

UNIVERSITY OF CALGARY

E-retailer return policies and their relationship with operations strategy priorities and market
performance

by

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A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE
DEGREE OF DOCTOR OF PHILOSOPHY

GRADUATE PROGRAM IN MANAGEMENT

CALGARY, ALBERTA

DECEMBER, 2018

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Abstract

Return policies are the method by which customers are informed of the rules around returning purchased products. Extant research has focused primarily on how firms can create return policies that encourage customer purchase. While this focus on demand attempts to turn a potential negative in the customer's mind into a positive, the lack of consideration of the firm perspective in the creation and impact of return policies is noticeable. This dissertation aims to answer the question: *How is the operations functional area of a firm reflected in the content of return policies and how do return policies impact firm performance?* It explores this question in three studies by focusing on the under-explored operational influence on firm return policies. Using content analysis of e-retailer return policies, this dissertation suggests that return policy content is influenced by the operations function of the firm and that rather than a sales generator, return policies exist to reduce transaction risk and minimize transaction costs that exist in the business-to-consumer environment. The influence of firm operations of the firm are identified in paper two, suggesting that the operations strategy priorities of the firm influence the content of return policies. Finally, in paper three, I suggest a moderating role for return policies on customer satisfaction which differs from the current research focus on direct effects. Findings from this study suggest that that the process for returning products has a negative moderating influence on the relationship between pre-purchase expectation and post-purchase satisfaction. This suggests that return policies are not considered by customers in isolation but instead are part of a set of service options related to the logistics service offerings of the firm.

Keywords: Return Policies, Operations Strategy, E-retailing

Acknowledgements

This dissertation would not have been completed without the contributions and support of many people. First, thank-you to my supervisor, Dr. Giovani Caetano da Silveira. You never gave up on me, even when it appeared as though I had given up on myself. I would not have finished this work without your support, guidance, and ever-prompt feedback. I'd also like to thank all the instructors I was lucky enough to learn from during my coursework. I'd especially like to thank: Dr. Jaydeep Balakrishnan, Dr. Diane Bischak, Dr. Birgitte Groggaard, and Dr. Loren Falkenberg for their mentorship and guidance.

My friends have been a constant source of support. They have distracted me when necessary, helped me run marathons, and stopped asking when my dissertation would be done when I needed them to. I appreciate all the forms of support they gave me during these years. My course colleagues taught me so much and helped me see my way through the forest on many occasions. I'd especially like to thank Zaman Forootan, who was my guide and closest colleague while at Haskayne. Thank-you for reminding me that, in fact, "not everyone" can complete a Ph.D.. I also am indebted to Christopher Eaton, who provided me with numerous reality checks along the way and was always willing to send me materials I expressed an interest in.

My family across Canada has been cheering for me for so long. Thank-you to everyone for your support, especially my parents who wisely stopped asking when I would be finished and just told me to let them know when I was done. Finally, my gratitude for the support and understanding of my husband, Brian, knows no bounds. He supported my decision to start down this path and has been my biggest cheerleader and supporter during this process. Thank-you for the food; thank-you for the cleaning; but most importantly, thank-you for your love.

Dedication

This work is dedicated to Brian and Vincent.

Now we can play. ☺

To Doug Roemer. Thank-you for the kidney.

I could not have done this without your generous gift.

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CHAPTER 1: INTRODUCTION

What is a return policy? As I define in the papers of this dissertation: “a return policy is a set of rules and guidelines, developed by a firm, that governs the return of previously purchased items by customers, and states the conditions upon which a firm will accept the return of goods purchased, how to accomplish the return of products, and what credit customers will receive if they return a purchased item.” This highly transactional definition contains restrictions and instructions but most importantly it suggests that it is the firm that creates the return policy. While the firm creates the policy, precisely what influences the content of return policies continues to be unresolved in the literature. Extant research into return policies is sparse yet consistent: customers prefer lenient return policies, that is, policies that make it easy to return purchased items (see Janakiraman et al. (2016)). Yet, firm return policies are not that lenient, which begs the question, “why not?”

This dissertation attempts to contribute to the answer of that question by empirically exploring the relationship of the operations area of the firm with its return policies. The papers that comprise this dissertation were designed to answer the questions: *How is the operations functional area of a firm reflected in the content of return policies* and *how do return policies impact firm performance?* These questions are addressed through three separate yet interrelated studies of the return policies of e-retailers. The first study creates input for the subsequent studies by assessing the restrictiveness of an e-retailer return policies using two new scales developed for this research, based in transaction cost theory. These new scales are a new way to quantify return policies that is easy for researchers to apply to increase consistency in return policy leniency assessment in future research. Then, the alignment of the return policies and the operations strategy priorities of the firm is assessed using the scales developed in the first paper

and data obtained through content analysis of 113 firm annual reports. Finally, a novel perspective on the mechanisms by which return policies influence customer satisfaction is introduced by connecting them with the logistics capabilities of 156 firms in a moderation model.

These three articles present different but complementary contributions to the question of how returns are created and how they influence firm performance. Through these works, I suggest that return policies are more than just a method by which firms can influence customer behaviour and signal the type of firm they are. As a policy presented by the marketing area of the firm but supported by the operations of the firm, a return policy is more aptly described as a tool that firms can deploy to support their position in the marketplace (in the case of this dissertation, specifically in e-retailing). In this way, it can be used to support both operations and marketing requirements relative to product returns. The papers suggest an alternative perspective on return policies that deviates from the current dominant perspective that returns should be lenient to satisfy customers. This perspective is that firms make choices when creating return policies, based on their operations requirements and capabilities. Moreover, unlike previous studies, this research suggests that there is an interaction between operational capabilities and return policies that support customer satisfaction. It is the operations focus of these papers that create a cohesive and new perspective on return policies.

The remainder of this dissertation is structured as follows. Before the studies themselves are presented, the position of the works at the marketing-operations interface is discussed as well as the methodological perspective adopted. The structure of the studies and their connection is then discussed followed by the three studies. The dissertation concludes with the combined implications as well as the limitations of this work.

1.1 Return Policies and Operations Management

The position that product returns have the potential to positively influence firm outcomes has been adopted in the marketing literature. The idea that returns are not a “necessary evil” was explored by Petersen & Kumar (2009). Using an analytical model followed by an empirical assessment, they find that return policies can increase customer purchases over time and that a certain volume of returns is desirable for firms. They include a measure in the model for the cost of the reverse logistics however it is incomplete, only including the cost of return shipping. The process is more complex than simply returning an item and costs associated with the process more numerous (Guide Jr & Van Wassenhove, 2009; Rogers et al., 2002) The cost of returns varies by firm, however the costs of handling can be great as they include not only the cost of processing the return but also of lost sales that may result from delays in processing these returns. Moreover, the tracking of these costs can be difficult and the cost of lost sales may be significant. Guide Jr. et al. (2006) found that the value of returned goods can decrease by up 30% as a result of shipping delays.

This research is positioned at what is known as the marketing-operations interface (M-OI). Research into this area of management is concerned with effective integration between the functional areas of marketing and operations within a firm. The goal of such cross-functional coordination is improved firm performance. As discussed in Mollenkopf et al. (2011), the majority of research at the M-OI has focused on forward supply chain activities. Yet product returns are obviously related to both functional areas as return authorization often comes from marketing personnel while the activities involved in processing and transporting the return products are under the purvey of the operations personnel of the firm (Mollenkopf & Closs, 2005).

Product return research has tended to adhere to this division, whereby marketing researchers focus on the use of returns to influence demand and operations researchers study efficient processing of customer returns. Ultimately, this has resulted in a demand-driven perspective in the majority of research that suggests that customers want, and firms benefit from, lenient return policies. Thus, operationally, the costs of returns need to be minimized while increasing processing speed to encourage repurchasing. This dissertation seeks to broaden that perspective to investigate return policies from the operations perspective of the firm. Using an integrated marketing-operations perspective operations activities related to return policies are investigated and combined with a focus on customer satisfaction with the e-retail purchase process.

Together, the three articles in this dissertation contribute a different perspective to the extant research on return policies by examining the relationship of return policies with the operations function of the firm. There has been little such investigation to-date. All three papers acknowledge the current demand-focus of extant research however they expand the view of return policies suggesting a richer foundation and more complex understanding of issues related to designing return policies. Starting from the premise that the operations area of a firm should have input into firm return policy content, the three papers relate the restrictiveness of a return policy to the operational needs and activities of the firm. While all three papers acknowledge the current focus on the potential outcomes of lenient return policies, they approach the existence of return policies as a potential driver of the content and function of return policies.

The first paper explores the potential reasons for the restrictions in return policies. It suggests that the restrictions exist to control the flow of products into the reverse supply chain and to protect the firm from potential customer opportunistic behaviour. This diverges from the

current marketing perspective of the potential use of return policies as tools incite customer purchases. This paper has undergone significant work, including presentations at multiple conferences and peer review at two different journals. I have been fortunate to receive reviews on the first paper from six anonymous reviewers at two different journals, *Journal of Retailing* and *Journal of Business Logistics*. I appreciate their contribution to that paper in particular because of how important I believe it to be as a potential innovation in the categorization of return policies. The comments of the reviewers have been favourable; an associate editor indicated that they would be interested in using the scales in their own research. This is encouraging support for the value of this study. While all three papers have been co-authored with the dissertation supervisor, Dr. Giovanni J.C. da Silveira, the author of this dissertation is the primary contributor to the research and is responsible for the writing of all three papers.

1.2 Methodological Perspective

Research into return policies has been approached by previous researchers using a variety of methods. In the Operations field, the primary approach has been analytical modelling. Studies using this method have tended to focus on the impact of return policies on the supply chain. For example, Su (2009) developed a model of consumer return policies to investigate the impact of the degree of refund given to customers when returning items on the financial performance of the entire supply chain. Alternatively, researchers have approached the question of how restrictive return policies of manufacturers should be using analytical models (e.g. Gurnani et al. (2010) suggest manufacturers can maximize profits by offering partial returns to a retailer.). Modeling researchers also attempt to explore the marketing perspective of how return policy restrictiveness impacts demand. Ketzenberg & Zuidwijk (2009) model the use of price and return policies to influence demand and suggest a so-called “intermediate return policy” is optimal to influence

demand. Such a policy is “somewhere between accepting no returns and accepting all returns unconditionally” (Ketzenberg & Zuidwijk, 2009, p. 355). The challenge in such modelling research is how to model return policy restrictiveness. As a result, models necessarily tend to oversimplify the dimensions of return policies by using one return policy restriction to categorize them (e.g. time to return, restocking fees). This oversimplification, while expeditious, overlooks the multiple purposes of return policies.

I chose to take an empirical approach to investigating return policies. This dissertation focuses on the return policies of e-retailers. This distribution is expected to continue to grow globally, with anticipated sales growing from 2.3 trillion USD in 2017 to potentially 4.9 trillion USD in 2021 (Statistica, 2018). Increased e-retail purchasing by customers will result in even greater quantities of returned products than already experienced by retailers creating a challenge for all retailers. Research into the content of return policies, how they impact customer satisfaction, and how to manage the returns process operationally will help firms to plan for and manage this challenge. The preponderance of research into return policies in the marketing field has attempted to understand the impact of return policies on customers (see Janakiraman et al. (2016)). As a result of these two considerations, I took the arms-length perspective of a customer to collect the data and assess the return policies by using content analysis. Understanding the intent of return policy content will help researchers and customers to understand choices made and provided by firms related to the returns process. All data used for analysis was collected from publicly available sources, especially the firm websites, in the case of the return policies themselves. Annual reports were analyzed to determine the operational focus of the sample firms and customer ratings of firm performance analyzed as part of the assessment of return policy

influence. The benefit of using such data is that it comes directly from the firm, and improves the replicability of the analysis (Weber, 1990).

1.3 Dissertation Structure

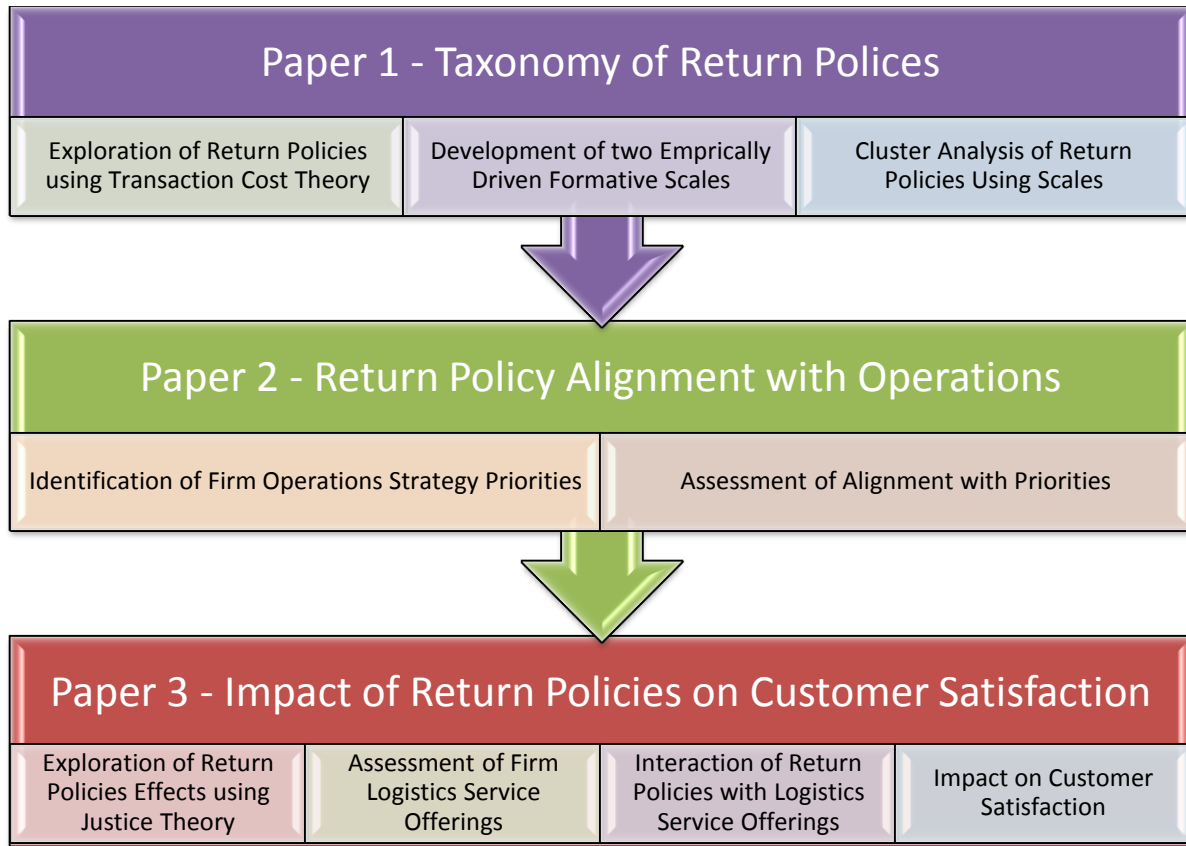
This dissertation is comprised of three papers that are related to each other through their focus on the return policies relative to the operations of e-retailers. I take an integrated marketing-operations approach to consider both customer satisfaction and operational requirements relative to the content, creation, and impact of return policies. The first empirical essay identifies new dimensions along which the return policies of e-retailers vary. Previous researchers identified categories of restrictions however these categories have been focused primarily on the relationship of return policies to customers without considering the operations perspective. The two dimensions identified in the first essay reflect the role of return policies in protecting the firm from opportunism, and how the firm enables returned products to enter the reverse supply chain. Based in Transaction Cost Theory, this study asserts the need of firms to address the costs and risks associated with the return transaction in return policies. This approach differs noticeably from the extant literature. The results of this research are used in the two subsequent papers.

The second paper addresses the strategic fit of the return policies of the sample firms with their operations strategy. Taking an innovative approach to identify the operations strategies of the firm by using content analysis of annual reports, this study is a nascent attempt to understand the connection of the return policies of e-retailers to the operations strategy priorities of the firm. While the firm understandably is concerned with the competitive environment in which it operates, the importance of strategic fit has long been a foundation of operations strategy (Skinner, 1969). Understanding this relationship is fundamental to understanding how firms

determine the contents of their return policies as well as how they approach the design of mechanisms to support the operational requirements necessitated by the contents of the policies.

The third paper addresses the primary issue of concern related to return policies in the extant literature: How do they impact firm performance? Starting from the acknowledged operational requirement to have strong logistics capabilities in e-retailing (Pyke et al., 2001), the paper suggests that instead of a primary, and independent role, as commonly suggested, that return policies play a moderating role in customer satisfaction with their operations contact with e-retailers. Using the return policy dimensions identified in the first paper, the relationship is assessed for 156 firms using the actual logistics service offerings of the firms indicated on their websites. Customer satisfaction is assessed using online ratings. The research framework for the dissertation is detailed in Figure 1.

Figure 1 - Dissertation Research Framework



The conclusion discusses the individual and combined contributions of the three essays that comprise this dissertation. Further, it outlines some limitations of the dissertation that I believe are out-weighed by the findings of these studies. I believe the outcomes of the studies can inform both researchers and practitioners about the influence of operations activities of e-retailers on their return policies and help them to make clearer decisions regarding return policy restrictiveness.

CHAPTER 2: SCALE DEVELOPMENT

2.1 Introduction

Return policies are important customer enablers in the modern e-retail environment. Customers may or may not have physically examined a purchased product before they make a purchase which may increase customer anxiety related to the ability of the product to fulfill their needs (Hsiao & Chen, 2012). Return policies therefore enable customers to experience products they purchase before committing to keeping them (King et al., 2008).

Return policies are therefore an important part of the strategic returns management process of firms which aims to control the quantity and quality of returned products and reduce the costs of returns (Rogers, et al., 2002). They are part of the gatekeeping function of the reverse supply chain, providing staff and customers with a clear understanding of what is acceptable to return, time limits for accepting returns and how to return the items, as well as to control the flow of end-of-use and end-of-life materials into the reverse supply chain (Mollenkopf, Russo, et al., 2007; Rogers, et al., 2002). Such an important role suggests the need to investigate return policies on a more significant level than has been accomplished to-date.

There is little research into the content of return policies and extant research uses varying components of the policies to operationalize the policies for use in studies. Consequently, there is no standard scale employed by researchers to assess the restrictiveness of return policies. This is problematic because the majority of research that investigates the effects of return policies on customer actions and firm outcomes claims that so-called “lenient” return policies are more desirable. Yet, without the ability to assess the complete policy and maintain consistency in measures between studies, these findings are difficult to generalize and may have limited practical influence.

The need for valid and reliable scales for use in further research has become apparent as interest in and research using return policies continues to increase. Current practice primarily focuses on using only one part of a return policy to categorize the entire policy (e.g. (Bahn & Boyd, 2014; Pei et al., 2014)). Developing valid and reliable scales to use in future research may support empirical tests of hypotheses on relationships between these policies and firm strategies and performance.

The objective of this study is to introduce and validate two scales that express the leniency of return policies using the content of existing e-retail return policies. Based in Transaction Cost Theory, the scales measure the restrictions in return policies aimed at reducing customer opportunism and ensuring a clear process for returning purchased items. The scales incorporate many restrictions contained in return policies, thus they better reflect the content of the return policies and therefore the possible intent of the retailers. The two scales provide researchers with the opportunity to assess return policies based on more than the simplistic categorization dichotomies employed by previous researchers.

This study provides an overview of the literature related to the composition of return policies and return policies in e-retailing as well as their role in the reverse supply chain. The new operational scales are developed using data collected from 405 return policies of e-retailers. Detailed scale development and validation processes are presented followed by implications for academia and retailers.

2.2 Theoretical Background

Return policies are not recent inventions. However, an early reference to return policies considered them to be "trade abuses" (Brock, 1934). One would be hard-pressed to find a retail business in North America that does not have a return policy, even if the policy is that they do not accept returns. While there is a common understanding of what a return policy is, there appears to be no formalized, succinct definition of return policies. Return policies are created by firms to govern the return of previously purchased goods which suggests a functional definition that will be used for this research. Based on Rogers et al., (2002) and Mollenkopf et al. (2007), a return policy is a set of rules and guidelines, developed by a firm, that governs the return of previously purchased items by customers. It states the conditions upon which a firm will accept the return of goods purchased, how to accomplish the return of products, and what credit customers will receive if they return a purchased item.

Internet retailing (e-retailing) is an increasingly popular channel via which consumers purchase products and services. The volume of sales transacted over the Internet has increased in the U.S. from \$71 Billion USD in 2004 (U.S. Census Bureau, 2007) to \$254 Billion USD in 2014 (U.S. Census Bureau, 2016). E-retail return policies are very similar to the return policies of firms that sell products solely from a physical store location but they include more detailed components such as requirements necessitated by the shipping requirements of this form of product sales distribution. Ease of use of return policies has been identified as a fundamental objective for e-retailers to maximize overall convenience for the customer (Keeney, 1999) and to maintain good customer relations (Chang et al., 2004; Torkzadeh & Dhillon, 2002). While return policies are of great importance to satisfactory customer relations in the e-retail B2C environment, related research is scarce.

2.2.1 Return policy categorization

There is consensus among researchers that leniency is the best way to assess return policies as first suggested by Davis et al. (1998). Leniency has been operationalized in a number of ways. Davis et al. (1998) and Bonifield et al. (2010) sum the restrictions included in return policies. In modeling research, a frequently used measure of return policy leniency the amount of money returned to the customer, e.g. “full” (full price paid for the item and sometimes the initial shipping costs if refunded) versus “partial” (the amount refunded to the customer is reduced from the full amount paid by restocking fees or the cost to ship the product back) (Chen & Bell, 2012; Kukar-Kinney et al., 2007; Pei, et al., 2014; Su, 2009). The amount of time a customer has to return an item has also been used as a proxy for return policy leniency, whereby a longer period to assess the product is considered more lenient than a shorter period (Bahn & Boyd, 2014). So-called “Return Time Leniency” (i.e. how long customers have to experience a product before purchasing (Rao et al., 2017)) has been suggested to be one of the leading indicators of return policy leniency however it is not the only restriction in these policies. While such a measure may provide some insight into the costs and benefits of time leniency in return policies (Rao, et al., 2017), the existence of other restrictions in the policies suggest their presence for, as yet, unclear reasons. The variation in the description and categorization of policies in previous studies, as well as the on one policy component suggests a limited understanding of the complexity of return policies, their composition, and their purpose.

2.2.2 Return policy content

The composition of e-retail policies and how they vary between firms is underexplored. Davis et al. (1998) present the first list of return policy restrictions in academic literature (product must be unused, product must have original packaging, product must have original

documents, different return policy for different products, time limit for return, store credit or exchange only permitted). These restrictions largely relate to the products themselves and the form in which they need to be in order for retailers to accept the products back from customers at physical store locations. They count the presence of six restrictions in return policies to measure their leniency.

Bonifield et al (2010) extend the restrictions identified by Davis et al. (1998), and modify them for the online environment. They separate the restrictions into two indices: REM (Availability of Refunds, Exchanges, and Merchandise Credits) and Restrictions (return shipping label provided, time limit for return, return shipping costs paid, restocking fees, original shipping costs refunded, pre-authorization required, customer contact information provided); however the theoretical foundation for these indices are unclear. As in Davis et al. (1998), they create the indices by summing binary presence of each restriction; however, they do not test the reliability or validity of scales. Janakiraman et al. (2016) propose for a meta-analysis that return policies vary along five dimensions: time, monetary refund, effort, scope, and exchange leniency based on Bonifield et al. (2010) and Heiman et al. (2001). The Effort Leniency dimension is problematic, however, as there are many different actions that customers may have to take in order to accomplish a return. While the dimensions of Janakiraman et al. (2016) are useful to investigate research done on return policies, the Effort Leniency dimension does not fully detail all the possible restrictions and purposes of return policy restrictions, leaving a gap in our understanding of what the restrictions are intended to accomplish.

The restrictions contained within return policies have increased in number since the seminal research of Davis et al. (1998) with the additions of Bonifield et al. (2010) and additional researchers interested in the customer experience of returns management (e.g.

Mollenkopf et al. (2007)). In total, there are 16 restrictions identified by these studies. The number of potential restrictions in a return policy and the challenge associated with understanding their relationships may be why so many scholars have chosen to use only one restriction within a return policy to represent the overall leniency of a return policy. However, the assumption that customers judge return policies by only one of the restrictions in the policy is untested and likely an oversimplification. The presence of numerous restrictions in the policies suggests that they are included return policies for specific reasons from the firm's perspective.

2.2.3 Factors influencing product returns and return policies

Transaction Cost Theory (TCT) has traditionally been used to examine firm decisions in B2B relationships. Researchers have started to see value in expanding the use of the theory to other transactions, particularly B2C transactions (e.g. Liang & Huang (1998), Wu et al. (2014)). E-retail return policies are appropriate to study using the TCT lens because of the nature of the transaction and the exaggerated uncertainty faced by the customer because they are unable to see the product before they purchase. There are also costs incurred by both firms and customers when returning products (Moorthy & Srinivasan, 1995).

E-retail studies frequently discuss the TCT-related concept of opportunism. As previously described, product returns may be generated by opportunistic behaviour on the part of customers. Rao et al. (2017) suggest that in e-retail transactions there is a large amount of information asymmetry between customers and firms. Both parties have information that the other does not. From the firm perspective, the motivations, needs, and desires of the customer are unknown. Reduction of this form of information asymmetry may not be achievable at the point of sale so the return policy can be created to protect the firm from hidden opportunistic intent on the part of the customer. Transaction costs are not limited to costs the business incurs in

customer sales activities (Alt, 2017). The costs incurred in processing returned items are high and e-retailers are challenged to process returned items as quickly as possible. The design of an effective returns process is critical to the function of the reverse supply chain. As described by Guide Jr. et al. (2006) firms lose the opportunity to obtain residual value from returned products if they do not quickly and efficiently process them. This suggests the importance of reducing the costs of the process of obtaining the product from customers to facilitate prompt returns.

Although the majority of previous research focuses on the impact of return policies on customers, there are multiple influences on the content of customer return policies. The operational needs that are reflected in the return policies have been of lesser interest to researchers. Two factors that firms may consider when creating return policies are customer opportunistic behaviour and the returns management process of the firm.

Previously used scales have focused primarily on the perspective of the customer. Firms create the policies for the use of customers but they need to support the e-retailer. Total transaction costs are comprised of both the costs of the transactions and the costs related to transaction risks (Clemons et al., 1993). According to Transaction Cost Theory, firms attempt to minimize both transaction costs and transaction risks. This relates to the restrictions contained in return policies; they function to reduce both costs and risks to the firm, more than to the customer. Accordingly, this research introduces two scales to assess these constructs: *PROTECT* and *PROCESS*.

Transaction costs and transaction risks have minimal or no conceptual overlap as they refer to separate areas of trade and logistics management. *PROTECT* refers to protecting the firm from opportunistic behavior on the part of customers, i.e. minimizing transaction risk, including company conditions on trade, customer relations, refunds, etc.. *PROCESS* refers to logistics

aspects of shipping including costs, information requirements, return location(s), etc., i.e. transaction costs.

2.2.4 Customer return behavior – opportunism

When creating return policies, firms hope that all their customers behave ethically but realize that there may be customers who try to take advantage of the firm by attempting to return a product that should not be returned for reasons such as use, damage, or even theft. While Bonifield et al. (2010) propose that the leniency of a return policy provides an indication of the quality of the retailer, the quality of the customer is not often considered by researchers. In an effort to minimize the volume of customer returns, firms may create restrictive return policies. In order to provide lenient return policies that do not result in decreased profitability, firms must craft a return policy that balances the firm requirement for profitability with the customer preference for leniency. From the firm perspective, it needs to be able to make it easy for the customer to return the item, as long as the customer is dealing in good faith, i.e. not attempting to take advantage of the firm.

King et al. (2008) suggest caution when designing return policies due to the potential for customers to take advantage of the firm by making a purchase, using the product and subsequently returning it for a full refund, i.e. “retail borrowing” (Piron & Young, 2000). Customers may also deliberately steal or attempt to fraudulently return items (Speights, 2013). Rosenbaum et al. (2010) suggest that based on previous research, nearly 20% of retail customers are involved in what they term “unethical retail disposition” (URD) or “deshopping” (King, et al., 2008). URD is defined as product usage, theft, or deliberate fraud.

This customer behaviour is costly for firms. In 2013, retail fraud related to product returns represented 3.4% of all customer returns and cost U.S. retailers an estimated \$9.1 billion

USD (Shearman, 2014). This large financial impact may drive firms to incorporate restrictions in their policies to try to minimize the potential for opportunistic behaviour by customers.

Firms will attempt to minimize their transaction costs however the competitive environment may make it challenging to do so. In highly competitive environments, i.e. those with many competitors, firms may change strategies due to competitive pressures (Voss & Voss, 2008). They may be pressured to offer more lenient return policies and accept more risk in the sales transaction to entice customers to purchase. Although information asymmetry still exists, the firm may choose to reduce the restrictions in place to protect from opportunism.

Alternatively, there may be more protection- related restrictions in less competitive environments where firms are not as compelled to offer more attractive (lenient) return policies. More restrictive policies may be offered if there are fewer competitors attempting to sell to customers. The *PROTECT* scale will reflect this whereby firms that have a large number of direct competitors will have low scores, reflecting the willingness of the firm to incur higher transaction risk by more freely accepting customer product returns.

2.2.5 Ease of return and the returns management process

Return policy leniency is related to reverse logistics capabilities including return authorization processes and credit processing (Autry, 2005). Returns processing is a function of the reverse supply chain of retailers. The reverse supply chain is focused on the efficient collection and processing of items that are returned to a company for any reason (Guide & Van Wassenhove, 2006). It is a very important process that should be viewed from a strategic perspective. It should to facilitate returns and customer refunds, attempt to minimize future returns, and try to obtain residual value from returned items to minimize the cost to the firm (Rogers, et al., 2002). Recent research suggests that strong returns processing capabilities can

positively influence customer repurchase behaviour and long-term customer loyalty (Griffis, Rao, Goldsby, & Niranjan, 2012). Additionally, free returns (i.e. returns which are pre-paid by the e-retailer) may increase order frequency (Lantz & Hjort, 2013) suggesting an opportunity for firms to positively impact long-term sales.

At the start of the reverse supply chain managers want to try to limit the flow of products into the reverse supply chain. They accomplish this through avoidance and gatekeeping. Avoidance activities try to minimize return requests (Rogers, et al., 2002). The goal of gatekeeping is to ensure that only the products that should enter the reverse supply chain do so (Rogers, et al., 2002). To do this, both the return request and the returned merchandise are both screened (Rogers & Tibben-Lemke, 1999). Product acquisition is concerned with how items that have been accepted for return are obtained by the firm (Guide Jr & Van Wassenhove, 2003; Rogers, et al., 2002). These processes are crucial to ensure that products returned are easily obtained and they once they are in the reverse supply chain, disposition decisions are easily enacted. The process of returning items may vary based on the return capabilities of a retailer and the firm's returns management process.

The distribution channel used by the firm may increase and decrease the score on the *PROCESS* scale. There are physical limitations for firms that are solely web-based however there are ways that they can facilitate the return from a process perspective. Firms may use logistics service providers to facilitate exchanges, even if there is no physical store available. Alternatively, firms with store locations may prefer not to have e-retail customers return products to their stores.

2.3 Scale Development and Validation

This study was performed using the return policies published by e-retailers on their e-

commerce websites. These policies encompass requirements for returning items sold to customers via the e-retail sales channel as well as the process for returning them to the retailer. In this section the data source, data collection process and coding process are detailed.

2.3.1 Item generation

2.3.1.1 Coding process.

A master coding sheet was created based on the restrictions found in previous studies by Davis et al. (1998), Mollenkopf et al. (2007) and Bonifield et al. (2010) (see

Table 1). These three studies provide an exhaustive list of the restrictions previously used in return policy-related research.

Table 1 - Return policy restrictions

Restriction	Variable	Study
There is a time limit for returns	<i>TIMELMT</i>	Davis et al. (1998); Bonifield et al. (2010)
Product must be unused	<i>UNUSED</i>	Davis et al. (1998; Mollenkopf et al. (2007)
Product must have original packaging	<i>PACKAGE</i>	Davis et al. (1998)
Product must have all original documents	<i>DOCUMENT</i>	Davis et al. (1998)
Different RP for different types of products	<i>DIFFRP</i>	Davis et al. (1998); Bonifield et al. (2010)
Pre-printed label not provided for return shipping	<i>PRPRTLBL</i>	Mollenkopf et al. (2007); Bonifield et al. (2010)
Customer makes arrangements for return pickup	<i>CUSTPU</i>	Bonifield et al. (2010)
Customer service contact information provided	<i>CONTACT</i>	Bonifield et al. (2010)
Additional form must be completed, printed, and submitted with the return	<i>ADDLFORM</i>	Mollenkopf et al. (2007)
Original shipping costs not refunded	<i>ORIGSHIP</i>	Bonifield et al. (2010)
Restocking fee charged	<i>RSTCKFEE</i>	Bonifield et al. (2010)
Pre-authorization required	<i>RMA</i>	Bonifield et al. (2010)
Return shipping costs borne by customer	<i>RTNSHIP</i>	Bonifield et al. (2010)
Return packaging materials not provided	<i>PKGMTL</i>	Bonifield et al. (2010)
Value of goods refunded via store credit or exchange - no refund	<i>STORECRT</i>	Davis et al. (1998)
Exchanges not offered	<i>EXCHANGE</i>	Bonifield et al. (2010)

During the coding process, three additional restrictions were identified and coded:

1. Product May Not be Returned to a Store (*STORERTN*) – The product may not be returned to a physical location.
2. Proof of Purchase Required (*PROOF*) – Customers may be required to include the original or a copy of their invoice, the original or copy of their packing slip, or login to their account with the retailer, identify which item(s) is being returned and print a copy of that page to include in their return shipping box.

3. Advance Shipping Notice Required (ASN) – Retailers may struggle with the random timing of product returns as well as the lack of notification that a shipment is being sent to them by a customer. This may make the processing of the return more difficult and/or time consuming. Customers may login to their account to indicate that they are returning an item. This differs from return authorization by not requiring direct contact and authorization of a return by the firm.

2.3.2 Population and sampling methods

2.3.2.1 Data source.

Each year, Internet Retailer Magazine publishes the top 500 Internet retailers based on total e-retail sales in its *Internet Retailer Top 500 Guide* (IR500). This list is published in print form and online. These firms and their ranking are determined through Internet research as well as interviews with senior management at each of the firms (Internet Retailer Magazine, 2012). This list has been used by other researchers to investigate such many topics, including logistics service quality (Rao, Goldsby, et al., 2011). The IR500 are ranked based on total e-retail sales. The firms on the 2012 list account for \$180,654,715,694 USD of e-retail sales. As suggested by Rao et al (2011) this list is one of the most comprehensive lists of online retailers. These companies are successful in selling online, suggesting they are more likely to have an understanding of what e-retail shoppers desire in a return policy than companies that do not rank as highly on the list or are not on the list at all.

2.3.2.2 Data collection.

Each of the websites of the IR500 was visited. First, the business model was assessed to determine if a return policy was available or would be applicable. Firms that sold services, not products, those that sold perishable products and gifts, and other firms that did not have return

policies were excluded from the study. Gifts were excluded because the original customer was not the end user or recipient of the product purchased on the website and therefore any rationale for product returns may not solely be those of the original purchaser. As discussed in Rao et al. (2011), Amazon.com was also excluded. Amazon had sales of over \$48 billion USD in 2011, which represents 26.6% of the total sales of all the firms included in the IR500, making it a non-representative data source.

The return policies for each of the remaining firms were searched for, starting on the firm's home page. If there was no obvious link to the return policy of the firm, "Customer Service", "FAQs", or "Shipping Information" were searched for since these were the webpages on which firm return policies were most frequently found. The return policies were cut and pasted into MS Word documents and saved individually.

2.3.2.3 Firm exclusions.

Not all firms on the IR500 were included in the analysis for various reasons. The IR500 includes both retailers of goods and services, as well as firms that have multiple companies selling products, e.g. parent companies of additional retail brands. Reasons for excluding firms are detailed in Table 2.

Table 2- Reasons for firm exclusion

REASON	<i>n</i>
No return policy provided on the website.	10
Product(s) may not be returned.	34
One must login to the site to view the return policy.	10
Firm may sell products through multiple brands and/or websites.	25
Policies were incomplete.	3
It was not possible to obtain the return policy for the U.S. website.	2
Customized or specialty products that customers are unlikely to return.	5
Some sites would not open after multiple attempts.	2
The IR500 list provides sales data for all firms but one.	1
One firm was in receivership.	1
Although there was a return policy published, returns were not permitted.	2

After identifying exclusions, there were 405 firms remaining for use in the analysis.

Table 3 details the types of products sold by the remaining firms.

Table 3 – Firm Merchandise Types

Product Category	Number of Firms	Percent of Sample	Average Sales/Category
Apparel / Accessories	121	29.88%	\$ 158,149,982
Automotive Parts / Accessories	8	1.98%	\$ 94,332,515
Books / Music / Videos	19	4.69%	\$ 120,494,211
Computers / Electronics	42	10.37%	\$ 626,943,405
Flowers / Gifts	4	0.99%	\$ 40,037,500
Food / Drug	6	1.48%	\$ 237,397,270
Hardware / Home Improvement	19	4.69%	\$ 228,007,769
Health / Beauty	25	6.17%	\$ 79,649,075
Housewares / Home Furnishings	32	7.90%	\$ 125,704,433
Jewelry	13	3.21%	\$ 86,639,301
Mass Merchant	25	6.17%	\$ 852,983,698
Office Supplies	15	3.70%	\$ 1,242,057,644
Specialty / Non-apparel	38	9.38%	\$ 92,877,294
Sporting Goods	25	6.17%	\$ 91,536,995
Toys / Hobbies	13	3.21%	\$ 151,655,386

The sample firms also vary in terms of the selling channels (referred to as “merchant type” in this research) used to sell their products to customers, e.g. some started as firms selling direct to customers from retail stores while others started as catalog sellers. A breakdown of the sample firm merchant types is presented in Table 4.

Table 4 – Sample firm merchant types

Merchant Type	Number of Firms	Percent of Sample
Web-Only	158	38.02%
Retail Chain	144	36.05%
Consumer Brand Manufacturer	51	12.35%
Catalog/Call Centre	52	13.58%

2.3.2.4 Coding.

Each return policy was assessed individually. The restrictions were assessed and coded as 1 if the hassle was present and 0 if it was not. The only exclusion to this coding process was

TIMELMT, which was coded 1 if a customer had 30 days or less to return the product or 0 if more than 31 days. If a firm fell into one of the detailed exclusion categories (Table 2), its policy was not coded.

2.3.2.5 Coding reliability.

To determine coding reliability, 50 firms were double-coded by the primary investigator and another individual. The second coder was given the codebook that outlined the coding process. They were also walked through the coding process by the primary investigator. Training continued until the second coder felt comfortable with the process and was able to code the return policies without hesitation.

Inter-rater agreement was 99.65% and Krippendorff's Alpha was 97.90% (Krippendorff, 2012). This high level of agreement indicates a reliable coding process. This is likely related to the relatively simple coding of the presence or absence of a hassle, which is generally easy to identify, once a coder is trained. Such a high level of reliability, while not surprising, still indicates high coding reliability on the part of the primary investigator.

2.4 Statistical Validation

The results of the initial coding process are presented in

Table 5. The coding results were used to create two new scales to use to categorize the return policies: *PROTECT* and *PROCESS*. Restrictions that may reduce the incidence of customer opportunism by demonstrating that the customer has obtained value from the product through use or that they did not actually purchase the item they are attempting to return were classified as part of the *PROTECT* scale. These restrictions relate to the transaction risk potential to the firm. Alternatively, restrictions related to the costs of the return transaction were classified as part of the *PROCESS* scale.

Table 5 - Restriction occurrences

<i>PROTECT</i>			<i>PROCESS</i>		
Variable	Absent (0)	Present (1)	Variable	Absent (0)	Present (1)
<i>TIMELMT</i>	47	358	<i>RSTCKFEE</i>	341	64
<i>UNUSED</i>	120	285	<i>PRPRTLBL</i>	189	216
<i>PACKAGE</i>	165	240	<i>ORIGSHIP*</i>	5	400
<i>DOCUMENT*</i>	257	148	<i>CONTACT*</i>	405	0
<i>DIFFRP</i>	177	228	<i>CUSTPU*</i>	5	400
<i>STORECRT</i>	394	11	<i>PKGMTL*</i>	3	402
<i>ADDLFORM</i>	169	236	<i>RTNSHIP</i>	33	372
<i>PROOF</i>	203	202	<i>RMA</i>	211	194
			<i>EXCHANGE</i>	265	140
			<i>STORERTN</i>	141	264
			<i>NOTICE</i>	387	18

*Dropped from analysis

Based on the independent aspects of firm reverse supply chain processes, and types of customer opportunistic behaviour, managers decide which restrictions to include when designing return policies, suggesting the development of formative scales. Formative scales are increasingly used to create measures comprised of related concepts that do not share variance, i.e. while the variables are related, changes in one variable may not necessarily result in changes in others. These scales are theory-driven and may be validated through the assessment of a multiple indicators and multiple causes (MIMIC) model (Diamantopoulos & Winklhofer, 2001; Jarvis et al., 2003).

As discussed in Diamantopolous & Winklhofer (2001), while there are detailed guides for the construction and validation of reflective scales (e.g. Churchill Jr. (1979)), there are not for indices based on formative indicators. They suggest that there are four primary issues to address in the construction of formative scales: content specification, indicator specification, indicator collinearity, and external validity. In this study, two scales are developed addressing these four issues, to assess the leniency of the return policies based on firm-related factors: *PROTECT* and *PROCESS*.

All the variables coded were assessed for suitability of inclusion in the scales. Four variables were not included in the scale development process due to little variation in the coding results, i.e. most of the coding was either absent or present, suggesting little impact on the types of return policies. These variables are Original Shipping Costs Not Refunded (*ORIGSHIP*) (Absent: 5, Present: 400), Customer Service Contact Information Not Provided (*CONTACT*) (Absent: 405; Present: 0), Customer Arranges Pickup (*CUSTPU*) (Absent: 5; Present: 400), and Return Packaging Materials Not Provided (*PKGMTL*) (Absent: 3; Present: 402). The restriction requiring original documents to be included in a return item (*DOCUMENT*) was also excluded since it primarily relates only to a limited number of products that include documents in the original product.

The constructs in this study are a composite of their indicators, i.e. they are caused, or created by the indicators. In formative scales, each of the indicators represent a different aspect of the focal construct (Diamantopoulos et al., 2008; Jarvis, et al., 2003). As they are different aspects of the focal construct, they may be positively, negatively, or zero-correlated (Bollen, 1984; Diamantopoulos & Winklhofer, 2001). However, it is recommended that the correlations between formative indicators be below 0.35 to minimize potential multicollinearity (Diamantopoulos & Siguaaw, 2006). A multiple indicators and multiple causes model (MIMIC) (Diamantopoulos & Winklhofer, 2001; Jarvis, et al., 2003) was used to validate the scale. In this type of model, to allow for identification of the formative model, at least two reflective indicators must be conceptually linked to the latent variable. The inclusion of the reflective indicators in the MIMIC model is used to indicate external validity of the scale according to the AMOS 23.0 was used to assess the scales (Arbuckle, 2014) using maximum likelihood estimation.

2.4.1 Protection scale (transaction risk)

2.4.1.1 Content specification.

The *PROTECT* scale was conceptualized to include indicators that reduce transaction risk to protect the firm from opportunistic behaviour on the part of customers or financial loss resulting from the return.

2.4.1.2 Indicator Specification.

The concepts covered by the indicators and their sources are detailed in Table 6. All indicators were expected to have a positive relationship with the latent variable.

Table 6 - *PROTECT* scale concepts

Concept	Concept Source	Indicator (Source)
Protection from theft/fraud	Speights, 2013	<i>PROOF</i> (new variable)
Retail borrowing	Piron & Young, 2000	<i>DIFFRP</i> (Bonifield, et al., 2010; Davis, et al., 1998)
Profit Reduction	Bonifield, et al., 2010; Davis, et al., 1998	<i>STORECRT</i> (Bonifield, et al., 2010; Davis, et al., 1998)
Resale Potential	Rogers, et al., 2002	<i>UNUSED</i> (Davis et al. (1998; Mollenkopf et al. (2007))
Cost Reduction	Autry, 2005	<i>PACKAGE</i> (Davis, et al., 1998)
Cost Coverage	Bonifield, et al., 2010; Davis, et al., 1998; Kukar-Kinney, et al., 2007	<i>RSTCKFEE</i> (Bonifield et al. (2010))
Customer Confirmation/Effort	Mollenkopf et al. (2007)	<i>ADDLFORM</i> (Mollenkopf et al. (2007))

2.4.1.3 Indicator Collinearity.

Pearson correlations between all variables for the *PROTECT* scale are detailed in

Table 7. Correlations between *ADDLFORM* and *PROOF* and all other variables are negative; correlations between the remaining variables are all positive and low.

Table 7 - Pearson Correlations: *PROTECT* Scale ($n=405$)

	TIMELMT	UNUSED	PACKAGE	DIFFRP	STORECRT	ADDLFORM	PROOF
TIMELMT	1.00						
UNUSED	0.07	1.00					
PACKAGE	0.09	0.48**	1.00				
DIFFRP	0.15**	0.27**	0.21**	1.00			
STORECRT	0.07	0.02	0.02	0.06	1.00		
ADDLFORM	-0.18**	-0.18**	-0.26**	-0.16**	-0.12*	1.00	
PROOF	-0.07	-0.03	-0.09	-0.05	-0.08	0.39**	1.00

** $p < 0.01$, * $p < 0.05$,

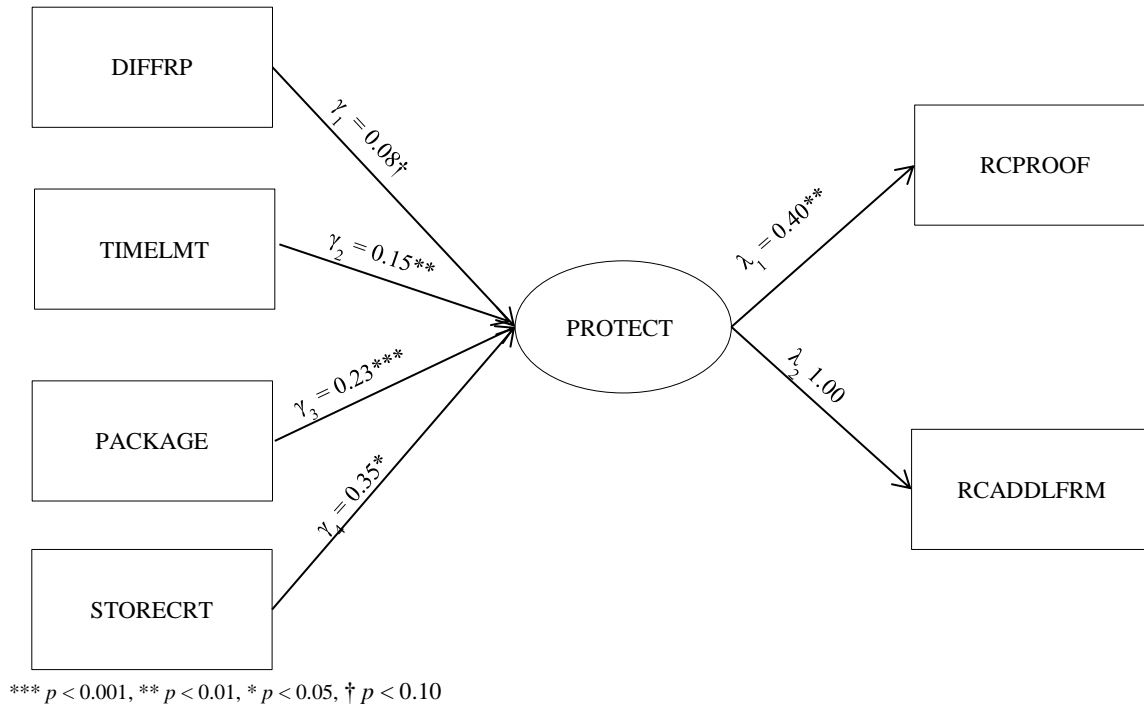
The negative correlations suggested that Protect is based on two alternative approaches to transaction cost minimization: a) a standardized, lenient approach, whereby all returns claims are accepted based simply on verification of purchase (*PROOF* and/or *ADDLFORM*); or, (b) a case-by-case, restrictive approach under which similar returns may be treated differently depending on product specifications (*TIMELMT*, *UNUSED*, *PACKAGE*, *DIFFRP*), and may be compensated by store credit only (*STORECRT*). Thus, we reverse coded *ADDLFORM* and *PROOF*, and entered them as reflective indicators in the model. (*RCADDLFORM* loading is fixed to one, *RCPROOF* is free). These two restrictions reflect the need for firms to protect themselves, manifested explicitly as actions the customer must take to prove they have actually purchased the item being returned. The remaining items (*TIMELMT*, *UNUSED*, *PACKAGE*, *DIFFRP*, *STORECRT*) were entered as formative indicators.

The initial assessment of the model suggested no issue with multicollinearity as indicated by variance inflation factors (VIFs) below ten (Diamantopoulos, et al., 2008; Diamantopoulos & Winklhofer, 2001).

2.4.1.4 Model Specification.

The initial model had good fit (CMIN/DF = .320, NFI = .995, TLI = 1.057, CFI = 1.000, RMSEA = .000, CI = .000-.039, P.CLOSE = .973), but two formative indicators (*UNUSED*, *DIFFRP*) had non-significant loadings (respectively $p = .407$, $p = .137$). As it was the least significant indicator, *UNUSED* was dropped from the model. Once *UNUSED* was dropped from the model, the overall model fit improved and the significance of *DIFFRP* improved. Although not significant ($p=0.08$), *DIFFRP* was retained in the model for theoretical reasons. The modified model has good fit (CMIN/DF = .2490, NFI = .995, TLI = 1.016, CFI = 1.000, RMSEA = .000, CI = .000-.044, P.CLOSE = .963), and all formative indicators are significant ($p < 0.05$; *PACKAGE*, *TIMELMT*, *STORECRT*) or near significant ($p < .10$; *DIFFRP*). So, the *PROTECT* scale is comprised of *PACKAGE*, *TIMELMT*, *DIFFRP*, and *STORECRT* (the greater the score, the more restrictive the attempt to minimize risk with the transaction). Model estimates are detailed in Figure 2.

Figure 2 - *PROTECT* scale estimates



2.4.2 Returns Process Scale (Transaction Cost)

2.4.2.1 Content specification.

The *PROCESS* scale is comprised of variables that facilitate and control the return of items to the retailer with the lowest possible transaction costs, based primarily on the returns management process, as defined by Rogers et al. (2002).

2.4.2.2 Indicator specification.

The concepts covered by the indicators and their sources are detailed in

Table 8. All indicators were expected to have a positive relationship with the latent variable.

Table 8 - PROCESS scale concepts

Concept	Concept Source	Indicator (Source)
Gatekeeping	Rogers, et al., 2002	<i>RMA</i> (Mollenkopf, Russo, et al., 2007)
Gatekeeping	Rogers, et al., 2002	<i>NOTICE</i> (New Variable)
Avoidance	Rogers, et al., 2002	<i>EXCHANGE</i> (Bonifield, et al., 2010)
Product Acquisition	Rogers, et al., 2002	<i>RTNSHIP</i> , Bonifield, et al., 2010
Product Acquisition	Rogers, et al., 2002	<i>STORERTN</i> (New variable)
Returns control	Rogers, et al., 2002	<i>PRPRTLBL</i> (Bonifield, et al., 2010)

2.4.2.3 Indicator collinearity.

Pearson correlations between all variables for the *PROCESS* scale are detailed in Table 9. All correlations between variables are positive and low except between *RMA* and *NOTICE*. This is likely due to their similarity in function, i.e. they have the same gatekeeping function. Since *NOTICE* is present in only 18 firms = 4.4% (while *RMA* is present in 194 = 47.9%, so is much more discriminant), *NOTICE* was dropped from the analysis.

Table 9 – Pearson Correlations: PROCESS Scale (n=405)

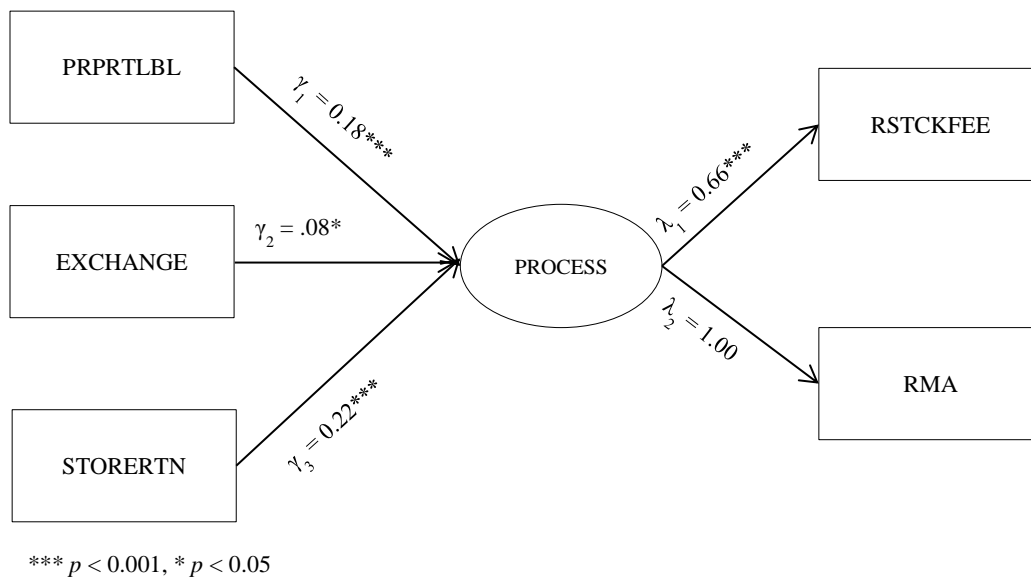
	<i>RSTCKFEE</i>	<i>PRPRTLBL</i>	<i>SHIPCOST</i>	<i>RMA</i>	<i>EXCHANGE</i>	<i>STORERTN</i>	<i>NOTICE</i>
<i>RSTCKFEE</i>	1.00						
<i>PRPRTLBL</i>	0.20**	1.00					
<i>SHIPCOST</i>	0.10*	0.33**	1.00				
<i>RMA</i>	0.37**	0.22**	0.02	1.00			
<i>EXCHANGE</i>	0.18**	0.20**	0.06	0.13**	1.00		
<i>STORERTN</i>	0.20**	0.13**	0.12*	0.27**	0.23**	1.00	
<i>NOTICE</i>	-0.06	0.01	0.03	-0.17**	0.05	0.02	1.00

** $p < 0.01$, * $p < 0.05$

The initial assessment of the model suggested no issue with multicollinearity as indicated by variance inflation factors (VIFs) below ten (Diamantopoulos, et al., 2008; Diamantopoulos & Winklhofer, 2001).

2.4.2.4 Model Specification.

RMA and *RSTCKFEE* are two outcome indicators that explicitly signal to customers that there are barriers to return products. They are consistent with “reverse logistics design” decisions (*PRPRTLBL*, *RTNSHIP*, *EXCHANGE*, *STORETRN*) made to minimize the transaction cost borne by the retailer in product returns. Thus, the former are entered as reflective indicators, and the latter as formative indicators in the model. The model had good fit (CMIN/DF = .1.769, NFI = .976, TLI = .989, CFI = .989, RMSEA = .044, CI = .000-.103, P.CLOSE = .482), but one of the formative indicators (*RTNSHIP*) had a non-significant loading ($p = .415$). So, it was dropped from the model. The modified model has better fit (CMIN/DF = 1.208, NFI = .985, TLI = .986, CFI = .997, RMSEA = .023, CI = .000-.104, P.CLOSE = .594), and all formative indicators are significant ($p < 0.05$; *STORETRN*, *PRPRTLBL*) or near significant ($p < .10$; *EXCHANGE*). Thus, the *PROCESS* scale is comprised of *STORETRN*, *PRPRTLBL*, and *EXCHANGE* (the greater, the lower the cost transferred from retailer to customer to carry out the transaction). Model estimates are detailed in Figure 3.

Figure 3 - PROCESS scale estimates

2.5. Discussion

This study introduces and validates two indices that may be used to measure the leniency of e-retail return policies. The development of the scales follow the guidelines of Diamantopolous & Winklhofer (2001) for developing formative indices. The scales were developed by first focusing on the conceptual formation of the scales, followed by appropriate model specification techniques for such scales. The scales are easy to calculate which should encourage their use in future research.

As Transaction Cost Theory is based on two distinct constructs, two scales were developed in this study, based on transaction costs and transaction risks. The correlation between scales is also low and significant ($r = 0.25$, $p < 0.01$) suggesting two separate scales. The two scales represent two distinct concepts theoretically linked to the return policies of e-retailers, ease of returning items and customer opportunistic behavior. As previously discussed, these concepts have been researched in numerous studies previously however this is the first paper to

combine them to better understand the content of return policies. Understanding how retailers combine these two concepts in their return policies has the potential to help both researchers and managers better understand the impact of changes in either one of these scales.

As discussed in Rao et al. (2017), operations and supply chain researchers have started to investigate the opportunity to reduce the incidence of merchandise returns and to improve the returns experience for customers. The policies themselves and their construction is one such opportunity. Increasing the understanding of what makes a policy lenient, not just basing the definition on one restriction, provides a more nuanced understanding of the content of the policies. The dimensions suggested by this research may be easily understood by both retailers and researchers as potential levers to encourage purchase and/or decrease returns behaviour.

2.6 Implications

For researchers, the development and use of two new valid scales to assess return policy leniency may facilitate more research into the performance implications of return policies. These scales encourage a common categorization of policies along two dimensions, as opposed to the single variable proxies currently used by many researchers, and could be employed in hypothesis testing of relationships between policies, strategy, practices and performance.

While it is still unclear how managers determine what restrictions are included in return policies, these scales may be used by managers to more clearly compare their return policies to those of their competitors. Understanding the levers that they may pull to either incite purchase or to protect the firm from customer opportunistic behavior may help managers to make more conscious choices about return policy content. It may also enable the firm to quickly respond by altering their return policy accordingly to reflect improvements in their reverse supply chain

processes.

2.7 Limitations

This study uses the list of the top 500 Internet retailers as provided by the Internet Retailer Top 500 list to study e-retailer return policies. While this provides a large sample of firms to investigate, it limits the sample to the most successful firms, based on total sales. The focus on total sales may bias the sample to not only the firms that sell the most items but those that sell the most expensive products; the range of merchandise types sold may mitigate this potential limitation. There may be firms that have more sales (quantity) but that sell lower priced items that do not appear on the list. The occurrence of returns for these firms may differ from the firms listed and as such the return policies could vary. While this may limit the generalizability of the scales, the use of firms that have been most successful in e-retailing may suggest that they have developed mature return policies that satisfy customers in the current business environment, and that as such they are the best policies on which to base scales that other businesses and researchers can use.

The research also assumes consistency in the restrictions included in e-retail return policies, based on those contained in the most successful firm policies. It may be possible that there are institutional pressures that would drive smaller firms to include the same restrictions as larger and more successful firms. This study does not include those smaller firms as part of the sample.

2.8 Conclusion and Future Research

Although previous researchers have identified leniency as a consideration in return policy content and retailer quality, this study expands our understanding of return policy leniency further, demonstrating that leniency is defined by more than one dimension. This expands the

perspective currently used in academic research to include both operational and sales considerations in the assessment of return policies. The more detailed understanding of the content of return policies suggested by this research is useful for firms to support sales and drive operational efficiency which may then be incorporated into the rest of the supply chain.

Future research these specific restrictions and their impact on reducing customer opportunism could help firms not only to reduce opportunism but potentially reduce restrictions if the sales benefits of more lenient policies outweigh the lost sales that may arise as a result of more restrictive policies. Consumer behaviour researchers may use this finding to structure experiments that can test customer purchase intentions with varying degrees of retailer trust indicated in the return policy.

Future research that tracks changes in return policies would prove interesting, especially if it includes different market factors that may impact return policies. The assumption that return policies will remain the same indefinitely has yet to be assessed so future research that tracks the return policies of firms over time could demonstrate changes in institutional expectations, market pressures, or capabilities improvements based on the restrictions contained in the policies. The connection between firm capabilities and return policies may also be explored. Although researchers are starting to research returns processing, combining processing with the return policies themselves could provide interesting insights into the execution of return policies. Finally, research into how return policies are created and how they relate to the operations strategy of the firm could help further expand our understanding of the role of the operations function in policy formation as well as identify potential trade-offs firms make when faced with pressure to have lenient return policies.

CHAPTER 3: RETURN POLICIES AND OPERATIONS STRATEGY PRIORITIES

3.1 Introduction

The restrictions contained in return policies have been selected by retailers for various reasons that continue to remain opaque in the literature. Additionally, there has been little investigation into the content of return policies and how that content relates to the business activities of the firm. Most return policy research (e.g. Bonifield et al. (2010); Kukar-Kinney et al. (2007) indirectly suggests that the reactions of customers to return policies should drive their restrictiveness; that leniency in the policies will encourage customers to purchase from retailers. By situating return policies as demand driven, research into their content tends to overlook the role of the operations of the firm in their content. In Chapter 2 I suggest that the restrictions are included to protect the firm from opportunistic behaviour on the part of customers and to facilitate the process of returning items. Others have focused on simpler descriptions. Bonifield et al. (2010) suggest two dimensions categorize return policies: one that focuses on the return of money paid by customers and another that is called “Restrictions”. In their study, neither dimension is linked to the operational activities of the firm. Janakiraman et al. (2016) propose five dimensions of return policies restrictions: time, monetary refund, effort, scope, and exchange leniency. Again, these dimensions focus on the impact of the restrictions on the customers, not their role in the operation of the retailer. While researchers have suggested dimensions within return policies, their relationship to the operations strategy of the firm has seen no discussion.

There has been some investigation into specific restrictions often contained in return policies as they have been used as proxies to assess the restrictiveness of the policies. Among the individual restrictions employed are time limit for returns (Bahn & Boyd, 2014) and the amount

of money returned to the customer (Chen & Bell, 2012; Kukar-Kinney, et al., 2007; Pei, et al., 2014; Su, 2009). There is little relation of these dimensions to the operation of the firm, and their use as the defining restriction of a return policy is often poorly justified.

The operations function of a business has a major stake in the composition of a firm's return policy because of its primacy in the execution of the policy when a customer returns a purchased item. While there is agreement that the return policies of e-retailers may impact customer perception of the quality of the firm (Bonifield, et al., 2010), customer satisfaction (Keeney, 1999; Torkzadeh & Dhillon, 2002), and potentially sales (Dugdale, 2010), how the return policies relate to the operations priorities of a firm are still unclear. Extant research tends to focus on the impact of the policies on customers, their satisfaction with the return policies and their preferences (see Janakiraman et al. (2016)), suggesting that return policy content should align with customer expectations in order to drive customer satisfaction and subsequently customer loyalty (Kim et al., 2009). Supply chain researchers have started to explore the importance of return processing; however, this post-purchase focus overlooks the policies themselves. This research aims to start to fill that gap

Demonstrating the importance of a good fit between the operations strategy of a firm and its practices (and in this case policies), and the resulting impact on performance has historically been a major theme in operations management research (Skinner, 1969; Wheelwright, 1984).

This study answers the question: "Are e-retail return policies related to operations strategy priorities?" It also clarifies the moderating effect of competitive environmental factors on the association between a firm's operations strategy priorities and its return policies. For this study, content analysis was used to assess the operations priorities of firms with online retail stores using corporate data provided on their sites (i.e. annual reports). While there is theoretical

support for the association between the operations strategy priorities of the firm and return policies, this study finds support for quality and flexibility fitting with return policy restrictiveness.

This paper identifies the operations strategy priorities of firms using annual reports. It makes a connection between the operations strategies of firms and return policy restrictiveness, which is a unique contribution to the literature on return policies. More importantly, it provides support for the contingent effect of the competitive environment on the decisions made by firms, suggesting that firm strategy is important, but the competitive environment can override firm choices.

The paper continues as follows. Existing research into operations strategy priorities and return policies is discussed followed by hypothesis development. The method highlights the use of content analysis to obtain all data used in this study. The study is detailed, including the selection of the sample of 113 firms, followed by non-parametric assessment of the relationships between the operations strategy priorities and return policies of the firm. A discussion of the result and implications for practitioners and researchers concludes the paper.

3.2 Theoretical Background

3.2.1 Return policy content

A return policy is a set of rules and guidelines, developed by a firm, that governs the return of previously purchased items by customers, and states the conditions upon which a firm will accept the return of goods purchased, how to accomplish the return of products, and what credit customers will receive if they return a purchased item (based on the works of Rogers et al. (2002) and Mollenkopf et al. (2007)). The cost of returned products to firms is great, estimated at between \$360 billion to \$1.8 trillion USD (Reverse Logistics Association, 2014). While research

into these policies has been increasing, there is still much unexplored. In particular, the relationship of return policies to the operations priorities of a firm has seen little significant research.

Research into return policies has primarily focused on understanding their effects on customer purchase behaviour. The majority of this research suggests that lenient return policies encourage or incite customer purchase behaviour (Janakiraman, et al., 2016; Petersen & Kumar, 2009; Wang, 2009). Such studies investigate the effects of return policies, isolated from the impact of the return policies on the operation of the firm. Petersen & Kumar (2009) consider the costs of returns in their study into the benefits of return policies however, this is again a post-purchase consideration.

Research to-date has focused little on the origins of the restrictions contained in return policies. The returns activities of a firm, including the return policy are very complex and that while there may be truth to the suggestion that lenient return policies reduce feelings of risk aversion on the part of customers and may result in increased sales (Petersen & Kumar, 2015), the overall profitability assessment of a firm, related to returns activities, must take the operational costs of returns processing into consideration. In fact, previous marketing-related research into optimal return policies has understated the actual costs of returns (Petersen & Kumar, 2009). This is not surprising as it is difficult for firms to assess the complete costs of returns and returns processing may be prioritized behind revenue generating sales activities at the operations level. In fact, in their survey of 56 retailers, Petersen & Kumar (2015) find that only 44.5% of them include product return-related metrics in their marketing models used to measure and maximize customer value.

It appears that only one study has investigated the incorporation of the perspective of the operations function into the formulation of return policies. In their study, Mollenkopf et al. (2011) suggest that firms benefit from joint creation of policies involving operations and marketing functions. Such joint creation would necessarily consider the strategic perspectives of both functions. The focus on the impact of return policies without considering their relation to the operations strategies of the firm renders our understanding of return policies incomplete.

3.2.2 Operations strategy priorities

The operations function of a firm performs the tasks required to satisfy customers. As with other functional areas, operations strategy priorities (OSP) are based on the overall firm strategy (Hayes & Schmenner, 1978). Boyer et al. (Boyer et al., 2005) define operations strategy based on numerous previous studies as “decisions and plans involving the developing, positioning, and aligning of managerial policies and needed resources so that they are consistent with the overall business strategy” (p. 442). Within the operations strategy of a firm, there are four primary competitive priorities (operations strategy priorities): cost, quality, time/delivery, and flexibility (Ward et al., 1998).

The focus provided by these OSP helps firms to make strategic and tactical decisions about how the operations function of the firm will support the overall firm goals. Firms that are focused on cost attempt to reduce the cost of performing operations activities (Ward & Duray, 2000). The quality OSP requires the operations function to focus on quality management activities such as process control and improvement (Ward & Duray, 2000) in order to conform to customer quality expectations (Rebolledo & Jobin, 2013). A focus on time (also referred to as “delivery”) relates to customer service and the reliable/dependable, fast delivery of products to customers (Rebolledo & Jobin, 2013; Ward & Duray, 2000). The flexibility priority relates to the

ability of the firm to respond quickly and efficiently to changes in customer and/or market requirements (Ward & Duray, 2000) which may manifest in the increased ability to offer customization of products.

These priorities have been suggested to be important contributors to success in e-retailing (Cao & Schniederjans, 2004) yet there has been little research into their role in the online environment. The exception to this is the importance of the delivery priority, which continues to be a focus of researchers of e-retailing because of its continued identification as an important driver of customer satisfaction (Pyke, et al., 2001; Rao, Goldsby, et al., 2011; Rao, Griffis, et al., 2011).

The relationship between OSPs and return policies has seen little research. There has started to be a connection made between returns processing and firm sales, however this tends to focus on the tactical activities and performance of the firm (e.g. (Griffis, Rao, Goldsby, & Niranjana, 2012; Rao et al., 2014)). Operations management researchers have also started to increase the amount of research that incorporates a marketing and sales perspective, especially the impact of operations on sales outcomes (e.g. Griffis et al. (2012)) but this has not been extended to OSPs.

3.3. Hypothesis Development

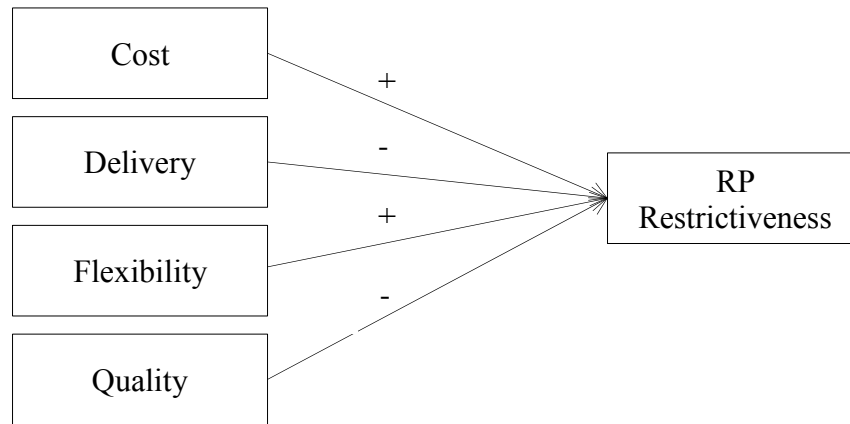
The concept of strategic fit has focused generally on the alignment of strategy and structure such that alignment positively impacts firm performance (Chandler, 1962; Miles & Snow, 1984). Alignment with the external environment has also been identified as an important driver of firm success (Miller, 1992). The fit of the operations activities of the firm with firm strategic goals is a foundation of operations strategy (Hayes & Wheelwright, 1984; Skinner, 1969). Further, alignment between the strategies of different functional areas of the firm, e.g.

operations and marketing, is believed to contribute to the overall successful achievement of the strategy of a company (Smith & Reece, 1999). Recognition of the importance of strategic alignment by firms will encourage cross departmental collaboration in policy creation. This is relevant to the content and formulation of return policies because more than one functional area is concerned with, and impacted by, returns policies and the returns process (Mollenkopf, et al., 2011).

Within the context of return policy research, the fit of the policy with firm activities has seen little interest. Yan (2009) suggests the importance of the so-called “web-fit” of a product with the type of return policy offered, suggesting that there should be different return policies offered based on the type of product sold and how appropriate the e-retail sales channel is for it. However, this is not related to the operations activities of the e-retailer, instead it relates primarily to marketing decisions related to the products sold, and the sales distribution channel selected. To-date in the extant research, return policies have not been considered within the wider context of the activities of the firm. Neither have they been related to firm strategy. The concept of strategic fit has not been applied to return policies other than discussing the need for return policy leniency to meet customer expectations, i.e. a form of external fit.

3.3.1 Research framework

Figure 4 summarizes the research framework of this study. The framework is based on the concept of strategic fit such that the restrictiveness of an e-retailers return policy will be consistent with the primary operations strategy priority of the firm.

Figure 4 - Research framework

3.3.2 Alignment of return policies with operations strategy priorities

Policy analysis has been identified as a way to gain understanding into firm strategy. Phelan (2011) suggests changes in policies reflect change in both strategy and related resource allocation. Therefore, return policies may reflect the strategic considerations of multiple areas of the firm, including the operations function. The leniency of e-retailer return policies will be consistent with the OSP of the firm. Because each of the priorities has a different impact of firm activities, their relationship with return policies will also differ. While the overall firm strategy is determined by senior management, functional areas are responsible for creating their function strategies based on that strategy. As all firm functional areas set their strategies based on the firm's strategy, the OSP and RP should be aligned to support strategic goals.

Firms with a cost priority focus on minimizing costs associated with the operations of the firm (Ward, et al., 1998). Therefore, a firm with such a cost minimization focus will not want to allocate the resources required to process returns. This will lead the firm to have a more restrictive return policy that discourages the return of purchased products.

Delivery as a priority is concerned with the ability to quickly and reliably deliver products to customers. Delivery capabilities for customer orders have long been suggested as important to e-retailing (Lee & Whang, 2001). While the last mile focus of e-retailers has grown, there is increasing recognition of the importance of logistics capabilities to product returns (Lantz & Hjort, 2013). There are other activities that e-retailers must focus on as part of their ability to deliver their products to customers. A firm that focuses on delivery builds a logistics system designed to quickly deliver products to customers. This system may also include relationships with logistics service providers that are able to offer returns processing services as part of their service agreement with the e-retailer (e.g. FedEx Trade Networks' Returns Management Solutions). As a result of this increased focus on delivery service, firms will be able to offer more lenient return policies.

Flexibility as an operations priority enables a firm to respond quickly to changes in market demand (Ward & Duray, 2000) and also to increase customization options for customers. This flexibility may create challenges for firms related to return policies and processes. While mass customization has enabled increased flexibility for firms (Kotha, 1995), it remains to be seen if this flexibility has translated into returns processing. A lack of flexibility in the reverse supply chain may result in firms not being able to cost effectively process returns that are highly customized to consumer preferences. Therefore, firms that are focused on flexibility will likely have more restrictive return policies.

The concept of quality has been associated with the leniency of return policies (Bonifield, et al., 2010). The definition of quality in such research has focused on the perceived quality of the retailer from the customer perspective. In the operations management literature, quality has been defined as multi-dimensional relating to both the process of the operations and the product

itself (Ward & Duray, 2000). Consistent with the arguments of previous researchers, a firm that is focused on high quality will have a more lenient return policy to signal the quality of their product and e-retail service.

Thus, the OSP of each firm will guide the restrictiveness of the firm return policy such that:

H1a: *E-retailers with a primary focus on Cost will have more restrictive return policies.*

H1b: *E-retailers with a primary focus on Delivery will have less restrictive return policies.*

H1c: *E-retailers with a primary focus on Flexibility will have more restrictive return policies.*

H1d: *E-retailers with a primary focus on Quality will have less restrictive return policies.*

3.4 Method

3.4.1 Sampling and Data Collection

All data used in this study is secondary data obtained from the Internet. The empirical assessment was based on quantitative content analysis of e-retailer return policies and annual reports. This involves converting text data into a numerical form for use in statistical analysis (Krippendorff, 2012). In this section, the data sources and coding process are detailed. Statistical analysis was performed using SPSS, version 25 (IBM, 2017).

In this study, the return policies and annual reports of e-retailers were collected from the sample firm websites. The return policy data used in this paper was used in Chapter 2.

3.4.2 Data and variables

The following information appears in the study in Chapter 2 that used the same dataset for analysis. The firms examined in this study were selected from the 2012 Internet Magazine Top 500 guide (Internet Retailer Magazine, 2012). Created annually, this list is compiled using data collected online and via interviews with senior managers of the firms. The e-retailers are ranked based on sales volumes. This list has been used in numerous previous studies with different objectives, e.g. Rao et al. (2011) and Ayanso & Yoogalingam (2009). Only publicly traded companies were in this study. There are 118 publicly traded companies on the 2012 Top 500 list. The number of firms was reduced by five as a result of the exclusion of firms that are not listed on U.S.A. stock exchanges. These firms were excluded because the required format for and content of their annual report differs noticeably from those available for U.S. firms. No other firms were excluded from the study. An overview of the sample firms is detailed in Table 10.

Table 10 - Sample firm merchandise types

Product Category	Number of Firms	Percent of Sample	Average Sales/Category
Apparel/Accessories	47	41.6	\$ 237,268,337
Automotive Parts/Accessories	3	2.7	\$ 172,204,000
Books/Music/Videos	4	3.5	\$ 351,225,000
Computers/Electronics	10	8.8	\$ 2,005,449,428
Food/Drug	4	3.5	\$ 347,245,905
Hardware/Home Improvement	6	5.3	\$ 574,580,000
Health/Beauty	7	6.2	\$ 133,217,411
Housewares/Home Furnishings	4	3.5	\$ 439,929,250
Jewelry	3	2.7	\$ 203,333,333
Mass Merchant	12	10.6	\$ 1,624,034,349
Office Supplies	3	2.7	\$ 5,867,165,873
Specialty/Non-Apparel	7	6.2	\$ 177,548,808
Toys/Hobbies	3	2.7	\$ 492,683,333
Total	113	100.0	\$ 867,850,427

There are four different categories of merchant type represented in the sample, i.e. primary distribution channels. Both Web-Only and Catalog/Call Center retailers have no physical store locations. Customers may only purchase from the former via the Internet while Catalog/Call Center retailers may purchase using either the Internet or via instructions provided in a physical catalog (e.g. phone number). Retail Chains have both physical and online stores. Consumer Brand Manufacturers manufacture products that are traditionally sold by other retailers but given the expansion of Internet retailing they now also sell direct to consumers via their online store. Of note in this sample is the large proportion of Retail Chain firms. This may be a result of many firms starting as publicly traded bricks and mortar companies before creating an online presence. Although this research focuses on e-retailers, there only nine Web-Only firms on the 2012 Top 500 list that are publicly traded. A breakdown of the sample firm merchant types is presented in Table 11.

Table 11 – Sample firm merchant types

Merchant Type	Frequency	Percent
Catalog/Call Center	7	6.19
Consumer Brand Manufacturer	23	20.35
Retail Chain	74	65.49
Web-Only	9	7.96
Total	113	100.00

3.4.3 Main Construct Operationalization

There are two concepts of interest in this study: Return Policy Restrictiveness and Operations Strategy Priorities. Return policies are operationalized by two independent dimensions, *PROTECT* and *PROCESS*. Operations strategy priorities are assessed based on the four well established priorities of: cost, quality, delivery, and flexibility. Data collected for this include the return policies of e-retailers obtained from their websites and firm annual reports. Sources of data and their collection are detailed as follows.

3.4.3.1 Return Policies

The following information appears in the study in Chapter 2 that used the data and measures for an alternative purpose. Return policies were operationalized by two previously developed scales: *PROTECT* and *PROCESS*. Based in Transaction Cost Theory, these scales represent two purposes of return policies previously identified by researchers. *PROTECT* represents the measures taken to protect the firm from potential opportunistic behaviour on the part of customers (King, et al., 2008; Piron & Young, 2000). *PROCESS* represents the steps put in place to minimize the costs of accepting back purchased items and processing them (Rogers, et al., 2002).

Both scales were formatively developed and validated using a MIMIC (Multiple Indicators Multiple Causes Model (Diamantopoulos & Winklhofer, 2001; Jarvis, et al., 2003).

The analysis was performed using AMOS, version 23.0 (Arbuckle, 2014).

3.4.3.1.1 PROTECT Scale.

The concept of protecting firms from opportunistic behaviour has been explored by numerous researchers, as detailed in Table 12. The concepts considered when creating this scale all focus on making it difficult for a customer intending to behave fraudulently to return a product.

Table 12 - *PROTECT* scale concepts

Concept	Concept Source	Indicator (Source)	Indicator Definition
Protection from theft/fraud	Speights, 2013	<i>PROOF</i> (new variable)	Proof of Purchase Required
Retail borrowing	Piron & Young, 2000	<i>DIFFRP</i> (Bonifield, et al., 2010; Davis, et al., 1998)	Different RP for different types of products
Profit Reduction	Bonifield, et al., 2010; Davis, et al., 1998	<i>STORECRT</i> (Bonifield, et al., 2010; Davis, et al., 1998)	Value of goods refunded via store credit or exchange - no refund
Resale Potential	Rogers, et al., 2002	<i>UNUSED</i> (Davis et al. (1998; Mollenkopf et al. (2007))	Product must be unused
Cost Reduction	Autry, 2005	<i>PACKAGE</i> (Davis, et al., 1998)	Product must have original packaging
Cost Coverage	Bonifield, et al., 2010; Davis, et al., 1998; Kukar-Kinney, et al., 2007	<i>RSTCKFEE</i> (Bonifield et al. (2010))	Restocking fee charged
Customer Confirmation/Effort	Mollenkopf et al. (2007)	<i>ADDLFORM</i> (Mollenkopf et al. (2007))	Additional form must be completed, printed, and submitted with the return

The *PROTECT* scale is comprised of *PACKAGE*, *TIMELMT*, *DIFFRP*, and *STORECRT*. The greater the score, the more restrictive the scale is in attempting to minimize risk to the retailer with the return policy. The initial scale also included *UNUSED* and *DIFFRP*. *UNUSED* was dropped to a non-significant loading while *DIFFRP* was kept for theoretical reasons. The reflective indicators used to validate the scale were *ADDLFORM* (which was reverse coded) and *PROOF*. The fit of the final model was good: (CMIN/DF = .2490, NFI = .995, TLI = 1.016, CFI = 1.000, RMSEA = .000, CI = .000-.044, P.CLOSE = .963), and all formative indicators are significant ($p < 0.05$; *PACKAGE*, *TIMELMT*, *STORECRT*) or near significant ($p < .10$; *DIFFRP*). All indicators demonstrated their expected signs.

3.4.3.1.2 PROCESS Scale.

The measures included in the *PROCESS* scale are derived from the work of Rogers, et al. (2002) who define, in detail, the activities involved in the returns management process. The concepts covered by the indicators have been used in previous research as detailed in Table 13, except for *NOTICE* and *STORERTN* which were identified in the study in Chapter 2 (2018).

Table 13 - PROCESS scale concepts

Concept	Concept Source	Indicator (Source)	Indicator Definition
Gatekeeping	Rogers, et al., 2002	<i>RMA</i> (Mollenkopf, Russo, et al., 2007)	Pre-authorization required
Gatekeeping	Rogers, et al., 2002	<i>NOTICE</i> (New Variable)	Advance Shipping Notice Required
Avoidance	Rogers, et al., 2002	<i>EXCHANGE</i> (Bonifield, et al., 2010)	Exchanges not offered
Product Acquisition	Rogers, et al., 2002	<i>RTNSHIP</i> , Bonifield, et al., 2010	Return shipping costs borne by customer
Product Acquisition	Rogers, et al., 2002	<i>STORERTN</i> (New variable)	Value of goods refunded via store credit or exchange - no refund
Returns control	Rogers, et al., 2002	<i>PRPRTLBL</i> (Bonifield, et al., 2010)	Pre-printed label not provided for return shipping

The *PROCESS* scale is comprised of *STORETRN*, *PRPRTLBL*, and *EXCHANGE*. The greater the score, the lower the cost transferred from retailer to customer to carry out the transaction. *RTNSHIP* was initially identified as a formative indicator but was dropped from the model due to a non-significant loading. *RMA* and *RSTCKFEE* were used as reflective indicators to validate the model. The final model demonstrated good fit: (CMIN/DF = 1.208, NFI = .985, TLI = .986, CFI = .997, RMSEA = .023, CI = .000-.104, P.CLOSE = .594). All indicators were significant ($p < 0.05$; *STORETRN*, *PRPRTLBL*) or near significant ($p < .10$; *EXCHANGE*) with their expected signs.

3.4.3.2 Operations Strategy Priorities.

The assessment of the operations strategy priorities of the sample firms was performed using content analysis of 2012 annual reports. Annual reports are documents published to apprise investors of the performance of a firm over the previous financial accounting year. As discussed in Montabon et al.(2007), content analysis of annual reports is used frequently in business research, although less in the field of operations management. According to Duriau et al. (2007), annual reports were used in 30% of studies that employed content analysis between 1980 and 2001 in the strategy and organizational fields. Michalisin (2001) found annual reports to provide valid assertions regarding firm innovativeness. Moreover, the consistent availability of annual reports supports reliability of the research and the ability to reproduce the study (Weber, 1990). Given the prevalence of use of annual reports and previous tests of validity, and consistency with the overall use of secondary data in this study, they were chosen to determine the operations strategy priorities of the firm.

The operations strategy priority constructs used in this study are well established in the literature. Tangpong (2011) suggests the use of survey-based measures and Short et al. (Short et al., 2010) suggest previously validated scales as convenient sources of construct attributes to use to develop a codebook. To ensure content validity, researchers may carefully define topics of concern, including the items included and their scales, and use experts to judge how well instruments cover the topics (Cooper et al., 2006; Short, et al., 2010). In this study, a comprehensive review of previous definitions and operationalizations (Kroes & Ghosh, 2010; Prajogo & McDermott, 2008; Vachon et al., 2009; Ward & Duray, 2000; Ward, et al., 1998) was used to identify the keywords to search for in the annual reports. This was performed independently by the first author. The second author then assessed the list and the sources used to create the list and concurred with the selection of keywords. The list of keywords was then assessed by a third scholar with 20 years of teaching and research experience in the field; this scholar also concurred with the keywords selected.

The content analysis was conducted using the computer assisted qualitative data analysis software (CAQDAS), Atlas ti, version 7.0 (Muhr, 2004). The analysis was performed in two steps: 1. keywords were searched for using the computer aided content analysis functionality available in the software, and 2. the codes identified by the software were verified manually to ensure that they related to the operations strategy of the firm and not another functional area (Grøgaard, 2012).

3.4.3.2.1 Coding Keywords.

The “*” wildcard character was used to cover all possible spellings and versions of the keywords, if there were multiple possible. Definitions of the constructs were based on the previously mentioned comprehensive review. For the purpose of analysis, the delivery priority

was divided into two aspects of delivery: reliability and speed. The quality priority was also broken into two aspects: product and process quality. The list of keywords developed is detailed in Table 14.

Table 14 - Content Analysis Keywords

OSP	Variable	Keywords
Cost	<i>COST</i>	<i>utilili*, productiv*, inventory, reduc*, cost</i>
Delivery Reliability	<i>DELREL</i>	<i>on-time, ontime, deliver*, lead*, depend*, delivery promise*</i>
Delivery Speed	<i>DELSPE</i>	<i>fast, short, speed,</i>
Flexibility	<i>FLEXIBILITY</i>	<i>flexib*, customi*, variety, adjust*, responsiv*, option*, broad, change*, adapt*</i>
Product Quality	<i>QUALPROD</i>	<i>perform*, durab*, reliab*, quality,</i>
Process Quality	<i>QUALPROC</i>	<i>design, conform*</i>

A descriptive overview of the coding results is provided in Table 15.

Table 15 - OSP Coding Results

Keyword Count	COST	DELREL	DELSPE	FLEXIBILITY	QUALPROC	QUALPROD
0	10	31	31	16	40	21
1	16	31	21	14	25	18
2	20	24	17	23	14	21
3	21	11	19	24	14	13
4	16	10	8	10	8	11
5	5	3	2	13	2	7
6	9	1	4	7	3	9
7	5	0	5	1	4	3
8	1	1	4	1	2	3
9	1	1	1	3	0	4
10	5	0	0	0	1	2
11	2	0	0	0	0	1
12	1	0	0	0	0	0
17	1	0	0	0	0	0
18	0	0	1	0	0	0
25	0	0	0	1	0	0
Total	113	113	113	113	113	113
Mean	4	2	2	3	2	3
Median	3	1	2	3	1	2
Mode	3	0	0	3	0	0

3.4.3.2.2 Coding Reliability.

The use of CAQDAS to perform quantitative content analysis ensures greater coding reliability (Weber, 1990) and eliminates the potential for coder bias if two human coders performed the coding (Short, et al., 2010). A manual check was also performed to confirm the appropriate contextual use of the keywords. The manual check was confirmed by a second coder. Inter-rater reliability between the coders was 94.0%. Krippendorff's alpha was 0.80 which indicates good reliability (Krippendorff, 2012).

3.4.3.2.3 Dimensionality.

To confirm the independence of the measures and ensure that each of the constructs is unidimensional, a correlation analysis was performed. Results of the correlation analysis are detailed in Table 18. As discussed in Short et al. (2010), low correlation between the content measures indicates a lack of overlap between the constructs. In this analysis, all correlations are low and/or non-significant, suggesting the constructs do measure different operations strategy priorities.

3.4.3.3 Control Variable.

From the perspective of the operations of the firm, the environment may necessitate requirements in return policies that are contrary to operations activities and therefore the return policies suggested by the ideal alignment of capabilities with strategic priorities. Customer desires pertaining to return policy leniency may be one such requirement. Given that firms exist in a competitive environment, market requirements must be responded to. The return policy may be such a requirement. It is possible that customers compare shopping experiences and therefore return policies between retailers before purchasing. If the return policy of one retailer is more restrictive than that of another, it may serve as a sort of "order disqualifier". This suggests that

there may be competitive forces that drive firms to override the fit required between the return policy and competitive priorities, in order to satisfy customers. Wood (2001) and Wang (2009) suggest that lenient return policies are preferred by customers. Moreover, Janakiraman et al. (2016) suggest lenient return policies increase sales more than returns, providing a strong rationale for the provision of lenient return policies that are not consistent with OSP.

An assessment of the competitive environment of the sample firms was made based on two measures suggested by Pei et al.(2014):

1. “there are more e-tailers selling the substitute product in the market”
2. “there are more e-tailers selling the same product in the market”

In this study, these measures were combined to create one measure (*COMPETE*). The measure was calculated based the percentage of each firm classified by merchandise type and their potential competitors in the original sample of 405 retailers used to determine return policy dimensions in Chapter 2. The computed values are detailed in Table 16.

Table 16 - Control variable values

Product Category	<i>COMPETE</i> values
Apparel/Accessories	0.44
Automotive Parts/Accessories	0.03
Books/Music/Videos	0.04
Computers/Electronics	0.09
Food/Drug	0.05
Hardware/Home Improvement	0.06
Health/Beauty	0.06
Housewares/Home Furnishings	0.05
Jewelry	0.13
Mass Merchant	0.58
Office Supplies	0.04
Specialty/Non-Apparel	0.02
Toys/Hobbies	0.01

3.5 Results

Descriptive statistics for each of the coded variables, based on the firm as the unit of measure, are detailed in Table 17.

Table 17 - Descriptive statistics (n=113)

	Mean	S. D.	Minimum	Maximum
<i>COST</i>	3.67	3.03	0	17
<i>DELREL</i>	1.68	1.70	0	9
<i>DELSPE</i>	2.41	2.73	0	18
<i>FLEXIBILITY</i>	3.06	2.96	0	25
<i>QUALPROC</i>	1.85	2.18	0	10
<i>QUALPROD</i>	3.04	2.72	0	11
<i>COMPETE</i>	0.27	0.21	0.01	0.58
<i>PROTECT</i>	1.62	1.03	0.00	4.00
<i>PROCESS</i>	0.97	0.77	0.00	3.00

The count of instances coded for each of the operations strategy variables per firm were used in the analysis. Table 18 details the correlations between study variables. All correlations are low and/or non-significant. Additionally, *FLEXIBILITY* is the only OSP significantly correlated with the return policy dimensions. Standard tests for normality were performed on the variables. Plots of standardized residuals suggested non-normality. Therefore, generalized linear regression with maximum likelihood estimation was employed for the analysis using SPSS, version 25 (IBM, 2017).

Table 18 - Spearman Correlations (n=113)

	COST	DELREL	DELSPE	FLEXIBILITY	QUALPROC	QUALPROD	COMPETE	PROTECT	PROCESS
COST	1.000								
DELREL	0.129	1.000							
DELSPE	0.088	0.271**	1.000						
FLEXIBILITY	0.245**	0.002	0.170	1.000					
QUALPROC	0.030	0.292**	0.195*	-0.052	1.000				
QUALPROD	0.052	0.262**	0.234*	0.026	0.366**	1.000			
COMPETE	0.074	-0.067	-0.063	-0.219*	0.046	-0.017	1.000		
PROTECT	0.097	0.000	0.001	0.148	-0.071	0.116	-0.093	1.000	
PROCESS	0.177	-0.042	-0.013	0.271**	0.062	0.103	-0.204*	0.278**	1.000

** $p < 0.01$, * $p < 0.05$

The significance of a generalized linear regression model is assessed using the likelihood ratio chi-square (Stickney & Geddes, 2016). The test of overall model effect provides a breakdown of the separate effects of each included variable. It is measured using the Likelihood Ratio X^2 which should be statistically significant ($p < 0.05$) (Stickney & Geddes, 2016). The omnibus test suggests the models for both dependent variables are significant: $X^2(7) = 110.315$, $p < 0.001$ for *PROTECT* and $X^2(7) = 101.763$, $p < 0.001$ for *PROCESS*. Regression results for each variable are detailed in Table 19. These results provide support for hypotheses H1a, and H1c. While the relationship is significant for the influence of product quality on return policy restrictiveness (H1d), the hypothesized direction of the relationship was not confirmed. There was no support for H1b.

Table 19 - Generalized Linear Model Results ($n=113$) ($df = 1$)

Variable	DV: <i>PROTECT</i>				DV: <i>PROCESS</i>			
	B	S.E	Wald X^2	Sig.	B	S.E.	Wald X^2	Sig.
<i>COST</i>	0.106	0.034	9.702	0.002	0.092	0.023	16.149	0.000
<i>DELREL</i>	0.088	0.073	1.450	0.228	0.025	0.049	0.262	0.609
<i>DELSPE</i>	0.021	0.045	0.214	0.643	-0.006	0.030	0.036	0.849
<i>FLEXIBILITY</i>	0.102	0.037	7.742	0.005	0.089	0.025	13.032	0.000
<i>QUALPROC</i>	-0.031	0.056	0.310	0.578	0.036	0.037	0.917	0.338
<i>QUALPROD</i>	0.108	0.044	6.162	0.013	0.051	0.029	3.053	0.081
<i>COMPETE</i>	0.744	0.451	2.726	0.099	-0.086	0.303	0.080	0.777

3.6 Discussion

To the best of my knowledge, this is the first study that attempts to connect the operations strategy priorities to the return policies of e-retailers. The results of this study have important implications that both managers and researchers need to consider. The support for two of the four hypotheses suggests that managers do attempt to align some firm return policies with operations

strategy priorities, given the competitive environment. This is an interesting finding that suggests these decisions may be resulting in more restrictive return policies than desired by customers.

The fit between a cost focus and return policy dimensions suggests that an operational cost focus is translated into the return policy restrictions of e-retailers. This is logical, given the cost of the returns management process. This benefits the achievement of the priority although it may not satisfy customers. Alternatively, since e-retailing is not a new distribution channel, perhaps customers are aware, through experience from bricks and mortar retailers, that when purchasing low cost items, it may not be possible to return them.

The lack of alignment between the delivery priority and return policies is not surprising. Given the importance of prompt delivery to e-retail success (Lee & Whang, 2001; Pyke, et al., 2001) firms may all have invested in improving delivery speed and reliability for customer orders. Because this “last mile” focus is a market requirement it may not be a consideration that firms have linked to their return policy, i.e. they freely deviate from the expected relationship. This may also be a mistake on the part of retailers. As discussed in Bower & Maxham III (2012), customers may perceive being forced to pay for return shipping as unfair, regardless of whether the return is their fault or not. As indicated by this study, it appears that the delivery priority is not impacting return policy leniency in the expected manner. Firms may need to further explore how to relate the delivery priority to the reverse supply chain. A continued focus on the delivery priority may be necessary for firms in the future as they continue to evolve returns policies and the priorities required to support them.

The alignment between flexibility and the returns process dimension appears consistent with the focus of the priority. The message to customers, based on return policy leniency is that

flexibility and personalization of items may increase return policy restrictiveness. From a product perspective, firms that prioritize flexibility in product range and customization may not want customers to return such items due to limited resale potential or value. From a process perspective, flexibility does not appear to have been extended to the reverse supply chain activities to support more lenient return policies. This also suggests that perhaps there is a difference in the approach managers take to the structuring and managing of forward and reverse supply chain activities.

The influence of product quality on both return policy dimensions is not consistent with prior studies (e.g. Bonifield et al. (2010)). This counter-intuitive result may result from e-retailers selling products with low product quality offering more lenient return policies to guarantee service recovery. In this way, the firm offers a form of “compensation” (easier and low cost returns) with a for a customer’s poor experience with low quality goods. However, Bonifield et al. (2010) suggest that the return policy reflects the quality of the firm, not necessarily the individual products sold by the firm. This differentiation suggests that the definition of what is a quality firm may benefit from further refinement. The measure of quality as part of the customer perspective through the use of customer satisfaction ratings may be too broad for researchers to start to understand the impacts of the multiple dimensions of operational quality on e-retail customer satisfaction. That said, e-retailers would benefit from further exploration of this topic to better understand if return policies should reflect the quality of the products sold or not.

3.7 Implications

The finding that there is alignment of OSP with the return policies of firms indicates that there is some consideration of operations strategy priorities in the content of e-retailer return policies. Further investigation into the reasons for the relationship between these priorities and return policies may help researchers and managers understand the e-retail environment.

Additional future investigation could focus on the relationship between more specific operational activities such as outsourcing of both forward and reverse logistics and return policies. Further exploration of the content of annual reports could involve operations-focused financial analysis to assess if there are financial indicators related to the restrictiveness of return policies. Expanding our understanding the relationship between the operations activities of firms and their return policies in the B2C environment would benefit both managers and researchers still trying to understand the role of return policies in firm profitability. Also, extending the analysis of retailers to include the requirements of their suppliers would also create a deeper understanding of the purposes of the restrictions in return policies.

3.8 Conclusion

This study takes the unique approach of using content analysis to explore the alignment of the return policies and operations strategy priorities of e-retailers. Based on existing theory and research there is support for the alignment between the operations strategy of a firm and the customer return policy, however this study only found partial support for such alignment. The complexity of the content of return policies and their relationship to the operations requirements to support them requires further investigation. In the competitive e-retail environment, the ability to provide prompt service to customers is increasingly important. This ability necessarily relates

to the ability to satisfy customer returns requirements. A question that remains is if the returns process, as part of the reverse supply chain, has yet to be included in the considerations of those making strategic decisions or if it is a secondary consideration for firms active in the increasingly competitive online business. The return policy is an important component of the service offerings of the firm that requires thoughtful consideration of content and the firm's ability to support it.

The method of the study is a unique contribution to the operations management literature. The use of content analysis continues to be less frequent than other methods used in the field and the examination of annual reports in this study may inspire other researchers to attempt to use them to understand firm operational foci.

This study has some limitations. The sample firms are large, publicly-traded firms; future research could include surveys of non-publicly traded companies and/or smaller firms to confirm the findings of this study. Content analysis is acknowledged as valid research method, and suitable measures were taken to ensure the validity of the constructs and the reliability of the coding; however, there was no contact made with the organizations in the sample to confirm the results of the coding. While this is not necessary for content analysis, it would add confirmation to the findings. The industry-of-study itself may create limitations. The focus of e-retailers on retailing service, including distribution, instead of manufacturing, results in annual reports that may include more content about the success of the firm in selling to customers than its operational priorities. Future research could replicate the content analysis procedure with manufacturers to assess if the outcomes differ.

CHAPTER 4: THE MODERATING ROLE OF RETURN POLICIES

4.1 Introduction

Customer satisfaction in e-retailing has been identified as a driver of repurchase intention (Wan et al., 2016) and customer loyalty (Kim, et al., 2009) which are both critical to business performance and continuity. One of the biggest challenges with achieving customer satisfaction is the wide variety of individuals purchasing from e-retailers. Trabold et al. (2006, p. 241) suggest that “presumably...customers will require certain different sets of service attributes within an e-retail website in order for them to be a satisfied customer and to return to the website for further business.” The optimal “set” of attributes to satisfy customers continues to be targeted by both retailers and practitioners.

One of the primary services offered by e-retailers is delivery of customer purchases. The ability to successfully complete the “last mile” of e-retailing has long been recognized as important for e-retail success (Pyke, et al., 2001) and the logistics capabilities required for the success of e-retailers have been identified (Cho et al., 2008). They include the ability to offer shipment tracking, the ability to reduce shipping times, offering widespread and global distribution, availability of customer service, and the ability to reduce the cost of shipping. These capabilities manifest in the logistics service offerings of the firm that are considered by customers in the pre-purchase phase of the e-retail purchase transaction, i.e. before deciding to purchase. Both retailers and researchers have accepted the challenge of finding better ways to support e-retail sales to ensure customer satisfaction through supply chain capabilities (Rao, Griffis, et al., 2011). However, the role of logistics service offerings in inciting customer purchase behaviour as a result of satisfying their needs has had limited empirical study.

Another e-retail service offering that may have an effect on customer satisfaction is the return policy of the firm. Return policies are complex in their role in the e-retail purchase process. They have been suggested to increase customer proclivity to purchase (Janakiraman, et al., 2016), reduce the perceived risk related to purchasing from a retailer, and signal the quality of the retailer (Bonifield, et al., 2010). While Janakiraman et al. (2016) suggest that lenient return policies increase sales more than they increase the incidence of returns, the cost of returns processing needs to be considered. Firms are challenged to reconcile these two perspectives.

The mechanisms by which return policies impact the performance of e-retailers are under-explored. The notion that return policies drive sales, exclusive of other factors, seems lacking in power. Research into the effects of return policies assumes they are independent drivers of customer satisfaction and firm performance, and sole considerations when the customer is making the decision to purchase (e.g. Wood (2001), Pei et al. (2014)). In fact, there are numerous factors that customers consider when deciding to order from an e-retailer, e.g. shipping options, e-retail store interface, product availability, and customer service (Keeney, 1999; Torkzadeh & Dhillon, 2002; Trabold, et al., 2006). Return policies reflect the intention and ability of the firm to accept and process returned products and customers will create expectations based on their perception of the policies which will impact their satisfaction. As discussed by Anderson et al. (2009), return policies function as options, i.e. the value of the return policy is not realized until exercised, which occurs post-purchase. The customer may assess the policy pre-purchase and while they may be satisfied with their pre-purchase experience, a restrictive return policy may reduce their satisfaction post-purchase.

Based in Expectation Confirmation Theory (ECT), this research proposes that customer expectations, resulting from the pre-purchase phase of e-retail transactions, positively influence

customer satisfaction in the secondary, post-satisfaction phase. As part of this pre-purchase phase, customers assess the logistics service offerings (LSO) of the firm. Using the same theory, this paper argues that satisfaction with LSO has a similar impact on post-purchase satisfaction. Moreover, to the best of our knowledge, this study is the first to propose that return policies have a moderating effect on the relationship between pre-purchase expectation and post-purchase satisfaction.

Using data obtained from e-retailers with high e-retail sales performance, via content analysis of firm websites, this study investigates the moderating effects of e-retail return policies on the relationship between pre-purchase expectation and post-purchase satisfaction, and logistics service offerings on e-retail shipping customer satisfaction. Demonstrating that return policy restrictiveness moderates effects on customer satisfaction contributes to academic research from a theoretical perspective by extending our understanding of how return policies impact firm performance. It recognizes the complex assessment process of customers that drives customer satisfaction which is important for long-term e-retail success. Results indicate a significant negative moderating effect of the return policy “protection” dimension on the relationship between customer pre-purchase expectation and post-purchase satisfaction.

The paper continues as follows. Previous research into customer satisfaction is reviewed followed by hypotheses development and the research model. The study is detailed, including the development of the LSO scale, empirical data collection from 156 firms, and data analysis using generalized linear regression. A discussion of the results follows, including implications of this new perspective on return policies, in conclusion.

4.2 Theoretical Background

4.2.1 E-retail customer satisfaction

One of the primary models employed in the e-retailing research literature suggests that service performance drives satisfaction which then drives customer intentions. Numerous studies identify a significant relationship between customer satisfaction and customer loyalty and customer retention (Balabanis et al., 2006; Chen, 2012; Heim & Sinha, 2001; Rao, Goldsby, et al., 2011). Customer retention is important to e-retailing because of the ease of ordering from a different supplier, or even shopping at a physical store. The suggestion that satisfied customers are more likely to remain customers seems a compelling reason to focus on drivers of customer satisfaction. Drivers of customer satisfaction related to e-retail offerings have been studied extensively including customer-focused services (e.g. backorder tracking and priority mail delivery) (Heim & Field, 2007), user-friendly searching by focusing on the dependability, competency, and integrity of the website (Chen, 2012), and decision and transaction customization (Thirumalai & Sinha, 2011).

Inherent in the e-retail environment are differences compared to a physical store shopping experience. Such differences include information uncertainty, distrust in the transaction, waiting time for delivery, and travel time for purchase (Hsiao, 2009). These differences require e-retailers to find ways to reduce the resulting concerns on the part of customers to encourage purchase behaviour and satisfy customers. There are numerous considerations in the pre-purchase process that can influence customer expectations of the outcomes of the sales transaction.

4.2.2 Logistics capabilities in e-retail

The importance of logistics capabilities to the success of e-retail activities was initially under-appreciated by e-retailers. Early players in e-retailing believed that attracting customers to websites was most important for e-retail success (Reibstein, 2002). This belief was found to be false as retailers that were unable to deliver customer orders in a timely manner faced consumer backlash, decreased profitability, and in some cases failed (Reibstein, 2002).

The most important supply chain capability for e-retailing success, as identified by numerous studies, is fulfillment (Lee & Whang, 2001; Pyke et al., 2001; Reibstein, 2002; Thirumalai & Sinha, 2005; Urban et al., 2000). The term fulfillment refers to the ability of the e-retailer to deliver customer purchases at a reasonable cost (Lee & Whang, 2001). It is a supply chain responsibility that includes such logistics capabilities as: order capture, order processing, pick and pack, shipping and after-sales service, and returns handling (Pyke et al., 2001). These activities require the successful deployment of organizational assets, competencies, attributes, and processes to enable efficient and effective delivery of products (Cho, et al., 2008).

The role of logistics capabilities in e-retail has begun to be understood as greater than just a delivery service that is secondary to other factors important in e-retail. Logistics activities have been linked with future purchase behaviour and online referrals, for example, Rao et al. (2011) found that customers who received their e-retail orders later than promised by a retailer decreased their frequency of ordering as well as the size of subsequent orders. Success in logistics fulfillment activities, such as order processing time and on-time delivery, has also been found to impact customer loyalty (Ramanathan, 2010), and the likelihood that customers will recommend other customers purchase from an e-retailer (Griffis, Rao, Goldsby, & Niranjana, 2012).

Rao et al. (2014) found that on-time delivery of customer orders, i.e. strong logistics capabilities for forward supply chain activities, decrease the likelihood that customers will return items they ordered. While successful e-retailers need to have strong operational support processes and capabilities to support product delivery and create customer value (Pyke, et al., 2001), logistics capabilities are also required to support customers returning products to the firm. These capabilities have been found to positively impact customer satisfaction, future purchase behaviour, and customer referrals; however there have been few studies that investigate the impact of these capabilities on e-retail performance measures and return policies.

4.2.3 E-retail return policies

The primary perspective of extant research is that return policies function to reduce the customer's perception of the risk of purchasing from the e-retailer. A connection between return process satisfaction and customer loyalty has been made (Mollenkopf, Rabinovich, et al., 2007; Ramanathan, 2011) but pre- and post-purchase impacts of return policies and their connection is still unclear. Researchers are starting to understand the mechanisms by which return policies function. However, the effects of returns policies have not yet been fully explored. Smith (2005) investigated e-retailing return policies and reverse logistics programs of firms, and their impact on customers' purchasing decisions, and found that ease of finding and understanding a firm's return policy on a website and simple a returns process increase the likelihood that an individual will purchase from a site. This suggests that it is the combination of the return policy and the capabilities of the firm that impact customer purchasing, not either in isolation.

Numerous researchers have commented on the dearth of studies related to return policies. Yet, there have been numerous theories invoked to try to explain the roles and mechanisms of these policies including the Justice Principle (Pei, et al., 2014), Signaling Theory (Bonifield, et

al., 2010; Rao, et al., 2017; Wood, 2001), and Regret and Equity theories (Bower & Maxham III, 2012). The customer perspective can be summarized, based on these studies as wanting policies to be easy to use, decrease purchase risk, and help to reduce the potential for regret. These characteristics may influence a customer's purchase behaviour directly, or with the large number of considerations in the e-retail purchase transaction, they may merely indirectly influence behaviour.

The preponderance of research by marketing scholars, e.g. Kukar-Kinney et al. (2007) and Janakiraman et al. (2016) focuses on the pre-purchase impact of return policies, i.e. that return policies are a pre-purchase sales motivator for customers. The return policy functions as a service promise of recourse by the retailer. Existing research, e.g. Bonifield et al. (2010) into return policies primarily focuses on the leniency of the policy from the customer's perspective, i.e. how easy it is for customers to return purchased items. The more lenient the policy, the stronger the signal is to customers that they will be able to remedy issues with their purchase. However, the problem with viewing return policies only using the pre-purchase lens is that the policy may never be used by the customer.

From the supply chain perspective, return policies are part of the Gatekeeping function of the reverse supply chain (Rogers, et al., 2002). They provide guidance regarding what qualifies to be returned (and its condition), in order to control the entry of products into the reverse supply chain. On the other hand, marketing scholars focus on the use of return policies as a mechanism to incite customer behaviour by signaling that customers do not have to worry about any risk involved in purchasing from retailers.

Bonifield et al. (2010) define lenient return policies as “policies that facilitate returns by not only allowing refunds, exchanges, and merchandise credits, but also by imposing minimal

restrictions on consumers making returns” (p. 1059). Such restrictions are numerous in e-retail (Bonifield, et al., 2010), and include e.g. how long customers have to return the product, the condition it must be in, and if customers need to inform the company when returning items. While experimental research indicates that customers prefer lenient return policies (Wang, 2009; Wood, 2001), it is unclear if all customers consider return policies in their decision-making process. Trabold et al. (2006) suggest that easy returns and refunds are not especially important to e-retail customers; that they will only purchase from e-retailers if they know that they do not intend to return the product. They found that only purchasers of computers tended to be concerned with return policies, potentially due to the cost of the purchase. However, this finding has not been assessed in the current e-retail environment. The process of dealing with returned items is costly yet critical for firms (Rogers, et al., 2002) which suggests it is unlikely that firms want customers to return products due to the resultant costs and potential reputational impacts. Instead, the return policy is necessary, in the event of customer dissatisfaction, to facilitate service recovery.

4.3 Hypothesis Development

The expectations of customers have been suggested to be associated with their satisfaction for some time (Oliver, 1980; Zeithaml et al., 1993). Numerous scholars suggest the applicability of Expectation Confirmation Theory (ECT) in the assessment of antecedents of e-retail customer satisfaction (McKinney et al., 2002; Rao, Griffis, et al., 2011; Wan, et al., 2016), specifically the confirmation/disconfirmation paradigm. The applicability of this theory and paradigm is based on the structure of e-retail; customers purchase without seeing what they are purchasing and must wait to receive it. Expectation building is a necessary by-product of the e-retail transaction process. Firms can attempt to reduce the risk perception in the transaction by

attempting to provide services, pre-purchase, that create a positive expectation of the final outcome of the entire sale transaction.

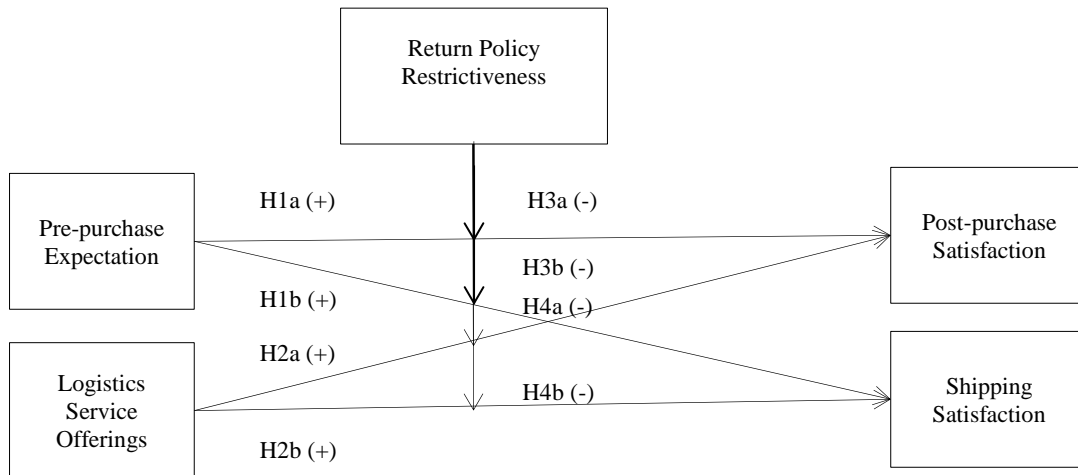
Expectations are created in the customer's mind throughout the purchase process. As discussed in Rao et al. (2014), customers evaluate how well a retailer has met their desired outcome through many phases of a purchase transaction. They apply the framework of Lazarus (1991) to e-retail exchanges. Based on this framework, there is a pre-purchase assessment that creates expectations (Griffis, Rao, Goldsby, & Niranjana, 2012), followed by a response phase during which the customer makes an emotional assessment of the transaction outcome which is understood as "customer satisfaction" (Oliver, 1981). The third phase is the response phase during which the customer reacts to observations from and experiences of the first two phases. This research focuses on the expectation building of the assessment phase and resulting customer satisfaction response.

Given customer expectations resulting from the pre-purchase process, the firm has the opportunity to confirm or disconfirm those expectations through post-purchase actions. As discussed in Oliver (1980), so-called "positive disconfirmation" (p. 461) occurs when the expectations are met or exceeded. The result of this is the emotional response of customer satisfaction. Alternatively, there is "negative disconfirmation" (p. 460) when outcomes do not meet expectations, which results in customer dissatisfaction. In the case of e-retailing, there are two opportunities to assess customer satisfaction, leading to the question: do positive customer expectations resulting from the pre-purchase process result in further positive satisfaction, post-purchase? Moreover, is there any way that a firm can positively impact the confirmation/disconfirmation process in the event that customers are not satisfied with the pre-purchase process? This research proposes that the return policy of the firm is such a mechanism.

4.3.1 Research framework

Figure 5 summarizes the framework for this research. The framework is based in ECT such that satisfaction with early interactions with an e-retailer will positively influence customer satisfaction post-purchase. A specific example of such pre-purchase interaction is the provision of logistics service offerings. These offerings will positively influence customer satisfaction post-purchase. Further, this relationship is moderated by the restrictiveness of the e-retailer return policy. Moreover, the expectations built will also influence satisfaction with the shipping options of the e-retailer. Return policy restrictiveness will also moderate these relationships.

Figure 5 - Research Framework



4.3.2 E-retail pre-purchase expectation

Due to the information asymmetry inherent in the e-retail exchange process (Rao, et al., 2017), customers may have little on which to base their expectations of a retailer. While they may have experience with the retailer, or other retailers, each transaction is a new experience. In the e-retail environment, the customer makes a purchase and once complete, must wait for the arrival of the product to assess the quality of the product and the overall experience. Thus, there

are two opportunities for customers to assess their degree of satisfaction: pre-purchase (which creates an expectation) and post-purchase. As they are part of the same customer transaction, satisfaction with the first phase of the purchase may influence customer satisfaction with the second phase. The pre-purchase process is a method through which customers can gain experience with the retailer and decrease their perceived risk of being taken advantage of by the firm. Consistent with ECT (Oliver, 1980), the customer's experience with pre-purchase process may create an expectation of the ability of the e-retailer to satisfy the post-purchase expectations of the customer and suggest that the e-retailer is a high quality firm (Bonifield, et al., 2010) from which customers can safely purchase. More importantly, satisfaction with the experience of the initial contact with the firm and the purchasing process will create a further expectation regarding the remainder of the purchase transaction.

The remainder of the purchase transaction includes the shipping of the order as well as other activities that occur after the point of purchase. Customer satisfaction is built upon expectation creation, which is influenced by such factors as prior experience, context, and individual characteristics (Oliver, 1980). Therefore, the pre-purchase customer experience contributes to customer satisfaction by creating expectations for the remainder of the transaction. Therefore:

H1a: Pre-purchase expectation positively influences post-purchase satisfaction.

H1b: Pre-purchase expectation positively influences shipping satisfaction.

4.3.3 E-retail logistics service offerings

Logistics capabilities have long been recognized as critical to firm success in e-retailing (Lee & Whang, 2001). Customers desire faster delivery times (Keeney, 1999) and fast order cycle times (Griffis, Rao, Goldsby, & Voorhees, 2012), thus requiring a variety of shipping

options. The more options customers have, the more likely they will be able to find shipping options that are suitable for them. As suggested by Hjort et al. (2013), changes in delivery conditions are made with the goal of attracting and retaining customers. Offering customers choices gives them a measure of control in the purchase transaction that is necessarily dictated by the e-retailer because of the lack of physical interaction with customers. After customers receive products purchased from e-retailers they react to the execution of their order. Rao et al. (2014) find that when firms deliver e-retail orders on-time or earlier, the likelihood of a customer returning the product decreases, suggesting adequate post-purchase satisfaction with the product and e-retail process. The logistics service offerings of an e-retailer influence customer satisfaction by enabling customers to choose their shipping service level, and associated costs.

Customer control of the transaction process is increased through the ability to choose, e.g. the desired shipping method and price. The ability to customize e-retail transactions has been found to influence customer satisfaction (Thirumalai & Sinha, 2011). While this finding was largely based on the ability to save personal information based on previous sales with a firm, this may extend to the ability to make choices, i.e. personalize shipping choices. Based on previous experience, and given their selection, the customer will have expectations associated with their selected shipping method and cost. If the shipment meets the delivery expectations selected by the customer, customer satisfaction will be increased.

H2a: Greater logistics service offerings positively influence post-purchase satisfaction.

H2b: Greater logistic service offerings positively influence shipping satisfaction.

4.3.4 Moderating influence of return policies on e-retail performance

The perspective of Anderson et al. (2009) that return policies function as options that may be exercised after the point of purchase has had little further consideration in extant return

policy research. While researchers have tended to focus on the potential to use return policies as a lever to encourage purchase behaviour (see Janakiraman, et al. 2016), there is also a need to consider the impact of the return policy post-purchase. Once the e-retail purchase has been made, the customer must wait for successful delivery. During that time, customers have an opportunity to re-consider their purchase. Once the product is delivered, the information asymmetry inherent in the e-retail purchase process disappears and the quality of both the product and the retailer become realized, not just signaled. At this point, the return policy becomes a more relevant factor in the purchase process since customers can make an assessment of both the product and the purchase process. During this closer assessment, the restrictiveness of the return policy may negatively impact the satisfaction of the customer.

Justice theory is concerned with customer perceptions of fairness. Originating in social exchange theory and equity theory, justice theory has been used to explain such issues as service recovery (del Río-Lanza et al., 2009; Kuo & Wu, 2012) and customer satisfaction (Maxham III & Netemeyer, 2002). Perceived justice relates to how customers perceive their experience, specifically broken down into three dimensions: distributive justice, procedural justice, and interactional justice (Tax et al., 1998). Distributive justice focuses on the concept of equity whereby customers assess fairness by comparing their inputs to the outputs of their exchange. If their perception of the ratio of inputs to outputs is favourable, compared to other referents, they judge the exchange to be fair. Procedural justice specifically relates to the perceived fairness of the process customers engage in. Interactional justice is concerned with the fair treatment of customers during interactions with firm service agents. In this study, we focus on the effects of distributive and procedural justice.

Both the return policies and the capabilities required to support the policies may influence the perceived justice on the part of customers. Their interrelationship, i.e. both fair policies and an easy process, may influence customer satisfaction. This suggests an interaction effect between the logistics capabilities of the firm and the firm return policy. Therefore, I explore the moderating effects of return policies on the relationships between pre-purchase expectation and logistics service offerings and post-purchase and shipping satisfaction.

4.3.4.1 Restrictive return policies and distributive justice.

Restrictive return policies which make it more difficult for customers to return products may reflect poorly on the quality of the retailer (Bonifield, et al., 2010). By suggesting that an e-retailer will not stand behind its products (Wood, 2001), and that the e-retailer is of lower quality (Bonifield, et al., 2010), restrictive return policies will reduce post-purchase satisfaction. They may also suggest that the firm is not going to treat the customer fairly which results in a perception of unfairness. Customers may therefore perceive a restrictive return policy to be inconsistent with their assessment of the e-retailer during the pre-purchase phase of the transaction. Restrictive return policies suggest a lack of distributive justice, i.e. that the outcome of a return exchange will not be considered just, or fair, by the customer. As a result, this will reduce the effect of pre-purchase expectation on all post-purchase satisfaction, i.e. both fulfillment-related activities, and shipping activities.

The numerous requirements included in restrictive return policies include shipping requirements that may limit the flexibility or choice provided customers for returning purchased items. The return policy may also dictate prompt return of the item. Ease of returns is an important factor in e-retailer customer satisfaction (Chang, et al., 2004; Keeney, 1999;

Torkzadeh & Dhillon, 2002)., A restrictive return policy that indicates the process will be difficult and/or expensive will negatively moderate the effects of pre-purchase expectation on shipping satisfaction. Therefore:

H3a: Restrictive return policies will negatively moderate the positive relationship between pre-purchase expectation and post-purchase satisfaction.

H3b: Restrictive return policies will negatively moderate the positive relationship between pre-purchase expectation and shipping satisfaction.

4.3.4.2 Restrictive return policies and procedural justice.

E-retailers focus on providing the logistics service offerings required to deliver customer purchases to their specifications (see discussion in Nguyen et al. (2018). While more logistics service offerings increase shipping satisfaction, a restrictive return policy can reduce that positive impact. For example, customers who are required to pay for product returns, may spend less than if they had had free returns (Bower & Maxham III, 2012). Further, when firms deliver e-retail orders on-time or earlier, the likelihood of a customer returning the product decreases, suggesting post-purchase satisfaction with the product and e-retail process (Rao, et al., 2014). Finally, Lantz & Hjort (2013) find an interaction effect between free delivery and free returns offerings of an e-retailer on the value of customer orders and on the value of purchased items. The results of these studies suggest a relationship between the logistics service offerings and the return policies of an e-retailer.

While the services offered may be sufficient to generate customer satisfaction, a restrictive return policy may reduce the positive impact of these service offerings on both post-purchase and shipping satisfaction. The return policy defines the return process for customers. Once the customer assesses the return policy and finds there to be many restrictions, the process

may seem too complicated or difficult. Customers must follow the instructions contained in a return policy for the return of items purchased from e-retailers. More restrictive return policies have more requirements that customers must follow in order to return purchases. This contrasts poorly with the many choices of logistics service offerings by e-retailers in order to get customer orders delivered in the manner and by the requested time.

Procedural justice requires that customers assess the process as fair/just (Tax, et al., 1998). That there is little flexibility in restrictive return policies suggests that customers may find this procedurally unjust and as a result will be less satisfied with the logistics service offerings of the e-retailer. This will impact their satisfaction with the entire post-purchase process by contrasting poorly with the pre-purchase logistics service offerings. It will also diminish satisfaction with shipping since the restrictive return policies may require the customer to pay for the return. Thus:

H4a: Restrictive return policies will negatively moderate the relationship between logistics service offerings and post-purchase satisfaction.

H4b: Restrictive return policies will negatively moderate the relationship between logistics service offerings and shipping satisfaction.

Section 4 details the data collection process, data, and measures used in this study.

4.4. Method

4.4.1 Sampling and data collection

This study uses secondary data wholly obtained from the Internet. As the outcome variable of this research is customer satisfaction, which is based on customer assessment of LSO and return policies, data was collected directly from firm websites.

The empirical assessment was based on content analysis. Content analysis is a research technique that enables the systematic evaluation of communication, including for example, interviews, reports, photos, webpages (Krippendorff, 2012; Weber, 1990). Although not commonly used in operations management research, existing studies (e.g. (Montabon, et al., 2007; Tangpong, 2011)) suggest that the technique is gaining legitimacy within the field. While content analysis may be either qualitative or quantitative, this research was performed using quantitative content analysis which entails the conversion of textual data into quantitative/numerical form to enable statistical analysis (Krippendorff, 2012). All data used in this study was secondary data from online sources. In this section, the data sources and coding process are detailed. Statistical analysis was performed using SPSS, version 25 (IBM, 2017).

4.4.2 Data and variables

There are two sources of data used in this study, firm websites of firms on the 2012 Internet Retailer Magazine Top 500 list (Internet Retailer Magazine, 2012) and BizRate.com. The Top 500 list has been used in previous e-retail studies as it has been identified as one of the most comprehensive lists of high performing e-retail firms (e.g. Rao et al. (2011)). The list is compiled by Internet Retailer Magazine through Internet research and interviews with senior managers at the listed companies (Internet Retailer Magazine, 2012). The initial list of 500 firms was reduced to 405 due to reasons related to the availability of return policies including: no return policy provided; returns not permitted by the e-retailer; needing to login to the website to see the return policy; e-retailer selling through multiple brands and sites.

BizRate.com collects data from customers regarding their satisfaction with online purchasing from retailers in North America. Data from this site has been used in prior research (Heim & Sinha, 2001; Jiang & Rosenbloom, 2005; Rao, Goldsby, et al., 2011; Wan, et al., 2016).

The rating variables used on the site have been empirically validated and have been assessed to suggest no nonresponse bias (Reibstein, 2002). They include factors from the pre-purchase phase that may influence purchase decisions, as well as those that indicate the post-purchase success of the firm in satisfying the customer after the purchase is completed. Firms voluntarily use BizRate to ask their customers about their purchase experience in order to learn if customers are satisfied with their online experience. As a result, not all firms have ratings on the site. A subsequent search of BizRate.com found customer satisfaction ratings for 156 firms of the 405 firms. An overview of the sample firms is detailed in Table 20.

Table 20 - Sample firm merchandise types

Product Category	Number of Firms	Percent of Sample	Average Sales/Category
Apparel/Accessories	46	29.49%	\$ 223,124,040
Automotive Parts/Accessories	3	1.92%	\$ 57,699,374
Books/Music/Videos	6	3.85%	\$ 188,633,333
Computers/Electronics	13	8.33%	\$ 543,330,337
Hardware/Home Improvement	10	6.41%	\$ 161,604,262
Health/Beauty	14	8.97%	\$ 106,757,364
Housewares/Home Furnishings	11	7.05%	\$ 94,992,945
Jewelry	7	4.49%	\$ 88,233,701
Mass Merchant	9	5.77%	\$ 998,466,911
Office Supplies	7	4.49%	\$1,052,063,804
Specialty/Non-apparel	16	10.26%	\$ 127,652,224
Sporting Goods	11	7.05%	\$ 70,881,326
Toys/Hobbies	3	1.92%	\$ 20,370,000
Totals	156	100.00%	\$3,733,809,621

There are four different categories of merchant type represented in the sample, i.e. primary distribution channels. Web-Only firms have not physical store locations and customers may only purchase from these stores via the Internet. Retail Chains have physical store locations as well as an online store. Consumer Brand Manufacturers are those firms that manufacture

products that are traditionally sold by other retailers; however, given the increasing ubiquity of e-retailing they also sell their products via an online store. Catalog/Call Center retailers offer catalog sales in addition to online sales. A breakdown of the sample firm merchant types is presented in Table 21.

Table 21 - Sample firm merchant types

Retailer Type	Number of Firms	Percent of Sample
Web-Only	57	36.54%
Retail Chain	58	37.18%
Consumer Brand Manufacturer	16	10.26%
Catalog/Call Center	25	16.03%
Total	156	100.00%

4.4.3 Main construct operationalization

In this study there are three concepts of interest: Customer Satisfaction, Logistics Service Offerings, and Return Policies. Customer Satisfaction comprises three different constructs: Pre-purchase Expectation, Post-purchase Satisfaction, and Shipping Satisfaction (i.e. customer satisfaction with shipping outcomes). Return Policies are defined based on their leniency on two unrelated dimensions: *PROTECT* and *PROCESS*. The data collected for this study include customer satisfaction ratings, details of e-retailer logistics service offerings from their websites, and the return policies for each firm. Detailed discussion of the sources of data and the process for collecting each follows.

4.4.3.1 Customer satisfaction.

Customer satisfaction measures were collected from BizRate.com. All the measures assessed by the site were included in the study. Customers provide their satisfaction rating on a

scale of 0 to 10. Descriptions of the variables, descriptive statistics, and correlations for the customer service measures are detailed in Table 22.

Table 22 - BizRate.com descriptive statistics (n=156)

Customer Satisfaction Measure	Variable	Mean	S.D.	Min	Max
Shipping Charges	SHIPCHG	8.21	0.83	5.70	9.70
Variety of Shipping Options	SHIPTION	8.49	0.41	7.40	9.50
On-time Delivery	ONTIME	9.05	0.41	7.40	9.90
Shipment Tracking	TRACKING	8.94	0.45	7.10	9.70
Clarity of Product Expectations	PRODEXPECT	8.93	0.40	7.40	9.80
Customer Support	SUPPORT	8.69	0.57	5.00	9.90
Product Availability	AVAILABLE	9.01	0.40	7.00	9.80
Returns Process	RTNPROC	8.12	1.32	1.00	10.00
Ease of Finding What You are Looking For	EASEFIND	8.78	0.25	8.00	9.40
Design of Site	SITEDESIGN	8.73	0.23	8.10	9.30
Satisfaction with Checkout	CHECKOUT	8.96	0.30	8.10	9.70
Product Selection	PRODSELECT	8.80	0.25	8.00	9.60
Clarity of Product Information	PRODINFO	8.79	0.24	8.10	9.50
Charges Stated Clearly	CLEARCHG	9.09	0.28	8.30	9.80
Price Relative to Other Online Retailers	RELPRICE	8.41	0.40	7.10	9.20

Previous factor analysis of this data suggested the characterization of the data along two dimensions, termed by Thirumalai & Sinha (2005) as: *order procurement* and *order fulfillment*. An attempt to replicate these dimensions was made but was unsuccessful. In this study, exploratory factor analysis using principal components extraction and orthogonal rotation resulted in three factors accounting for 73.36% of variance, not two. The first factor represents customer expectations resulting from the pre-purchase process (*order procurement*, according to Thirumalai and Sinha (2005)). The second represents post-purchase purchase satisfaction (*order fulfillment*). The third represents satisfaction with order shipping methods and cost (previously part of the *order fulfillment* dimension). Although similar to the dimensions suggested by Thirumalai and Sinha (2005), the change in factor composition suggests a change in customer

perspective, specifically that the specific logistics component of the fulfillment process is now considered separately from the fulfillment activities of the firm. Factor loadings are detailed in Table 23.

Table 23 - Exploratory factor analysis results

Customer Satisfaction Variables	Factor Loadings		
	Pre-Purchase	Post-Purchase	Shipping
EASEFIND	0.908	0.125	-0.034
PRODINFO	0.902	0.108	0.082
CHECKOUT	0.900	0.032	0.026
PRODSELECT	0.852	0.186	0.017
SITEDESIGN	0.807	0.193	-0.030
CLEARCHG	0.745	0.106	0.253
RELPRICE	0.655	-0.040	0.100
ONTIME	0.071	0.920	0.159
TRACKING	0.046	0.893	0.161
SUPPORT	0.112	0.812	0.144
PRODEXPECT	0.153	0.798	0.166
AVAILABLE	0.218	0.789	0.244
RTNPROC	0.025	0.678	-0.041
SHIPCHG	0.094	0.181	0.911
SHIPOPTION	0.089	0.324	0.861
Initial eigenvalues	6.130	3.533	1.342
Percentage of variance	40.862	23.556	8.947
Cumulative % variance	40.862	64.418	73.365

Confirmatory factor analysis was conducted for the reflective indicators, specifying the three factors identified in the exploratory factor analysis. Fit indices were all acceptable, indicating a good fitting model: (CMIN/DF = 1.597, NFI = .935, TLI = 0.967, CFI = 0.974, RMSEA = .062, CI = 0.041-0.081, P.CLOSE = .158). All indicator loadings were greater than 0.50 and significant ($p < 0.001$). Results from the analysis are detailed in Table 24.

Table 24 - Confirmatory factor analysis results

Variables	λ	alpha	CR	AVE	EXPECT	POSTSAT	SHIPSAT
Pre-Purchase Expectation (<i>EXPECT</i>)							
<i>EASEFIND</i>	0.932	0.907	0.927	0.651	0.807		
<i>PRODINFO</i>	0.917						
<i>CHECKOUT</i>	0.871						
<i>PRODSELECT</i>	0.808						
<i>SITEDESIGN</i>	0.837						
<i>CLEARCHG</i>	0.668						
<i>RELPRICE</i>	0.541						
Post-Purchase Satisfaction (<i>POSTSAT</i>)		0.804	0.912	0.639	0.213	0.800	
<i>ONTIME</i>	0.974						
<i>TRACKING</i>	0.936						
<i>SUPPORT</i>	0.766						
<i>PRODEXPECT</i>	0.716						
<i>AVAILABLE</i>	0.778						
<i>RTNPROC</i>	0.553						
Shipping Satisfaction (<i>SHIPSAT</i>)		0.750	0.882	0.792	0.166	0.449	0.890
<i>SHIPCHG</i>	0.997						
<i>SHIPOPTION</i>	0.756						

AVE square roots are in bold on rightmost diagonal

Average Variance Extracted (AVE) for all factors are great than 0.60 and composite reliability for all factors are greater than the suggested minimum threshold of 0.70 suggesting good convergent validity (Fornell & Larcker, 1981; Voorhees et al., 2016). The values for the square root of the average variance extracted were all larger than the inter-construct correlations suggesting, and the square roots of the AVE are all greater than the inter-construct correlations suggesting good discriminant validity (Fornell & Larcker, 1981; Voorhees, et al., 2016) (Table 24).

4.4.3.2 Logistics capabilities.

The logistic capabilities for e-retail success used in this research are those identified by Cho et al. (2008) in the creation of a logistics capabilities scale used in a survey of managers to assess e-retail firm performance. The variables used in the scale were identified by assessment of previous scales used to assess impact of logistics capabilities on firm performance. The primary foundation for these capabilities is the work of Morash et al. (1996). Cho et al. (2008) added three additional capabilities, specific to e-retailing, based on a review of e-retail research and logistics requirements. A detailed description of the capabilities and their sources is in the Appendix. As this study focuses on what the firm presents to customers, the capabilities manifest as logistics service offerings in the e-retail sales process. The measures were translated into binary variables for the purposes of coding based on their presence or absence. Three variables included in the original scale were dropped from the analysis: Delivery Reliability, Responsiveness to Target Market(s), and Web-based Order Handling. It was not possible to assess Delivery Reliability or Responsiveness to Target Markets using content analysis, so they were not coded. Web-based Order Handling was offered by all the firms in the sample, suggesting limit differentiating power, so it was dropped from the analysis as well. Table 24.

Table 25 details the variables and their translation for the purposes of content analysis.

4.4.3.2.1 Logistics service offerings coding process.

All the shipping-related information posted to the website by the firm was concurrently collected with their return policies. This information is generally located on a webpage that focuses on shipping-related information, although it may also be located in the “Orders” or “FAQ” section of the website. For each firm included in the sample, the logistics related content from each website was read and the appropriate numerical code recorded for each category. The

logistics service offerings were coded according to their presence or absence. If the logistics service was offered, it was coded “1”, if not, “0”. The results of the coding process are detailed in Table 24.

Table 25 - Logistics service offerings coding results (n=156)

Logistics Service Offering	Description	Variable	0	1
Delivery Speed	More than one speed of delivery service offered	<i>SPEED</i>	27	129
Widespread Distribution Coverage	The e-retailer will ship to all 50 states	<i>WIDE</i>	6	150
Global Distribution Coverage	The e-retailer offers shipping outside the U.S.A.	<i>GLOBAL</i>	66	90
Total Low Cost Distribution	The e-retailer offers reduced or free logistics costs to customers	<i>LTCOST</i>	66	90
Delivery Information Communication	Customers are able to track their packages online	<i>DELINFO</i>	19	137
Customer Service	Customers are able to reach customer service representatives either by phone or live chat.	<i>CUSSERV</i>	43	113

4.4.3.2.2 Coding reliability.

To assess coding reliability, (Heim & Sinha, 2001) the logistics service offerings were coded for 46 firms by both the primary investigator and another individual. The second coder was given an overview of the study and the objective of the coding process as well as an overview of the concepts of concern. They were then given the codebook that outlined the coding process. They were walked through the coding process by the primary investigator until they felt comfortable with the process and were able to code the logistics offerings without hesitation. Coding results were compared between the primary researcher and the second coder. Inter-rater reliability between the coders was 87.7%. Krippendorff's alpha was 0.83 which is above the 0.80 suggested as the acceptable threshold for good reliability (Krippendorff, 2012) .

4.4.3.2.3 Logistics service offerings scale development.

Correlations between logistics capabilities are low or not significant (Table 26). The absence of correlations suggests the development of a formative scale to represent the concept of e-retail logistics service offerings (Diamantopoulos & Winklhofer, 2001). Of the variables coded, two were dropped due to their primary applicability to customers within the United States and not global customers (*SPEED* and *WIDE*). The remaining variables were used to create a summated scale (Diamantopoulos & Winklhofer, 2001).

Table 26 - Logistics service offerings Spearman correlations (n=156)

	<i>SPEED</i>	<i>WIDE</i>	<i>GLOBAL</i>	<i>LTCOST</i>	<i>DELINFO</i>	<i>CUSSERV</i>
<i>SPEED</i>	1.000					
<i>WIDE</i>	.173*	1.000				
<i>GLOBAL</i>	0.020	0.099	1.000			
<i>LTCOST</i>	0.088	-0.036	-0.103	1.000		
<i>DELINFO</i>	.192*	0.027	-0.121	0.078	1.000	
<i>CUSSERV</i>	-0.055	-0.049	-0.151	0.023	.209**	1.000

** $p < 0.01$, * $p < 0.05$

4.4.3.3 Return policies.

In this study, return policies are operationalized in two dimensions based on restrictions contained in the policies. Two formative scales were developed as part of the study in Chapter 2 to represent the functions of the policies from the perspective of Transaction Cost Theory (TCT). All the remaining information in this section appeared first in Chapter 2.

A MIMIC (Multiple Indicators and Multiple Causes) model was developed for each scale. These two scales represent two independent purposes of return policies, to: 1.) minimize the cost of products entering into the reverse supply chain (Rogers, et al., 2002), and 2.) protect firms from opportunistic customer behaviour (King, et al., 2008; Piron & Young, 2000).

The *PROCESS* scale is comprised of indicators that minimize cost and support the returns process capabilities of the firm. These capabilities are based primarily on the returns management process defined by Rogers et al. (2002). All the indicators initially included in the model are presented in Table 27.

Table 27 - PROCESS scale concepts

Concept	Concept Source	Indicator (Source)	Indicator Definition
Gatekeeping	Rogers, et al., 2002	<i>RMA</i> (Mollenkopf, 2007)	Pre-authorization required
Gatekeeping	Rogers, et al., 2002	<i>NOTICE</i> (New Variable)	Advance Shipping Notice Required
Avoidance	Rogers, et al., 2002	<i>EXCHANGE</i> (Bonifield, et al., 2010)	Exchanges not offered
Product Acquisition	Rogers, et al., 2002	<i>RTNSHIP</i> (Bonifield, et al., 2010)	Return shipping costs borne by customer
Product Acquisition	Rogers, et al., 2002	<i>STORERTN</i> (New variable)	Value of goods refunded via store credit or exchange - no refund
Returns control	Rogers, et al., 2002	<i>PRPRTLBL</i> (Bonifield, et al., 2010)	Pre-printed label not provided for return shipping

The model fit was assessed using AMOS, version 17 (Arbuckle, 2014). The *PROCESS* scale was comprised of *STORETRN*, *PRPRTLBL*, and *EXCHANGE*. *RMA* and *RSTCKFEE* were entered as reflective indicators as they are barriers to customers returning products which will minimize the transaction costs for retailers in the product return process. The *NOTICE* restriction was only present in 4.4% of the sample firms suggesting a lack of discriminatory power, thus it was dropped from the analysis. All formative indicator loadings were significant ($p < 0.05$; *STORETRN*, *PRPRTLBL*) or near significant ($p < .10$; *EXCHANGE*). The model fit was good (CMIN/DF = 1.208, NFI = .985, TLI = .986, CFI = .997, RMSEA = .023, CI = .000-.104, P.CLOSE = .594).

The *PROTECT* scale assessed the efforts of the firm to minimize the impact of customer opportunism. It was comprised of the indicators detailed in Table 28 which are all restrictions that make it not worth an intentionally deceitful customer to try to return a product fraudulently. The indicators all function to reduce the ability of customers to take advantage of the firm and are distinct from the indicators included in the *PROCESS* scale.

Table 28 - PROTECT scale concepts

Concept	Concept Source	Indicator (Source)	Indicator Definition
Protection from theft/fraud	Speights, 2013	<i>PROOF</i> (new variable)	Proof of Purchase Required
Retail borrowing	Piron & Young, 2000	<i>DIFFRP</i> (Bonifield, et al., 2010; Davis, et al., 1998)	Different RP for different types of products
Profit Reduction	Bonifield, et al., 2010; Davis, et al., 1998	<i>STORECRT</i> (Bonifield, et al., 2010; Davis, et al., 1998)	Value of goods refunded via store credit or exchange - no refund
Resale Potential	Rogers, et al., 2002	<i>UNUSED</i> (Davis et al. (1998; Mollenkopf et al. (2007))	Product must be unused
Cost Reduction	Autry, 2005	<i>PACKAGE</i> (Davis, et al., 1998)	Product must have original packaging
Cost Coverage	Bonifield, et al., 2010; Davis, et al., 1998; Kukar-Kinney, et al., 2007	<i>RSTCKFEE</i> (Bonifield et al. (2010))	Restocking fee charged
Customer Confirmation/Effort	Mollenkopf et al. (2007)	<i>ADDLFORM</i> (Mollenkopf et al. (2007))	Additional form must be completed, printed, and submitted with the return

The *PROTECT* scale was comprised of *PACKAGE*, *TIMELMT*, *DIFFRP*, and *STORECRT*. Two formative indicators (*UNUSED*, *DIFFRP*) had non-significant loadings (respectively $p = .407$, $p = .137$). As a result, *UNUSED* was dropped from the model. The remaining formative indicator loadings were all significant ($p < 0.05$; *PACKAGE*, *TIMELMT*, *STORECRT*) or near significant ($p < .10$; *DIFFRP*). *ADDLFORM* and *PROOF* (both reverse coded) were used as the reflective indicators in the model. The model fit was good (CMIN/DF = .2490, NFI = .995, TLI = 1.016, CFI = 1.000, RMSEA = .000, CI = .000-.044, P.CLOSE = .963).

4.5 Results

Table 29 presents the correlations between all the study variables. Pre-purchase expectations (*EXPECT*) was highly positively correlated with post-purchase satisfaction (*POSTSAT*). *EXPECT* was also significantly correlated with both shipping satisfaction (*SHIPSAT*) and logistics service offerings (*LSO*). The two return policy dimensions were significantly but minimally correlated with each other. Standard tests for normality were performed on the variables. Although there was no suggestion of multicollinearity (maximum VIF=1.057), plots of standardized residuals suggested non-normality. As a result, generalized linear regression with maximum likelihood estimation was employed for the analysis using SPSS, version 25 (IBM, 2017).

Table 29 - Pearson correlations (n=156)

	<i>EXPECT</i>	<i>POSTSAT</i>	<i>SHIPSAT</i>	<i>LSO</i>	<i>PROTECT</i>	<i>PROCESS</i>
<i>EXPECT</i>	1.000					
<i>POSTSAT</i>	0.232**	1.000				
<i>SHIPSAT</i>	0.390**	0.367**	1.000			
<i>LSO</i>	0.289**	0.271**	0.364**	1.000		
<i>PROTECT</i>	0.028	0.031	0.145	-0.069	1.000	
<i>PROCESS</i>	0.051	0.049	0.061	-0.042	0.259**	1.000

** $p < 0.01$, * $p < 0.05$

Stepwise generalized linear regression analyses were performed for each dependent variable using SPSS v. 25 (IBM, 2017). Two control variables were included in the analysis, Merchandise Type and Merchant Type. Both were identified as potential influences on return policy restrictiveness in Chapter 2. The categories for the control variables are provided as part of the Top 500 list. Frequencies for each of these variables are detailed in Table 20 and Table 21. The significance of a generalized linear regression model is assessed using the likelihood ratio chi-square (Stickney & Geddes, 2016). The omnibus test is significant ($p < 0.05$) for both full regression models (see Tables 30 and 31). The test of overall model effect provides a breakdown of the separate effects of each included variable. It is measured using the Wald statistic which should be statistically significant ($p < 0.05$) (Stickney & Geddes, 2016). The results for both these tests are detailed in Table 30 and Table 31. There are three models presented in these tables. Model 1 includes only the control variables and independent variables. Model 2 introduces the moderating variables. Model 3 is the complete model that includes the variables in Models 1 and 2, and adds the moderating effects.

There is support for H1a ($p < 0.01$) and near significant support for H1b, the effects of pre-purchase expectation on post purchase satisfaction and shipping satisfaction. There is no support for the effect of logistics service offerings on post-purchase satisfaction (H2a) but near significant support for H2b (significant in Models 1 and 2 ($p < 0.001$)). Effect sizes and confidence intervals are detailed in Table 32.

Table 30 - Generalized linear regression results DV: *POSTSAT* ($n=156$)

DV: <i>POSTSAT</i> Independent Variables	Model 1				Model 2				Model 3			
	B	S.E	Wald X ²	Sig.	B	S.E	Wald X ²	Sig.	B	S.E	Wald X ²	Sig.
Intercept	7.698	0.363	449.706	0.000	7.665	0.363	445.278	0.000	7.151	0.803	79.351	0.000
Main Effects												
Merchandise Type	-0.002	0.004	0.196	0.658	-0.003	0.004	0.507	0.477	-0.003	0.004	0.741	0.389
Merchant Type	-0.016	0.017	0.881	0.348	-0.012	0.017	0.515	0.473	-0.013	0.017	0.593	0.441
EXPECT	0.133	0.043	9.477	0.002	0.131	0.043	9.322	0.002	0.206	0.097	4.546	0.033
LSO	-0.010	0.020	0.269	0.604	-0.008	0.020	0.177	0.674	-0.057	0.049	1.375	0.241
PROCESS					0.019	0.021	0.804	0.370	1.045	0.483	4.674	0.031
PROTECT					0.007	0.019	0.143	0.706	-0.606	0.330	3.369	0.066
Moderating Effects												
EXPECT x PROCESS									-0.126	0.056	5.010	0.025
EXPECT x PROTECT									0.067	0.039	2.912	0.088
LSO x PROCESS									0.028	0.022	1.604	0.205
LSO x PROTECT									0.008	0.023	0.118	0.731
Omnibus Test (Likelihood X ²)			9.860	0.043			10.994	0.089			18.561	0.046

Table 31 - Generalized linear regression results DV: *SHIPSAT* (n=156)

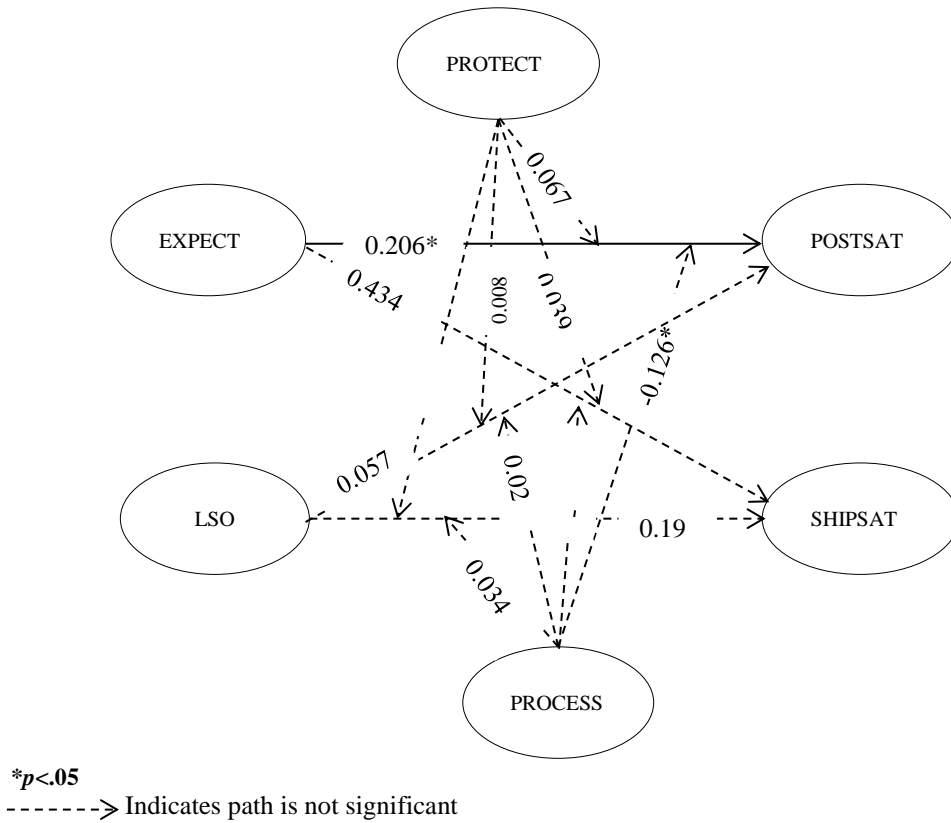
DV: SHIPSAT Independent Variables	Model 1				Model 2				Model 3			
	B	S.E	Wald X ²	Sig.	B	S.E	Wald X ²	Sig.	B	S.E	Wald X ²	Sig.
Intercept	4.221	0.839	25.301	0.000	4.082	0.832	24.067	0.000	3.896	1.880	4.297	0.038
Main Effects												
Merchandise Type	0.000	0.009	0.003	0.958	-0.003	0.009	0.095	0.758	-0.003	0.009	0.130	0.718
Merchant Type	-0.065	0.039	2.730	0.098	-0.051	0.040	1.673	0.196	-0.052	0.040	1.729	0.188
EXPECT	0.425	0.100	18.225	0.000	0.419	0.098	18.109	0.000	0.434	0.227	3.673	0.055
LSO	0.170	0.046	13.484	0.000	0.179	0.046	15.087	0.000	0.196	0.114	2.973	0.085
PROCESS					0.007	0.048	0.023	0.879	0.442	1.132	0.153	0.696
PROTECT					0.085	0.044	3.743	0.053	-0.159	0.773	0.042	0.837
Moderating Effects												
EXPECT x PROCESS									-0.061	0.131	0.214	0.643
EXPECT x PROTECT									0.039	0.092	0.181	0.671
LSO x PROCESS									0.034	0.053	0.408	0.523
LSO x PROTECT									-0.033	0.054	0.364	0.546
Omnibus Test (Likelihood X ²)			41.657	0.000			45.674	0.000			46.424	0.000

Table 32 - Effect Sizes

	<i>POSTSAT</i>			<i>SHIPSAT</i>		
	Correlation Coefficient (<i>r</i>)	Confidence Interval Lower Limit	Confidence Interval Upper Limit	Correlation Coefficient (<i>r</i>)	Confidence Interval Lower Limit	Confidence Interval Upper Limit
<i>EXPECT</i>	0.232	0.078	0.376	0.390	0.248	0.515
<i>LSO</i>	0.271	0.119	0.411	0.364	0.219	0.493
<i>PROCESS</i>	0.049	-0.109	0.205	0.061	-0.096	0.216
<i>PROTECT</i>	0.031	-0.126	0.187	0.143	-0.014	0.294
<i>EXPECT * PROCESS</i>	0.105	-0.053	0.258	0.092	0.066	0.246
<i>EXPECT * PROTECT</i>	0.084	-0.074	0.283	0.174	0.017	0.323
<i>LSO * PROCESS</i>	0.121	-0.037	0.273	0.219	0.064	0.364
<i>LSO * PROTECT</i>	0.080	-0.078	0.236	0.292	0.141	0.429

There was no statistical support found for the hypothesized moderation effects of return policy dimensions on the relationships between *EXPECT* or *LSO* on *SHIPSAT* (H3b, H4b). However, there was partial support for hypotheses H3a and which predicted a negative moderating effect of restrictive return policies on both dependent variables. The negative moderating effect of *PROCESS* was significant on the relationship between *EXPECT* and *POSTSAT* ($p < 0.05$). A summary of the model effects and their significance are detailed in Figure 6.

Figure 6 – Model results



4.6. Discussion

To the best of my knowledge, this is the first empirical study to find support for a moderating role for return policies in the e-retail environment. It expands the current understanding of how return policies impact performance to suggest that they may act as more than just risk reduction tools to incite purchase behaviour. In fact, they may work in concert with other factors in the e-retail purchase process to drive customer satisfaction.

The negative moderating role of the process dimension of return policies on the relationship between pre-purchase expectation and post-purchase satisfaction re-affirms the importance of making returns easy for customers. While the data does not focus on customer intentions, this moderating effect appears to support retailers continuing to improve their

methods for returns collection and process. It may suggest that customers do consider the return policy of e-retailers as part of the pre-purchase process.

The lack of moderating effect of return policies on the relationship between either logistics service offerings or pre-purchase expectation on shipping-satisfaction may indicate that customers do not associate process-related restrictions with the shipping activities of the firm. This may be a result of a lack of understanding of the reasons for the process restrictions in the return policies on the part of the customer or simply reluctance to have any restrictions in the policy. It may also be the result of a delay in the consideration of return policies until after the satisfaction ratings are completed (i.e. the customer may not need to consider the return policy until later). The lack of moderating effect of the process dimension on the relationship between pre-purchase expectations and shipping satisfaction (H3b) may be a result of the perception that the execution of the shipping of the firm is clearly performed by a different firm. Therefore, they may not associate the return policy with the other firm. This would limit the effect of the return policy on the perception of the execution of the shipment of the customer's order.

The result that protective restrictions have no influence on customer satisfaction is also important. Customers may be used to these restrictions and find no reason to be dissatisfied by them.

The support for H1a but not H1b was initially surprising. The lack of a causal relationship between pre-purchase expectation and shipping satisfaction (H1b) was surprising, especially given that customers select their shipping options and subsequent charges at the point of checkout. However as these variables would be influenced by numerous firm activities the possibility that some have less impact than others may have reduced the power of those activities that do influence post-purchase satisfaction. On the other hand, the near significant impact of

pre-purchase expectation in the overall model as a driver of customer shipping satisfaction (significant in Model 1) suggests the importance of a good shopping experience.

This study supports earlier work that suggests that there are multiple dimensions of customer satisfaction in e-retailing but expands the dimensions from two to three. The separation of shipping satisfaction from post-purchase satisfaction suggests that customers perceive the physical distribution of their purchases to be separate from other operational activities of the firm. This is logical: firms use logistics companies to deliver their goods, not their own in-house logistics staff and equipment. The finding that there is no significant relationship between the logistics service offerings of an e-retailer and post-purchase satisfaction (H2a) may result from a shift in customer perception about who is actually performing the work. On the other hand, the near significant positive relationship between logistics service options and shipping satisfaction (H2b) suggests that current firm shipping options are providing customers what they are looking for.

That greater logistics service offerings do not create an expectation of higher post-purchase satisfaction is an interesting finding. Firms have responded to early calls regarding the importance of logistics to e-retail success, as indicated by the number of offerings presented to customers. Generally speaking, customers were satisfied with the logistics service offerings of the firms (*SHIPCHG*: $mean = 8.21, \sigma = 0.83$; *SHIPTION*: $mean = 8.49, \sigma = 0.41$). However, the lack of influence on post-purchase satisfaction suggests that the logistics capabilities of the firm may no longer be a differentiator in the e-retail environment. As firms mature and logistics service providers continue to offer services that support e-retailers, customers may not perceive there to be an advantage offered by the logistics capabilities. This challenges firms to find additional operational ways to drive performance.

The lack of moderating relationships between logistics service offerings and both post-purchase and shipping satisfaction may also suggest a possible divide between the forward and reverse supply chains of retailers. This could result from the use of a few logistics service providers by most e-retailers who specialize in efficient delivery of orders and not reverse supply chain activities. It could also indicate a significant gap in firm focus and capabilities that may need to be addressed. If return policies are seen as tools to incent customer purchase, while logistics capabilities remain internally-oriented, disconnection between the two could negatively impact sales. Considering them as separate factors in customer service and service offerings may result in missed opportunities for the development of training and tools to support these two customer facing tools and activities. This gap may not be identified as a problem by e-retailers, however. The connection is not obvious because unless a customer is unhappy, the return policy may not be considered or used. Alternatively, the findings of Lantz & Hjort (2013) that free shipping may result in more impulse buying suggests the possibility the expectations built by the impulse to purchase, combined with the logistics service offerings, may overcome potential product-related dissatisfaction.

4.7 Implications

Until now, there has been no connection made in research between return policies and the capabilities of e-retailers. As return policies have been viewed primarily as sales drivers, relationships between the policies and the capabilities of the firm have been in many ways overlooked. This research contributes to the slowly growing support for the influence of reverse supply chain activities on sales transactions. A moderating role of return policies on post-purchase satisfaction is consistent with a growing body of research in supply chain management focused on the importance of returns handling to customer satisfaction and loyalty. It suggests

that firms can use the different restrictions in return policies to leverage and support customer expectations to increase customer satisfaction.

The lack of significant impact of the logistics service offerings on post-purchase satisfaction suggests a disconnection between the firm and the shipping company. This may be a result of the familiarity e-retail customers have with the shipping process and the shipping companies involved in e-retailing. In the event that there is an issue with the shipment of a product, a customer may be more forgiving towards the firm. It would be interesting, in future research, to determine if shipping company selection impacts customer satisfaction.

Future research can continue to identify factors that work together to support firm success in the e-retail environment. Understanding the motivation for differing logistics service offerings and their connection with the return policy and reverse supply chain activities would also help expand our understanding of how the operations of e-retailers can contribute to overall firm success.

4.8 Conclusion

This paper suggests a limited moderating role for return policies on e-retail customer satisfaction. This differs from previous research that views return policies as independent drivers of customer satisfaction. Return policy process restrictiveness negatively influences the effect of pre-purchase expectation on customer post-purchase satisfaction. However, there was no moderating effect found for restrictiveness related to protecting the firm from customer opportunism. These findings suggest the need for both researchers and managers to re-assess their perspectives on the use of return policies throughout the purchase transaction and not just consider their effects on customer purchase proclivity. While this paper indicates a moderating effect of return policies on the relationship between pre-purchase expectation and post-purchase

satisfaction, it is limited primarily by the method. The process used in this research may be duplicated and provides researchers with additional potential sources of data and demonstrates that it is possible to use web-based information to successfully generate valid data for use in empirical study. However, the study could benefit from triangulation of the data by speaking with or surveying managers at the firms. While this may or may not change the results of the study, it could provide additional support for the conclusions of this research.

Content analysis is an excellent way to understand the underlying messages in images and documents however it may not provide insight into them motivations of or decisions made by firm management, simply what is published. Also, due to the nature of logistics activities, there are numerous external factors that can impact the effectiveness of a firm's logistics activities including those related to the providers of the service. This research did not focus on actual customer reviews to understand the nuances of customer perspectives and potential reasons for both satisfaction and dissatisfaction with firm return policies and logistics capabilities execution. Future research could add that dimension to understanding the relationship between return policies and logistics activities. Moreover, the analysis did not control for the number of reviewers that provided reviews on BizRate.com. This could have increased the statistical reliability of the scores if firms with higher numbers of reviews had been selected.

Also, this research uses e-retailers with the highest sales as its sample. While these firms may have a better understanding of the return policies that will satisfy customers and potentially improve their performance, this also leads to a potentially homogenous sample of well-performing firms that potentially have other strengths driving their overall customer-indicated satisfaction and performance.

Based in Expectancy Theory, this study suggests that firms should continue to focus on ensuring e-retail customer satisfaction in the pre-purchase phase. This study contributes to the still nascent but growing research field of returns and returns management. In the competitive e-retail environment, retailers should design their return policies and returns process with an understanding that customers consider it in their purchase decision. In the long term, this can be used to drive customer satisfaction and subsequently, firm performance. Both researchers and practitioners should be aware that factors considered by customers when purchasing are not considered in isolation. Accordingly, what is offered to customers should be based on understanding how seemingly unconnected factors support each other and influence customer perceptions. The resources of the firm do more than just support operations activities; they can be used to indicate the support firms have for their service offerings, and more importantly customers.

CHAPTER 5: CONCLUSIONS

The goal of this research was to increase our understanding of the relationship of the operations area to the return policies of the firm. It was designed to answer the questions: *How is the operations functional area of a firm reflected in the content of return policies and how do return policies impact firm performance?* Together, the studies of this dissertation have identified numerous considerations for both business researchers and practitioners. I theorized that return policies are comprised of restrictions based on two considerations, from Transaction Cost Theory, which appear to be new to the return policy literature: transaction costs and transaction risks. The creation of two new validated formative scales resulted in a classification of the sample return policies that provided a more nuanced delineation of return policy leniency that may be used by future researchers to provide a consistent way of assessing policies. This new way to quantify return policies is easy for researchers to adopt in their research and has the potential to increase consistency in return policy leniency assessment in future research. The resulting classification of the sample policies enabled additional insight into firm return policy concerns and relationships with other firm considerations and activities. The breakdown of the restrictions in the return policies to determine the underpinnings of the restrictions contained therein is a new way of considering the content of return policies.

I then applied the classification results of this study in two empirical studies. In the second study, the alignment of the operations strategy priorities with the return policies of the firm was explored. Consistency of policies with four primary operations strategy priorities was assessed using data collected from firm annual reports. This study found some support for the alignment of return policies with operations strategy priorities which is consistent with the

foundations of operations strategy research. The suggestion of previous researchers that lenient return policies signal the quality of the firm (Bonifield, et al., 2010) was partially supported, while alignment between cost and return policies and flexibility and return policies was supported. This extends the considerations of operations strategy priorities to return policies and potentially to reverse supply chain activities.

Finally, an assessment of the effect of return policies on performance indicated that the process dimension of return policies exerts a moderating influence on the relationship between customer pre-purchase expectation and customer post-purchase satisfaction. This suggests the importance of return processing improvements to efficiently facilitate the returns process. The identification of a moderating role differs markedly from the extant research into return policies which focuses on direct effects. I believe this is a more realistic perspective on return policies as it considers that there are more elements considered in the purchasing process by customers than just the return policy itself.

5.1 Scholarly Implications

I submit that using a lens based in the operations of the firm provides useful insights that extend our understanding of return policies and how they influence customer satisfaction. Combined, these three papers have empirically highlighted the relationship between the operations area of e-retailers and their return policies and suggest that there is more to understand regarding return policy restrictiveness. Critical to the furthering of this focus, is acceptance that return policies are more than just tools to increase customer proclivity to purchase. Further to this, I believe that I have established that the content in firm return policies is not solely related to demand-driven preferences. The lack of significant relationship of the

type of product sold to the dimensions of return policies identified in the third paper suggests that there are other factors driving the inclusion of restrictions in return policies than simply the competitive environment. This supports the dimensions identified in the first paper as a novel proposition of the origins and functions of the restrictions. The introduction of two new valid scales may contribute to consistency in assessment of return policies in future research. They suggest that commonly used measures of leniency in both experimental and analytical modelling studies (e.g. restocking fee, time permitted for returns) should be expanded or at least reassessed in future research.

Suggesting a moderating role of return policies further supports the theme of this dissertation and provides a thought-provoking notion for both researchers and practitioners. Recognizing the relationship of the policies to operations activities, and the need to balance costs and risks, has the potential to change the perspective on the role of return policies for businesses. If they truly are simply a customer service support mechanism, or indicator of some feature of the firm (e.g. quality), then the content and flexibility of what is contained in these policies would be simple for firms to determine. They would all be extremely lenient, perhaps to the point of having no restrictions. However, this does not appear to be the case. Even L.L.Bean plans to change their 105-year old lenient return policy in response to opportunistic actions of customers (Green, 2018).

The non-significant influence of logistics service offerings on both shipping and post-purchase satisfaction may be a feature of current practices in e-retail delivery. The question of whether firms have reached the limit of what is possible to do to satisfy customers from a delivery perspective needs further investigation. The introduction of alternative forms of

delivering customer orders such as lockers or drones could result in opportunities for firms to increase customer satisfaction. These modes may also provide firms with innovative methods to capture and process returned products.

Continued focus on research at the marketing-operations interface will also contribute to understanding the role of return policies in influencing demand and the operational requirements to support these policies. While this dissertation focuses on customer satisfaction, further understanding of how operations processes integrate with suppliers and manufacturers is still needed.

This research also demonstrates the potential for textual data (e.g. annual reports) to be used in operations strategy research. The relationship identified between the operations activities of the firm and return policies also suggests that the possibility of modifying return policies to increase their leniency may not be as simple as making such a change. The operations area of the firm would need to be considered and consulted as part of change a change. As a result of the findings in all three papers, I propose a new definition of return policies that is not anchored to the impact of the policies on customers. “Return policies are a flexible mechanism by which firms can influence customer satisfaction and respond to firm requirements for sustainable operations.”

5.2 Managerial Implications

This study provides insight into the risk expected by retailers. The lack of significant influence of the protection dimension of return policies suggests that customers may be used to return policies and accept a certain level of restrictiveness in the e-retail exchange. This may be a reason for the significant moderating effect of the process dimension; customers perceive that

firms can do something to change the process. The recent introduction of a new service by Amazon to Amazon Prime customers may be an example of or response to this focus on processing. This service enables customers to select multiple items, have them shipped to their home to try on and only keep what they choose. A re-sealable box and prepaid shipping label is included in the shipment (Amazon, 2018). This service attempts to streamline the shipping and returns process for the customer as well as to increase the efficiency of return processing on the part of Amazon. While not all firms may be able to afford to offer this type of service, they can increase the efficiency of their returns processing which will increase customer satisfaction.

The influence of the operations area on return policy content suggest in this dissertation also supports previous suggestions of the value of collaboration between the marketing and operations areas of firms. By working together they can better translate customer requirements into return policies that both serve the firm by increasing sales and protect the firm from potential customer opportunism.

5.3 Dissertation Limitations

One of the limitations of this research is its focus on return policies at a given time. While this can infer correlation, it is much more difficult to demonstrate causal relationships. Future studies that collect and analyze the return policies of the same firms longitudinally would be interesting, to track how return policy restrictions change over time. More importantly, assessment of how the return policies appear to generate long-term firm performance could be assessed. Further investigation into the operations impacts of product returns of e-retailers, and how they are addressed, could also be explored using qualitative methods such as case studies. Empirical research into the influence of other supply chain members on return policy content and

restrictiveness could also contribute to understanding the reasons firms do not have perfectly lenient return policies. The rich data used in the three papers provided interesting results. While the customer perspective was assessed using customer satisfaction data, the actual costs of the policies was not included in the research. Triangulation of the data using financial measures or surveys of retailers could further support the findings of this research.

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Appendix: E-retail logistics capabilities

Capability Variables (Cho et al., 2008)	Variable Source	Definition (Cho et al., 2008)	Coding Measure Translation	Study Variable
Pre-sale Customer Service	Morash et al. (1996)	The ability to service the customer during the purchase decision process.	Customers are able to reach customer service representatives either by phone or live chat (both pre- and post- sale).	<i>CUSSERV</i>
Post-sale Customer Service	Morash et al. (1996)	The ability to service the customer after the sale of the product to ensure continuing customer satisfaction.		
Delivery Speed	Morash et al. (1996)	The ability to reduce the time between order taking and customer delivery.	More than one speed of delivery service offered.	<i>DELSPEED</i>
Delivery Information Communication	Cho et al. (2008)	The ability to communicate shipping and delivery information with the customer.	Customers are able to track their packages online.	<i>DELINFO</i>
Low total cost distribution	Morash et al. (1996)	The ability to minimize the total cost of distribution	The e-retailer offers reduced or free logistics costs to customers	<i>LTCOST</i>
Widespread Distribution Coverage	Morash et al. (1996)	The ability to effectively provide widespread and/or intensive distribution coverage.	The e-retailer will ship to all 50 U.S. states.	<i>WIDE</i>
Global Distribution Coverage	Cho et al. (2008)	The ability to effectively provide global distribution coverage.	The e-retailer offers shipping outside the U.S.A..	<i>GLOBAL</i>
Web-based Order Handling	Cho et al. (2008)	The ability to handle and fill orders using a web-based order handling system.	DROPPED - All sample firms have this.	
Delivery Reliability	Morash et al. (1996)	The ability to exactly meet quoted or anticipated delivery dates and quantities.	DROPPED -Unable to assess using content analysis	
Responsiveness to Target Market(s) ^a	Morash et al. (1996)	The ability to respond to the needs and wants of the firm's target market(s).	DROPPED -Unable to assess using content analysis	