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Strategies for Small and Medium-Sized Enterprises to Engage Third-Party Logistics Providers

Masoud Malakoti-Negad
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Walden University

College of Management and Technology

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Masoud Malakoti-Negad

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Walden University
2016

Abstract

Strategies for Small and Medium-Sized Enterprises to Engage Third-Party Logistics

Providers

by

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MBA, Edinburgh Business School, Heriot-Watt University, 2005

CIM, Canadian Institute of Management, 1995

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

May 2016

Abstract

Small and medium-sized enterprise (SME) managers struggle to stay competitive. The purpose of this multiple case study was to explore the strategies SME managers located in Canada use to engage third-party logistics (3PL) providers to improve their supply chains. Porter's value chain theory formed the conceptual framework for this study. Data collection included semistructured interviews with 3 managers from 3 different SMEs in the province of Ontario and a review of the documents related to the use of 3PL providers. Member checking was conducted to enhance credibility of interpretation of the data collected. Data analysis was used to identify key themes, and data triangulation was performed on data from interviews and relevant company documents. Main themes that indicated the benefits of 3PL providers were identified through data analysis. The main themes included access to resources, competitive advantage, and enhanced customer service. Study findings may contribute to social change by helping SME managers improve their survival rate in Canada, maintain or create employment, and generate more personal income and taxes.

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Dedication

I owe so much to so many special people in my life for making this educational journey possible. I dedicate this doctoral study to all my family members for their understanding, unwavering support, and for sharing this special period with me. To my loving wife Jeannine, without you, this doctoral study simply would not be possible; thank you for your steadfast and unrequited support each day and for sacrificing so much during this difficult journey. To my beautiful children that I love so much, Nasim, Nima, and Natasha, thank you for putting up with me and for being understanding when I could not be there for you as much as I should have been for several years. I hope to have been a role model for my children on the value of commitment to excellence in life and academia. To my mother, Aghdas, your dedication, willpower, and unconditional love have always strengthened me to be who I am, giving me the ability to accomplish so much in life. To my dear father who passed away during the last year of this journey, you gave me one more reason to accomplish this goal, and I hope you are proud. To my loving in-laws, Don Gabriel, Jaleh Khanum and Jillian, thank you for the most valuable gift in my life, Jeannine, and for being so understanding when we could not be with you for such a long time, always supporting me along the way. To my sister, brothers, family members, and my good friends, thank you for believing in me and supporting me in accomplishing this lofty goal.

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Section 1: Foundation of the Study

Small and medium-sized enterprise (SME) managers are under pressure to stay competitive, and one of the strategies to help SME managers maintain competitiveness is using effective supply chain management (Hall & McPeak, 2011). Third-party logistics (3PL) providers usually act as liaisons amongst suppliers and clients in supply chains (Forslund, 2012). This study may help determine the role of 3PL providers in the survival of SMEs in Canada and identify how managers of SMEs may use strategies to improve their supply chains. My approach for this study was to determine the perspectives of managers of SMEs on the effects of using 3PL providers on corporate performance.

Background of the Problem

Canada has three size classifications for enterprises based on number of employees. Small companies employ up to 99 people, medium-sized enterprises employ from 100 to 499 employees, and large enterprises employ 500 or more employees (Government of Canada, Industry Canada, 2013a). SMEs are important to the Canadian economy, contributing 52% of the private sector gross domestic product (GDP) of Canada (Government of Canada, Canada Business Network, 2014). SMEs are important in creating jobs, and in 2012, Canadian SMEs employed 89.9% of the Canadian private sector labor force (Government of Canada, Industry Canada, 2013a).

Supply chain management (SCM) is a tactical strategy for SME managers to improve performance in a competitive business environment (Thakkar, Kanda, & Deshmukh, 2012). Performing SCM activities may provide SME managers clarity on core competence and assist them with business strategy (Thakkar et al., 2012). SCM adds

value to products as they move through the chain while providing efficiency (Janvier-James, 2012). A 3PL provider offers contract services to other companies including (a) inbound transportation, (b) outbound transportation, (c) warehousing services, and (d) reverse logistics services (Mothilal, Gunasekaran, Nachiappan, & Jayaram, 2012).

According to Government of Canada, Industry Canada (2013a), lack of productivity, inability to innovate or change with market conditions, and the inadequacy of resources result in the economic failure of SMEs. When compared to large enterprises, SMEs face many disadvantages, such as lack of expertise and knowledge, lack of financial resources, and inadequate systems and procedures that can influence their efficiency (Rahman, 2012). SME managers can use SCM to develop a better relationship with their original equipment manufacturer (OEM), improve SMEs' learning curves, improve inventory flow, and increase cash flow (Thakkar et al., 2012).

Problem Statement

The survival rate for SMEs in Canada declined from 2006 to 2011, and the rate of survival was reflective of SMEs' productivity, ability to innovate, resourcefulness, and adaptability to market conditions (Government of Canada, Industry Canada, 2013a). For SMEs that started in 2006, approximately 70% survived more than 2 years, but only 51% survived longer than 5 years (Government of Canada, Industry Canada, 2013b). In a global economy, the survival of enterprises will depend on a company's ability to execute its supply chain efficiently (Thakkar et al., 2012). The general business problem is that some SME managers are negatively affected by inefficient supply chains, which contribute to high failure rates for their businesses. The specific business problem is that

some SME managers located in Canada lack strategies to engage 3PL providers to improve their supply chains.

Purpose Statement

The purpose of this qualitative multiple case study was to explore the strategies SME managers located in Canada use to engage 3PL providers to improve their supply chains. The specific population consisted of managers of SMEs in the province of Ontario, Canada who use a 3PL provider. The findings from this study will contribute to business practices by identifying strategies that SME managers can use to engage 3PL providers to improve their supply chains. Study findings may also contribute to social change by helping SME managers improve their survival rate in Canada, create employment, and generate more personal income and taxes.

Nature of the Study

A qualitative method was the most appropriate research method for my study. Among the quantitative, qualitative, and mixed methods, researchers use a qualitative method to study the phenomenon with an interpretive approach in its natural setting to reveal a description and deeper understanding of the problem (Petty, Thomson, & Stew, 2012a; Yilmaz, 2013). From the perspective of Yilmaz (2013), researchers use a quantitative method to identify correlations between variables of the phenomenon and use statistical analysis to test a specified hypothesis. A quantitative method was not appropriate for my study because I was not examining the correlation between variables of a phenomenon. A mixed method consists of a combination of quantitative and qualitative methods to broaden the understanding of the phenomenon (Wisdom, Cavaleri,

Onwuegbuzie, & Green, 2012), and was not appropriate for my study because quantitative data were not needed to examine my research problem.

Among the qualitative designs, a multiple case study design was appropriate for addressing the *why* and *how* of a phenomenon, as it is more explanatory in nature (Yin, 2014), which was the intent of my study. A phenomenological design includes the essence of the phenomenon from the points of view and experiences of the participants (Petty, Thomson, & Stew, 2012b), which was not the intent of my study. An ethnography design focuses on examining the behavior of a cultural group (Petty et al., 2012b). In a narrative design, the researcher is interested in detail stories of a small number of individuals (Petty et al., 2012b). The intent of my research was not to tell stories, develop a theory, examine a cultural group, or detail the life experience of an individual. Thus, a multiple case study design was best suited for addressing my research question.

Research Question

The following was the research question that guided this study:

What strategies do SME managers located in Canada use to engage 3PL providers to improve their supply chains?

Interview Questions

I used the following questions during interviews with the selected managers of SMEs:

1. What services do you currently outsource to a third-party logistics provider?
2. Why do you use a third-party logistics provider?

3. Which strategies for engaging third-party logistics providers have worked well in improving your company's performance?
 - a. Based on your experience, what are the benefits of using a third-party logistics provider?
 - b. How has the use of a third-party logistics provider improved logistics performance for your company?
 - c. How has the use of a third-party logistics provider affected the quality of your customer service?
 - d. How has the use of a third-party logistics provider affected your costs for logistics services?
 - e. How has your third-party logistics provider helped your company gain a competitive advantage?
4. Which strategies for engaging third-party logistics providers have not worked well for improving your company's performance?
 - a. Based on your experience, what disadvantages did you experience when using a 3PL provider?
5. What other information you would like to add that relates to your experience with the third-party logistics provider?

Conceptual Framework

This multiple case study centered on the effect of outsourcing logistics activities to 3PL providers. The conceptual framework for this qualitative case study design guided my analysis and interpretation of information on the phenomenon of 3PL outsourcing and

identification of potential competitive advantages. The theory of value chain analysis was the conceptual framework for this doctoral study. Porter (1985) introduced the theory of value chain analysis in 1985. The theory of value chain analysis applies to this study since I attempted to show the relevance of the concept of value chain to 3PL outsourcing. Third-party logistics (3PL) providers have the potential to create better value for a company when compared to in-house logistics (Azzi, Persona, Sgarbossa, & Bonin, 2013). A 3PL provider can include strategic and operational efficiencies because of 3PL provider's capabilities, skills, and experience (Nunez-Carballosa & Guitart-Tarres, 2011).

In the book *Competitive advantage*, Porter (1985) presented the theory of value chain analysis based on the idea that every organization operates through the execution of a series of value activities (value chain) that contribute to the firm's position in its industry. Managers analyze value chain activities to discover the potential for competitive advantage through cost or differentiation strategies (Porter, 1985). I used the value chain theory to assess the linkages between the logistics activities with other activities in the organization as well as the potential and effect of cost and differentiation strategies when outsourcing these activities. A strategy of purposeful inquiry provided a comprehensive understanding of the influence of a 3PL provider in establishing an effective supply chain model for SMEs.

Operational Definitions

Canadian small and medium-sized enterprises (SMEs): SMEs are companies that employ up to 499 employees (Government of Canada, Industry Canada, 2013a).

Logistics outsourcing: Logistics outsourcing is the function of using a 3PL provider in part or in full for conducting some of a firm's logistics functions in its supply chain (Muhindo, Zhou, & Mzuza, 2014).

Reverse logistics (RL): Reverse logistics (RL) is the return of goods to a supplier to maintain customer satisfaction by returning end-of-life products, inventory balancing, defects and warranty items, recycling goods, and reuse of product returns (Sharif, Irani, Love, & Kamal, 2012).

Social constructivist: A social constructivist is one type of qualitative researcher who prefers a research method based on the deep belief that knowledge constructs through personal experience (Szyjka, 2012).

Supply chain collaboration: Collaboration refers to a higher level of relationship than coordination and includes a strategic dimension of collaborative culture (Kumar & Banerjee, 2014).

Supply chain management integration: Integration refers to an operational relationship that includes integration and coordination of processes, product, service, financial, and information flows (Naslund & Hulthen, 2012).

Third-party logistics (3PL) provider: A 3PL provider offers contract services to other companies including inbound transportation, outbound transportation, warehousing services, and reverse logistics services (Mothilal et al., 2012).

Value chain analysis: Value chain analysis is the analysis of the linkage of a series of value activities (value chain) that every organization performs to enhance the firm's competitive position in its industry (Porter, 1985).

Assumptions, Limitations, and Delimitations

Assumptions

Assumptions in a doctoral study are things assumed true but not verified; they are necessary for the study but not in control of the researcher (Silverman, 2013). I identified and suspended my assumptions and mitigated biases, described as bracketing (Clarke & Braun, 2013). I based this study on four assumptions. The first assumption was that the qualitative research method was appropriate for my study to explore the strategies SME managers located in Canada use to engage 3PL providers to improve their supply chains. The second assumption was that a case study research design was the most suitable design for my study. The third assumption was that participants had knowledge regarding 3PL services and would provide answers to the interview questions that were honest, complete, and without intentional bias. The fourth assumption was that the participants would provide company documents that I needed to complete my research study.

Limitations

Limitations are possible weaknesses of a research study such as time, place, and unique circumstances that are out of control of the researcher (Silverman, 2013). The first limitation was that I could misinterpret the research findings and introduce researcher bias in the study findings. The second limitation was the sample size of three businesses might not represent other enterprises in the selected region or other parts of Canada; therefore, the findings may not transfer to other SME firms. The third limitation was that the research participants may have felt intimidation by the interview process and may not have felt comfortable to speak openly with fear their identities and responses to questions

may not remain confidential. The fourth limitation was that my bias as the researcher might have influenced a participant's responses.

Delimitations

Delimitations are characteristics of a doctoral study that define boundaries and limit the scope of the study (Silverman, 2013). This study included the managers of three SMEs from the province of Ontario, Canada who used the services of a 3PL provider. The data collection included interviews with managers of SMEs as well as document reviews. The geographical region targeted was a reasonable representation of comparable areas in Canada. My intent was not to provide results that were transferable to other SMEs in Canada; instead, the delimitations served as a guide to my in-depth study of a small sample of businesses. My focus remained on outsourcing logistics to improve efficiency. I did not address other issues that may have affected the efficiency of SME operations.

Significance of the Study

Contribution to Business Practice

In this qualitative multiple case study, I explored the strategies SME managers located in Canada use to engage 3PL providers to improve their supply chains and compete with larger companies. SMEs fill a critical role in the Canadian economy since SMEs employ 60% of the Canadian workforce (Gill & Biger, 2012). I anticipate the results of my research may change professional practice by identifying and describing strategies that managers of SMEs can use to increase the efficiency of their supply chains by using a 3PL provider.

Implications for Social Change

The purpose of this qualitative multiple case study was to explore the strategies SME managers located in Canada use to engage 3PL providers to improve their supply chains. These strategies may create efficiency in the supply chain and help to reduce the high failure rate of SMEs in Canada as well as assist SMEs to gain a competitive advantage and improve their organizational performance. The results of this study may contribute to social change by maintaining or creating employment opportunities with SMEs in Canada.

A Review of the Professional and Academic Literature

A thorough and comprehensive literature review is an important foundation that has inspiration for research (Onwuegbuzie, Leech, & Collins, 2012). The literature review allows for a better understanding of the themes of a research topic and gaps in past research (Menter & Hulme, 2012). A good literature review is not only necessary for choosing a research topic but also assists in saving time and reducing frustrations (Poojary & Bagadia, 2014).

In the sections that follow, I present the findings of the literature review conducted in the area of SMEs, SCM, and 3PL providers. My literature review includes peer-reviewed journal articles and seminal works published mainly within the period from 2012 through 2015 with a minimal number of articles published prior to 2012. The total number of references in this literature review was 116. From this total, 111 (95.6%) were peer-reviewed academic journals. One hundred and two (87.9%) of the references were

contemporary publications dated 2012 or later. Table 1 includes the breakdown of the number of the number of references used in the literature review of this doctoral study.

Table 1

Literature Review Source Count

Literature type	Recent sources	Total sources	% Recent sources
Peer-reviewed journals	98	111	88%
Books	0	1	0%
Government websites	3	3	100%
Dissertations	1	1	100%
Total	102	116	87.9%

Note. “Recent” indicates within 5 years of 2016.

The strategy for searching the literature included the search for keywords and phrases, which included *logistics, supply chain, small and medium-sized enterprises (SMEs), challenges of SMEs, third-party logistics (3PL), logistics outsourcing, impact of 3PL, benefits of 3PL, and competitive advantage for SMEs*. The databases used for the literature search included Google Scholar, ProQuest Central, Thoreau, Business Source Complete, EBSCOhost, Academic Search Complete, Dissertations and Theses at Walden University, and Emerald Management Journals.

Effect of 3PL Providers on SMEs in Canada

The survival of SMEs is an essential element of economic growth in Canada, as SMEs contribute about 52% of private sector GDP of Canada (Government of Canada, Canada Business Network, 2014). SMEs’ survival has become more challenging as they face severe competition from larger competitors after the globalization of the modern world economies (Kumar, Singh, & Shankar, 2012). The competition is forcing SME managers to find strategies to gain competitive advantage. One of these strategies to help

SMEs maintain competitiveness is using effective SCM (Hall & McPeak, 2011). SCM can aid in improving performance, providing clarity on core competence, and helping SME managers with business strategy (Thakkar et al., 2012). SCM is the coordination of logistics activities necessary for the flow of material and information through the supply chain network. Supply chain managers should perform in a manner that contributes to cost or differentiation strategies to positively influence competitive advantage and add to the value of the final product (Janvier-James, 2012; Porter, 1985).

One of the dilemmas in the area of SCM is the organizational decisions of whether to outsource part or all logistics activities to a 3PL provider (Kumar & Singh, 2012). The purpose of this research was to explore the strategies SME managers located in Canada use to engage 3PL providers to improve their supply chains. My research question is as follows: What strategies do SME managers located in Canada use to engage 3PL providers to improve their supply chains?

Value Chain Theory

According to the value chain concept as presented by Porter (1985), looking at a particular company as a whole does not help understand competitive advantage and requires the evaluation of the company's value chain. Porter used the concept of the value chain to describe the series of discrete value-added activities that a company performs to manufacture a product or provide a service. Porter classified the company activities into two categories. Primary activities relate directly to manufacturing and include operations, sales, and distribution and secondary activities such as human resources, research and development (R&D), and finance (Porter, 1985). The term value system consists of a

group of value chains for each company in the supply chain (Porter, 1985). The value system includes the value chains of suppliers (upstream links) and customers (downstream links; Porter, 1985). The importance of the concepts of value chain and value systems is the understanding of the potential effect of these concepts on a company's performance. The knowledge of the relationship between activities within the company and how the company fits in the larger value system can facilitate competitive advantage (Porter, 1985).

According to Porter (1985), the diagnosis of competitive advantage occurs by identifying how the value chain activities and the linkages between them influence competitive strategies such as cost advantage or differentiation. The concept of the value chain applies to the entire supply chain where each partner adds value to the final product in the chain (Fearne, Marian, & Dent, 2012). The linkage between the partners can create business environments that are difficult for competitors to imitate; therefore, the value chain can be a source of competitive advantage (Fearne et al., 2012). In 1985, Porter presented the value chain model in relation to the manufacturing industry. Since its conception, the use of value chain analysis has expanded to other business areas. Value chain analysis has become an important strategy in agriculture (Imudia, 2014; Macfadyen et al., 2012), finance (Lind, Pirttila, Viskari, Schupp, & Karri, 2012), and environmental management (Karbownik, Dohn, & Sienkiewicz-Malyjurek, 2012). The value chain concept continues to be essential for the manufacturing industry (Albors-Garrigos, Miguel Molina, & Miguel Molina, 2014; Jung, 2014).

Through this study, I attempted to describe and support the relevance of the concept of the value chain to 3PL outsourcing. Third-party logistics can create better value for a company when compared to in-house logistics (Azzi et al., 2013). Third-party logistics providers can become trusted partners with whom collaboration, information, knowledge, and resource sharing occurs to create a relationship that can contribute to sustainable competitive advantage (Zacharia, Sanders, & Nix, 2011).

From the perspective of Chu and Wang (2012), many authors have employed different conceptual models as the lenses to analyze outsourcing activities and logistics outsourcing in particular. Chu and Wang employed a combination of transaction cost economics (TCE) and resource dependence theory (RDT) to analyze how to manage logistics outsourcing relationships. TCE focuses on reducing transaction costs, and as explained by Zacharia et al. (2011), company managers outsource to 3PL to reduce transaction costs by performing activities such as centralized order processing, efficient use of resources, and amalgamation of overhead by 3PL providers. The RDT perspective recognizes that interorganizational relationships increase resource availability as well as reduce uncertainty and dependence on the external environment (Chu & Wang, 2012). In addition to TCE, Zacharia et al. also used the resource-based theory (RBT) and network theory (NT) to support the role of 3PL providers. According to the RBT perspective, company managers outsource logistics activities to 3PL to access a wider range of resources as these resources can enable companies to gain and maintain competitive advantage (Zacharia et al., 2011). In the NT, the proposition is that company managers outsource to 3PL providers to take advantage of the 3PL's organizational relationships

and to coordinate the supply chain as one entity (Zacharia et al., 2011). Priem and Swink (2012), on the other hand, believed that analysis of SCM through the lens of the resource-advantage (R-A) theory is more suitable because of the allowance for the importance of the role of the end consumer.

At the same time, Priem and Swink (2012) accepted that R-A theory might prove more useful when applied to the entire value system rather than value creation by only one company. According to Leuschner, Charvet, and Rogers (2013), R-A theory is an extension of RBT and incorporates innovation and organizational learning. In R-A theory, the company represents a group of mobile entities called resources in which public policy and entrepreneurship organizations affect the economic performance; this view renders the R-A theory more dynamic than RBT (Leuschner et al., 2013).

In this study, I considered the value chain model as an alternative model to the traditional theories used to analyze the benefits of outsourcing to a 3PL. I analyzed the benefits of a 3PL provider to an outsourcing company through the lens of the value chain model. Porter (1985) maintained that businesses could not attain a competitive advantage by viewing the company as a whole; rather, they should look at the various activities a company performs to assess if they are value-creating activities. The value chain model emphasizes the need for an understanding of what consumers regard as value for a particular product or service. With this in mind, I viewed the 3PL provider responsible for some of these value creating activities as well as the potential for creating competitive advantage. The manner in which the 3PL executes its functions and the relationship of the 3PL with the main company can create value for its consumers.

The value chain analysis has three elements. The elements are (a) the dynamics of the flow of information through the value system, (b) the creation of value to the final consumer, and (c) and how interorganizational relationships create and share risks and value (Soosay, Fearné, & Dent, 2012). Supply chain activities of an SME are an important part of the value chain of a company (Thakkar et al., 2012). SME managers can use the management of supply chain activities as a tactical weapon to enhance performance and support competitiveness (Thakkar et al., 2012).

Outsourcing part or all the logistics activities to a 3PL in the value chain has been a trend in recent years as 3PL providers can provide strategic and operational value to companies (Nunez-Carballosa & Guitart-Tarres, 2011). Savings in cost, capital investments, and shorter order cycles create value. By outsourcing, specialized companies can perform specific value chain activities that have previously executed themselves more efficiently. This efficiency is because of the 3PL provider's capabilities, skills, and experience. The outsourcing may then result in a competitive advantage for the company. Cost efficiency may not always be a benefit of outsourcing activities (Nunez-Carballosa & Guitart-Tarres, 2011). Moreover, some company managers encounter issues of unfulfilled expectations with their outsourcing partners (Freytag, Clarke, & Evald, 2012). Outsourcing may also present the risk of choosing the wrong supplier or issue between partners; nevertheless, outsourcing continues to be a strategic tool used by company managers (Freytag et al., 2012). Logistics outsourcing not only allows a company to focus on their core business but may also be the source of differentiation (Nunez-Carballosa & Guitart-Tarres, 2011). In the subsections that follow, I present the

findings from my contemporary literature review in the areas of SMEs and their challenges in the global environment as well as summarize research literature on how logistics outsourcing provided benefits to a company's supply chain performance.

Small and Medium-Sized Enterprises (SMEs)

Canada has three classifications of enterprises based on the number of employees. Small companies employ up to 99 people, medium-sized enterprises employ from 100 to 499 employees, and large enterprises employ 500 or more employees (Government of Canada, Industry Canada 2013a). According to Industry Canada (Government of Canada, Industry Canada, 2013a), the total number of employer businesses in Canada as of December 2012 was 1,107,540. Small businesses totaled 1,087,803 or 98.2% of total employer businesses while medium-sized businesses constituted 1.6% of all employer businesses (Government of Canada, Industry Canada, 2013a). SMEs make up 99.8% of all employer businesses in Canada (Government of Canada, Industry Canada, 2013a). Despite the importance of SMEs to the national economy of many countries, SMEs face significant failure rates (Cant, Wiid, & Kallier, 2015; Fatoki, 2012). Small firms encounter higher failure rates than larger established companies (Lee, Kelley, Lee, & Lee, 2012), and the survival rate for SMEs in Canada declined from 2006 to 2011 (Government of Canada, Industry Canada, 2013a). For SMEs that started in 2006, approximately 70% survived more than 2 years, but only 51% survived longer than 5 years (Government of Canada, Industry Canada, 2013b). SMEs can benefit from their small size relative to large enterprises. For example, they have a better ability to change because of their increased flexibility and reduced bureaucracy (Taylor & Taylor, 2014).

SME challenges. SMEs' challenges originate mainly from the lack of resources such as workforce, financial and technological tools, managerial knowledge, skill and expertise, and technical ability (Rahman, 2012). The barriers to the growth of small businesses in Canada include lack of financing, market challenges, and regulatory issues (Gill & Biger, 2012). Moreover, SMEs tend to be unstructured when it comes to strategies. McLarty, Pichanic, and Srpova (2012) found that more than 50% of the SMEs did not have a defined vision and strategy, and more than 30% did not perform marketing activities. Only 50% made use of their R&D for product innovations (McLarty et al., 2012). According to their findings, 70% did not create integrated supply chains and logistics processes, and almost 50% did not have an integrated management information system (McLarty et al., 2012).

SCM and the Survival of SMEs

A supply chain is a series of activities and stages beginning from the source to the final destination in which products flow (Beske, 2012; Janvier-James, 2012). The chain begins with raw materials, includes the value adding activities while processing, and ends with products to the end user (Janvier-James, 2012). Prasad, Tata, and Guo (2012) placed emphasis on the aspects of the relationships that characterize a supply chain. According to Prasad et al., a supply chain is a network of mutually supporting relationships cultivated through collaboration between the firms in the supply chain. Other definitions of supply chain highlight the flow of information through the chain as a management function of a supply chain (Government of Canada, Canada Business Network, 2014). The planning and coordination of actions to control the flow of materials, information,

and logistics activities in the supply chain are SCM (Government of Canada, Canada Business Network, 2014). The SCM or the management of networks in the supply chain adds to the value of products as they move through the chain while providing efficiency (Janvier-James, 2012).

In a global economy, the survival of enterprises will depend on a firm's ability to execute the supply chain efficiently (Thakkar et al., 2012). SCM studies have identified that the lack of SCM hurts the survival of SMEs (Thakkar et al., 2012). Sharifi, Ismail, Qiu, and Tavani (2013) determined that the supply chain could be the source of competitive advantage (Barney, 2012). The effect of SCM is important for SME managers, as SME managers tend not to take into account their supply chain strategy before product introduction resulting in major supply chain problems that are detrimental to company growth (Sharifi et al., 2013). SME managers typically do not consider their supply chain in developing a strategy for growth and handle supply chain matters in a reactionary manner at an operational level (Sharifi et al., 2013). Many SME managers do not know how to implement supply chain management (Rahman, 2012). However, SME managers recognize they would execute strategy for growth better if they were able to manage their supply chain more efficiently (Sharifi et al., 2013).

SCM can help SME managers streamline their processes, reduce inventory levels, improve delivery, and hence improve competitiveness (Thakkar, Kanda, & Deshmukh, 2013). Moreover, Prasad et al. (2012) argued that small businesses could acquire social capital through their supply chains. Social capital relates to the extent and depth of relationships along the supply chain, which can help small companies survive (Prasad et

al., 2012). In times of recession, these relationships can be essential for acquiring resources and mitigating disruption in the supply chain (Prasad et al., 2012). Company managers engage in several operational areas to implement best practices for a closer cooperation and connection in the supply chain (Alexandru, 2014). These areas include operations, suppliers and customers, technology, and measurement. For example, managers of SMEs should realize that implementation of SCM for operations can be an important contributing factor towards achieving operational excellence (Tanco, Jurburg, & Escuder, 2015).

Alexandru (2014) highlighted specific examples of best practices for cooperation between supply chain partners. Alexandru mentioned the use of policies and procedures to standardize supply chain practices and logistics operations as well as the use of programs to integrate operations with supply chain partners. Alexandru stated that locating employees at the supplier's facilities to ease operation, sharing technical resources with suppliers, and sharing research and development costs with suppliers are examples of strategies for cooperation. Moreover, helping suppliers to finance capital equipment, committing to enter into long-term contracts with suppliers, the use of technology to implement data sharing between organizations; and the use of common performance measures for supply chain partners is also considered best practices that facilitate cooperation (Alexandru, 2014).

In general, existing literature on the topic highlights that the benefits of SCM are the result of several influencing dimensions. The first dimension is the supply chain integration, which, refers to the level of connection among supply chain partners (Prasad

et al., 2012). The second dimension refers to supply chain collaboration and information sharing and relates to firms working together to plan and execute supply chain operations (Cao & Zhang, 2011). The third dimension is information technology (IT) as an important element of information integration in the supply chain (Didonet & Diaz, 2012). The fourth dimension is SCM as a promoter of innovation.

SCM can help SME managers streamline their processes, reduce inventory levels, improve delivery, and hence improve competitiveness (Thakkar et al., 2013). In addition, SCM can have a positive effect on customer satisfaction (Haque & Islam, 2013). These benefits show that SCM should play a larger role for SME managers in the future (Soinio, Tanskanen, & Finne, 2012).

Supply chain integration. There is no widely recognized definition of SCM integration (Naslund & Hulthen, 2012). Some researchers defined the term as the presence of coordinated and interdependent activities among a firm, suppliers, and customers (Prasad et al., 2012). Supply chain integration has a significant role in supply chain performance (Prajogo & Olhager, 2012). The goal of SCM integration is to improve process efficiency and effectiveness across the supply chain (Naslund & Hulthen, 2012). The level of integration in a supply chain can be strategic, operational, and can increase speed for a product design, improve quality, decrease costs, and enhance service. The different levels of integration between firms range from close operational relationships between companies that share resources, benefits, and risks, to more strategic liaisons that include collaborative planning, decision making, and execution of supply chain activities (Naslund & Hulthen, 2012).

Supply chain managers have used the term integration interchangeably with collaboration to describe a relationship between supply chain partners (Cao & Zhang, 2011). However, for this study, I will make a distinction between integration and collaboration. Integration will refer to an operational relationship that includes integration and coordination of processes, product, service, financial, and information flows (Naslund & Hulthen, 2012). The collaboration will imply a higher level of relationship than coordination and will include a strategic dimension of collaborative culture (Kumar & Banerjee, 2014). This collaboration promotes open communication, synchronized decisions, joint planning, operational resource sharing, information sharing, and joint performance measurement (Kumar & Banerjee, 2014).

The integration of supply chains relies heavily on IT, as such; I will present IT as an element of SCM in more detail in the following subsection. With the use of IT, for example, SMEs can integrate with air cargo through interlinking with regional, national, or international networks (Beifert, Maknyte, & Prause, 2013). Innovation in some distribution channel functions, such as transportation coordination could enhance the efficiency of the channel (Kuswantoro, Rosli, Abdul, & Ghorbani, 2012). The efficiency could ultimately improve SME performance, particularly in the export market.

Collaboration in the supply chain. Mathuramaytha (2011) suggested supply chain collaboration concept (SCC) is a means of gaining competitive advantage and improving organizational performance. Competitors cannot replicate the benefits of collaboration, which stems from the relation-based strategy (Kumar & Banerjee, 2014). Different researchers have identified various components of the SCC. Mathuramaytha

(2011) claimed that SCC includes three dimensions, which are information sharing, joint decision-making, and incentive alignment.

Cao and Zhang (2011) added goal congruence, resources sharing, collaborative communication, and joint knowledge creation. Supply chain collaboration results in a collaborative advantage or joint competitive advantages (Cao & Zhang, 2011). The joint advantage may bring benefits to efficiency, flexibility, business synergy, improved quality, and innovation (Cao & Zhang, 2011). The benefits affect the performance of the firm by affecting profitability (Cao & Zhang, 2011). The value created from collaboration is a result of sharing of best practices, improved capacity, enhanced decision-making, and the effect of the exchange of ideas on innovation (Cao & Zhang, 2011).

The benefits of SCC are greater for large and medium-sized firms when compared to the benefits realized by small firms (Cao & Zhang, 2011). Large and medium firms can create a spillover effect by using the learning from SCC in other areas of their business, whereas small firms lack a large scope of operations where they can implement the learning from SCC (Cao & Zhang, 2011). The work of Gunasekaran, Rai, and Griffin (2011) supported the theory that supply chain initiatives contribute to the survival of SMEs in North America. SME managers lack resources with expertise in supply chain management (Gunasekaran et al., 2011). Lack of resources is one of the causes of the absence of strategic thinking in SME managers (Sharifi et al., 2013). However, SME managers can reduce failure by developing external relationships instead of only relying on internal resources (Lee et al., 2012).

These external relationships of SME managers can present themselves as links and collaborations with other organizations in their supply chain such as suppliers and customers. For example, SME managers can use SCM to develop a better relationship with their original equipment manufacturer (OEM), enhance the SME's learning curve, and improve inventory flow as well as cash flow (Thakkar et al., 2012). SCM collaborative practices, as well as intra and interorganizational IT integration in the supply chain, strengthen innovation in products and processes for SMEs (Didonet & Díaz, 2012). Innovation is stronger when the collaboration occurs with large clients, as these clients can be the sources of ideas for innovation in SMEs (Didonet & Díaz, 2012).

Despite the benefits, that result from the integration and collaboration of supply chains, Kembro and Naslund (2014), and Naslund and Hulthen (2012) have argued there is insufficient empirical evidence supporting the alleged benefits of supply chain integration. Moreover, Naslund and Hulthen (2012) found only a few rare examples of the entire supply chain integration. Most integration examples show interaction only between two partners in the supply chain (Naslund & Hulthen, 2012).

IT and information integration in the supply chain. An important element of managing a supply chain is the integration of information flow through the chain that can result in competitive advantage (Qian, Chan, Miao, & Zhang, 2012; Qrunfleh & Tarafdar, 2012; Wong, Lai, & Cheng, 2011). On the other hand, Kembro and Naslund (2014) conducted a literature review of the subject and did not find empirical evidence of true information sharing in the supply chain where three or more partners participated. Despite Kembro and Naslund's findings, supporters of information integration maintain

that information sharing is essential for streamlining SCM, but may not necessarily result in supply chain cost reduction (Wong et al., 2011).

The mixed results obtained regarding the effect of information integration on company performance are likely a consequence of the different environmental conditions and operational characteristics of the particular company (Wong et al., 2011).

Consequently, as supply chain partners need timely information to execute business activities effectively, companies establish electronic connectivity to share information across various functions and other business partners (Wong et al., 2011). Information integration benefits are dependent on external environmental conditions and internal operational features (Wong et al., 2011). Information integration can enhance a company's ability to perform, especially when it is under a stable environment situation and offers robust and complex goods (Wong et al., 2011).

Didonet and Díaz (2012) defined the exchange of data, information, or knowledge within an organization and between members of the supply chain as information integration. Electronic linkages through an information systems infrastructure along the supply chain characterized as information integration (Didonet & Díaz, 2012).

Information systems help company managers establish better supply networks and, therefore, improve their operations management (Liu, 2015). The goal of information integration is to aid in achieving cost efficiency or flexibility of the supply chain (Qrunfleh & Tarafdar, 2012). The efficiency can come through the reduction of inventory, improvement of lead times, and support for quick strategic decisions based on market information (Qrunfleh & Tarafdar, 2012).

Advanced IT solutions can help to link all the partners in the supply chain (Alexandru, 2014). Information integration facilitates the use of IT applications such as enterprise resource planning (ERP), electronic data interchange (EDI), e-procurement systems, forecasting, production scheduling, and market analysis applications (Qrunfleh & Tarafdar, 2012). IT applications can aid SCM through three main functions, which are (a) data collection, (b) data storage, and (c) data manipulation and reporting (Manzouri, Ab Rahman, Nasimi, & Arshad, 2013). IT has enabled information sharing in supply chains (Wu, Iyer, Preckel, & Zhai, 2012).

Companies in diverse industries are increasingly prepared to share supply-demand data with other companies (Wu et al., 2012). When businesses synchronize their supply chain and make it responsive, SCM's managers are more effective and profitable (Kumar, Singh, & Shankar, 2012). The use of technology is helpful in implementing the SCM process (Government of Canada, Canada Business Network, 2014). Despite the controversy about benefits versus potential financial risks associated with the implementation of IT applications, the literature review conducted by Mittermayer and Rodriguez-Monroy (2013) revealed that IT had a positive effect on the productivity and financial performance of small businesses through sales enhancement and decreased administrative costs.

Information integration may also include the sharing of knowledge between partners in the supply chain (Marra, Ho, & Edwards, 2012). Knowledge management is an essential tool for supply chain integration (Marra et al., 2012). The role of each partner in the supply chain is important for promoting a learning process (Marra et al., 2012).

Innovation and knowledge sharing can improve agility, flexibility, and alignment for the supply chain members (Marra et al., 2012).

Logistics design and SCM. Fearon, Yang, McLaughlin, and Duysters (2013) depicted service quality and logistics capacity as critical issues challenging companies in 2011. Logistics integration is the seamless connection of the logistics activities of the partners in the supply chain and has a positive effect on operations performance (Prajogo & Olhager, 2012). Some of the key contributing factors to logistics and supply chain competencies are the ability to respond quickly to market and customers' needs (Ding, Kam, & Lalwani, 2012). Delivery reliability, speed, and the ability to be responsive to market needs are critical competencies, and the increased flexibility results in improved competency (Ding et al., 2012). SME managers need to create new business by exporting their products using suitable logistics resources, but some SMEs lack capabilities to implement appropriate systems for supply chain integration (Gunasekaran et al., 2011).

Innovation and its role in SCM. Didonet and Diaz (2012) defined innovation in relation to the supply chain as technical capabilities and knowledge that can support significant changes in products and processes, as well as the development of new products, services or processes (Didonet & Díaz, 2012; Lee, Lee, & Schniederjans, 2011). Innovation is a key factor in increasing the competitiveness of companies (Kuswanto et al., 2012). Innovation practices can have a positive effect in various areas of SCM and company performance such as logistics (Cui, Su, & Hertz, 2012) and SC efficiency (Lee et al., 2011). In addition, innovation practices can also have a positive

effect in SC resilience (Golgeci & Ponomarov, 2013), and innovation in other members of the supply chain (Didonet & Diaz, 2012).

For example, companies in the healthcare industry that pursue new technological innovation in their supply chains showed a positive relationship between these activities to supplier cooperation, SC efficiency, quality management practices, and organizational performance (Lee et al., 2011). In addition, the integration and collaboration practices normally occurring as part of SCM activities can play a major role in enhanced innovation for a company (Didonet & Diaz, 2012). Didonet and Diaz (2012) demonstrated how collaboration between partners in the supply chain, particularly relationships between SMEs and large customers, could potentially enhance the level of innovation in SMEs. Didonet and Diaz showed that large customers could promote product innovation by acting as the source of ideas for innovation and collaborative SCM practices. For example, e-procurement can influence process innovation in SMEs, and IT integration practices can support process innovation (Didonet & Diaz, 2012).

The supply chain and SCM have become a critical part of corporate operations and corporate efficiency (Janvier-James, 2012). SC and SCM have attracted the attention of the research community with academicians like Janvier-James (2012) and Lieb (1992) with their investigations of the potential benefits of SCM. In addition, the research community recognized the potential negative effects of supply chain disruptions and have studied strategies to ensure business continuity (Chopra & Sodhi, 2014; Fayezi, Zutshi, & O'Loughlin, 2014; Golgeci & Ponomarov, 2013). Florian (2013) indicated the importance of harmonizing supply chain strategies with organizational strategy.

According to Vaaland and Owusu (2012), some of the studies reported the role of a responsible supply chain in corporate social responsibility. I will provide an overview of the existing literature on SC disruption and responsible SC to offer a perspective on the magnitude of SCM in organizational affairs in the following subsections.

Supply chain disruptions. The major supply chain disruptions encountered in the 21st century have highlighted the importance of the supply chain for business continuity (Chopra & Sodhi, 2014). The increased vulnerability of supply chains has made supply risk management an important element in the operations of a firm (Colicchia & Strozzi, 2012). The uncertainty of the business environment, the complexity of supply chain networks, and the focus on lean processes as well as efficient supply chains have increased the vulnerability business continuity disruptions (Chopra & Sodhi, 2014).

Most managers understand they should prevent disruptions in their supply chains, but some may choose not to take preventive actions, which can affect cost efficiency in the supply chain (Chopra & Sodhi, 2014). Colicchia and Strozzi (2012) through their literature review found that creating flexibility and resilience in the supply chain requires an evaluation to determine if the risk-reduction strategies compensate for the extra cost. Resilience building could prove costlier for SMEs than larger companies, as SMEs lack the product volume for implementing cost-effective strategies such as resource decentralization (Chopra & Sodhi, 2014).

Chopra and Sodhi (2014) maintained large companies have access to risk-reduction strategies that will protect them against risk by providing flexibility to the supply chain as well as result in higher cost efficiency. Chopra and Sodhi indicated that

several authors presented different recommendations and steps to protect against risk and maintain business continuity. The risk-reduction strategies include segmenting the supply chain and avoiding centralization of resources (Chopra & Sodhi, 2014). Nuttall (2013) suggested focusing on the supply chain outcomes needed to achieve and work with suppliers to reduce risks.

Clark (2012) presented DHL's 10-step approach to business continuity management (BCM) that involves having a BCM plan with an appropriate resource appointed for the implementation of the plan and an incident management team. Fayezi et al. (2014) suggested performing an assessment of the flexibility gap in the supply chain of the company; the assessment consists of a comparison between the existing capabilities of the company and the required flexibility necessary to respond to uncertainties. The results of the study by Golgeci and Ponomarov (2013) suggested the innovativeness of the firm has a positive effect on supply chain resilience by enabling effective responses to SC disruptions.

Responsible supply chain. A responsible supply chain (RSC) is one that links the different members of the chain through the implementation of values, strategies, and tactics that connect social responsibility to the business processes in the chain (Vaaland & Owusu, 2012). Vaaland and Owusu (2012) presented two different perspectives using the conceptual model to define responsibility in the supply chain. As described by Vaaland and Owusu, the first perspective involves the core activities of the supply chain and their management (SCM), and the second perspective concerns the effect of SC on the concept of corporate social responsibility (CSR). Vaaland and Owusu recommended

the three activities of SCM evaluated and executed in light of the concept of CSR as (a) selection and contracting of supply chain members, (b) management of the relationship with supply chain partners, and (c) supervision and control of the performance of SC partners. Thus, SCM activities should take into account the concern for responsible acts related to ethical, social, and environmental principles (Vaaland & Owusu, 2012). Other researchers have noted the topics of main concern for researchers in the field of SCM include contractual relations, just in time (JIT), and ethical supply issues (Chicksand, Watson, Walker, Radnor, & Johnston, 2012).

Creating a responsible supply chain is not an easy task. The number of supply chain members, the management of the relationship between them, the different values of each organization, the necessity to be competitive and cost efficient, and the need to fulfill the expectations of different stakeholders make the task daunting (Vaaland & Owusu, 2012). From the view of Abbasi and Nilsson (2012), researchers identified five areas of challenges for a responsible SCM to include (a) costs, (b) complexity, (c) operationalization, (d) mindset and cultural changes, and (e) uncertainties. However, organizations such as Nike have been successful in influencing their supply chain by establishing internal values, strategies, and codes of conduct with suppliers to guarantee a responsible supply chain (Vaaland & Owusu, 2012).

Sustainable SCM has gained popularity since 2004-2005 because organizations have come under increasing pressure from governments, NGOs, and stakeholders to consider economic, environmental, and social consequences of their operations (Ching & Moreira, 2014). The supply chain is one of the components where corporations look to

address sustainability (Ching & Moreira, 2014). Within the area of SCM activities, logistics and transportation have negative effects on the environment, such as consumption of energy and materials resources, pollution, greenhouse gas emissions, noise, and congestion (Abbasi & Nilsson, 2012). Company personnel attempt to reduce carbon dioxide emissions to prevent global warming (Tang, Wang, & Cho, 2014).

Despite being a social responsibility issue in a business setting, the matter of a responsible supply chain will develop into a financial matter in the future as evident by government fees for carbon dioxide emissions already present in some countries (Tang et al., 2014). Wiengarten, Fynes, and Onofrei (2013) support the existence of a synergetic effect between investment in environmental practices and lean practices in the supply chain. Environmental practices such as pollution prevention, recycling of materials, and waste reduction enhance the effect of lean and quality practices on operational supply chain performance (Wiengarten et al., 2013).

Third-party logistics providers offer less-than-truckload (LTL) shipments by consolidating multiple shipments on one truck and reducing the number of trucks on the highways (Tang et al., 2014). Another benefit of the investment in CSR is the enhancement of organizational reputation through the effective marketing of corporate social responsibility (CSR) capabilities (Leppelt, Foerstl, & Hartmann, 2013). Many company managers are also considering how to use environmental problems as business opportunities. Logistics providers can take advantage of these business opportunities as their core business has significant environmental effects (Isaksson & Hüge-Brodin, 2013).

Some firms are engaging in sustainable business practices to be socially responsible, yet maximize profits through cost savings (Dos Santos, 2011). Woolworths is a major South African retail chain whose management was conscious of global warming not only regarding its effect on the climate and the environment but also for its ultimate effect on society (Dos Santos, 2011). Woolworths achieved its goal of minimizing its business effect on the environment by maximizing innovation to increase operational efficiencies and to work with its supply chain partners (Dos Santos, 2011). The company increased focus on organically grown products, implemented initiatives to reduce its carbon footprint, made efforts to decrease fuel consumption in transportation, and worked closely with its supply chain to utilize *greener* packaging (Dos Santos, 2011). The Woolworths case is an example of how innovative ideas in SCM can achieve corporate social responsibility without an adverse effect on the profitability of the organization, even in developing countries such as South Africa (Dos Santos, 2011).

Third-Party Logistics (3PL)

Although most outsourcing services cover one activity by an outside partner, 3PL providers cover several activities such as purchasing, warehousing, and distribution (Tan, Yifei, Zhang, & Hilmola, 2014). Company managers have different motives for outsourcing some of their activities, and one of company motives focused on efficiency-seeking outsourcing that concentrates on cost reductions and operational efficiency improvements (Kang, Wu, Hong, & Park, 2012). The second form of outsourcing focused by Kang et al. (2012) is innovation-seeking outsourcing to gain new capabilities through outsourcing activities. Company's goals should align with outsourcing strategies

(Kang et al., 2012). Logistics outsourcing is popular in business as a key strategy to achieve competitive advantage (Gunasekaran & Choy, 2012; Lai, Tian, & Huo, 2012). The role of logistics, particularly managing communication and product flow within a supply chain, is more important when service activities or manufacturing spread across a large geographical area (Gunasekaran & Choy, 2012). A supply chain can reduce the delivery time for a product to market in a large geographical area (Gunasekaran & Choy, 2012). Third-party logistics providers in North America sometimes strategically cluster around ports of entry and airport terminals to maximize their efficiency (Rodrigue, 2012). Third-party logistics providers play an important role in the logistics industry's supply chain (Hosie, Lim, Tan, & Yu, 2012).

Hendriks, Armbruster, Laumanns, Lefeber, and Udding (2012) studied logistics systems that included manufacturing facilities, warehouses, and customers physically connected by links such as railways, roads, and waterways. Hendriks et al. found three levels of decisions regarding distribution network designs, which included strategic decisions, tactical decisions, and operational decisions. Logistics systems conduct logistics activities to maintain a region's competitiveness and to promote economic growth (Sujeta & Navickas, 2014).

Increased competition and greater complexity in the business environment have encouraged company managers to outsource some or all of their logistics activities to 3PL providers (Sheikh & Rana, 2012). Logistics is an important element of competitive advantage and therefore, successful outsourcing to a 3PL can enhance a company's logistics performance (Hartmann & de Grahl, 2012). Several terms describe the

outsourcing of logistics activities. The term 3PL is a synonym for carriers, forwarding companies, transportation companies, logistics service providers (LSPs), and logistics service companies (Forslund, 2012). Third-party logistics (3PL), also known as logistics outsourcing or contract logistics, have grown rapidly since 2001 (Shi & Arthanari, 2011). A company outsources different types of functions, and different levels of services provided by the various logistics service providers (Meidute, Litvinenko, & Aranskas, 2012). Based on their level of service, the most common logistics providers can be classified into second party logistics (2PL), third-party logistics (3PL), and fourth-party logistics (4PL) services (Bajec, 2013; Hanus, 2013). In addition to these, there are first party logistics (1PL) and fifth party logistics (5PL) providers (Meidute et al., 2012). Researchers describe slight differences in the definitions and characteristics of various types of logistics in the literature and therefore, I will use the following descriptions in this doctoral study.

First party logistics (1PL) is an old concept, which refers to basic logistics activities performed by the seller or the manufacturer (Meidute et al., 2012). The second party logistics (2PL) term refers to the provision of basic logistics activities such as transportation, storage, and transshipment (Bajec, 2013; Hanus, 2013). The term 1PL and 2PL sometimes are interchanged; both refer to delivery service performed by the first party, often the manufacturer, for the second party, the purchaser (Meidute et al., 2012). Logistic services offered by 3PL and 4PL are derivatives when the logistics services are delegated to a logistics service provider (Meidute et al., 2012). Although 2PL providers may use IT applications for their services, they do not require advanced IT systems

(Hanus, 2013). A 3PL provider is an external firm that offers value-added services to satisfy customers' logistics needs on a long-term partnership basis (Cui et al., 2012). A 3PL company provides integrated logistics services that can be customized and often go beyond the basic logistics activities of transportation, storage, and transshipment (Hanus, 2013). A 3PL provider performs one or more functions for the customer's supply chain (Nunez-Carballosa & Guitart-Tarres, 2011). For example, 3PL managers can provide transportation, warehousing, cross-docking, inventory management, packaging, tagging services, and purchasing (Hanus, 2013). A 3PL manager can also provide complex activities such as optimization and planning of logistics activities and reporting services and usually uses advanced IT applications to coordinate logistics activities in the supply chain (Hanus, 2013).

A 4PL provider is an independent contractor with single accountability that coordinates all the activities of the existing 3PL operators within the supply chain and coordinates activities upstream and downstream of the supply chain (Hanus, 2013). According to Bajec (2013), a 4PL provider tailors solutions for the customer's supply chain to meet the customers' complex needs. The 4PL operators do not usually hold assets as they focus on virtual planning, coordination, and optimization of logistics operations of the entire supply chain (Hanus, 2013). A 4PL provider can deliver a higher level of logistics services than a 3PL provider. The 4PL services include managerial expertise such as (a) procurement strategy and negotiations with other logistics providers, (b) SCM consultancy services, (c) network management, and (d) development of SC technology (Papadopoulou, Manthou, & Vlachopoulou, 2013). The concept of 5PL is a

relatively new concept; 5PL providers deliver the same services as a 4PL provider, except 5PL ensures the quality of the performance by focusing on IT solutions and software systems (Meidute et al., 2012).

Company managers are placing more focus on SCM in their attempts to gain a competitive advantage in a worldwide market. (Datta, Samantra, Mahapatra, Mandal, & Majumdar, 2013). As a result, company managers hire a 3PL to handle some or all of their logistics functions to become efficient (Datta et al., 2013). Many company managers begin a relationship with 3PL providers based on cost considerations (Nunez-Carballosa & Guitart-Tarres, 2011). Third-party logistics partners can also provide a competitive advantage by delivering costs savings, decreasing capital investments, and reducing order cycles (Nunez-Carballosa & Guitart-Tarres, 2011). In addition, 3PL partners provide services at a more strategic level that benefit the customer with improved flexibility and access to the knowledge, skills, and capabilities of the specialized logistics provider (Nunez-Carballosa & Guitart-Tarres, 2011). Hence, 3PL providers help their customers free up resources they can redirect to the core business (Nunez-Carballosa & Guitart-Tarres, 2011). Company managers must carefully select a 3PL partner because 3PL partners normally work using long-term contracts and have a long-term relationship with their customers (Nunez-Carballosa & Guitart-Tarres, 2011).

The use of logistics outsourcing has been increasing, and the consulting-oriented strategy of 3PL providers appears to be adequate for SME managers (Soinio et al., 2012). The original single activities of transportation and warehousing have now expanded into more advanced solutions in the supply chain (Soinio et al., 2012). Niche-oriented 3PL

provider's offer limited services, but they perform better than the larger 3PL providers (Min, DeMond, & Joo, 2013). When the partner that has the best capabilities handles activities, improved efficiency in the supply chain is achieved (Forslund, 2012). The three obstacles to supply chain performance management include (a) lack of understanding and knowledge, (b) poor capabilities for adapting performance metrics definitions, and (c) the lagging IT solutions for performance report making (Forslund, 2012).

3PL services. Since the early 1990s, 3PL providers have continuously broadened the range of services they offer from a relatively limited scope of basic services (Zacharia et al., 2011). Services of 3PL providers may include transportation and an array of activities that include more strategic services, such as cross docking and technology management (Zacharia et al., 2011). An increase in the number and complexity of services provided gives rise to an expanded portfolio of services by the 3PL provider.

Lieb (1992) conducted a survey of large North American manufacturers and found that approximately 25% of the surveyed respondents used 3PL services and reported 10 logistics functions most frequently used by the respondents. In a similar survey conducted in 2004, Lieb and Bentz (2005) found that 80% of the respondents used the services of a 3PL, and 25 activities were the most frequently used services. In recent literature, several authors (Shi & Arthanari, 2011; Sonio, Tanskanen, & Finne, 2012; Zacharia et al., 2011) classified the level of outsourcing arrangements based on the complexity of functions outsourced to the 3PL. Shi and Arthanari (2011) identified three levels of service. According to Shi and Arthanari, the first level of service includes

transactional services, which consist of outsourcing basic logistics that do not include any specific or customized requirements. The second level of service incorporates basic services along with additional value-added and customized functions, such as cross docking. Finally, Shi and Arthanari identified the fully customized 3PL services, which require intensified coordination as the third and most complex level of service offered.

In general, 3PL providers offer their clients primary services such as transportation and warehousing (Forslund, 2012), as well as freight forwarding, shipping and handling, packaging and storage (Kilibarda, Zečević, & Vidović, 2012). The 3PL providers also offer secondary services such as order administration, tracking and tracing orders (Forslund, 2012). As a result of the increased need for connectivity and communication in prominent supply chains, an advanced role for 3PL providers now includes route planning (Sheikh & Rana, 2012). The role of a 3PL may also include technology management and cross-docking services (Zacharia et al., 2011) as well as more complex functions, such as purchasing, production, and distribution (Nunez-Carballosa & Guitart-Tarres, 2011). Third-party logistics providers can also act as liaisons amongst suppliers and clients in supply chains (Forslund, 2012). The 3PL providers act as orchestrators of supply chains by providing logistics abilities for maintaining a competitive advantage (Zacharia et al., 2011). The services provided by 3PL providers have consistently increased since the 1990s. The service offering growth arises from the pressure on 3PL providers to offer integrated solutions to their customers (Lieb & Lieb, 2015).

3PL benefits. The role of 3PL providers is shifting from a vendor of services to

strategic partners in an integrated supply chain (Zacharia et al., 2011). The shift in the role of 3PL is because of the growth in the range of services offered by 3PL providers as well as the increase in complexity of their services (Soinio et al., 2012). Recent studies (Lieb & Lieb, 2012; Lieb & Lieb, 2015; Zacharia et al., 2011) confirmed this trend and reported that customers are demanding more value-added and integrated services from 3PL providers (Soinio et al., 2012). This change in the landscape of services of the 3PL providers has also enhanced the potential benefits of logistics outsourcing (Nunez-Carballosa & Guitart-Tarres, 2011). Although many company managers continue to outsource mainly because of cost savings, 3PL providers can offer much more than just cost efficiency (Nunez-Carballosa & Guitart-Tarres, 2011). A 3PL provider can aid in improving the efficiency of the firm's logistics (Sheikh & Rana, 2012) and customer service (Ulku & Bookbinder, 2012), as well as reduce operational budgets and improve IT support (Sheikh & Rana, 2012).

Historically, outsourcing to 3PL providers increased the competitive advantage of companies (Li-Jun, 2012). Company managers took advantage of three key benefits including cost reduction, quicker delivery time, and increased reliability (Li-Jun, 2012). However, according to Nunez-Carballosa and Guitart-Tarres (2011), the use of 3PL is not always less costly as optimization of the supply chain is the main reason for cost reduction rather than outsourcing. The key reasons for outsourcing are to (a) increase flexibility; (b) make resources available to focus on core competencies; and (c) access skills, expertise, and knowledge of logistics service providers (Nunez-Carballosa & Guitart-Tarres, 2011). In summary, the knowledge gathered through the review of the

literature indicated several key benefits of outsourcing logistics activities. One benefit of outsourcing to a 3PL provider underscored the ability of the company to focus on its core competency (Aguazzoul, 2014; Nunez-Carballosa & Guitart-Tarres, 2011). The review of the literature also suggested a positive effect on cost reduction (Aguazzoul, 2014; Meidute et al., 2012) and an overall positive effect on company performance (Aguazzoul, 2014). Finally, the information from the literature indicated that outsourcing logistics activities imparted a positive effect on the logistics design and IT infrastructure of a company (Sheikh & Rana, 2012). Company managers use outsourcing as a key strategic tool for their businesses (Freytag et al., 2012). Approximately 60% of Fortune 500 firms in the United States use at least one 3PL provider with the trend continuing to grow (Aguazzoul, 2014).

One of the challenges of 3PL providers is offering services that create higher value for their customers than the customers may create on their own (Meidute et al., 2012). Company managers continually expect higher levels of logistics services from 3PL providers to succeed in a competitive market (Meidute et al., 2012). My focus in the following subsection of the literature review is on the major benefits of 3PL providers.

3PL risks. Outsourcing in general is an opportunity for company managers to focus on their core activities, reduce cost, and attain other benefits (Freytag et al., 2012). Nevertheless, outsourcing company activities may present some risks such as (a) a wrong decision of whether the function needs outsourcing, (b) choosing the wrong supplier, and (c) problems between partners arising over time (Freytag et al., 2012). In addition, until recently basic logistics services such as transportation and storage were sufficient for

some companies as these basic services are an effective way of reducing costs and allowing the company to concentrate on their core business (Bajec, 2013). However, with an increasingly competitive environment, a need for logistics providers that can offer a more complex and specialized range of services has surged; therefore, company managers should be cautious in selecting the appropriate 3PL (Bajec, 2013). Outsourcing to 3PL providers does not always result in cost reduction; however, some company managers still decide to outsource based on other value-creating benefits (Nunez-Carballosa & Guitart-Tarres, 2011). An important aspect of outsourcing is the relationship between the company and the 3PL provider. Chu and Wang (2012) suggested that lack of a successful relationship between outsourcing partners might not result in the benefits expected from outsourcing logistics activities.

Focus on core competencies. Company managers increasingly outsource logistics functions to focus more on their core competencies (Datta et al., 2013). According to Datta et al. (2013), outsourcing logistics activities to 3PL providers frees up company personnel from dealing with logistics functions and enables them to use their time and effort to grow the core business. Shi and Arthanari (2011) suggested that the main reason for outsourcing is to focus efforts on the firm's core competence and leave other functions to professional firms that specialize in such activities. Similarly, Sheikh and Rana (2012) stated that 3PL providers could help company logistics by permitting firms to concentrate on their main competencies to reduce cost and improve customer satisfaction.

Effect on cost reduction. A reason for outsourcing is cost reduction, particularly in a competitive market where consumers demand high quality and low prices (Iqbal & Dad, 2013). Companies compete by offering better value as a strategic initiative (Tsai, Lai, Lloyd, & Lin, 2012), and researchers claim that logistics outsourcing plays a key role in reducing operating costs (Aguzzoul, 2014; Muhindo et al., 2014; Sheikh & Rana, 2012). Third-party logistics (3PL) have become crucial for supply chain operations to balance risk and cost with the appropriate responsiveness (Gunasekaran & Choy, 2012). A comparison of self-managed operations versus outsourced logistics indicated the logistics outsourcing choice is usually more economical as compared to a self-managed logistics operation (Azzi et al., 2013). Nevertheless, other studies demonstrated that outsourcing logistics activities are not always more economical, and the benefits of outsourcing are often a result of optimization of the supply chain rather than outsourcing itself (Nunez-Carballosa & Guitart-Tarres, 2011).

Effect on innovation. Mittermayer and Rodríguez-Monroy (2013) indicated that globalization increased competition for companies, and technology advances increased complexities in the execution of supply chain activities. Mittermayer and Rodríguez-Monroy discussed the complexities in the use of supply chain software and indicated that the use of supply chain software improves the logistics of the organization. Nevertheless, the complexity and cost of the SCM software have deterred some company managers from using the software; this decision results in poor performance of the logistics of the organization (Mittermayer & Rodríguez-Monroy, 2013).

Several factors influence 3PL innovation such as employee capability, cost, time requirements, unqualified suppliers, and poor internal communications (Cui et al., 2012). Logistics innovation contributes to improvements for members of a supply chain and may result in refining operational performance by (a) enhancing efficiency; (b) increasing effectiveness; and (c) advancing service, relationships, reputation, sales, and financial results (Cui et al., 2012). Qian et al. (2012) indicated sharing information is a good strategy to improve information flow among supply chain partners to address the increasing complexity and uncertainty in business. Company managers benefit from using technology in the supply chain as well as challenges in their implementation. Zhong and Zhou (2011) found that the use of GPS-based technology resulted in benefits such as improved just-in-time service, optimized delivery schedules, as well as real-time monitoring and data transfer between dispatchers and drivers. In turn, these improvements can potentially enhance operational efficiency and productivity as well as improve communication, collaboration, and planning aspects of the company's supply chain (Zhong & Zhou, 2011).

Conventional logistics outsourcing through a 3PL brings cost reduction and allows company managers to focus on their core competencies (Bajec, 2013). However, the shortcomings of conventional logistics outsourcing include lack of a company's flexibility enhancement and innovation improvement (Bajec, 2013). In a competitive environment, more innovative outsourcing is necessary to help company managers increase flexibility and differentiation to maximize market share, which increases the need for intelligent logistics outsourcing solutions (Bajec, 2013). The proactive

innovation provided by 3PL providers can have a bigger effect on their customer's performance as compared to the benefit of improved customer service or reduced costs (Leuschner, Carter, Goldsby, & Rogers, 2014).

Access to knowledge, skills, logistics networks, and IT resources. Among the reasons for outsourcing logistics functions is to access to certain capabilities and resources such as knowledge, skills, logistics networks, and IT infrastructure (Manuj, Omar, & Yazdanparast, 2013; Nunez-Carballosa & Guitart-Tarres, 2011; Zacharia et al., 2011). Interorganizational learning (IOL) between a company and a 3PL may develop innovation and flexibility capabilities in the supply chain that can result in competitive advantage (Manuj et al., 2013). The creation of these capabilities can support faster response to changes in the environment and help maintain competitive advantage (Manuj et al., 2013). Another benefit of outsourcing logistics activities to a 3PL is the customer can leverage the logistics networks designed by the 3PL, which may include warehouses, transportation networks, and IT infrastructure that are available to the 3PL (Hendriks et al., 2012; Sheikh & Rana, 2012). SME managers, for example, can benefit from outsourcing logistics activities instead of engaging in designing their logistics solution (Chaberek, 2014). Constructing logistics networks may require knowledge of theory, practice, legal regulations, and technology to implement a logistics system (Chaberek, 2014).

Company managers can reduce their capital investments by engaging in 3PL outsourcing and focusing more on other areas of the business (Sheikh & Rana, 2012). The benefit of advanced IT systems is to make real-time information available, acquire

the ability to link activities, and allow data exchange between members in the supply chain to positively affect customer satisfaction (Sheikh & Rana, 2012). Industrial logistics systems create customer value by using resources such as technology and people to manage inbound logistics, outbound logistics, and production (Gunasekaran & Choy, 2012). IT has an important role in the supply chain (Zhong & Zhou, 2011). For example, technologies such as global positioning systems can improve logistics distribution; enhance just-in-time service, delivery, and route schedules. Systems such as ERP and electronic data interchange (EDI) can improve business processes and positively influence customer satisfaction (Sheikh & Rana, 2012).

Historically, 3PL providers in the Far East and Europe faced challenges with poor customer service because of tardiness to implement advanced IT systems (Hosie et al., 2012). Customers were not able to receive real-time information because of inefficient tracking systems, and hence, 3PL providers increased the use of electronic data interchange (EDI), the Internet, radio-frequency identification (RFID), and barcoding to address the issue (Hosie et al., 2012). RFID can improve the efficiency of the supply chain by (a) increasing data accuracy, (b) information flow and timeliness, (c) process optimization, and (d) system-to-system communication (Wamba, 2012). Third-party logistics providers use IT systems for logistics progressively more to improve supply chain collaboration amongst all business partners, although the use of such IT systems is not immediately profitable at times (Hosie et al., 2012). Long-term sophisticated IT systems are required to enhance supply chain visibility to gain efficiency (Hosie et al., 2012). Logistics systems command real-time observation and interface with fleet vehicles

to improve responsiveness to customers' requirements (Vivaldini, Pires, & de Souza, 2012). Real-time logistics requires technology such as (a) mobile communication, (b) global positioning system (GPS), (c) geographical information systems (GIS), and (d) information systems (Vivaldini et al., 2012).

Third-party logistics providers are encouraged to invest more in IT systems to offer a competitive advantage and to meet augmented customer expectations (Hosie et al., 2012). However, excessive IT costs and the struggle to change present obstacles to the implementation of IT systems in logistics firms. The high costs of specific IT systems, such as enterprise resource planning, and the variety of IT systems used by different clients, prevent 3PL providers from offering full services that meet clients' requests (Hosie et al., 2012). Company personnel should collaborate with logistics software firms to design a distinctive integration system to meet customer requirements. These systems could be in the form of an open network such as open message exchange through extensible markup language (XML) or cloud computing (Hosie et al., 2012).

Effect on 3PL's customer satisfaction. The outsourcing of logistics activities to a 3PL is important for the integration of a supply chain, but its effect is even greater on customer satisfaction, particularly through the utilization of advanced IT (Sheikh & Rana, 2012). Transportation is one of the most important services offered by 3PL, and hence, efficient fleet management is crucial for establishing good customer service (Vivaldini et al., 2012). A company achieves customer satisfaction through the understanding of its customers' requirements and by meeting their expectations (Sheikh & Rana, 2012). Logistics service providers can satisfy customers' expectations only if they offer a high

level of services necessary for their customers' competitiveness and satisfaction (Kilibarda et al., 2012). A 3PL provider can support its customers by sharing appropriate information and value-added services to help its customers achieve their goals (Chu & Wang, 2012). The 3PL's challenge is to identify the value that its customers put on the variety of services offered by the 3PL provider to select and deliver the right service to the 3PL's customers (Anderson, Coltman, Devinney, and Keating, 2011). One of the services sought from 3PL providers is the ability to provide on time delivery, which results from increased competition that has forced companies to provide quality and timely service at a low cost (Ulku & Bookbinder, 2012). The ability to offer on time delivery could increase demand for a firm's product (Ulku & Bookbinder, 2012). A benefit of outsourcing logistics is that it can help companies increase their logistics speed (Li-Jun, 2012). Logistics customer service has a significant relationship with company performance as improvement in order fulfillment has a positive effect on overall business results (Leuschner et al., 2013).

A strong relationship with a 3PL provider is also a key factor in improving on time delivery and customer satisfaction (Mothilal et al., 2012). A partnership with a 3PL provider can create an atmosphere where communication and information exchange occurs at the operational level and can help in achieving the outsourcing goals for both partners (Hartmann & de Grahl, 2012). A strong 3PL-client relationship is a key success factor towards achieving customer satisfaction in medium and large firms in the Indian 3PL environment, but this was not the case with small firms (Mothilal et al., 2012). Excellent customer service might not be attainable with all 3PL partnerships as a

collaborative relationship between the firm, and the 3PL is difficult to create as evidenced by the various lawsuits and the frequency with which companies change 3PL providers (Leuschner et al., 2014). This risk of relationship failures can lead to asset risk and competence risk for the outsourcer (Tsai et al., 2012).

Criteria for the selection of a 3PL provider. Attention to 3PL has gradually increased since the 1990s, resulting in augmented academic research in the area (Leuschner et al., 2014). Company personnel should carefully consider the decision to outsource service processes because of high indirect costs and strategic implications (Benaroch, Webster, & Kazaz, 2012). Using a 3PL is necessary for a firm's supply chain where a balance is necessary between cost, risk reduction, agility, and responsiveness (Sharif et al., 2012). Benaroch et al. (2012) stated that the likelihood of outsourcing normally increases in uncertainty with high skill processes. Benaroch et al. stated that outsourcing logistics services that require a higher level of skills of 3PL providers provides more value to the company.

Outsourcing is inevitable and most multinational company managers use outsourcing to compensate for insufficient in-house resources (Iqbal & Dad, 2013). However, company managers must carefully consider the criteria for the selection of a 3PL to ensure that the 3PL will meet the company's needs (Anderson et al., 2011). Company managers selecting a 3PL provider should consider several service characteristics including (a) reliable performance, (b) price, (c) customer interaction, (d) service recovery, (e) supply chain capacity, (f) supply chain innovation, and (g) professionalism (Anderson et al., 2011). Aguezzoul (2014) indicated that 79.59 % of the

criteria used for 3PL selection included (a) cost reduction, (b) strong relationship, (c) range of services, (d) service quality, (e) IT capability, (f) flexibility, and (g) delivery. According to Aguezzoul, a company's financial position, their location, the 3PL's reputation and its professionalism represent the remainder 20.41% of the reasons for selecting a particular 3PL. The weighting of such criteria depended on a company's strategies and priorities (Aguezzoul, 2014). When considering transportation, in particular, customers of logistics services take into account (a) the cost reduction, (b) transportation lead-time, (c) convenience, and (d) safety (Yu, Wang, Moberg, & Cruthirds, 2013).

When selecting 3PL providers, managers should consider the unique requirements of the company such as (a) the breadth of services of the 3PL, (b) the 3PL's geographic area, and (c) the 3PL's expertise (Nunez-Carballosa & Guitart-Tarres, 2011). However, for a long term relationship, the criteria should also include (a) cultural fit, (b) flexibility, (c) responsibility, and (d) the 3PL provider's problem solving ability (Hartmann & de Grahl, 2012; Nunez-Carballosa & Guitart-Tarres, 2011; Shah & Sharma, 2012). Third-party logistics providers build long-term relationships based on trust with their clients (Nunez-Carballosa & Guitart-Tarres, 2011). Well-integrated relationships with 3PL providers have the potential to improve operational measures and contribute to the profit growth of a company (Mothilal et al., 2012). Moreover, soft skills of the 3PL providers, such as relationship building and development of staff, can have a bigger effect on the profitability of the company than the benefits from hard skills such as investment in IT and asset deployment (Mothilal et al., 2012). Company managers should manage

relationships with 3PL providers (Chu & Wang, 2012). Reliance on 3PL has a positive relationship with the performance of logistics services based on the level of information shared (Chu & Wang, 2012).

Factors affecting the performance of 3PL providers. Performance data results analyze, and report as a success measurement tool for 3PL providers and their customers in an increasingly competitive business environment (Forslund, 2012). Performance capabilities are important for 3PL competitiveness. Third-party logistics providers, clients, and suppliers in supply chains develop logistics performance, such as lead-time, flexibility, and on time delivery. Many customers use formalized performance measurement tools with their 3PL partners. Many 3PL providers have similarities in choosing performance variables, outlining metrics, and seizing real-time data. Third-party logistics providers show variances in target setting, report making, analyzing, and the apparent demand for performance management (Forslund, 2012).

Third-party logistics providers can continue to grow by offering new services, but SME managers need to give up control of their supply chains (Soinio et al., 2012). Companies compete using SCM, and 3PL providers play an important role in fulfilling the supply chain goals (Soinio et al., 2012). Supply chain partnerships can help SMEs gain access to external expertise to compensate for their lack of resources and help them resolve problems within their business (Rezaei, Ortt, & Trott, 2015). Further research is required to assess the feasibility of developing SMEs' supply chain management and the manner in which these services can support the financial performance of SMEs (Soinio et al., 2012). Soinio et al. (2012) recommended that future research should include in-depth

studies of a small number of SMEs, such as descriptive studies of two or three SMEs, instead of conducting large surveys.

Transition

Section 1 included the foundation and background of the problem for my qualitative multiple case study. My purpose was to explore the strategies SME managers located in Canada use to engage 3PL providers to improve their supply chains. Section 1 included the research question that I used to guide my study, the problem statement, purpose statement, and the nature of the study. Section 1 also comprised the interview questions, conceptual framework, and operational definitions for the study, as well as the assumptions, limitations, and delimitations of my study. Significance of the study included the study's contribution to the business practice and implications for social change, and a review of the professional and academic literature, with background on the value chain that served as my conceptual framework. In the literature review, I presented a critical analysis and synthesis of the literature related to my study including a description of small and medium-sized enterprises (SMEs), supply chain management (SCM), the survival of SMEs, and the effect of third-party logistics (3PL) providers.

Section 2 included details of the role of the researcher, participants, research method, and research design. I also described the population and sampling for this qualitative study, as well as the importance of conducting ethical research. Section 2 ended with a description of data collection instruments, data collection technique, data organization techniques, and finally reliability and validity. Section 3 includes

presentation of the study findings with an application for professional practice including implications for social change as well as reflections and conclusion to the doctoral study.

Section 2: The Project

The purpose of this study was to explore the strategies SME managers located in Canada use to engage 3PL providers to improve their supply chains. My approach to the study was to understand the experiences SME managers have with 3PL providers. I also present the steps to complete the execution of this qualitative multiple case study.

Purpose Statement

The purpose of this qualitative multiple case study was to explore the strategies SME managers located in Canada use to engage 3PL providers to improve their supply chains. The specific population consisted of managers of SMEs in the province of Ontario, Canada who use a 3PL provider. The findings from this study will contribute to business practices by identifying strategies that SME managers can use to engage 3PL providers to improve their supply chains. Study findings may also contribute to social change by helping SME managers improve their survival rate in Canada, create employment, and generate more personal income and taxes.

Role of the Researcher

The role of the qualitative researcher is as the primary instrument for the collection of data (Szyjka, 2012). Yin (2014) stated that a researcher as a data collection instrument directly collects data through interviews, observations, document review, and fieldwork. A researcher must ask the right questions and have a deep knowledge of the literature of the study, mitigate bias, and exert efforts to conduct research ethically (Yin, 2014). The researcher collects, interprets, analyzes, and presents the data in a manner that

conveys a holistic account of the phenomenon from the participants' perspectives (Morse, Lowery, & Steury, 2014; Yin, 2014).

From the perspective of Mikene, Gaizauskaite, and Valaviciene (2013), the researcher in a qualitative study acts as the primary instrument for data collection. I acted as the main instrument for data collection in this qualitative multiple case study. My roles during the execution of the research included (a) requesting representatives of small and medium-sized organizations to participate in interviews; (b) scheduling and conducting data collection through interviews; and (c) coding, analyzing, interpreting, and reporting data collected. The execution of my roles included adherence to the ethical principles and guidelines specified in the Belmont Report and employment of techniques to mitigate bias that might have influenced the results of the study as suggested by Yin (2014). In preparation for this research, I completed the web-based training on protecting human research participants offered by the National Institutes of Health and received the certificate of completion on January 18, 2014 (Appendix A).

Yin (2014) indicated a researcher must strive to uphold the highest ethical standards in the conduct of the research activities. As such, I conducted the research in a manner that involved respect and confidentiality of the participants as directed by the American Psychological Association (2012) and the principles of the Belmont Report. The application of the Belmont Report guidelines required that participants clearly understand the purpose and potential risks or benefits of the research, and give their voluntary consent to participate in the study (U.S. Department of Health and Human Services, 1979).

Potential participants received information on the purpose and the voluntary nature of the study as well as information about any potential risks or benefits of the study. Participants provided consent through approving and signing a consent form (Appendix B). I commenced the recruitment of potential participants only after receiving approval to conduct my study and a study approval number 12-02-15-0452468 from Walden University's Institutional Review Board (IRB).

According to the principles summarized in the Belmont Report (Department of Health and Human Services, 1979), a researcher must ensure compliance with the principle of voluntary participation. Participants voluntarily gave their consent to participate, which was not the result of undue pressure or intimidation of any participants. To avoid any misinterpretation of undue pressure or intimidation on any participant, I did not conduct research at my place of employment or with SME managers with a personal or professional relationship.

The work and professional experience of the researcher are important considerations when planning for a research study because of the bias that this knowledge may bring to the results of the study (Tufford & Newman, 2012; Yin, 2014). My professional experience includes working in retail as an executive of a medium size company in Canada, responsible for a supply chain team, with exposure to a 3PL provider. Yin (2014) stated that the researcher must strive to mitigate personal bias or preconceived positions on the results of a study. I remained aware of my perspective and my previous knowledge of the topic of 3PL.

Clark and Braun (2013) indicated that a researcher should identify and reflect on assumptions and preconceptions using a bracketing technique to mitigate bias. A bracketing technique requires that a researcher prepare a reflexive journal during the execution of the study (Tufford & Newman, 2012). I reflected on my experiences and recorded the perceptions of the phenomenon prior to conducting interviews as well as during data analysis and interpretation. The use of a reflexive journal is a valuable tool to acknowledge any prejudgments or biases that may affect the interpretation of the data collected (Petty et al., 2012a).

Porter (1985) suggested that an assessment of the specific activities in the value chain and the supply chain of a firm could aid in identifying competitive advantage strategies. The value chain concepts from Porter provided the perspective to analyze the data collected and explored the 3PL provider activities and their linkage with SMEs to understand how a 3PL provider can contribute to competitive advantage.

An interview protocol aids in mitigating bias and to focusing solely on the research topic in the conduct of the interviews in a study (Jacob & Furgerson, 2012). An interview protocol is a critical tool to keep the researcher focused on the topic of the study during the interviews (Yin, 2014) and provides structure and guidance through the interview process (Jacob & Furgerson, 2012). An interview protocol is a preparation tool to anticipate possible problems during the reporting of the findings (Yin, 2014). To mitigate bias, as recommended by Silverman (2013), I used an interview protocol (Appendix C) that enabled me to present the same information and ask the same interview questions (Appendix D) to all the study participants.

Qualitative researchers require considerable latitude in their method of data collection and analysis to create narratives through data and theory accounts (Bansal & Corley, 2012). While the flexible nature of the data collection is an important characteristic of qualitative studies, the researcher must use techniques that demonstrate credibility and trustworthiness of the study (Houghton, Casey, Shaw, & Murphy, 2013). I used techniques recommended by Houghton et al. and presented them in the validity section of this study to enhance the credibility, dependability, confirmability, and transferability of my study.

Participants

The results of a qualitative study rest upon the perspectives and knowledge of the participants; thus, participants' responses are the focus of a study (Mikene et al., 2013). According to Mikene et al. (2013), a researcher must properly prepare for selection and recruiting of participants in the study. Mikene et al. suggested contacting potential participants through phone calls or emails with the caution that phone calls may be more successful than emails in some populations. I contacted potential participants through phone calls or emails as suggested by Mikene et al. and accommodated participants' schedules as recommended by Mikene et al., Rowley (2012), and Yin (2014).

The selection of companies as cases for my study was a preparatory step toward the execution of the study. Yin (2014) presented a one-phased approach to the screening of candidates who can serve as cases in a study. This approach requires the researcher to obtain information about each candidate from knowledgeable people or even collect documentation about each candidate (Yin, 2014). Contacting business connections such

as a 3PL provider, an accounting firm, a financial company, and other business connections was a means to gain access to potential community partners for this study. Authorized representatives granted permission to conduct a study of their organization and to converse with the potential participants to share (a) the purpose of my study, (b) eligibility criteria, (c) the process for participation, and (d) the potential benefits of my study. The criteria that I used to select participating companies for my study ensured the participants aligned with my research question. I selected small or medium enterprises that operated in Ontario and used a 3PL provider.

Walden University's IRB guidelines and the guidelines of the Belmont Report (Department of Health and Human Services, 1979) did not permit conducting research at the place of employment. Yin (2014) also discouraged data collection at the place of employment. Based on these guidelines, I did not conduct research at my place of employment.

As recommended by Morse et al. (2014), I used a purposive sampling strategy to select participants, which ensured representation of cases that met my selection criteria in the final sample (Damianakis & Woodford, 2012; Robinson, 2014). Englander (2012) and Richardson et al. (2013) indicated that for a qualitative study, the researcher should use inclusion criteria for participant selection that ensure that each informant has experience in the topic that the researcher wants to understand. The eligibility criteria for study participants were SME managers and employees who were 18 years of age and older and had at least 1 year of experience using a 3PL provider. Candidates meeting the eligibility criteria provided rich qualitative and contextual data about the 3PL

phenomenon. The eligibility criteria for participant selection ensured that study participants had experiences with strategies SME managers located in Canada can implement to engage 3PL providers to improve their supply chains, which aligned with my research question.

As recommended by Mikene et al. (2013), Silverman (2013), and Yin (2014), the process of establishing working relationships with participants consisted of introducing me and providing background information on the purpose of this study by phone. Prior to data collection, each participant gave his or her informed consent for participation. Each potential participant received a consent form to review and sign prior to their interview (Appendix B). I reviewed the consent form with each participant and answered his or her questions prior to asking for a signature. Each participant received a copy of the consent form to retain for their records and an interview time and date convenient for the participant as suggested by Kun, Kassim, Howze, and MacDonald (2013), Mikene et al., and Rowley (2012).

Research Method and Design

The purpose of this study was to explore the strategies SME managers located in Canada use to engage 3PL providers to improve their supply chains. The use of a qualitative method with a multiple-case study design helped the execution of my research. In the following subsections, I present the rationale for the selection of the research method and design for this study.

Research Method

The factors that influenced the selection of a research method were (a) my philosophical worldview, (b) the research question, and (c) the research available in the area of logistics outsourcing. According to Petty et al. (2012a), the philosophical worldview of the researcher can influence the approach chosen as it provides a perception of reality that may inspire the purpose of the research. As a social constructivist, I was interested in understanding the views and experiences of experts in the area of SCM, and a qualitative study was appropriate for achieving my research objective.

Quantitative and qualitative methods generate different types of knowledge, and the methods are complementary (Wisdom et al., 2012). According to Petty et al. (2012a), quantitative research contributes to the understanding of the relationship between variables and predicts future events by using numerical data. Szyjka (2012) and Yilmaz (2013) explained that researchers could generalize findings from a quantitative study sample to the study population. Quantitative studies may include survey numbers to explain the frequency and conditions of a phenomenon occurring, but not why or how it occurs (Szyjka, 2012; Yilmaz, 2013).

Qualitative research focuses on interpreting human experience and phenomena in their natural settings through textual data rather than numerical data (Petty et al., 2012a; Szyjka, 2012; Yilmaz, 2013). In my study, I used interviews to generate textual information to explain how or why SME managers engage 3PL providers with strategies to improve their supply chain. Instead of attempting to generalize and predict, researchers

using a qualitative approach seek to understand the meaning of a phenomenon through interpreting contextual data (Frels & Onwuegbuzie, 2013; Yilmaz, 2013).

A qualitative method was more suitable for my study, since the focus of my research question was the *how* and *why* of the phenomenon rather than trying to examine relationships between variables, which is the intent of a quantitative method (Petty et al., 2012a; Yin, 2014). I expected to generate valuable knowledge on SME advantages and disadvantages of outsourcing to 3PL providers. My research question focused on identifying the strategies that SME managers use to engage 3PL providers to improve their supply chains.

A qualitative method can complement the already existing quantitative research, and as such, the mixed methods approach was not necessary for answering my research question. Mixed methods research is most appropriate when a qualitative or a quantitative method alone cannot properly address the research question (Frels & Onwuegbuzie, 2013; Wisdom et al., 2012). The existing research in the area of 3PL incorporates several quantitative studies completed on the use of 3PL services (Chu & Wang, 2012; Leuschner et al., 2014; Leuschner et al., 2013; Wanke, 2012), whereas limited knowledge using qualitative methods is available. Thus, the findings from a qualitative study may contribute to an in-depth understanding of knowledge on strategies for small and medium-sized enterprises to engage third-party logistics providers.

Based on the rationale provided, I identified a qualitative method as the most appropriate to address the research question regarding the strategies needed by managers of SMEs for engaging 3PL providers to improve their supply chains. A qualitative

approach can provide insights into the experiences of managers and employees of SMEs, who have an understanding of the benefits and disadvantages of a relationship with a 3PL provider. Qualitative research has gained popularity in the academic world, and businesses have successfully used qualitative research (Bailey, 2014). Qualitative researchers focus on finding the viewpoints of the participants in the study and their understanding of life experiences (Mikėnė, Gaižauskaitė, & Valavičienė, 2013). Yilmaz (2013) indicated that a qualitative research study includes interviews with open-ended questions and observations to collect data on the phenomenon within its context and gain an in-depth understanding of the phenomenon. Thus, a qualitative method was best suited for answering my research question. Researchers use a quantitative method with closed-ended questions to collect data to test a relationship between variables of a phenomenon (Yilmaz, 2013). A quantitative method would not have provided the type of data needed to develop a thorough understanding of the 3PL outsourcing phenomenon.

In addition, my philosophical worldview is that of a social constructivist. A social constructivist worldview lends itself to inductive reasoning or interpretivism, using open-ended questions and observations, listening carefully, probing and understanding the participants' points of view to gain an understanding of the phenomenon (Petty et al., 2012a). For my study, a qualitative research method was more appropriate than a mixed method or a quantitative approach to answering my research question, as it was more likely to provide knowledge that can complement the already existing findings from quantitative research.

Research Design

The research design is the logical structure that connects research data to the research question (Yin, 2014). A multiple case study was the qualitative research design that I selected for this doctoral study. Qualitative research includes a range of research designs such as narrative inquiry, ethnography, phenomenology, and case study (Petty et al., 2012b). Researchers use an ethnographic design to focus on the study of the behavior of a cultural group (Petty et al., 2012b). According to Petty et al. (2012b), a researcher uses an ethnographic design to understand the relationships and interactions occurring in a selected social group. In a narrative design, the researcher is interested in detailed stories of a small number of individuals (Petty et al., 2012b). A narrative design enables a researcher to collect stories about events, observations, diaries, and letters as the main sources of data and organizes stories in chronological order (Petty et al., 2012b). The ethnographic and narrative designs did not fit the purpose of my study since the purpose of my research was not the behavior of a social group or collecting stories from individuals.

According to Moustakas, (1994) researchers use a phenomenological design to engage in an understanding of the phenomenon by defining its meaning and essence from the points of view of persons who have experienced the phenomenon. A phenomenological study would have provided different accounts of the 3PL phenomenon using interviews as a single source of evidence. On the other hand, a qualitative multiple case study design includes the opportunity for using multiple sources of evidence to gain an in-depth understanding of the phenomenon against its individual context (Yin, 2014).

The use of multiple sources of evidence, such as interviews and document review, is important to corroborate findings and ensure data are complete (Yin, 2014). Thus, I chose a multiple case study design to develop an understanding of the phenomenon of 3PL in SMEs.

A case study approach is one of the preferred research methods when the research focuses on an explanatory approach as in the instance where the researcher wants to understand *how* and *why* a phenomenon occurs (Yin, 2014). I used a multiple case study design by conducting document reviews and semistructured in-person interviews guided by open-ended questions with knowledgeable managers of three SMEs in Ontario, Canada engaged in the use of 3PL providers. Semistructured interviews consist of prearranged questions, allowing the researcher to explore and obtain clarification on the answers (Doody & Noonan, 2013). These semistructured interviews provide flexibility and act as guided conversations that enable the researcher to pursue a predetermined line of inquiry (Doody & Noonan, 2013).

Although primary data source for case studies are interviews, Yin (2014) indicated researchers are encouraged to use different sources of data such as observations, document reviews, and physical artifacts to enhance validity of the research. The chances of reaching data saturation increase by using a second data source such as document review (Onwuegbuzie & Byers, 2014). From the view of Petty et al. (2012b) and Silverman (2013), researchers can find some documents for review in the public domain. In my study, the data collection included interviews with the most knowledgeable individuals on the research topic to achieve depth and breadth of

information, and document review of relevant schedules, charts, and other internal records related to the use of a 3PL provider. I searched the Internet and the company websites for public information available for their business and their 3PL provider that contributed relevant data to my doctoral study.

In qualitative research, the concept of data saturation guides the extent and amount of data collection and the sample size (O'Reilly & Parker, 2012). Data saturation is the stage in the process of data collection when further collection of evidence does not result in new information, insights, or perspectives on the research topic (Suri, 2011). O'Reilly and Parker (2012) contended that data saturation indicates the juncture when the researcher achieves the depth and breadth of information in a study. The achievement of data saturation is the continual collection of data until there is repetition in the data collected, and no new information emerges (Walker, 2012). Saturation of data may occur when analyzing data collected from the interviews, which is the primary strategy for data collection (Onwuegbuzie & Byers, 2014). However, the chances of reaching data saturation are increased using second data sources such as document review (Onwuegbuzie & Byers, 2014).

Richardson et al. (2013) stated that researchers use several strategies to achieve data saturation, and one strategy is to conduct additional interviews with more participants until no new data emerges. A different strategy consists of using the member checking technique, which does not require additional participants (Richardson et al., 2013). In the process of member checking, each participant received a summary of their interview and asked to confirm if the synthesis is accurate (Richardson et al., 2013).

Morse et al. (2014) indicated that the researcher analyzes any new information collected during this process, synthesizes the data, and presents the summary to the participants again for verification. This strategy results in an iterative process of data collection and member checking until no new information emerges (Richardson et al., 2013). When the questions asked of the participants are more specific, the odds of reaching data saturation increase (Suri, 2011). According to Suri (2011), the researcher may conduct the first interview with the participants using broad questions, and use more precise and focused questions in subsequent interviews to achieve data saturation. To reach data saturation, I interviewed three SME managers and continued member checking until no new data emerged. Participants also provided copies of relevant schedules, charts, graphs, or other internal records related to the use of 3PL services for analysis.

Population and Sampling

The identification of a specific population of a study and the sampling strategy are important elements in the execution of a research study (Robinson, 2014; Suri, 2011). The adequacy of the population and appropriate selection of the sample will enhance the rigor and transparency of the study (Robinson, 2014). I used a four-point approach to select the population and sampling strategy as recommended by Robinson (2014). This approach included (a) definition of the study population, (b) selection of the sample size, (c) strategy for selection of the sample, and (d) sample sourcing (Robinson, 2014).

To address the definition of the study population, I considered the intent of the study, which was to study SMEs in the Ontario region of Canada that use a 3PL provider. The selected cases were companies that met the following inclusion criteria: (a) the

companies were small or medium size enterprises; (b) companies operating in Ontario, Canada; and (c) companies using a 3PL provider. The selection criteria specified rendered the study population somewhat homogeneous as they provided geographical (from Ontario) and physical (small or medium business size) homogeneity as well as an additional common characteristic, which was the use of a 3PL provider. The level of homogeneity of the study population allows for augmented depth of study and enables the researcher to use a smaller sample when compared to a heterogeneous population (Robinson, 2014; Roy, Zvonkovic, Goldberg, Sharp, LaRossa, 2015; Suri, 2011). A homogenous sample increases the likelihood of obtaining meaningful data to address the research question (Robinson, 2014; Roy et al., 2015; Suri, 2011).

The sampling strategy used for the selection of a sample can be random or purposive (Robinson, 2014). A random selection of the sample is typical of quantitative survey data collection designs. My study design necessitated the selection of participants who had first-hand knowledge of using a 3PL provider. Therefore, purposive sampling rather than random sampling, as described by Robinson (2014), Roy et al. (2015), and Tirgari (2012) was better suited for my study.

Robinson (2014) stated that in a purposive sampling procedure, the researcher selects the sample using eligibility criteria to ensure that the sample will fit the purpose of the study. In this study, the participants were SME managers 18 years of age and older with at least 1 year of experience in using a 3PL provider. These managers possessed the knowledge to provide rich qualitative and contextual data about the 3PL phenomenon. Business acquaintances provided me with contact information of representatives from

potential community partners. I began a conversation with the contacts provided and discussed the purpose of my study, eligibility criteria, the process for participation, and the potential benefits of my study. The organization representatives were aware of the expectations for participation including interviews with employees within the organization, and the release of documents relevant to the 3PL topic that the company was comfortable sharing. Each company representative understood that participation was voluntary and that the organization or individual participants could withdraw at any point (Appendix E).

Upon agreement by the organization representative, I contacted the suggested potential participants through a phone call or email to request their voluntary participation in the study (Appendix F). The selected participants met the inclusion criteria and voluntarily agreed to an interview in a quiet and private setting at a mutually agreed location and at a time that was convenient for them. Jacob and Furgerson (2012), McDermott and Lanahan (2012), and Mikene et al. (2013) indicated that a quiet location is important for interviews as it avoids interruptions and provides privacy.

In the selection of the sample size, I took into account the research design of the study as recommended by Robinson (2014) and Yin (2014). As a multiple case study, the purpose of my research was to gain in-depth knowledge of the strategies that SME managers use to engage 3PL providers to improve their supply chains. Yin recommended the use of a multiple case study as opposed to a single case study as the results from a study of two or more cases could provide better analytic conclusions than a single case study. Two to three case studies can provide literal replication when the research predicts

similar results from each case (Yin, 2014). Roy et al. (2015) noted that a sample of three to five cases is an appropriate sample size for a case study. Based on the sample size recommendations of Roy et al. (2015) and Yin (2014), the sample size for this study was three cases. A small number of participants from each case is adequate when the research includes a straightforward theory, and the study population is homogeneous (Rawley, 2012; Yin, 2014). One qualifying participant from each of the three companies participated in this study.

Morse et al. (2014) stated that an important element of the sample size is the concept of data saturation used to determine when to stop collecting data. Therefore, saturation may affect the sample size of the study by identifying the need for more data or demonstrating that the amount of data that the researcher had collected is sufficient (Morse et al., 2014; Suri, 2011). Data saturation is the stage in the process of data collection when a further collection of evidence does not result in new information, insights, or perspectives on the research topic (Suri, 2011). The achievement of data saturation requires the continual collection of data until the data collected become repetitive, and no new information emerges (Morse et al., 2014; Walker, 2012). Data saturation emerges during the data collection or data analysis stages (Walker, 2012).

In general, data saturation occurs sooner when the sampling strategy is purposive rather than random (Suri, 2011). The use of different sources of data can also aid in achieving data saturation, and the use of more focused and precise questions rather than open-ended and broader questions will increase the likelihood of reaching data saturation sooner in the data collection process (Suri, 2011). For this study, I analyzed the primary

data (interviews) as well as a second source of data (relevant company documents) for new codes or themes that emerged from the data collection and data analysis processes as suggested by Yin (2014). Morse et al. (2014) indicated data saturation is the point in the data collection process when minimal new information emerges. Once the collected study data reached a point when no new information emerged, the data had reached saturation.

Roy et al. (2015) noted that a purposive sampling method results in a homogeneous and information-rich sample, and in these cases, a small sample might suffice the intent of the study. Hence, the study included interviews and document reviews until no new data emerged from the three participating cases. When necessary, I continued interviewing the participants with more focused questions as recommended by Richardson et al. (2013), Suri (2011), and Walker (2012) to reach data saturation.

Ethical Research

Research that involves human subjects must adhere to basic ethical principles for the protection of the study participants (U.S. Department of Health and Human Services, 1979). Guidelines from professional associations, as well as government agencies such as the Belmont Report (U.S. Department of Health and Human Services, 1979), can guide research to ensure the protection of participants. I used the Belmont Report and the Walden University IRB guidelines as the primary sources of information on ethical research for this doctoral study. The ethical standards and guidelines included in the Belmont Report include specific guidance regarding the values and behaviors considered basic ethical principles for the protection of human subjects in research. The American Psychological Association Publication Manual (2012) also includes guidelines for

protecting the rights and welfare of research participants. The ethical standards include showing respect for persons, protecting the rights and well-being of participants in the study, and ensuring fair procedures in the selection of participants for the study (U.S. Department of Health and Human Services, 1979).

As stated by Yin (2014), the Belmont Report (U.S. Department of Health and Human Services, 1979), and Walden IRB guidelines, the application of ethical principles results in several activities performed during the execution of the study. Each case organization included in this study granted permission to conduct the study with participants from their organization (Appendix E), and each participant gave informed consent for their participation in the study (Appendix B). A Company official from each participating organization with the authority to release company documents gave permission by signing the letter of cooperation (Appendix E) that ensured the confidentiality of the information they provided. The authorized signing official maintained a copy of the letter of cooperation. I protected the privacy and confidentiality of the participants (Appendix B), selected the participants fairly, and did not target any known vulnerable individuals for participation in this study. Participant recruitment and collection of data began after Walden University Institutional Review Board (IRB) approved the study proposal and issued approval number 2-02-15-0452468.

For this study and as recommended for all studies in the Belmont Report (U.S. Department of Health and Human Services, 1979), the process of obtaining informed consent included a dialog with potential participants to make them aware of the purpose of the study. The potential participants received information about the procedures

involved in the research such as the expected length of time to participate in the interview and the request for company documents that were relevant to my study as a second source of data. The participants were aware that the interview would be audio recorded. In cases where the participants did not consent to audio recording, I took handwritten notes. All participants agreed to receive a synthesis of the interview to review and validate my interpretations of their responses as part of the member checking process for this study.

The consent form (Appendix B) contained the information about the research procedures to allow each participant to review, ask questions, and sign if they agreed to participate in the study. The participants had the opportunity to review the form prior to each interview. Each participant indicated they understood the data collection process, privacy and confidentiality expectations and that their participation was voluntary with the option to withdraw from the study at any time even after the completion of data collection. I reviewed the information with each potential participant and obtained their signature on the consent form (Appendix B) after addressing any concerns or questions and prior to conducting the interview or collecting any study data. All participants received a copy of the consent form for their records.

The guidelines from the Belmont Report (U.S. Department of Health and Human Services, 1979) stress the concept of voluntary participation. All participants received verbal and written (Appendix B) communication of the voluntary nature of their participation and were aware of their option to withdraw from the study at any time and without prior notification, even after completion of data collection. I provided my contact

information to all participants in case they had questions or wanted to withdraw from the study through a verbal request or email notification. The procedure for honoring a participant's request to withdraw from the study was to remove all of the participant's information from my files, shred printed information and delete electronic information. However, none of the participants withdrew from this study.

The Belmont Report (U.S. Department of Health and Human Services, 1979) underscored the importance of following confidentiality requirements. The American Psychological Association (APA) Publication Manual (2012) includes information that illustrates strategies to protect the confidentiality of study participants and their organizations by disguising characteristics of the case organization or participant. As illustrated by APA guidelines, McDermott and Lanahan (2012), and Wahyuni (2012), I used a sequential code as a pseudonym to represent each participant or case so that neither the participant nor the case organization was identifiable. The interview transcriptions and audio files contained only the participants' assigned pseudonyms.

Hard copies of data such as company documents, field notes, and interview transcriptions remain stored in a locked filing cabinet in my home and will remain in storage for at least 5 years. All electronic data related to individuals and organizations participating in the study will remain in a password protected computer file with an external drive for backup as recommended by Wahyuni (2012). The external drive is stored in a fireproof safe and will remain there for at least 5 years after the completion of the study. I will shred and dispose of all hardcopy data collected including forms and

documents, and delete electronic information at the end of 5 years to avoid the risk of disclosing the participants' private information.

As an incentive, participants received food and beverages during interviews. As a token of appreciation for participants' contribution to the research, I provided each participant a \$25 gift card from Tim Horton's Coffee Shop. In addition, each participant and each case organization representative received a copy of the final summary of the study results in a two-page document sent to them as an email attachment.

Data Collection Instruments

I acted as the primary instrument for data collection. According to Yin (2014), the researcher is directly involved with the collection of data from interviews and other sources of evidence in the case study research. Mikene et al. (2013) indicated that the researcher functions as an active instrument in the process of information collection, particularly during qualitative interviews.

In this study, I conducted semistructured face-to-face interviews guided by open-ended questions as the primary source of data. The common types of interviews in qualitative research are structured, unstructured, and semistructured interviews, which include open-ended questions categorized by the degree of structure permitted during the interview (Rowley, 2012). Structured interviews include a greater number of questions that require relatively short responses as compared to unstructured interviews (Rowley, 2012). Unstructured interviews use fewer questions than structured interviews and resemble a conversation rather than a structured line of inquiry to collect in-depth

information on the topic of research (Yin, 2014). According to Yin, researchers refer to unstructured interviews as in-depth interviews.

In this doctoral study, I used semistructured interviews as recommended for case study research by Rowley (2012) and Yin (2014). Wahyuni (2012) indicated that a researcher using a semistructured interview relies on a list of predetermined questions from the interview protocol. The use of a semistructured interview allows sufficient flexibility so that the participant can provide insights, explanations, and in-depth information about any topic brought up during the interview. The semistructured type interviews enabled me to use predetermined questions to guide the interview while allowing for enough flexibility so that each participant could talk freely about the topics during the interview. As recommended by Rowley (2012), I scheduled each interview for 1 hour in length. According to Jacob and Furgerson (2012), researchers recommend against conducting an interview that is too long, as devoting too much time to the interview can be difficult for the participants. Examples from Frels and Onwuegbuzie (2013), Kun et al. (2013), and McDermott and Lanahan (2012) show that a semistructured interview consisting of 6 to 12 questions can extend for approximately 1 hour.

Richardson et al. (2013) stated that researchers could enhance the robustness and credibility of the data collected through interviews by performing a member checking data validation technique. Member checking consists of providing each participant with a summary and interpretation of their interview to provide them an opportunity to validate the accuracy and completeness of the researcher's interpretation of the participant's

responses (Richardson et al., 2013). Member checking is conducted shortly after the interview and before conducting any data analysis (Harper & Cole, 2012), and provides confirmability and credibility of the research findings (Houghton et al., 2013; Yin, 2014). I used member checking to enhance the credibility of this doctoral study and to capture the meaning of each participant's responses.

The preparation and use of an interview protocol is a key element in the execution of case study research and a critical tool to keep the researcher focused on the topic of the study during the interviews, which improves the reliability to the data collection process (Yin, 2014). The use of a protocol is the structure and guidance through the interview process (Jacob & Furgerson, 2012). As recommended by Silverman (2013), I used an interview protocol (Appendix C) allowed me to present the same information and ask the same interview questions (Appendix D) to all the participants to mitigate bias.

Jacob and Ferguson (2012); McDermott and Lanahan (2012); and Rowley (2012) recommended that researchers conduct an expert review of the interview questions as a strategy to enhance the quality of the questions. An expert review strategy serves as an effective tool to ensure that the interview questions are clear to participants and that they elicit the relevant information for the study. Rowley (2012) indicated the researcher could accomplish an expert review of the interview by conducting a mock interview with a member of the target population for the study. The purpose of an expert review of the interview protocol is to receive feedback from the expert reviewer and fine-tune the research instrument (Jacob & Ferguson, 2012). A colleague who is a member of the target population and serves as a supply chain manager for a medium size company in

Ontario field-tested the interview protocol by participating in a mock interview and providing feedback on the interview questions. The extent of this colleague's involvement in the study included only the expert review exercise through a mock interview. As purported by Banks (2015), a mock interview should also serve as practice in performing the entire interview process including providing the background of the research to a participant as well as the logistics of the interview such as audio recording. I conducted the mock interview after the Walden IRB approved my proposal and prior to the data collection process.

Silverman (2013), Wahyuni (2012), and Yin (2014) recognized the use of multiple sources of evidence, termed data triangulation, as a technique to enhance the confirmability and dependability of the data. In addition to interviews, I used document review as a second source of data that included information from the firm's websites, schedules, charts, graphs, and other relevant internal records related to the use of 3PL services. The authorized company representatives gave approval for document release on the letter of cooperation (Appendix E).

Triangulation is a strategy used by researchers to achieve corroboration of findings and to ensure data are complete (Houghton et al., 2013). According to Wahyuni (2012) and Yin (2014), the four forms of triangulation include (a) data triangulation, (b) investigator triangulation, (c) theory triangulation, and (d) methodological triangulation. Data triangulation involves the use of multiple sources of evidence such as interviews, document review, and observations. Investigator triangulation uses different evaluators of data. Theory triangulation include different perspectives to view the same dataset, and

methodological triangulation refers to the use of different methods. I used data triangulation to triangulate data from interviews and relevant company documents that enhanced the credibility of the study findings by triangulating data, which helped assure that data reached saturation. A case study research design uses different sources of data, and hence, this design lends itself to the use of a data triangulation technique (Yin, 2014).

Data Collection Technique

Recruitment for study participants began after obtaining study approval from the Walden University IRB. Participants were managers of SMEs in Ontario, 18 years of age and older with at least 1 year of experience using a 3PL provider. Mikene et al. (2013), Rowley (2012), Silverman (2013), and Yin (2014) highlighted the importance of providing the background for the study to capture the interest of potential participants. As part of the recruitment process, I explained the background, purpose, and potential benefits of the study as well as any expectations from the participants in the study.

I asked the managers who participated in the study about the possibility of obtaining relevant documents such as schedules, charts, graphs, or other internal records related to the use of 3PL services from an authorized representative of the company (Appendix E). Each participant voluntarily agreed to participate in the study and arranged to meet at a convenient time and date for the interview as suggested by Kun et al. (2013), Mikene et al. (2013), and Rowley (2012).

Interviews and document review provided two data collection sources for this research. Two sources for data collection enabled me to conduct data triangulation to corroborate the findings from each source as well as to enhance the credibility of the data

and confirmability of the study (Houghton et al., 2013; Petty et al., 2012b; Yin, 2014).

An authorized organization representative granted permission to release company documents such as schedules, charts, graphs, or other internal records related to the use of 3PL services. Management of SMEs in Ontario who were knowledgeable and familiar with the use of 3PL providers participated in semistructured face-to-face interviews. The advantage of using interviews as a source of data is the ability to prepare interviews in a manner that targets the case study topic directly (Yin, 2014). In addition, interviews are perceptive and can uncover explanations as well as provide the personal views of each participant (Yin 2014). Interviews have disadvantages in that they could appear biased, particularly if the questions are inadequate (e.g., leading questions), or if the participant has a weak recollection of events. The interviewer's perspective may influence the interviewee responses, or the responses may influence the questions posed by the interviewer (Yin, 2014).

The advantage of a semistructured interview is the relatively short time required to conduct the interview while still providing in-depth information on the research topic (Rowley, 2012). A semistructured interview is also easier to conduct for the level of skill and experience of a novice researcher (Rowley, 2012). A potential disadvantage of a semistructured interview is the collection of limited information during each interview when compared with information collected through unstructured interviews (Rowley, 2012). However, the reduced amount of data collected during semistructured interviews makes the processing of data more feasible as the researcher is obliged to analyze all the data collected (Rowley, 2012). In general, the design of an interview protocol is less

involved and requires less previous knowledge than the design of a survey questionnaire (Rowley, 2012). The interview process includes preparation on the part of the researcher (Mikene et al., 2013). In semistructured interviews, for example, the interviews may digress from the question being asked, and the researcher should recognize when to let the interviewee present his or her thoughts and when to return to the question that has not been answered (McDermott & Lanahan, 2012; Mikene et al., 2013).

Prior to conducting the formal interviews, I conducted an expert review of the interview protocol with a colleague and member of the target population in the position of supply chain manager of a medium size company in Ontario. Silverman (2013), Wahyuni (2012), and Yin (2014) recommended an expert review of the interview protocol as an important strategy to improve the interview questions through the feedback of a member of the target population. The expert review consisted of me conducting a mock interview with my colleague, which allowed me to fine-tune the interview questions and ensure the questions were clear to the participants as recommended by Rowley (2012) and Wahyuni (2012). Banks (2015) indicated that the execution of a mock interview helps to practice the entire interview process including providing the background of the research to a participant as well as the logistics of the interview such as audio recording.

Once a participant agreed to participate in the study, I arranged for a time at a quiet and private place to conduct the interview in consideration of their availability and preference as suggested by Kun et al. (2013), Mikene et al. (2013), and Rowley (2012). During the first interview, each participant learned about (a) background information on

the purpose of the study, (b) the amount of time requested for the interview, and (c) the strategies used to ensure confidentiality of data. Participants agreed to participate by signing a consent form (Appendix B). All participants were made aware of the confidentiality procedures in the study, as required by The Belmont Report (U.S. Department of Health and Human Services, 1979) and recommended by authors such as Rowley (2012), Wahyuni (2012), and Yin (2014). All participants received a copy of the consent form for their records.

The interview began with a brief overview of the research, the purpose, and the time required for the interview. I thanked each participant for agreeing to participate in the interview and reviewed the contents of the informed consent form (Appendix B) with the participant. The consent form outlined the expected length of time for the interview and that the interview was to be audio recorded or documented through handwritten notes. In addition, the consent form indicated that each participant would receive a summary of their interview to review and to validate their responses. All participants understood that participation was voluntary and that they had the option to withdraw from the study at any time without prior notice and through a verbal or email request, even after the completion of data collection. Thus, each participant received my contact information if to withdraw from the study. The participant's signature on the consent form indicated their agreement to participate in the study. Each participant received a copy of the consent form for his or her records.

During the conduct of the interview, a sequential coding system provided a pseudonym to identify the participants in place of their real names so that the audio

recorder did not capture names. The pseudonyms A1, B1, and C1, identified each participant and no one had access to the names of the participants except for me. Each interview was audio recorded after a participant signed a consent to give permission for recording (Appendix B). The interview began with open-ended questions, which included probing questions to expand on each participant's responses. Following the interview, each participant validated my interpretation of his or her responses through a review of my summary of their interview. At the end of each interview, the participants provided copies of study-related company documents such as schedules, charts, graphs, and other internal records related to the use of a 3PL service. According to Denzin (2012), Houghton et al. (2013), and Yin (2014), the use of multiple sources of data enhances the accuracy of the results. The letter of cooperation (Appendix E) signed by the appropriate company representative ensured that I obtained official permission to receive and use the documents.

Member checking is a technique to enhance credibility and robustness of the data collected through interviews (Houghton et al., 2013; Richardson et al., 2013; Yin, 2014). Member checking is the process to provide each participant the synthesis of the researcher's interpretations of the participant's responses, and request that the participant verifies the accuracy of the synthesis (Richardson et al., 2013). After each interview, I provided the synthesis of my interpretations to each participant and asked if the synthesis of responses accurately reflected their responses and if they could provide greater clarity to the information or additional information. Providing an opportunity to the participants

to review the accuracy of the interview synthesis can enhance the quality of the data collected (Harper & Cole, 2012).

Maintaining a chain of evidence or audit trail enhances confirmability of the research to ensure that an external observer can discern how the researcher arrived at the conclusions in the study (Houghton et al., 2013; Petty et al., 2012b; Yin, 2014). As indicated by Yin (2014), traceability is maintained by noting citations for relevant sources in the study report, and highlighting key words and phrases in the corresponding evidence documents. Yin recommended that a researcher indicate the details of evidence collection and adherence to the procedures specified in the study protocol in the methods section.

The use of a reflexive journal raises the self-awareness of the researcher and can enhance the researcher's ability to maintain a reflexive attitude where he or she is aware of his or her preconceptions and biases (Tufford & Newman, 2012). This self-awareness is important to enable the researcher to consider all data and enhance the quality of the data collected (Tufford & Newman, 2012). As explained by Petty et al. (2012a) and Rennie (2012), researchers should share their perspective on the research topic to minimize bias that the researcher brings to the study and provides context to the reader. At the completion of each interview as well as throughout all the stages of the research, I completed an entry in my reflexive journal to share my perspective during the research process.

In addition to interviews, I collected data through document review as a second source of data. An authorized company representative provided approval of document

release on the letter of cooperation (Appendix E). Each participant provided copies of relevant documents related to the use of a 3PL services. The advantages of document review as a data source are that (a) researchers can repeatedly review documents; (b) documents contain specific information such as names, dates, etc.; and (c) they cover a long time, many events, and many settings (Yin, 2014). The public domain may also provide access to some relevant documents (Petty et al., 2012b; Silverman, 2013).

Nevertheless, document review also has disadvantages as documents may be difficult to access if informants are not willing to share documentation, or informants may have bias regarding which documents they share (Yin, 2014). The use of the Internet and the company websites provided access to public information published about each company's business or the 3PL providers they used, which contributed data to this study.

Data Organization Technique

Yin (2014) proposed that it is important to have an organized, categorized and accessible database. Wahyuni (2012) and Yin (2014) indicated that the benefits of a case study database include the ability to make raw data readily retrievable for later analysis as well as accessibility for external readers or inspectors. Data organization also facilitates the creation of an audit trail with cross-references with other sources of data (Wahyuni, 2012; Yin 2012). The organization and management of data in qualitative research involves elements such as data storage, data categorization, and cleaning of data (Wahyuni, 2012).

As recommended by Silverman (2013), Wahyuni (2012), and Yin (2014), researchers need to consider the ethical requirements for research when defining data

storage strategies. To protect confidentiality, only I can access hard copies of data such as documents, field notes, and interview transcriptions locked in a filing cabinet in my home for at least 5 years. Storage of data in a locked cabinet will avoid the risk of disclosing a participant's private information.

Silverman (2013), Wahyuni (2012), and Yin (2014) expressed the importance of following procedures to ensure participant confidentiality. Silverman indicated that written transcripts of interviews and data documents could remain kept in a fireproof safe for at least 5 years for long-term security. All electronic data related to individuals and organizations participating in the study are securely stored using a password protected computer file with an external drive for backup. I plan to destroy all hard copy and electronic data at the end of 5 years. Wahyuni and Yin indicated that storage of study data must be easily retrievable for later use. In this study, filing of the data by individual participant resulted in a system of organization that permits easy retrieval if necessary.

Immediately following each interview, the third-party transcriber received the audio recording of the interview for transcription. I reviewed the data, made necessary notes, conducted member checking, and uploaded the data into NVivo v11 software. A software program such as NVivo v11 can be useful for data organization, analysis, and management (Richardson et al., 2013; Rowley, 2012; Silverman, 2013). In this doctoral study, NVivo v11, as well as Microsoft Word, and Microsoft Excel programs helped to store, organize, and catalog data around the major themes identified in my literature review.

Cleaning of data is reviewing the data and deleting from it any information that may identify either the participant or the organization; they represent (Wahyuni, 2012). The cleaning process ensures confidentiality (Wahyuni, 2012). Some authors, such as McDermott and Lanahan (2012), assured confidentiality by using a pseudonym to identify each participant. For my doctoral study, I used a coding system to identify each case company and each participant similar to the coding system used by Kang et al. (2012). Assigned code letters A, B, and C for each case company and letters with numbers such as A1, B1, and C1 for participants helped protect participant identity. This labeling system allowed me to compare the findings between organizations while maintaining confidentiality of the participants and participating companies.

Data Analysis

The data analysis process involves the interpretation of the data collected through disassembling, segmenting, categorizing, and rearranging the data to find relationships and to draw inferences within and between the data set (Wahyuni, 2012). Yin (2014) described two common strategies for analysis. In the first strategy, according to Yin, the researcher analyzes the data collected against the theoretical propositions that are the basis for the study and the research question (Yin, 2014). The first strategy is deductive in nature as researchers begin the analysis based on a theory or idea and use the data to support and confirm the theory (Finfgeld-Connett, 2014; O'Reilly & Parker, 2012).

In contrast, O'Reilly and Parker (2012), and Yin (2014) indicated that, in the second strategy for data analysis, the researcher analyzes the data “from the ground up” by first examining the data collected and then generating theory from the data. Yin

indicated that case study researchers could use the second strategy recognized as an inductive approach to analysis. Finfgeld-Connett (2014) proposed that, in an inductive strategy, the researcher begins studying the data and allows concepts to emerge from comparisons of the raw data, and patterns that emerge from the concepts identified will then form a theory.

In this doctoral study, I used a deductive approach to data analysis. According to O'Reilly and Parker (2012) and Yin (2014), in a deductive approach, the researcher uses the theoretical proposition and conceptual framework for the study to analyze the data collected. In a deductive approach, it is important to use a coding system that is flexible and amenable to change (Finfgeld-Connett, 2014). Guided by Porter's (1985) value chain theory, the data analysis stage included coding data into broad categories on the effects of the 3PL provider on the participants' businesses.

I discuss the broad categories first identified through the literature review later in this section. As recommended by Wahyuni (2012), transcription of the audio-recorded interviews by a third-party transcriber occurred prior to data analysis. The third-party transcriber signed a confidentiality agreement to protect the identities of individuals and companies that participated in the study (Appendix G).

Kun et al. (2013) and Rennie (2012) suggested that a researcher should become familiar with the interview responses. A review of all the interview transcripts for this study preceded data analysis. The Belmont Report (U.S. Department of Health and Human Services, 1979), guidelines stress the importance of participant confidentiality. Therefore, to ensure the confidentiality of the participants in this study, a letter identified

each company and a letter-number code identified each participant. A coding system, as suggested by Wahyuni (2012), allows the identification of participants to make data comparisons during analysis without compromising participant identity. The participant identifier system of A1, B1, and C1 used in this study followed the examples in the work of Kang et al. (2012). Member checking using a summary of each interview preceded data analysis as recommended by Houghton et al. (2013), Richardson et al. (2013), and Yin, (2014).

Uploading data to NVivo v11 software helped to facilitate coding text and reorganizing data to combine and group codes into related categories. Rowley (2012), Silverman (2013), and Yin (2014) recommended the use of computer-assisted qualitative data analysis software (CAQDAS) programs such as NVivo to accelerate searching, sorting, coding, and retrieving data. Silverman suggested that using software such as NVivo v11 promotes rigor and discourages researchers from following anecdotes. In addition, a qualitative data analysis software helps to demonstrate the conclusions of the analysis based on the frequency of codes or themes, and can provide evidence that the researcher has considered rival interpretations (Silverman, 2013). The use of NVivo v11 software aided in maintaining a clear audit trail of the origin of the information by referencing the source of the information. NVivo v11 software also aided in reducing bias and providing transparency as it allowed me to record my thoughts about a specific interview, participant, or topic as a form of reflexive journaling. A cautionary note from Yin on the use of computer-assisted tools for data analysis is for the researcher to understand that these tools will not provide an output that is the end of the analysis. Yin

indicated that the researcher must study the outputs from computer-assisted tools to understand emerging patterns and themes.

Rowley (2012) and Wahyuni (2012) indicated that data coding consists of assigning labels (codes) that represent the core topic of data segments. In this study, coding the data collected through the interviews and document review fell into three broad categories identified through the literature review process. The main categories identified were (a) effect of 3PL provider on the quality of customer service, (b) effect of 3PL provider on cost, and (c) effect of the 3PL provider on competitive advantage. Finfgeld-Connett (2014) recognized that data review during the coding process could result in additional codes to the ones predetermined during the literature review. I continued the coding process by identifying and coding data into subcategories of topics. Review and comparison of the different codes then led to interpreting and categorizing the data into themes and comparing these themes against the propositions identified in the literature review. Rennie (2012) and Wahyuni (2012) referred to this approach to data analysis as thematic analysis. Using NVivo v11 software, the data analysis process for this study continued with a comparison of the key themes resulting from the analysis of the data collected through interviews and document reviews against the key themes from the literature review and conceptual framework to understand the correlation of the study results against the literature review findings.

The use of a triangulation technique during data analysis is important to enhance credibility of the findings (Houghton et al., 2013; Wahyuni, 2012). Triangulation consists of comparing the results obtained through different data collection methods, different

investigators, various theoretical frameworks, or different research methods (Wijnhoven, 2012). Consequently, researchers can use four types of triangulation in qualitative research, which are (a) data triangulation, (b) investigator triangulation, (c) theoretical triangulation, and (d) methodological triangulation (Wijnhoven, 2012). Yin (2014) indicated that in a case study research design, researchers use different sources of data and so this design lends itself to the use of the triangulation technique known as data triangulation. Triangulation is important to corroborate findings and ensure completeness of the data collected (Houghton et al., 2013). The data triangulation strategy in this study assisted in comparing and corroborating the data generated from two sources, which were face-to-face interviews and document reviews. I reviewed relevant company documents such as charts and other records related to the use of a 3PL services as well as company websites and the 3PL providers they used and uploaded the data into NVivo v11 software. The capabilities of the NVivo software allowed for the comparison and confirmation of the findings originating from the different sources.

Reliability and Validity

An important element of a research study is the rigor with which the researcher conducts the study, as this rigor is important to assure the quality of the research findings (Houghton et al., 2013). Yin (2014) indicated that researchers refer to criteria for assessing the rigor and quality of a quantitative research study as validity and reliability tests. Nevertheless, the terms used to indicate the quality and rigor of qualitative research are credibility, confirmability, transferability, and dependability (Wahyuni, 2012). Goffin, Raja, Claes, Szwejcowski, and Martinez (2012) indicated that researchers should

clearly demonstrate through the final research report how the quality of their research is achievable.

Reliability

The parallel term for reliability in qualitative research is dependability (Goffin et al., 2012). Dependability of the study refers to the consistency of the data achieved by providing transparency regarding data collection, coding, and analysis, so there is traceability to the findings (Goffin et al., 2012). Frambach, van der Vleuten, and Durning (2013) suggested that a data saturation strategy could address dependability. Data saturation refers to the process of gathering data until no new information emerges (Morse et al., 2014). Onwuegbuzie and Byers (2014) suggested that the chances of reaching data saturation increase by using second sources of data such as document review. Petty et al. (2012b) and Silverman (2013) indicated that researchers could find documents for review in the public domain. The data collected for this study originated from interviews as well as from public information published on company websites and their 3PL providers' websites. To reach data saturation, I interviewed three participants, used the strategy of member checking, and document review until no new data emerged.

Validity

The conventional tests to assess the quality of a quantitative research study are construct validity, internal validity, external validity, and reliability (Goffin et al., 2012). However, for a qualitative study, the equivalent terms used to indicate quality are credibility, confirmability, transferability, and dependability (Wahyuni, 2012). Credibility is the precision of the findings and involves being able to demonstrate that the study was

carried out in a credible manner, and the findings were verified by interviewees and peers (Goffin et al., 2012). Denzin (2012) and Yin (2014) encouraged the use of a data triangulation strategy with multiple sources of data to provide credibility to a study. A triangulation technique is the use of more than one approach to the study of the phenomenon under investigation (Wijnhoven, 2012). The intent of performing triangulation is to confirm the truth by comparing the results obtained through different data collection sources, different investigators, a different theoretical framework, or different research methods. Four types of triangulation exist in a qualitative research, which are data triangulation, investigator triangulation, theoretical triangulation, and methodological triangulation (Yin, 2014). I used data triangulation to understand the results generated by multiple sources of data and to avoid biased results because of the utilization of a single data collection method. The use of the different methods of data collection allows for cross data validity check (Yin, 2014) and enhances the credibility of the study (Wahyuni, 2012). The data collection methods used for the study included face-to-face interviews and document review. Document review included relevant schedules, charts, or other internal records related to the use of a 3PL services as well as each company's website and the websites of the 3PL providers they used.

Member checking is another strategy to improve credibility (Houghton et al., 2013; Yin, 2014) and consists of providing a summary and interpretation of each interview to each participant for their review (Richardson et al., 2013). This review allows the participants to corroborate the interpretations made by the researcher and enhance the integrity of the findings as well as the confirmability of the study. In this

study, each participant received a summary of the interview to confirm the accuracy of the information. When necessary, I continued interviewing the participants with more focused probing questions as recommended by Richardson et al. (2014), Suri (2011), and Walker (2012) until data reached saturation.

Transcript review, which requires the participant to review the verbatim transcription of their interview, is an alternative to member checking (Rowley, 2012). Harper and Cole (2012) indicated that member checking is more effective than transcript review as it validates the interpretation of the researcher and not a verbatim transcription. As recommended by Harper and Cole, I used member checking rather than transcript review to provide credibility to the data collected.

Confirmability is another element that indicates the quality of qualitative research and denotes the accuracy and integrity of the data collected, and that the data are free of bias (Goffin et al., 2012). I used an audit trail technique as recommended by Wahyuni (2012) to demonstrate confirmability of the study results. To follow the recommendation of Houghton et al. (2013), the audit trail included comprehensive notes related to the contextual background of the data.

Another element to assess the rigor of a qualitative study is transferability, which relates to the ability to transfer the findings of the study to a situation of similar context and find that the same meanings and inferences apply to a new situation (Houghton et al., 2013). For my doctoral study, I prepared thick descriptions to demonstrate transferability. As recommended by Houghton et al. (2013), and Mariotto, Zanni, and Moraes (2014), a thick description strategy requires the researcher to be able to describe the context of the

research thoroughly so that reviewers can make judgments as to similarities with other situations. However, the reader decides on the transferability of the findings to a different situation (Houghton et al., 2013).

Transition and Summary

The purpose of this qualitative multiple case study was to explore the strategies SME managers located in Canada use to engage 3PL providers to improve their supply chains. Section 2 of this study included an outline of my role as the researcher in the study and the factors that influenced the selection of the research method and research design. Section 2 also contained a detailed description of the participants' inclusion criteria as well as the target population, the sampling procedures, and the procedures followed to ensure an ethical execution of the research. In addition, Section 2 included a summary of the procedures used for data collection, data organization, data analysis, and reliability and validity for this doctoral study. Section 3 includes the findings of the study with application to professional practice as well as implications for social change and recommendations for action and further research.

Section 3: Application to Professional Practice and Implications for Change

In Section 3, I present the findings of this research study. This section includes an overview of the study, presentation of the findings, implications for social change, applications to professional practice, recommendations for action, and recommendations for further research. This section ends with my reflections and a summary of study conclusions.

Introduction

The purpose of this qualitative multiple case study was to explore the strategies SME managers located in Canada use to engage 3PL providers to improve their supply chains. Past scholars conducted qualitative studies on understanding the use and effect of 3PL providers on large North American manufacturers (Lieb, 1992; Lieb & Bentz, 2005). However, the focus of this research was on SMEs rather than large companies, and this study was more explanatory by use of a qualitative method.

The data collection instruments used in this study included semistructured, face-to-face interviews to collect information from management of three SMEs in Ontario who used 3PL providers. In addition to the interviews, document reviews of relevant company documents such as charts and other records related to the use of 3PL services provided additional sources of data. The interviews took place in a private environment where the participants could feel comfortable in providing detailed answers. The duration of each interview was less than 60 minutes. Triangulated of the data from the interviews, documents reviews, and the reflexive journal using NVivo v11 software demonstrated accuracy of the information. Initial analysis of the data yielded eight themes, and these

were further analyzed to condense into four main themes. The main themes summarizing the effects of 3PL providers on SMEs were (a) customer service, (b) competitive advantage, (c) access to resources, and (d) ability to focus on core competencies.

The theme of enhanced customer service included (a) on time delivery, (b) damage-free delivery, (c) reasonable price, and (d) ease of shipment tracking. The theme of competitive advantage included cost reduction and the ability to reach new markets. The theme of access to resources included (a) access to knowledge and expertise, (b) access to information technology, and (c) access to logistics networks and assets. The theme on core competency did not have an associated subtheme.

Presentation of the Findings

The overarching research question for this qualitative multiple case study was the following: What strategies do SME managers located in Canada use to engage 3PL providers to improve their supply chains? A multiple case study design was appropriate for addressing the 3PL phenomenon, as a case study design is more explanatory in nature (Yin, 2014), which was the intent of my study. The multiple case study design also allowed for the use multiple sources of data. The use of the different methods of data collection enhances the credibility of a study (Wahyuni, 2012).

The conceptual framework used to analyze and interpret the information on the phenomenon of 3PL outsourcing was the value chain theory from Porter (1985). The value chain concept provided the perspective to understand how the use of a 3PL provider in the value chain of an SME contributed to the company's competitive advantage. The analysis of the data consisted of assessing whether the activities of the

3PL provider contributed to cost and differentiation strategies that would potentially deliver a competitive advantage.

The data collection process consisted of interviews with three SME managers from the province of Ontario, Canada that used the services of a 3PL provider. The SME managers represented different industries, which included (a) manufacturing, (b) distribution, and (c) wholesale. Document review of charts and other documents related to the use of 3PL providers served as a second source of data for this study. The use of different sources of data facilitated the triangulation of data to corroborate the findings. The study participants were (a) an office manager (Participant A1) from Company A, (b) a shipping manager (Participant B1) from Company B, and (c) an account manager (Participant C1) from Company C. The participants possessed adequate proficiency in the area of supply chain with 15, 8, and 10 years of experience for Participants A1, B1, and C1 respectively. Each person voluntarily contributed to the study by answering open-ended questions in a semistructured interview in a secure, quiet, and private place and at a time convenient for the participant. The participants answered interview questions (Appendix D) based on their experiences and perceptions in using a 3PL provider. The design of the questions was such that they would address the central research question. I completed all three interviews within a 1-week period. Following the interviews, each participant received a summary of the interview to perform member checking. Member checking consisted of the participant's review of the interview summary and acknowledgment of responses to each question to validate the accuracy of my interpretation of the interview answers. Member checking occurred within 1 week of the

interview. Member checking occurred in-person with Participant C1 and by way of phone with Participants A1 and B1. All participants agreed with my interpretation of the answers from the interview, and no other additional information emerged from this review.

In addition to the interviews with study participants, I obtained internal documents related to the use of a 3PL provider from each of the participant companies. Participant A1 reviewed with me the 3PL provider web portal and provided screen shots of the 3PL provider's web portal showing tracking and managing of all the services provided by the 3PL partner. In addition, Participant A1 also provided copies of invoices related to customs brokerage, internal memos related to customs, a bill of lading, and a 3PL provider brochure showing services offered by their 3PL provider. Participant B1 also reviewed with me their web portals for the three 3PL providers that the company uses and provided copies of screen shots of the web portal with each 3PL partner. The data from the web portals contained shipment, cost and tracking information as well as the 3PL provider's rate calculator. Moreover, Participant B1 provided a copy of the 3PL provider's terms and conditions including service guarantees, copies of charts related to rate comparisons between the 3PL and another freight provider, and a signed copy of customer agreement. The customer agreement contained payment terms and information about minimum revenue commitment in exchange for volume discounts. Participant C1 provided a copy of the company's 3PL provider brochure, a copy of a bill of lading showing the ability of the 3PL provider to transport hazardous goods, and a copy of the 3PL provider's terms and conditions. Participant C1 also provided copies of screens shots

from the 3PL provider's website. In addition, I was able to obtain online press releases on the 3PL provider used by Company C.

Initial analysis of the interview transcripts and company documents using NVivo v11 software highlighted the most frequently used words during the interviews (see Figure 1). The words *product*, *customer(s)*, *cost*, *time*, *service* as well as the terms *competitive edge* were most frequent in the interview data. This preliminary analysis of the data revealed words that supported some of the themes identified through the literature namely, the effect of 3PL provider on cost, customer service, and competitive advantage. The same exercise performed on the most frequent words from the document sources (see Figure 2) identified some of the same words such as customer service, but also identified new words such as information and technology.



Figure 1. Fifty words most frequently used throughout the participants' interview responses. Produced with NVivo v11.



Figure 2. Fifty words most frequently used throughout the document sources.

Produced with NVivo v11.

To begin the formal analysis of the data from interviews and document reviews, I used a deductive approach that consisted of coding the data into the main themes identified through the literature review. Broad brush coding involved grouping the data into the themes of (a) effect of a 3PL provider on the quality of customer service, (b) effect of a 3PL provider on cost, and (c) effect of a 3PL provider on competitive advantage. Further analysis of the data revealed several subcategories of the main themes. The subcategories of (a) on time delivery, (b) delivery at reasonable prices, (c) delivery without damage, and (d) ease of tracking comprised the 3PL provider effect on customer service theme. The category of cost reduction and the category of ability to reach new markets formed the theme of effect of the 3PL provider on competitive advantage. The rationale for this grouping ensued from Porter's (1985) notion that competitive advantage is a result of cost reduction and differentiation strategies. Finally, two additional main

themes emerged from the data. The first new theme that emerged was the ability of the 3PL provider to offer resources such as knowledge and expertise, IT network, and logistics network and assets. The second new theme that emerged was the effect of the 3PL provider on the SME's ability to focus on core competencies. In summary, the data pointed to four main themes to answer the research question of the strategies that Canadian SME managers can use to engage 3PL providers to improve their supply chains. Improvement of the supply chain of an SME will likely improve the performance of the SME as revealed through the themes identified in this study. The themes that emerged are a combination of the themes identified from the literature review as well as themes that emerged from the analysis of the data collected from interviews and document reviews. The four main themes involve the effect of a 3PL provider on (a) customer service, (b) competitive advantage, (c) access to resources, and (d) ability to focus on core competencies.

Emergent Theme 1: Effect of 3PL Provider on Customer Service

Analysis of interview data identified several references to enhanced customer services when the SME engaged a 3PL provider in their supply chain. The references noted that enhanced customer service is a result of meeting customers' expectations by delivering goods on time, with no damage, and at a reasonable price. The ability to track the shipment also enhanced the customer experience. The customer in the case of the participants interviewed can be a final user or a retailer, yet the data showed that these are important expectations for the customers of all the participants interviewed. Table 2 shows the number of interviewees (sources) and the number of times they mentioned

each particular customer service expectation. Participant B1 commented that “. . . if a customer knows he will get his order within a timely manner for a reasonable price, he will put his full trust in placing orders with us, rather than going and buying from a local company of course.” All participants agreed that the ability to provide on time delivery, damage-free delivery, and tracking information to their customers were benefits of the use of a 3PL provider. In addition, participants commented on the importance of the ability to provide service at a reasonable price. These benefits obtained through the use of a 3PL provider allowed them to enhance their customers’ experience.

Table 2

Subcategories of Emergent Theme 1 Found Through Interviews

Enhanced customer service	No. of sources	No. of references
On time delivery	3	5
Damage-free delivery	3	10
Reasonable price	2	2
Ease of shipment tracking	3	3

I was able to confirm the effect of a 3PL provider of enhanced customer service by the results of the document review data. Data from the documents corroborated the importance of delivering goods that are damage-free, on time, and easy to track by the customer. Table 3 includes the categories under the enhanced customer service theme found during document review, the number of document sources, and the number of times that these categories appeared in the documents. Some of the documents included information on how the 3PL providers make a commitment to guarantee service. Some of

the documents also demonstrated that the 3PL provider insured for damage to the shipment to protect the customer.

Table 3

Subcategories of Emergent Theme 1 Found Through Document Review

Enhanced customer service	No. of Sources	No. of References
On time delivery	7	10
Damage-free delivery	1	1
Reasonable price	1	1
Ease of shipment tracking	4	4

These results are comparable to the information found in the literature. Wong et al. (2011) posited that to survive in the competitive business environment, companies must worry about providing quality service, but they also must provide these services promptly and at low cost. Ulku and Bookbinder (2012) argued that some customers are willing to pay higher prices for delivery time guarantees, and some companies can meet these customers' expectations of improved service and even lower costs by using the services of a 3PL provider.

From a value chain perspective, a 3PL provider is positioned adequately to improve the customer's supply chain (Sheikh & Rana, 2012). The 3PL's services can improve the efficiency of the supply chain through the use of advanced information technology tools that have a positive effect on customer satisfaction (Sheikh & Rana, 2012). The IT tool can provide value to customers by way of facilitating on time delivery and ease of tracking of the shipments as shown by the results of the interviews and document review. Zhong and Zhou (2011) concluded that the use of the 3PL's technology tools results in

improved just-in-time service as well as improved delivery schedules among other benefits. The participants underscored the importance of being able to deliver their goods on time to their customer and commented positively on the ability to track their shipment through the online tracking tools of the 3PL provider. Participant C1 commented about timely delivery that “[the 3PL providers] also guarantee just-in-time delivery, which is important in the industry that we work in.” Participant C1 offered the following comments regarding shipment tracking:

I can provide them [customer] with a tracking number. That way, they don't have to call and bother us with where the shipment is at. They can internally just check to see where their shipment is at, through the 3PL's website. So that's been pretty important to the . . . you can just check on the website and not have to call into the 3PL provider itself or to us.

Emergent Theme 2: Effect of 3PL Provider on Competitive Advantage

In his book *Competitive advantage*, Porter (1985) postulated that an analysis of the linkages between the value activities could appear useful in determining sources of competitive advantage for the company, through either cost reduction strategies or differentiation strategies. The analysis of data collected for this study resulted in a second emerging theme that supported the notion that the use of a 3PL provider can provide positive linkages between the logistics activities of an SME and other activities of the company that can result in cost reduction or differentiation. The participants revealed that the services of the 3PL provider allowed them to achieve cost reduction as well as provided the opportunity to easily reach new markets. The participants contended that

these strategies gave their companies a competitive edge over others that did not use a 3PL provider.

Cost reduction. Interview data indicated that, in general, the participants found the use of a 3PL provider more cost efficient than trying to manage their logistics activities. The only shipments for which some participants used their company trucks were deliveries of short distances, up to 4 or 5 hours away. One of the reasons given by the participants behind the cost efficiency of the use of a 3PL provider included the reduction of capital investment in transportation equipment and labor costs. The findings from the literature review showed that companies could reduce their capital investments by engaging in 3PL outsourcing (Sheikh & Rana, 2012). Moreover, participants found that the ability of the 3PL provider to consolidate loads allowed the SMEs to take advantage of less-than-truck-load (LTL) rates. The use of LTL service saved the cost of an entire truckload that the company did not need. SME managers with low shipping volumes can benefit from this consolidation. The findings in the literature also supported that one of the biggest savings that 3PL companies provide their customers is LTL consolidation (Zacharia et al., 2011). The reduction of overhead costs, such as fuel charges and human resources, was another reason presented by the participants to explain the cost reduction they experienced by using a 3PL provider. Finally, the 3PL provider can also offer more competitive rates and volume discounts as the SME's business grows. Participant C1 stated the following:

The nature of our business is that we won't be shipping as often, so it's definitely lowered our cost, and, in turn, helped lower our overhead. We don't have to have

additional drivers or heavy duty vehicles that are costly, the fuel charges, insurance and what not. It is a lot cheaper for us to put it on if it's say one or two skids, it'll be picked up and go in a larger truck, and the cost is significantly less than sending our own driver and our own vehicle.

The review and analysis of the document data corroborated the findings from the interviews. The document review authenticated the fact that 3PL providers can be more cost efficient and confirmed the reasons for the cost reduction. Participant B1, for example, provided a document that showed 3PL provider discounts based on a committed volume. This participant also provided a document that showed a comparison of rates between the 3PL provider and other freight providers. Table 4 includes a summary of the frequency with cost reduction mentioned in the interviews and the document reviews. All participants agreed that the use of a 3PL provider results in cost reduction and presented reasons including reduction of capital investment, reduction of overhead cost, competitive rates and ability uses LTL services of the 3PL.

Table 4

Frequency of Comments on Cost Reduction as a Benefit of the Use of a 3PL Provider

Cost reduction	No. of sources	No. of references
Interviews	3	22
Document review	4	4

The results of the data analysis confirmed the main theme of competitive advantage by way of cost reduction strategies. Although according to Nunez-Carballosa and Guitart-Tarres (2011), the use of 3PL provider is not always less costly, Azzi et al. (2013) argued

that logistics outsourcing is usually more cost efficient than self-managed logistics operations. In the case of the three participants in this study, they all noted that one of the reasons for using a 3PL provider was because it was financially more affordable.

Participant A1 alluded to this rationale with the following comment: “If I had my truck, I'd have to have him paid hourly or to be here all day. I'd have a maintenance for that truck. I would have, you know, someone would have to schedule his time, keep him busy.”

From a value chain perspective, the ability of the 3PL providers to reduce the cost for their customers provides value to their customers. Company managers can then use the cost reduction for higher margins or for providing cheaper rates to the final consumer. Participant B1 commented that the use of a 3PL provider “. . . has improved our performance within our company by receiving better service and better rates for our customers.”

Opportunity to reach new markets. In the study, the data indicated one of the reasons for the use of a 3PL provider is the opportunity that this service has ease of shipping product to remote new markets. Two of the three participants alluded to the fact that reaching customers in far locations was a benefit of using a 3PL provider. Participant C1 commented, “. . . [we] ship to different provinces, different states, and actually as far as Mexico as well, so for us, it allows us to enter into other markets other than just the local market.”

Similarly, the data collected from the document review revealed the ability of the 3PL providers to help their customer reach faraway markets. Information on one of the

websites of a 3PL provider verified that 3PL providers could help customers attain market opportunity. The website states: “We'll help you realize market opportunity without significant capital investment. And you can compete faster and with greater flexibility.” Table 5 shows the results obtained from the interviews and document review that support the theme of the 3PL provider facilitating competitive advantage by providing access to remote markets.

Table 5

Frequency of Comments on Reaching Remote Markets as a Benefit of the Use of a 3PL Provider

Reaching remote markets	No. of sources	No. of references
Interviews	2	6
Document review	1	2

From the perspective of the conceptual framework of value chain analysis, Porter (1985) contended that the implementation of differentiation strategies could result in competitive advantage. The findings of the study support the precepts of the conceptual framework as participants confirmed that the 3PL facilitated opportunities to reach distant markets, and this opportunity enhanced the company's competitive advantage.

The findings from the study also confirmed the outcomes of the literature review as they supported the claim from Muhindo et al. (2014) that outsourcing could provide capabilities to access unfamiliar markets. Muhindo et al. proposed that one reason for outsourcing logistics is that companies benefit from restructuring of their distribution network. Iqbal and Dad (2013) also indicated that one of the benefits of outsourcing activities was the ability of reaching global markets.

Based on findings from this study and supporting information from the literature, I concluded that the findings from the study confirmed the knowledge from the literature review. The findings indicate that 3PL providers have a positive effect on the competitive advantage of the SMEs. The support by the 3PL providers in the value chain can create opportunities for cost reduction as well as the prospect of entrance into new markets and, in turn, provide competitive advantage to the companies they serve.

Emergent Theme 3: Effect of 3PL Provider on Access to Resources

One of the reasons that company managers outsource their logistics functions revealed in the literature review for this study is their ability to access certain capabilities and resources available through the 3PL provider. Resources such as expertise, IT networks, logistics networks, and assets are important for SMEs, and these resources are available with the use of 3PL providers. The data collected through interviews and document review corroborated the findings in the literature as the analysis showed that the SMEs of the participants take advantage of the resources of the 3PL providers.

Access to knowledge and expertise. Upon review of the data from the interviews, I found evidence that two of the three SME managers in the study used a 3PL provider for cost efficiency as well as the 3PL provider's knowledge and expertise that are lacking in the SME or the 3PL's ability to perform the task more efficiently. The participants confirmed the use of a 3PL provider because of expertise in shipping, warehouse management, inventory management, and packaging. Participant C1 provided the following comment:

. . . and I believe two of those 3PLs offer those services where they'll send a crew to build the packaging around the machine, and again there's an advantage there for us. It's [specialty packaging] a cost savings because they come with all the tools; they come with all the wood; they have a streamlined system to package it. The actual work that's involved, we have those capabilities, but we just can't do it as good and as fast.

A review of some of the documents, as well as web pages of the 3PL providers used by the participants, confirmed through multiple references that 3PL providers have logistics knowledge and skills well beyond strict transportation of goods. The 3PL companies provide services such as customs brokerage assistance, packaging, and transportation of specialty goods such as hazardous materials and perishable or frozen goods. Table 6 includes the results of the interviews and the document review processes related to access to knowledge and expertise of a 3PL provider.

Table 6

Frequency of Comments on Access to the Knowledge and Expertise of a 3PL Provider

Access to knowledge and expertise	No. of sources	No. of references
Interviews	2	5
Document review	11	14

Access to information technology networks. The results of the interviews and document review (see Table 7) revealed that the SME managers in the study make use of the IT networks and other technology (such as GPS and RFID) available to them through the 3PL services. All participants mentioned the benefits resulting from the 3PL

provider's advanced technology. The technology that the participants mentioned included GPS, scanning, shipment tracking abilities, and on-line proof of delivery. The document review revealed that customers utilized the tracking systems, and my observations of the participants demonstrated the ease of obtaining tracking information from the online web portal with the 3PL provider. The company managers who participated in my study were able to obtain detailed tracking information including the real-time location of a shipment in just a few seconds. The participants noted that the tracking ability was a tool for them, but also served as enhanced customer service for their customers. Participant A1 indicated "whenever someone calls and says where's my package, [with technology] I can tell them [our customers] it's in route or it's been transferred over to the person that's going to call you shortly or on the truck. So, the GPS tracking and even the proof of delivery, getting that offline."

Table 7

Frequency of Comments on Access to the Technology of the 3PL Provider

Access to technology	No. of sources	No. of references
Interviews	3	10
Document review	11	16

Access to logistics networks and assets. All participants commented on the benefits of the easy accessibility of a 3PL provider's logistics networks and other logistics assets. Participant A1 mentioned that the SME uses the warehousing services of the 3PL provider while Participant B1 mentioned the accessibility to a vast logistics network. Participant C1 commented on the accessibility to specialty transportation

equipment. The review of the documents supported the findings from the interviews. Data from the documents provided verification that 3PL providers have vast logistics networks with cross-dock facilities, and specialty equipment such as flatbed, stepdeck, and rolltite trailers as well as temperature-controlled units. A screen shot of Company B's web portal provided information that the 3PL provider has vast asset resources. Examples of the resources included 35 terminals operating in 10 Canadian provinces, using 3,800 vehicles comprising (a) power units dry, (b) temperature-controlled trucks, (c) special commodity trucks, and (d) long combination vehicle (LCV) trailers. The 3PL provider owned resources that could afford LTL and truckload services for dry goods and goods that require climate control. Table 8 shows the summary of the results related to accessibility to logistics networks and other logistics assets. All participants agreed that the use of a 3PL provider allowed them access to a large network of logistics infrastructure as well as specialty vehicles and equipment.

Table 8

Frequency of Comments on Access to the Logistics Networks and Assets of the 3PL Provider

Access to logistics networks and assets	No. of sources	No. of references
Interviews	3	4
Document review	6	8

The findings of the study confirmed that the participant SME managers take advantage of a 3PL provider's resources such as skills and expertise as well as information technology systems and logistics networks and assets. The findings of the study verified the themes identified by Chaberek (2014), Hendriks et al. (2012), and

Sheikh and Rana (2012) that company managers benefit from logistics outsourcing using accessibility to resources that they otherwise do not possess. Access to these resources may provide value to the SME's value chain as, according to Zhong and Zhou (2011), technologies such as GPS can improve just-in-time service and delivery. Systems such as RFID and barcoding can improve the efficiency of the supply chain and, in turn, quality of customer service (Hosie et al., 2012). Access to this technology can influence customer satisfaction (Sheikh & Rana, 2012). In addition, use of a 3PL provider's resources can help companies increase their logistics speed (Li-Jun, 2012).

Emergent Theme 4: Effect of 3PL Provider on Core Competencies of the SME

Datta et al. (2013) postulated that company managers increasingly outsource logistics functions to focus more on their core competencies as outsourcing frees up company resources from dealing with the logistics functions. The use of a 3PL provider allows company managers to concentrate on their main competencies to reduce cost and improve customer satisfaction (Sheikh & Rana, 2012). Analysis of the data from this study confirmed this theme identified in the literature. Two out of the three participants clearly indicated how they benefit of not having to worry about the coordination of their logistics operations. Participant A1 noted that they did not have to use their resources to "set-up, organize, and map out" deliveries with their customers. Participant C1 indicated that handling their company's shipping activities is not "something they want to take on" and that outsourcing those activities streamlined billing and administration areas, as well as shipping and receiving activities. Otherwise, handling the company's shipping would take a lot of coordination from their current resources in these areas.

Information from several web pages of 3PL providers used by the participants confirmed the 3PL provider's role in allowing company managers to focus on their core activities. Through the document review, I found that 3PL providers allow customers to focus on their core activities by simplifying and streamlining the supply chain process. The document review also indicated that company managers could rely on the 3PL providers to resolve supply issues of on time delivery, delivery schedules, and coordination with customers. This service from the 3PL liberates the companies' resources to address core competency issues.

The information in the documents supported the concept that simplifying the supply chain process is particularly important for international supply where the 3PL provider is crucial in providing a seamless supply chain service. The 3PL provider can act as a bridge between time zones, cultures, and languages. I concluded that the 3PL services help enhance the efficiency of the company's value activities since the services of the 3PL providers allow the company managers to concentrate on important tasks not outsourced. Table 9 includes a summary of the results obtained for the theme of SMEs' core competencies.

Table 9

Frequency of Comments on Effect of the 3PL Provider in Allowing the SME to Focus on Core Competencies.

Focus on core competencies	No. of sources	No. of references
Interviews	2	5
Document review	7	8

Disadvantages of a 3PL Provider

I designed the interview questions to elicit responses regarding any downside of using a 3PL provider. Two of the participants did not identify any disadvantages, but one of the participants suggested that the loss of direct control over the shipments was a disadvantage. The SME manager had to rely on the 3PL to deliver on the promised date. Furthermore, the participant commented that shipments with high value and low weight might be an issue to transport with a 3PL provider, as the standard 3PL insurance will not cover the value of the goods.

Summary

Analysis of the interview data yielded four main themes outlining the strategies that emerge from the use of a 3PL provider. The main themes were (a) enhanced customer service, (b) improved competitive advantage, (c) ability to access resources, and (d) ability to focus on core competencies. Analysis of the document review data also confirmed the results of the interview data as the information on the documents corroborated the information gathered through interviews. Therefore, validation of the data occurred with multiple sources of data. In addition, the findings from the study confirmed the knowledge in the literature.

The results of the study support the claim by Mothilal et al. (2012), and Ulku and Bookbinder (2012) that the use of a 3PL has a positive effect on customer satisfaction through providing on-time delivery service at low cost. The study findings also confirm the statements by Iqbal and Dad (2013) and Muhindo et al. (2014) claiming that the use of a 3PL provider offers opportunities for competitive advantage. The participant

responses corroborated the knowledge that among the benefits of outsourcing logistics functions is the accessibility to resources such as expertise, IT, and logistics networks (Manuj et al., 2013; Nunez-Carballosa & Guitart-Tarres, 2011; Zacharia et al., 2011). Finally, the study findings confirmed the claims by Datta et al. (2013), and Shi and Arthanari (2011) that companies increasingly outsource logistics functions to focus more on their core competencies.

I analyzed the research findings from the perspective of the value chain theory. Porter (1985) postulated that every organization operates through the execution of a series of value activities (value chain) that contribute to the company's competitive advantage. Business managers analyze the efficiency of the value chain activities to discover the potential for competitive advantage through cost or differentiation strategies (Porter, 1985). The results of the study provide evidence that logistics activities, when performed by the 3PL providers, can offer cost efficiency and differentiation, and have a positive effect on other value chain activities such as IT, and core competency activities.

The themes outlined in this study provide strategies that the managers of Canadian SMEs can use to improve the performance of their supply chain. The results provide further understanding of the phenomenon of logistics outsourcing by elucidating the *why* and *how* SME managers used these strategies. The knowledge gained through this study may be valuable for SME managers in Canada that are not aware of the potential benefits of the use of a 3PL provider.

Applications to Professional Practice

The purpose of this qualitative multiple case study was to explore strategies that SME managers may use to improve the performance of their supply chain. Through the analysis of semistructured interview responses and a review of relevant company documents, I found that SME managers use 3PL providers to achieve four main strategies. The first strategy is the use of a 3PL provider to enhance customer service through providing on time delivery, damage-free delivery, reasonable prices, and ease of shipment tracking. The second strategy is to use a 3PL provider to improve competitive advantage through cost reduction and by helping the SME reach new markets. The third strategy is that SME managers use a 3PL provider to access expertise, equipment, and technology resources; and the fourth strategy is that the use of a 3PL provider enables the SME personnel to focus on core competencies.

Increased competition and greater complexity in the business environment have encouraged company managers to outsource some or all of their logistics activities to 3PL providers (Sheikh & Rana, 2012). Logistics are an important element of competitive advantage and, therefore, successful outsourcing to a 3PL provider can enhance a company's logistics performance (Hartmann & de Grahl, 2012). As noted during my participant-recruiting phase in my reflexive journal, I encountered many SME managers who did not use a 3PL provider and had no knowledge of the potential benefits of 3PL. I anticipate the findings from this study will serve as an educational tool for the managers of SMEs in Ontario, to gain knowledge about how the outsourcing of their logistics operations to a 3PL provider can enhance their supply chain and overall company

performance. The SME managers can gain a better understanding of how, as proposed by Thakkar et al. (2012), the management of supply chain activities acts as a tactical weapon for SME managers to enhance performance and support competitiveness.

One of the strategies supported by the data analysis in the study is how the SME managers can use the 3PL services for improving their customer service. A company achieves customer satisfaction through the understanding of its customers' requirements and by meeting their expectations (Sheikh & Rana, 2012). Analysis of the data collected in this study indicated that, as far as logistics are concerned, SME customers expect on time and damage-free delivery at a reasonable cost. In addition, shipment tracking capabilities enhance the customer experience. The participants of the SMEs in the study used 3PL services to meet their customers' expectations and improve customer satisfaction.

The second strategy supported by the results of the study is that SME managers in Ontario take advantage of the use of a 3PL provider to gain competitive advantage. The SME managers' strategy is to reduce cost through the use of the 3PL as they have found that the 3PL provides cost efficiency by reducing capital investment and overhead costs. In addition, a 3PL provider delivers competitive rates and volume discounts as well as low rates for low volumes because of their ability to consolidate loads. The study results support the findings by Aguezzoul (2014) and Meidute et al. (2012) who proposed that one of the benefits of outsourcing logistics activities is the positive effect on cost reduction. Based on the results of this study, the findings by Aguezzoul and Meidute et al. should apply to SMEs in Ontario. An interesting finding of the study is that SME

managers can use the large logistics network of the 3PL to help them reach new and remote markets, thus providing competitive advantage.

A third strategy used by SME managers in Ontario is to use a 3PL provider to gain access to knowledge, expertise, equipment, IT, logistics resources and assets that they do not possess. The participants from the SMEs in this study used 3PL providers for transportation activities as well as warehouse storage, inventory management, customs brokerage, and packaging services. The participants were aware that the 3PL's expertise and advanced IT infrastructure and logistics networks provided enhanced performance of their supply chain. The findings from the participants' interviews are consistent with the statement by Nunez-Carballosa and Guitart-Tarres (2011) that many company managers continue to outsource mainly because of cost savings, but 3PL providers can offer much more than just cost efficiency. A 3PL provider can include strategic and operational efficiencies because of 3PL providers' capabilities, skills, and experience (Nunez-Carballosa & Guitart-Tarres, 2011). The ability to access the expertise and resources of the 3PL provider is important for SME managers as, according to Gunasekarfan et al. (2011), SMEs lack resources with expertise in supply chain management.

Finally, the fourth strategy revealed through data analysis was that SME managers use a 3PL provider to free up resources and concentrate on their core activities. This result supports the findings in the literature that 3PL providers help their customers free up resources they can redirect to the core business (Nunez-Carballosa & Guitart-Tarres, 2011). The results of the data collected in this study indicated that some SME managers

would use the service of the 3PL provider even if the SME had the capability to perform the task.

Through this multiple case study, I explored the effect on SMEs of the outsourcing of logistics activities to 3PL providers. The focus of my research was on exploring the strategies that SME managers in Canada had used to engage 3PL providers to improve their supply chains. The results of the study supported the notion put forward by Azzi et al. (2013) that 3PL providers have the potential to create better value for a company when compared to in-house logistics. I anticipate that my study may contribute to closing the gap in business understanding of the effect of 3PL providers to the SMEs in Canada. The results of this study can influence SME managers' analysis of their supply chain, and encourage them to consider strategies that may help them gain efficiency by using a 3PL provider.

Implications for Social Change

The implications for social change from this doctoral study include the possibility to enhance the supply chain performance of small and medium-sized companies and, in turn, improve their likelihood to gain a competitive advantage in a global market. One of the dilemmas in the area of SCM is the organizational decisions of whether to outsource part or all logistics activities to a 3PL provider (Kumar & Singh, 2012). This study outlines the potential benefits of outsourcing logistics activities. I anticipate that the knowledge in this study can aid SME managers in their decision to employ the use of a 3PL provider. In addition, the findings of the study may encourage SME managers

currently using a 3PL provider to take advantage of other services offered by the 3PL provider.

Through the execution of this study, I found that the use of a 3PL partner provides enhanced customer service and can improve competitive advantage through cost reduction and by helping the SME to reach new markets. Moreover, SMEs managers use a 3PL provider to access expertise, equipment, and technology resources; and the use of a 3PL provider enables SME managers to focus on core competencies. The findings of this study show that the use of a 3PL can provide value to SME managers through improved supply chain performance and provide competitive advantage. The managers who closely examine this phenomenon can gain insights into potential efficiency gains in their supply chain.

The knowledge offered in this study may assist SME managers to improve profitability, thereby improving the SME survival rate in Canada. The positive impact on business performance may, in turn, enhance employment opportunities in the community, generate more personal income and taxes, and produce a positive impact in the economic growth of the community. The potential positive impact on the economic progress of the community may affect social change with financial stability and a better lifestyle for Canadians.

Recommendations for Action

Small and medium-sized enterprises (SMEs) are under pressure to stay competitive, and one of the strategies to help SMEs maintain competitiveness is using effective supply chain management (Hall & McPeak, 2011). SMEs have a critical role in

the Canadian economy since SMEs employ 60% of the Canadian workforce (Gill & Biger, 2012). I anticipate the results of my research may change professional practice by identifying and describing strategies that managers of SME managers can use to increase the efficiency of their supply chains by using a 3PL provider. Owners and managers of SMEs in Canada should remain aware of the strategies that they can use to survive in the present competitive environment.

Through the literature review, I identified that SMEs' challenges originate mainly from the lack of resources such as workforce, financial and technological tools, managerial knowledge, skill and expertise, and technical ability (Rahman, 2012). Lee et al. (2012) indicated SME managers could reduce failure by developing external relationships instead of only relying on internal resources. Third-party logistics (3PL) providers usually act as liaisons amongst suppliers and clients in supply chains (Forslund, 2012). This study outlines the role of 3PL providers in the survival of SMEs in Canada by identifying how managers of SMEs may use strategies to improve their supply chains.

The findings from this study are critical to executive and senior management, business leaders, and supply chain managers of SMEs. I recommend that executive and senior managers consider the effect of their current supply chain strategies on the profitability of their companies to identify opportunities for improving organizational performance. Senior management should consider their supply chain efficiency as a tool to increase survival as well as for gaining a competitive advantage. Senior management should consider these efficiencies before forced into such a position by the competition.

SME business manager should reflect on the results of this study and review the capability, knowledge, and expertise of their current resources. SME business managers should also review their IT infrastructure and capabilities as well as assess the resource benefits of engaging a 3PL provider. A review by the SME managers, of the cost of capital investment and labor resource savings, as well as the benefits of the internal resources focusing on company core competencies, may indicate a positive effect of the use of a 3PL provider for their companies. SME business managers should also consider the opportunity to reach new markets by being able to reach remote locations otherwise not easily achievable at an affordable cost. SME managers should also evaluate the potential benefits of enhanced customer service through the use of a 3PL provider. Supply chain managers should review their information flow within their current supply chain network and assess the benefits of using a 3PL provider to improve information on inventory visibility, inventory flow, on time delivery, and inventory investment reduction. I may disseminate the findings from this study through academic research journals and business journals. Presentation of the findings to management and employees of SMEs through professional conferences, written materials and training sessions to chamber of commerce may help SME managers located in Canada.

Recommendations for Further Research

The purpose of the study was to explore the strategies the SME managers could engage 3PL providers to improve performance of their supply chain. The results of the study yielded important information on how and why the SME managers use a 3PL provider. The inherent procedures of a qualitative research study may affect the results of

the study; conducting a quantitative study may uncover a different point of view on the use of a 3PL provider by SME managers. Future research could use findings from this study to develop a quantitative study with a survey to target a larger sample of SME managers with findings that may be more generalizable to SMEs in Canada. A survey may also help to reduce participant intimidation that may result from the interview process.

Furthermore, the scope of this study included only the Ontario region of Canada, but future research can include SME managers in other geographical areas to understand if SME managers use the same or similar strategies in those areas. A recommendation for future researchers is to review the logistics outsourcing phenomenon considering the 3PL provider's perspective to gain more understanding of the services they can offer, and that SME managers are not yet exploiting. Additional research in the area of the use of 3PL providers may produce a comprehensive depiction of the phenomenon.

Reflections

The Doctor of Business Administration (DBA) Program at Walden University has been an interesting journey. The learning from the literature review as well as the study findings provided invaluable insights. Talented business professionals from various industries provided rich data on the use of 3PL providers during the execution of the research. The multiple case study involved exploring participants' perceptions and experiences regarding the strategies SME managers located in Canada use to engage 3PL providers to improve their supply chains. The bracketing technique helped to describe the participants' perceptions and experiences objectively. I mitigated bias by identifying and

reflecting on my assumptions and preconceptions through bracketing my views and strictly following my study protocol. The strict adherence to my study protocol allowed me to ask questions rather than introduce my beliefs to the study participants.

I also conducted member checking to verify the data collected by providing each participant with a summary of their interview and asking the participant if the synthesis of the interview was accurate. Prior to the study, my experience with the use of a 3PL provider was positive, and the study findings revealed information similar to my understanding from the literature review. Therefore, my perception was that many SME managers would also use 3PL providers. My findings during the study recruitment process revealed that many SME managers did not use 3PL providers. Moreover, some SME representatives did not know the function or the potential benefits of 3PL providers.

In this study, I found similarities and differences in participants' experiences with using a 3PL provider. The learning from this study helped me recognize the value of 3PL providers to SMEs in Canada and their role in improving SME supply chains in Canada. The execution of this study confirmed the understanding that 3PL providers can serve an important role in the performance of SMEs and reinforced my belief regarding the need for disseminating the knowledge regarding the benefits of 3PL providers to SME managers.

Conclusion

The purpose of this qualitative multiple case study was to explore the strategies SME managers located in Canada use to engage 3PL providers to improve their supply chains. Small and medium-sized enterprises (SMEs) are under pressure to stay

competitive, and one of the strategies to help SMEs maintain competitiveness is using effective supply chain management (Hall & McPeak, 2011). Third-party logistics (3PL) providers usually act as liaisons among suppliers and clients in supply chains (Forslund, 2012). When compared to large enterprises, SMEs face many disadvantages, such as (a) lack of expertise and knowledge, (b) limited financial resources, and (c) inadequate systems and procedures that can influence their efficiency (Rahman, 2012).

The specific business problem for this study was that some SME managers located in Canada lack strategies to engage 3PL providers to improve their supply chains. Therefore, the theory of value chain analysis was appropriate to serve as the conceptual framework for this study since I attempted to show the relevance of the concept of value chain to 3PL outsourcing. Study findings helped to identify the role of 3PL providers in the survival of SMEs in Canada and identify how managers of SMEs may use strategies to improve their supply chains.

I analyzed the benefits of a 3PL provider to an outsourcing company through the lens of the value chain model. Three SME managers from three different companies in the Province of Ontario who used 3PL providers participated in open-ended, face-to-face interviews. The second source of data included a review of company documents related to the use of 3PL providers from the participating company managers.

Based on the findings from this study, SME managers may use several strategies in engaging 3PL providers to improve their supply chains. The use of 3PL services to enhance customer service emerged as a clear benefit of logistics outsourcing. The 3PL providers supported SMEs meeting their customers' requirements for on time and

damage-free delivery of goods at a reasonable price. In addition, the advanced IT tools available to the 3PL provided an enhanced customer experience for the SMEs as well as the SME customers.

Competitive advantage is another benefit of using a 3PL provider. SMEs gained competitive advantage through cost reduction because of the competitive rates of the 3PL providers as well as reduction of capital investment, overhead cost, and volume discounts. In the area of competitive advantage, the results of the study showed that SME managers use the services of a 3PL as a strategy to reach new and remote markets. The strategy of the use of a 3PL provider to access expertise and IT tools, as well as logistics networks and assets, also became apparent during the study. SME managers used the 3PL providers for transportation as well as their knowledge and resources that were lacking in the SMEs' internal resources. The 3PL provider services used by SME managers included warehouse management, inventory management, and specialty packaging. Finally, the use of a 3PL provider allowed the SMEs' resources to concentrate in their core competencies.

The results of the study confirmed the findings from the literature. The majority of the current research available had focused on 3PL benefits in large companies, but my study findings confirmed that many of the benefits also applied to SMEs in the Ontario region of Canada. The findings of the study could have valuable knowledge for managers of SMEs, who are currently not using a 3PL provider or those who are not taking advantage of all of the strategies that emerged through this study.

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Appendix A: National Institutes of Health Certificate of Completion for
Protecting Human Subject Research Participants



Appendix B: Informed Consent

WALDEN UNIVERSITY Participant Consent Form

You are invited to participate in a research study that focuses on exploring the strategies for small and medium-sized enterprises to engage third-party logistics providers. The researcher is inviting managers and employees age 18 and older from small or medium size enterprises operating in the province of Ontario, Canada that have at least 1 year of experience using a 3PL provider to participate in the study. This form is part of a process called “informed consent” to provide you information about this study before deciding whether to participate.

This study is being conducted by Masoud Malakoti-Negad, a doctoral student in the Business Administration Program at Walden University. Masoud Malakoti-Negad is currently employed by a Canadian SME that engages in the use of a 3PL provider, but this study is separate from that role.

Background Information:

The purpose of this study is to explore the strategies SME managers located in Canada use to engage 3PL providers to improve their supply chains.

Procedures:

If you agree to participate in this study, you will be asked to:

- Voluntarily participate in one private face-to-face interview scheduled to last approximately 1 hour at a date and time convenient for the participant.
- The interview will be audio recorded to ensure the accuracy of data collected.
- If you choose not to be audio recorded, handwritten notes will be taken during the interview.
- Review my summary of interviews to ensure I have summarized the information accurately, which may take approximately 30 to 45 minutes.
- Provide copies of documents related to the use of 3PL such as schedules, charts, graphs, or other internal records related to the use of 3PL services that your organization is comfortable sharing.

Here are some sample questions that will be asked during the interview.

1. What services do you currently outsource to a third-party logistics provider?
2. Why do you use a third-party logistics provider?
3. Which strategies for engaging third-party logistics providers have worked well to improve your company's performance?

4. Which strategies for engaging third-party logistics providers have not worked well to improve your company's performance?

Voluntary Nature of the Study:

Your participation in this study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. You will have the opportunity to ask questions before deciding to participate in this study. No one at your organization will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind later. You may withdraw from the study at any time by notifying the researcher via telephone or by email and any data collected will be removed from the researcher's files, even after the interview has been completed.

Risks and Benefits of Being in the Study:

Participation in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as stress or becoming uncomfortable. Participation in this study will not pose a risk to your safety or well-being. By participating in this study, you may contribute to business practices by identifying strategies that SMEs can use to engage 3PL providers to improve their supply chains.

Payment:

After completion of the study, all participants will receive a thank you note, a copy of the study, and a \$25 Tim Horton's gift card as a token of appreciation.

Privacy:

Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project, and the researcher will not include your name or any other information that could identify you or your organization in the study reports. The researcher will protect the identity of each participant by assigning a letter and numeric code, and the master transcript of your interview will be kept in confidence. All data related to individuals and organizations participating in the study will be kept secure by the researcher. Data will be retained by the researcher for a period of at least 5 years as required by Walden University. The researcher will shred and dispose of all hardcopy data collected including forms and documents, and electronic information will be deleted at the end of 5 years.

Contacts and Questions:

You may ask any questions you have now. Or if you have questions later, you may contact the researcher, Masoud Malakoti-Negad, via email at XXX@waldenu.edu or phone at XXX-XXX-XXXX. If you want to talk privately about your rights as a participant, you can call Dr. XXX. She is the Walden University representative who can discuss this with you. Her phone number is XXX-XXX-XXXX or email address irb@waldenu.edu. Walden University's approval number for this study is **12-02-15-0452468** and it expires on **December 1, 2016**.

You will be provided a copy of the consent form to retain for your records.

Statement of Consent:

I have read the above information, and I feel I understand the study well enough to make a decision about my involvement. By signing this form, I understand that I agree to the terms described above.

Printed Name of Participant

Date of consent

Participant's Signature

Researcher's Signature

Appendix C: Interview Protocol

The aim of this interview is to answer the research question on strategies that SME managers located in Canada use to engage 3PL providers to improve their supply chains. I will complete the following steps during each interview.

1. The interview will begin with a brief overview of the research, the purpose, and the time required for the interview.
2. I will thank the participant for agreeing to participate in the interview.
3. I will present a copy of the informed consent form (Appendix B) and review the contents of the form with the participant. The items included in the consent form are: (a) the expected length of time to participate in the interview; (b) the interview will be audio recorded and if a participant chooses not to be recorded, handwritten notes will be taken; and (c) a summary of the interview will be presented to each participant to validate my interpretations of their responses to each interview question.
4. I will explain that their participation is voluntary, and they can withdraw from the study at any time without prior notice and through a verbal or email request, even after the completion of data collection.
5. I will provide my contact information to each participant in case he or she decides to withdraw from the study.
6. I will obtain the participant's signature on the consent form as an indication of their agreement to participate in the study.
7. I will collect the signed consent form and provide the participant a copy of the consent form for his or her records.
8. I will use a sequential coding system to identify the participants during the interview recording without using their names. For example, I will assign each participant an identifying pseudonym, such as A1, B1, and C1. I will explain that I will be the only person with access to the name of each participant associated with each pseudonym and that data from their interview will be identified in my database using only their assigned pseudonym.
9. I will record the interview, if permitted, after a participant signs a consent form (Appendix B) and begin with open-ended questions, which may include probing questions to expand on the participant's responses.
10. At the end of the question period, I will remind the participant that I will provide him or her with a summary of the interview and my interpretations of their responses to review and validate.
11. Request documents that I have been granted permission for the participant to provide copies of documents related to the use of 3PL such as schedules, charts, graphs, or other internal records related to the use of 3PL services that the organization is comfortable sharing. This has been approved by the authorized representative of the company in the letter of cooperation.
12. I will end the interview and thank the participant for taking the time to participate.

Appendix D: Interview Questions

1. What services do you currently outsource to a third-party logistics provider?
2. Why do you use a third-party logistics provider?
3. Which strategies for engaging third-party logistics providers have worked well in improving your company's performance?
 - a. Based on your experience, what are the benefits of using a third-party logistics provider?
 - b. How has the use of a third-party logistics provider improved logistics performance for your company?
 - c. How has the use of a third-party logistics provider affected the quality of your customer service?
 - d. How has the use of a third-party logistics provider affected your costs for logistics services?
 - e. How has your third-party logistics provider helped your company gain a competitive advantage?
4. Which strategies for engaging third-party logistics providers have not worked well for improving your company's performance?
 - a. Based on your experience, what disadvantages did you experience when using a 3PL provider?
5. What other information you would like to add that relates to your experience with the third-party logistics provider?

Appendix E: Letter of Cooperation From a Research Partner

WALDEN UNIVERSITY
Request for Permission to Invite Participants and Use Documents

Dear Research Partner,

I am a doctoral student at Walden University seeking a Doctor of Business Administration degree with a specialization in Global Supply Chain Management. I am conducting a research study entitled “strategies for small and medium-sized enterprises to engage third-party logistics providers”. The purpose of my research study is to explore the strategies SME managers located in Canada use to engage 3PL providers to improve their supply chains.

The requirements for eligibility of employees and management of the companies selected are as follows:

- The company must be a small or medium size enterprise (between 1 and 499 employees).
- The company must operate in Ontario, Canada.
- The company must use a 3PL
- Participants must be at least 18 years of age.
- Participants must be a manager or an employee with at least 1 year of experience in using a 3PL.

As the researcher, I will request voluntary participation by eligible personnel within your organization. This requested participation will involve answering open-ended questions in face-to-face interviews. The participants may choose not to participate or to withdraw from participating in this study at any time without penalty or forfeiture of benefit to the individuals. The results of this research study may be published, but neither the organizations’ or the participants’ names or positions will be disclosed, and the identity of the participants will not be compromised by the participants’ responses. To ensure the confidentiality, each participant’s responses will be assigned a letter and numeric code to protect the participant’s identity, and I will maintain the master transcript of each interview in confidence. I will use any company documents released to me exclusively for my research and not disclose or discuss any confidential information with others, including friends or family.

I have included a research partner letter of cooperation for obtaining your permission to invite participants, conduct interviews, and request participants to review my summary of interviews to ensure I have summarized the information accurately. In addition I am requesting your permission to use and reproduce documents related to your company’s use of a 3PL that you are comfortable sharing.

These documents can be schedules, charts, graphs, or other internal records related to the use of 3PL services. Please complete and return the attached form if you agree to participate in my research.

Please contact me if you have any questions regarding this research study. You can reach me by phone at XXX or by email at XXX@waldenu.edu.

Please print or save a copy of this letter of cooperation for your records.
Sincerely,

Masoud Malakoti-Negad

WALDEN UNIVERSITY
Research Partner Letter of Cooperation

Research Partner's Name: _____

Signing Official's Name: _____

Date: _____

Dear Masoud Malakoti-Negad,

Based on my review of your research proposal, I give permission for you to recruit personnel from our organization to participate in the study entitled "strategies for small and medium-sized enterprises to engage third-party logistics providers".

As part of this study, I authorize you to invite participants, conduct interviews, and request participants to review your summary of interviews to ensure you have summarized the information accurately. You can share the results of your study with the organization and the participant. Individuals' participation will be voluntary and at their own discretion.

I understand that our organization's responsibilities include:

- Participation in 1 hour face-to-face interviews by the manager or employee.
- Grant permission for participant to provide copies of documents related to the use of 3PL such as schedules, charts, graphs, or other internal records related to the use of 3PL services that our organization is comfortable sharing.
- Participation in reviewing the researcher's summary of the interview to ensure accuracy of data, which may take approximately 30 to 45 minutes.

We reserve the right to withdraw from the study at any time if our circumstances change.

As part of this study, I authorize you to recruit individuals in this organization to participate. I will provide you a list of names of individuals that meet your inclusion criteria and you may contact them directly, or I may forward an invitation to employees directing them to contact you directly if they are interested in participating in the study. Individuals' participation will be voluntary and at their discretion.

I confirm that I am authorized to approve research in this setting and that this plan complies with the organization's policies.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the student researcher's supervising faculty/staff without

permission from the Walden University Institutional Review Board (IRB) and an authorized representative of this organization.

Signature of Authorized Official

Date

Title

Organization

Walden University policy on electronic signatures: An electronic signature is just as valid as a written signature as long as both parties have agreed to conduct the transaction electronically. Electronic signatures are regulated by the Uniform Electronic Transactions Act. Electronic signatures are only valid when the signer is either (a) the sender of the email, or (b) copied on the email containing the signed document. Legally an "electronic signature" can be the person's typed name, their email address, or any other identifying marker. Walden University staff verify any electronic signatures that do not originate from a password-protected source (i.e., an email address officially on file with Walden).

Appendix F: Invitation to Participate in the Study

WALDEN UNIVERSITY
Invitation to Participate in a Research Study

Date:

Re: Doctoral Study Research that may interest you

Dear Sir/Madam,

My name is Masoud, a doctoral student in the Business Administration Program at Walden University. As part of my doctoral research study, I invite you to participate in my research study on strategies for small and medium-sized enterprises to engage third-party logistics providers. If you accept my invitation to participate in this study, I will arrange for a face-to-face interview in a private and comfortable place at a time and date that are convenient for you. The interview will be recorded and will last approximately 1 hour, or until you feel you have answered the interview questions.

Participation in this study is voluntary, and you may withdraw at any time, even after the interview. I will contact you at least 48 hours in advance of the interview to explain the study. You will have the opportunity to ask questions before deciding to participate in this study. I assure confidentiality of all the information discussed during the interview as well as the identity of the participants and their organization. The interview will be recorded for analysis, and the summary is reported in the study. Your individual responses will not be disclosed or published. I will also request you to review my summary of interview to ensure I have summarized the information accurately, which may take approximately 30 to 45 minutes.

I have received permission from your organization's authorized representative to request participants to provide copies of documents related to the use of 3PL such as schedules, charts, graphs, or other internal records related to the use of 3PL services that your organization is comfortable sharing.

I will share the results of my study with all participants, the leaders of the participants' organization, and other scholars. The requirements for eligibility of employees and management of the companies are as follows:

- The company must be a small or medium size enterprise (between 1 and 499 employees).
- The company must operate in Ontario, Canada.
- The company must use a 3PL provider.
- Participants must be at least 18 years of age.
- Participant must be a manager or an employee who has 1 year of experience in using a 3PL.

I hope you will participate in my study. Please feel free to contact me by phone at XXX or by email at XXX@waldenu.edu.

I will contact you within the next 10 days to answer your questions about my research and to ask for your participation. Thank you for your consideration of my request.

Sincerely,

Masoud Malakoti-Negad

Appendix G: Confidentiality Agreement

WALDEN UNIVERSITY
Confidentiality Agreement**Name of Signer:**

During the course of my activity in collecting data for this research on the strategies for small and medium-sized enterprises to engage third-party logistics providers, I will have access to information that is confidential and should not be disclosed. I acknowledge that the information must remain confidential and that improper disclosure of confidential information can be damaging to the participant.

By signing this Confidentiality Agreement, I acknowledge and agree that:

1. I will not disclose or discuss any confidential information with others, including friends or family.
2. I will not in any way divulge, copy, release, sell, loan, alter, or destroy any confidential information except as properly authorized.
3. I will not discuss confidential information where others can overhear the conversation. I understand that it is not acceptable to discuss confidential information even if the participant's name is not used.
4. I will not make any unauthorized transmissions, inquiries, modifications, or purging of confidential information.
5. I agree that my obligations under this agreement will continue after completion of the research study that I will perform.
6. I understand that a violation of this agreement will have legal implications.
7. I will only access or use systems or devices that I am officially authorized to access, and I will not demonstrate the operation or function of systems or devices to unauthorized individuals.

By signing this document, I acknowledge that I have read the agreement, and I agree to comply with all the terms and conditions stated above.

Signature:

Date: