cost Focus</td>
<td>TVCity determined that the logistics of processing product returns in the decentralised manner was too costly. Individual store negotiation with each supplier about product returns was sub-optimal and inefficient. The handling of perceived faulty products in-store used up valuable staff resources and was a distraction from the core selling task. AsiaTel and Sonic perceived product returns as a “necessary evil” – the sole objective was cost minimisation.</td>
<td>• “… when we did a global perspective of what it was costing us to do an individual return, … and we started multiplying it out by each individual return, each individual store, each individual supplier, woof! It was big bucks in terms of labour, big bucks. Significant dollars were being chewed up in this process.” General Manager Operations, TVCity.</td>
<td>Value Blindness</td>
</tr>
<tr>
<td>Value Focus</td>
<td>TVCity evolved in its thinking to appreciate that the product returns process could create value for the company if handled “correctly”. There was a lack of in-house logistics capabilities to be able to improve the product returns process.</td>
<td>• “Because we told them [TVCity] we could do it [handle returns] for a lot less than that [the fee being charged].” General Manager Logistics, AsiaTel.</td>
<td>Value Enlightenment</td>
<td></td>
</tr>
</tbody>
</table>

146
<table>
<thead>
<tr>
<th>Facilitation</th>
<th>Firm Orientation</th>
<th>Attitude Towards Product Returns</th>
<th>Illustrative Evidence</th>
<th>Value Construct</th>
</tr>
</thead>
</table>
| External (after LogBack) | Cost Focus | AsiaTel and Sonic admitted that there might be benefits from using the centralised processing of product returns but these were negated by the fees paid and the loss of control over the product returns process. The suppliers felt they were not in a strong enough bargaining position to make value gains. | • “So that’s the way they sell it [the cost savings] to you as being a huge supplier advantage. But then that gets negated because they charge you for that.” Dealer Support Manager, Sonic.  
• “The fact that it’s really not, we don’t think we’re necessarily getting the benefits out of it that they told us we would get. …….So all we can try to do is be as efficient as we can.” General Manager Logistics, AsiaTel.  
• “My jury’s still out on whether the benefits outweigh some of the drawbacks, so we still have to work on that.” General Manager Logistics, AsiaTel.  
• “If it doesn’t stack up, it doesn’t stack up. We [TVCity] think it does, and we’ve done the work to prove that, but they [the suppliers] also need to be convinced of that.” General Manager Operations TVCity. | Value Spurned |
| | Value Focus | Management of product returns was bringing numerous benefits to TVCity that were not there prior to engagement of LogBack. | • “Under the old model, … TVCity stores were contacting ... individually. … there was individual pieces of documentation being faxed across … it was a large burden on their administration function … Now there’s one person … sending one document, once a month. That’s it.” General Manager Operations TVCity.  
• “… the LogBack group and the information they’ve been able to give us .... has allowed us to actually identify what the trends [of returned products] are…the products, the suppliers, go back to them and have a conversation with them about why it is that, … ‘all satnavs seem to have a return rate of X and that is 20% more than any other product that we sell. Why is this happening?’” General Manager Operations TVCity. | Value Realised |
5.4 Value Creation

The foregoing analysis clearly points to facilitation and a chain-wide value-orientation (as opposed to a firm-based cost-orientation) as key drivers of value in the product returns process. In this study, facilitation was executed by LogBack, the 3PL.

The model in Figure 7 illustrates the proposed linkages among variables that lead to value creation, and is further elaborated below.

![Conceptual value creation framework](image)

Figure 7: Conceptual value creation framework.

Prior to the centralised return system, TVCity and its suppliers all had their own returns management processes. Because suppliers delivered products directly to its retail stores, TVCity had underdeveloped forward supply chain and logistics capabilities and so had little experience on which to draw to improve its product returns process. The engagement of LogBack had been a necessary step for TVCity to acquire capabilities associated with managing product returns. Such a transfer of know-how has been recognised
as a key factor in value creation in the forward supply chain (Sharma et al., 2001).

The alignment of the returns management process and information flows between TVCity and its suppliers had brought about operational efficiencies in the form of consolidated transport, improved product handling, reduced product and package damage, and speedier returns. From TVCity’s perspective, resources were also more effectively managed – retail store staff had more time to focus on sales and, through training, became more effective gatekeepers, reducing the volume of products entering the returns chain. The information systems introduced to TVCity by LogBack allowed TVCity to capture data on the nature, types, and frequency of returns enabling a more comprehensive analysis of returns. Used effectively by the suppliers, this information could potentially contribute to long term product improvement.

The appointment of LogBack is consistent with theories that suggest firms should outsource those functions that are not core to the organisation (Ordoobadi, 2009; Prahalad & Hamel, 1990). Zacharia et al. (2011) suggested that 3PLs are becoming orchestrators of supply chains, which create and sustain competitive advantage. As an orchestrator, a 3PL positions itself as a neutral third party organising the collaboration and coordination of firms in a value-creating network. LogBack’s role can be interpreted as that of an orchestrator, assisting in bringing about chain alignment and the integration or linking of business processes and functions, both within firms and across their boundaries (Chen, Daugherty, & Landry,
The key to value creation is a move away from a functional view of firm activities towards a process model (Sharma et al., 2001), with the alignment and integration of supply and demand processes being considered central to creating customer value (Esper, Ellinger, Stank, Flint, & Moon, 2010).

5.5 Value Appropriation

A facet of value creation is the question of who appropriates or captures the value in this product returns chain. A value orientation (or a mutual understanding of value creation in a relationship) is a pre-condition to value appropriation (Anderson, 1995). A value orientation draws attention away from tangible costs alone and ensures the organisations involved in the product returns chain explore non-tangible costs and exploit the range of tangible and non-tangible benefits. AsiaTel and Sonic in this study were less open to a value analysis of returns management and so were less pre-disposed to appropriate more value than TVCity. Bowman and Ambrosini (2000) defined value capture (or appropriation) as the realisation of exchange value, which is determined by the bargaining relationship between the seller and the buyer (Anderson, 1995). Wagner and Lindemann (2008), in a study of channel partners in industrial channels, found that what they termed value sharing was dependent on the quality of the relationship between the suppliers and customers, and the motivation of the supplier to collaborate. Relationship quality has dimensions of trust, commitment and a willingness to invest in the relationship (Wagner & Lindemann, 2008).
Trust is considered one of the most important and fundamental dimensions of relationship quality (Athanasopoulou, 2009; Grant, 2005; Wilson, 1995).

It needs to be noted that the role of trust in the value equation is contentious. In a relational perspective, trust is sometimes considered to be an element of value (Wilson & Jantrania, 1994). On the other hand, Aastrup et al. (2007), in their study of value creation in the context of category management, took the stance that trust is implicated in the creation of value, with trust acting as an enabler. A third view is that trust is involved in value appropriation with trust acting as a constraint in the over-use of power (Wilson, 1995). Wagner, Eggert, and Lindemann (2010), in their study of value, found that trust had an impact on both value creation and value appropriation, with the impact on appropriation being slightly more significant in their model. In this study, trust was found to play a role in the suppliers’ perceptions of the quality of their relationship with TVCity. Trust clearly played a critical role in the way value was seen to be appropriated in TVCity’s product returns chain. Lack of trust hampered the negotiation process that could have led to a larger value appropriation by AsiaTel and Sonic.

TVCity was able to appropriate more value than the suppliers, who believed they were in a subservient position compared with TVCity. This is supported by findings that relative power position is a key factor in determining value appropriation (Cox, 1999, 2001; Wilson, 1995). This is because if the parties involved follow an economically rational path, they would attempt to appropriate more value for themselves, and power is the mechanism to achieve this (Cox, 1999).
TVCity felt it had given the suppliers the opportunity to negotiate around the introduction of the centralised network but the perception of the suppliers was otherwise:

“Yes, you’re often left with little choice. It’s interesting the way that they word their proposals, but yes, you’ve basically got no choice.” Dealer Support Manager, Sonic.

A disparity of views between supplier and customer is not unusual, and affects the views of the parties about the state of the relationship between them. A study by Ambrose, Marshall, and Lynch (2010) concluded that buyers and sellers had quite significantly different perceptions of such key relationship dimensions as commitment, dependence, power, communication and performance.

Information is a source of power (Dapiran & Hogarth-Scott, 2003) and in this study TVCity capitalised on their newly acquired information to strongly negotiate with the suppliers:

“And using that data ... before they [TVCity’s buyers] walk in to a meeting, they can hit a button and that button will tell them the return rate for that supplier by product. Perfect, that’s exactly what you want, you want them to be able to go ‘Supplier X, I can’t do business with you if you’re going to continue to send me products of this quality. And you know, if you say to me ‘I’m not going to send you poor product, I’m going to send you improved product,’ I’ve got the information to tell me whether that’s the case or not. And if you guys choose to ignore that, it’s at your peril.’” General Manager Operations TVCity.

Information put TVCity in a most favourable position relative to its suppliers:

“We’ve got leverage, because we buy a lot of stuff, but we haven’t had the power over the sort of backend process, you know the power over really holding suppliers accountable for the entire relationship, not just how much of that product we sell. Because there’s so much
money being tied up and wasted in that backend process, it’s great to be able to start capturing that and actually hold them accountable for that.” General Manager Operations TVCity.

The strong brand franchise of both Sonic and AsiaTel would have normally placed the suppliers in a position of strength through the use of referent power (Dapiran & Hogarth-Scott, 2003), but the perception of AsiaTel and Sonic was that the balance of power was tilted towards TVCity:

“... [TVCity is] a very important customer of ours, and the power in the relationship tends to vest with them more than it does with us.” General Manager Logistics, AsiaTel.

Trust and power are interrelated. The appropriate use of power can help to generate trust (Dapiran & Hogarth-Scott, 2003). Sridharan and Simatupang (2013) confirmed the role of power and trust in the creation and appropriation of value. They contended that the existence of trust in a relationship leads the parties to make the necessary adjustments to deal with value appropriation. In this study it is clear that trust and power contributed to the reduced ability of the Sonic and AsiaTel to appropriate more value for themselves.

It was also clear from the responses of Sonic and AsiaTel that they placed more emphasis on managing the transactions than managing the relationships. Examples and issues raised in the interviews tended to focus on the details of the product returns procedures rather than the broader strategic value issues. Ulaga (2003) has observed that a transactional focus is detrimental to value capture.

Both Sonic and AsiaTel were resigned to the fact that they could not claim any more value from the situation.
“So all we can try to do is be as efficient as we can so that we 
minimise the damage caused by the imbalance in the relationship.”
General Manager Logistics, AsiaTel.

“Like I said, it’s one of those cases that we’ve just got to learn to 
live with, because you’re often left with little choice with ... the third 
party returns, yes.” Dealer Support Manager, Sonic.

On aggregate, these elements of power, trust and quality of the relationship can be summed under the label of Supplier/Retailer Relationships, which gives rise to the complete value creation and appropriation framework shown in Figure 8.

![Figure 8: Conceptual value creation and appropriation framework.](image)

Although the parties in this returns chain expressed a desire to strengthen their relations, trust was not fully developed, and the power imbalance hampered a fuller sharing of value. Findings from this study confirm that a firm’s predominant focus on transactional issues at the expense of relational issues could contribute to its inability to maximise the value gain, an observation supporting Lindgreen and Wynstra’s (2005) research.
Chapter 6 Conclusion

The product returns process of a supply chain consisting of two consumer electronics suppliers (AsiaTel and Sonic), a retailer (TVCity), and a 3PL (LogBack) was studied. Initially, each of TVCity’s retail stores negotiated with and returned unwanted products to each supplier individually. This approach was costly for TVCity. Each store incurred administrative costs in processing returns, while ad hoc returns resulted in high transport charges. Additionally, staff who processed returns were distracted from the main task of selling new products. TVCity’s assessment of running this decentralised returns process led them to appoint LogBack, a 3PL specialising in reverse logistics, to manage product returns through a single returns centre owned and managed by LogBack. This change brought immediate operational efficiencies as the stores were able to deal with a single party, LogBack, through which products made their way back to suppliers. With the guidance of LogBack, TVCity realised that through the new centralised returns network it could create further value in the returns process beyond simple transaction cost savings.

The centralised returns process established by LogBack created value in the returns chain but the suppliers, Sonic and AsiaTel, lacked the value orientation that would allow them to understand the net value available to them. A question investigated by this study was the nature of value in the product returns chain. The findings conclude that value consisted of a net of sacrifices and benefits, both tangible and intangible, for all four participants in this returns chain. This finding highlights that value in the product returns
process transcends a simple view of value as arising solely from residual product economic value extracted through recycling or reclamation activities.

This study found that value orientation and the role of facilitation can explain the behaviour of the parties in the product returns chain. It proposes a value evolution matrix to explain the role of facilitation and value orientation to create four “value states”: Value Blindness, Value Enlightenment, Value Spurned, and Value Realised. An absence of a value orientation on the part of the firms and an attempt to facilitate process alignment through internal agents led to Value Blindness, in which cost minimisation is the main focus. TVCity achieved Value Enlightenment after an internal assessment of the then returns process. However, because it lacked well-developed logistics capabilities, TVCity could not achieve Value Realisation until the engagement of LogBack, which provided the essential skills, know-how, and infrastructure. While the suppliers shared some of the benefits as a result of LogBack’s facilitation role with TVCity, they were preoccupied with having to refund TVCity for the services of LogBack, and failed to see the latent value in the centralised process, resulting in their remaining in a state of Value Spurned.

Not only did the study find that value creation requires external facilitation and a value orientation, it also reveals that the value created has to be appropriated by the parties creating value. The study expands the conceptual value creation framework to explain value appropriation in the product returns management process. Appropriation can be asymmetrical. The
extent to which value is appropriated by any party depends on a number of relationship variables. Trust and, most importantly, relative power, are the key variables. TVCity, in its own self-perception, and the suppliers’, acknowledged that the balance of power in this situation lay with TVCity. This allowed TVCity to maximise its appropriation of the value created in the returns chain while the suppliers continued on cost minimisation through operational efficiencies.

6.1 Implications of Findings

The management of product returns is a key supply chain process. The conceptual arguments presented in this thesis offer a theoretical platform for value creation and appropriation in product returns management. This case study also provides practical insights on how suppliers and retailers might create value for themselves through product returns management, turning around a conventionally held view that managing product returns only adds costs with little or no benefits to the supply chain (Meyer, 1999). This research is an important contribution to knowledge in both marketing and supply chain management. As marketers implement unconditional product return policies to increase sales, and with the growing volume of product returns arising from the popularity of online shopping, the importance of product returns management cannot be overemphasised. Marketers need to be cognisant of the link between the formulation of returns policies and operational practices to extract maximum value from the product returns process.
6.1.1 Implications for Theory

The findings support the positioning of product returns management as a process in the broader supply chain context. This study contributes to the theoretical understanding of product returns management in four major ways.

First, it contributes to the literature on the nature of value in supply chains, specifically to understanding value in the product returns process. It confirms the theoretical basis of the nature of value in business transactions in extant literature, and extends it to encompass the management of product returns. In so doing, it dispels the notion that product returns management is simply a cost control exercise or one that is limited to extracting residual asset value from returned products. It exposes the multi-faceted nature of value in this process, contributing to an understanding of value that includes operational, financial, relational and quality variables. In elucidating the nature of value, it proposes a value evolution path to full value realisation, and contributes a value evolution matrix to deepen understanding of value in product returns management.

Second, it reinforces the notion that value creation and appropriation cannot be understood by focusing solely on one entity in the product returns chain. Product returns management is a boundary-spanning supply chain process. It is through the interactions of supplier and customer in this process that lead to the creation of value and appropriation in product returns management.
Third, the study indicates that value creation in product returns management is the result of linkages among several key constructs – value orientation, process facilitation, and process alignment. A framework of how value is created has been proposed. The findings show that value creation requires parties in the product returns chain to have a value, rather than cost, orientation, an alignment of their returns management processes, and external facilitation. Lack of any one of the three would not result in value creation. The findings highlight the important role of external facilitation in value creation and how a 3PL contributes to this in the triadic relationship under examination.

Fourth, the proposed value creation framework has been extended to incorporate value appropriation, a key aim in any business venture. The framework suggests that relative power, trust levels, and perceived relationship quality determine the share of value that return chain parties can appropriate. This extension of relational variables into the field of value appropriation in product returns is a further contribution to the literature.

In the field of product returns management, this study highlights the multifaceted nature of value, the need to take a multi-party view to understand value, and proposes frameworks for value creation and appropriation.

6.1.2 Implications for Management Practice

As most organisations view product returns as an adjunct process of secondary importance, and with a predominant cost minimisation focus, findings from this study carry far-reaching implications on how product
returns could be more effectively organised to create and appropriate value in the management of returned products in practice. They demonstrate the importance of aligning processes in product returns management among the chain members to improve operational efficiency and effectiveness, with positive economic consequences for the parties involved. Alignment of information systems can lead to the exchange of strategic information about the causes of product returns with positive long–term consequences for marketing programs and improved product design.

A further practical implication of this study is the pivotal role of the 3PL as a facilitator in creating and appropriating value in product returns management. Given the complexity associated with product returns operations, managing the reverse flow of products is typically seen as diverting resources from the more important forward flow. Compared to the forward supply chain, the reverse flow is characterised by an extensive product variety, product conditions, state of packaging, erratic product flows, and a perception that returned products are a necessary cost of business (Blackburn et al., 2004). The central management issue is one of cost control. Firms with the capabilities for managing forward flows might not necessarily have either comparable skills and resources, or the inclination, to manage the reverse flow. This is where facilitation by a third party, a specialised 3PL, becomes useful, if not necessary.

Successful product returns management necessitates close collaboration between marketing and operations functions in an organisation (Mollenkopf et al., 2011). While the focus of an organisation is on the sale of new
products, there is a need to realise that product, of necessity, must be returned at some stage. From a marketing standpoint, findings from this study warn that organisations offering a lenient product returns policy to boost sales need to consider also how the reverse flows will be handled to capture, or recapture, the value in returned products. In short, product returns policies, as a marketing imperative, should not be formulated without an understanding of the implications for operations activities.

In a keenly contested retail environment where unconditional product returns policies continue to feature as a competitive weapon, coupled with the growing popularity of online shopping and subsequent increase in product returns, understanding how value could be captured and appropriated in product returns chains offers invaluable insights for retailers to further strengthen their competitive position.

6.2 Limitations and Further Research

This study employed the case study approach to examine the complex interactions amongst an electronic goods retailer, two of its suppliers and a 3PL to understand how they created and appropriated value in the product returns process. While a single case study has limited generalisability in the traditional statistical sense, the in-depth analysis allows a deep understanding to be gained and fine detail to be unravelled. Extension of this research to multiple case studies would increase an understanding of product returns into a number of dimensions. Studies in different retail sectors, for instance, would reveal if the findings in this study are limited to the consumer electronics industry because of contextual factors, or if they
are applicable in a wider retail environment. Expanding the study to include a larger number, and size, of suppliers to TVCity would reveal the extent to which supplier characteristics contributed to the findings. The suppliers in this study were marketing and distribution subsidiaries of overseas manufacturers. Exploring the role of geographic factors would add depth to an understanding of the management of product returns.

Supply chain structure and governance mechanisms are further variables that are open to exploration. For example, research could be carried out in product returns chains that are not managed by a 3PL to test the claims of the facilitating role of the 3PL identified in this research. Several governance approaches are evident in the Australian consumer electronics sector. Some retailers have wholly owned retail outlets, some have franchised outlets, while in others the retail stores operate as a buyer cooperative. The form of ownership and governance structures has been found to be relevant in the study of forward supply chains (Rinehart, Eckert, Handfield, Page Jr, & Atkin, 2004). Further research is needed to elucidate the effect of these structures on value creation and appropriation in the product returns chain.

As the case description indicates, this study is highly dynamic with the new centralised returns process, at the time of the interviews, still undergoing negotiation. The interviews were carried out only a short time after the implementation of the centralised network. Constructs change and develop over time, not necessarily because of time (Farrall, 1996; Ployart & Vandenberg, 2010). Therefore the timing of interviews after a change event
could very well yield different responses as the experience and perceptions of the study participants change over time. This study thus lends itself to a longitudinal follow-up – to assess if indeed value has been created in the long term and the extent to which it has been appropriated to the satisfaction of the supply chain parties.

This study also found that relationship variables were relevant, with power an important driver of value appropriation. The power of the retailer was certainly recognised by the suppliers with the retailer also being aware of the power it had vis-à-vis the suppliers. The retailer did acknowledge the countervailing power the suppliers wielded through the strength of the brands they marketed but it is not clear that the suppliers were fully aware of the power source they had at their disposal. A more in-depth understanding of the role of power in the product returns chain therefore is one area that needs further investigation.

Given the contentious role of trust in the value equation, a deeper exploration of the role of trust in value appropriation needs to be undertaken. Relationship factors and their role in value creation are generally recognised as in need of further investigation in the forward chain (Lindgreen et al., 2012). Equally, they are in need of further study in the product returns chain. In this research, only power and trust emerged as relevant relational variables. There is an obvious need to extend research to other dimensions, such as commitment and mutual goals (Wilson, 1995), and cooperation, collaboration and coordination (Humphries & Wilding, 2004). Recent findings on the effect of organisational culture on supply
chain integration (Zhi, Huo, Li, & Zhao, 2015) suggest that culture could have a strong bearing on value creation and appropriation in the product returns chain. This is an avenue for further research.

Empirical validation of the findings could be sought through surveys of buyers and sellers in a range of industries. Further, the value creation and value appropriation frameworks developed in this study could be used as the basis for the formulation of testable models.

6.3 Concluding Comments

Value is a complex construct, variously understood by the diverse supply chain entities. Beverland (2012) identified a critical need for research that examines the practices of organisations grappling with the notions of value creation, and how value should be managed across parties in a network. Responding to Beverland’s (2012) call, this study examined how value is created and appropriated in the product returns chain, posing three subsidiary research questions:

- What constitutes value in the product returns chain?
- Who appropriates this value in the product returns chain?
- What role does a 3PL play in value creation and appropriation in this chain?

Through a study of an Australian supplier-retailer-3PL triad, this study found that value is multi-dimensional, incorporating operational, relational and quality elements. This finding reveals that value dimensions in the product returns chain mirror those in the forward supply chain, thus squashing the strongly held view that cost control and residual asset value of
returned products are the basis of value in product returns management. In so doing, the study contributes to a deeper understanding of the value construct and its broader applicability, answering the first subsidiary question of what constitutes value.

The broader interpretation of value points the way for a more effective management of product returns by identifying intangible, and a wider range of tangible, sources of value for exploitation. The management of product returns is often sidelined in organisations, to the extent of being perceived as a necessary nuisance. The multi-dimensional nature of value in product returns management found in this research suggests that the product returns management function needs to be elevated in importance and integrated with other corporate processes for business gains (Sciarrotta, 2003).

To address the second subsidiary research question, this study revealed that value appropriation in the product returns chain is not vested in the hands of any particular party in the chain: all parties are in a position to appropriate the value created. Importantly, however, the study found that value appropriation was driven by the relative power of the parties in addition to trust. Negotiation from a position of strength will increase the value share obtained.

The value creation framework developed in this research highlights the importance of two factors: a firm’s value orientation and the use of external facilitation. As this study found, organisations that do not develop a value orientation are unlikely to fully exploit the value inherent in product returns management. Additionally, the path to full value creation needs facilitation
to bring about an alignment of returns chain processes, which, in the absence of internally held facilitation skills, needs to be externally acquired. This underscores the pivotal role a 3PL can play in the product returns chain, and addresses the third subsidiary research question regarding the role of a 3PL in creating and appropriating value.

This doctoral research achieved its prime objective of understanding value creation and appropriation in a product returns chain. Its key contributions are an elucidation of value in the product returns process, and the exploration of product returns from a multi-firm triadic perspective. While advancing conceptual understanding, and providing practical pointers for management action, this study confirms that there is more value in product returns management than merely recovering the residual value of the returned products.
References


Goles, T., & Hirschheim, R. 2000. The paradigm is dead, the paradigm is dead…long live the paradigm: the legacy of Burrell and Morgan. *Omega*, 28(3): 249-268.


QSR International. 2012. NVivo qualitative data analysis software Version 10: QSR International Pty Ltd.


Vitasek, K., King, J., & Manrodt, K. No Date c. 2013. Vested for Success Case Study: How Dell and GENCO ATC reinvented their relationship to deliver record results: 5. Knoxville, TN.


Appendices

Appendix 1: Interview Protocol

Interview Protocol

Product returns management: a study of value creation and appropriation in the supplier-retailer-3PL triad

The following is indicative of the topics explored with the research participants. The questions were not for distribution to the participants nor were they asked directly as written; rather they were a memory aid and checklist for the interviewer. Responses were followed up with “Floating Prompts” as appropriate to elicit more information from the participant.

Introduction

Introduction of the interviewer. Explanation of the research study and the Plain Language Statement. Explanation and signing of the Informed Consent Form. Request permission to audio record the interview. Social exchange to provide relaxed atmosphere.

Floating Prompts

- How?
- Describe?
- Can you tell me more about that?
- Will you explain that in more detail?
- Can you give me examples about that?

Supplier Interview

*Please describe for me your company and the forward supply chain for your products. To provide some context solicit the following data if it is not volunteered:*

- Product types.
- Number of SKUs.
- Number of suppliers.
- Number of customers, including types of customers / customer segments.
- Number or orders per day.
- Annual business volume - $, tonne, units.
- Number of DCs / warehouses.
- Transport used.
Is Vendor Managed Inventory (VMI) process used with any customer?

Please describe the process of product returns from your customers (retailers). Solicit the following information:

- A description the returns process and reverse logistics activities from the point of view of the customer. That is, what exactly does the customer need to do? What happens internally? Which departments / areas are involved in returns? What criteria are used to decide if a return will be accepted?
- How explicit / formal / planned / articulated is the returns policy / strategy?
- Who internally was involved in developing it? Who (department/section) “owns” it in the organisation?
- Were customers consulted in its development? How was this done?
- What is the nature of the returns policy? (Full refund, part refund, credit for future purchases? Other?)
- Obtain a copy of the policy if possible.
- How are returns costed into the selling price?
- Is there a time limit for accepting returns? How strictly is it enforced? Timing of / leniency with returns and timing of new product introduction?
- Who has authority for accepting / allowing returns? Is there an “escalating” authorisation?
- Are there any legal constraints associated with the returns process?
- When dealing with returns, which customers are easiest to deal with? Please explain why. Which are more difficult to deal with? Explain why.

How are product returns activities measured or monitored? Solicit the following information:

- The use of internal organisational measures and any across supply chain measures.
- The use of “reason codes” to separate returns by type.
- Metrics that are used to measure performance. (For example: return rates (by reason), financial impact, cause analysis, proportion reclaimed / recycled, Economic Value Added (EVA), the cost of returns to the organisation).
- How the performance / activity data is used (For example, reporting frequency, who receives reports, the extent to which the data is discussed in management meetings, what action is taken).
- What are the levels of returns? Are they the same for all product types?
- To what extent is performance data shared with customers? How is this done?
- Obtain copies of reason codes used and any reports generated if possible.
- What is being done to reduce returns?
Gatekeeping / avoidance practices:

- Why can’t the organisation simply refuse to accept returns? What would happen if it did?
- Are there any financial incentives offered by the supplier to avoid returns?
- Explore the risk dimension of accepting returns.

Disposition of returned products:

- What happens to returned products? Is there an asset recovery program in place? (Prompt: recycle, re-use, dismantle, remanufacture, landfill, other?)
- How does the company recover value from returned products?
- What proportion for each “end”? Cost of this?
- What role do “corporate citizenship” factors play in product disposition?

Use of 3PLs in product returns:

- Is a 3PL used?
- Why?
- What are the costs and benefits?

Retailer Interview

Please describe for me your company and the forward supply chain for your products. To provide some context solicit the following data if it is not volunteered:

- Product types.
- Number of SKUs.
- Number of suppliers.
- Number or retail stores and locations.
- Annual business volume - $, tonne, units.
- Number of DCs / warehouses.
- Transport used.
- Does any supplier use Vendor Managed Inventory (VMI) process?

Please describe the process of product returns from your retail store to the supplier. Solicit the following information:

- A description the returns process and reverse logistics activities starting from the moment a customer (consumer) returns product to one of your stores. That is, what exactly does the retail store staff do? What happens internally? Which departments / areas are involved in returns? What criteria are used to decide if a return will be accepted? What is the communication with the supplier?
- How explicit / formal / planned / articulated is the returns policy / strategy? Does it differ depending on the supplier?
- Who internally was involved in developing it? Who (department/section) “owns” it in the organisation?
- Were suppliers consulted in its development? How was this done?
- What is the nature of the returns policy? (Full refund, part refund, credit for future purchases? Other?)
- Obtain a copy of the policy if possible.
- How are returns costed into the retail price?
- Is there a time limit for accepting returns? How strictly is it enforced? Timing of / leniency with returns and timing of new product introduction?
- Who has authority for accepting / allowing returns? Is there an “escalating” authorisation?
- Are there any legal constraints associated with the returns process?
- When dealing with returns, which suppliers are easiest to deal with? Please explain why. Which are more difficult to deal with? Explain why.

**How are product returns activities measured or monitored? Solicit the following information:**

- The use of internal organisational measures and any across supply chain measures.
- The use of “reason codes” to separate returns by type.
- Metrics that are used to measure performance. (For example: return rates (by reason), financial impact, cause analysis, proportion reclaimed / recycled, Economic Value Added (EVA), the cost of returns to the organisation, sales /sq. m.).
- How is the balance determined between product returns and price markdowns?
- How the performance / activity data is used (For example, reporting frequency, who receives reports, the extent to which the data is discussed in management meetings, what action is taken).
- What are the levels of returns? Are they the same for all product types?
- To what extent is performance data shared with suppliers? How is this done?
- Obtain copies of reason codes used and any reports generated if possible.
- What is being done to reduce returns?

**Gatekeeping / avoidance practices:**

- Why can’t the organisation simply refuse to accept returns? What would happen if it did?
- Are there any financial incentives offered by the supplier to avoid returns?
- Explore the risk dimension of accepting returns.

**Disposition of returned products:**
• What happens to returned products? Is there an asset recovery program in place? (Prompt: recycle, re-use, dismantle, re-manufacture, landfill, other?)
• How does the company recover value from returned products?
• What role do “corporate citizenship” factors play in product disposition?

Use of 3PLs in product returns:
• Is a 3PL used?
• Why?
• What are the costs and benefits?

3PL Interview

Please explain for me product and information flows in the supply chain for returned products from your client.

Please explain your role as provider of 3PL services to your client. Solicit the following information:
• The services provided.
• The strategic vs. operational contribution to the client.
• How the 3PL adds value to the retailer in processing product returns.
• How the 3PL adds value to the supplier in processing product returns.

“Value” was not used as a term. The discussion revolved around the benefits and costs associated with the use of a 3PL.
Appendix 2: Publications arising from this Study


