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### Logistics outsourcing and its impact on businesses: a study into the changing trends in the 3PL market

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**Assignment Cover Page**

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Logistics outsourcing and its impact on businesses: a  
study into the changing trends in the 3PL market

## Executive Summary

This research addresses the question, what are the challenges for 3PL providers to fulfil shippers' expectations in outsourcing logistic functions and what are the trends from 2012 to 2020 in the 3PL industry globally. 3PL global and domestic markets are constantly changing. As a consequence of this, it is absolutely necessary for both users and providers of 3PL services to ensure that they are well-prepared in terms of the strategies, procedures, and technologies available to them. This can be accomplished in part by bridging the gap between what the shippers desire and what service providers offer. Hence, this paper attempts to broadly identify and categorize the challenges faced by 3PL companies and discover potential gaps for future research.

This research explores the findings of The Annual Third-Party Logistics Study reports from 2012 to 2020 as secondary data published by 3PLStudy website which aims to determine trends in shipper's expectations for 3PL services and to identify critical shipper and 3PL viewpoints on the utilisation and provision of logistics services. Furthermore, an in-deep interview by senior manager is conducted to support the study. The documents were examined through a NVivo software.

This research reports findings that the use of 3PLs allows the shippers to concentrate on its core capabilities. The study shows that the majority of shippers and 3PL providers have a positive relationship. They agreed that their relationships generally have been successful. The study also reports activities that are more transactional, repetitive, and operational in nature tend to be the ones that are outsourced the most frequently. The activities such as domestic transportation, international transportation, warehousing, freight forwarding, and customs brokerage are the most common ones to be contracted out to a third party. However, an IT gap has grown significantly. Shippers in general are looking to their third-party logistics providers for needed IT technologies. Shippers and their 3PL providers are increasingly forming significant partnerships and collaborating to achieve supply chain objectives. It would appear that both sides have a much-heightened awareness of the objectives they are working toward, as well as the ways in which the accessibility of data and the application of technology might assist them in achieving those objectives.

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I would like to express my sincere gratitude to the CCT College Dublin for letting me be a student in a country that has opened me the door for new opportunities.

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## **Chapter 1 Introduction**

Increasing numbers of businesses are putting more of their attention on their core areas of expertise in order to maintain their competitive edge in the rapidly shifting business climate. As more and more businesses enter international markets, logistics assumes an increasingly important role in the support of global supply chains. Companies are outsourcing to third-party logistics providers rather than establishing in-house expertise in several logistical disciplines such as transportation planning, warehouse management, and information technology. Hence, these businesses are able to focus on their own primary operations, while the third-party logistics providers take care of the inbound and outbound transactions associated with global supply chain activities.

This research topic was chosen since I am passionate about the issue. Because logistics outsourcing is such a broad topic, there are numerous subfields that can be studied. Many aspects of the links that exist between the businesses that supply the service and the businesses that receive it are covered in these subfields. This is a new chapter in my professional life, not a selfless scholarship problem.

I have been working in logistics area for six years as an industrial engineering graduate. Working as a shipping supervisor and warehouse manager from both perspectives, shipper and 3PL provider has provided me with a thorough understanding how outsourcing logistics functions can be beneficial in assisting businesses to gain a competitive advantage, increase customer service levels, and lower total logistics expenses. In addition, value can be added by 3PLs through the creation of operational efficiency and the sharing of resources across different customers. Due to the nature of the conditions and a lack of abilities to outsource logistics duties within their supply chain to third parties, it is logical that businesses look for other companies that offer this type of service.

It has dawned on me that as a logistics outsourcing service provider, not only providing services that give my clients a competitive advantage, but also fostering strong relationships with them.

## **Chapter 2 Research Question, Goals and Objectives**

### **2.1 Problem statement**

Over the last decades, logistics and supply-chain management have become increasingly crucial. Growth, along with gaining scale, has become critical for businesses. Companies have been compelled to broaden their product offerings and introduce a greater number of new products as a result of new technology and rising consumer demand. According to Rushton and Walker (2007) the necessity to meet the expectations of demanding shareholders, businesses have concentrated on improving manufacturing and distribution efficiencies while also attempting to lower costs. Hence, many businesses outsource their logistics functions to Third Party Logistics (3PL) companies, allowing them to concentrate on their core capabilities instead by relying on 3PL companies to outsource their logistics functions to a significant degree (Cheong, 2003).

In this scenery, 3PL providers must be nimble to address rapidly changing conditions in order to keep up with the growing level of complexity in the supply chain. Responding quickly to shipping requirements and responding to shifts in global economic demand patterns.

### **2.2 Research aim**

In line with the problem definition, the aim of this study is to examine the findings of The Annual Third-Party Logistics Study reports from 2012 to 2020, that reference the state of the third-party industry and leading trends in logistics and the supply chain by providing the perspectives on the nature of shipper and 3PL relationships as well as shippers expectations and challenges for the 3PL companies. In addition to support the research aim, a in-deep interview is conducted to a senior manager with wide experience in outsourcing logistics functions from the shipper perspective.

Drawing on research related to the relationship between 3PL providers and shippers, this study is motivated by the study of Lieb and Randal comparing the usage of 3PL service by large American companies (Lieb and Randal, 2004).



### **2.3. Research Question**

In order to achieve the above-mentioned aim, a main research question frames this paper.

*RQ1. What are the challenges for 3PL providers to fulfil shippers' expectations in outsourcing logistic functions and what are the trends from 2012 to 2020 in the 3PL industry globally?*

### **2.4 Research Question Objectives**

In line with the research question, three objectives are established in order to answer the research question:

*RO1. To identify the service offering (usage) of third-party logistics most frequently outsourced.*

*RO2. To examine how 3PL provider capabilities can add value to the shipper's logistics processes*

*RO3. To evaluate the relationship between shippers and service providers*

## **Chapter 3 Research Design Methodology**

### **3.1. Introduction**

This chapter provides further details of the methodology undertaken to collect data to analyse the research question. The methodology of the research approach is designed using a variety of different research methods. The research approach also assists the researcher in discovering the study findings. An explanation of the study's overall structure and the data collection procedures is provided in this section.

### **3.2. Research design**

A research design, according to Bryman et al. (2014) and Anfara (2014), is a framework for gathering and analysing data in order to generate an understanding of a phenomenon being examined. The primary purpose of research design is to maximise the credibility of the investigation by allowing the researcher to foresee what form of study is needed to successfully answer the research question (Babbie and Mouton, 2011)

There are a number of approaches used in this research method design. This research is exploratory in nature. Researchers conducting exploratory research are typically in the early

stage of examining topics due to a very little prior research has been conducted on the subject (Domegan, 1999). The first part of the analysis was to look for articles that were relevant to the goal of this study, using key words. Further, descriptive research is applied. It is used because it aims to analyse and discuss the status of a phenomenon. Thus, descriptive research relates an observation in the collected data (Walliman ,2010). In the descriptive research the data is collected in a qualitative manner and analysed using quantitative procedures and intends to answer ‘what’ related to a phenomenon (Nassaji, 2015).

In order to have a better understanding of how logistics outsourcing has changed through time a longitudinal study is undertaken. Longitudinal research has traditionally been used in quantitative studios to measure the aspects of change. However, qualitative longitudinal research contains unique qualitative methodologies that permit the examination of subjective interpretations and motivations, perceptions and attitudes, as well as their changes over time (Holland et al, 2006).

### **3.3. Research Methodology**

Mixed method research will be employed for the methodology of this study in order to acquire a deeper understanding of the 3PL industry and its changes. According to Creswell (2014), utilising a mixed method approach aims to provide a deeper understanding of the study. With the quantitative method, this study aims to delve into the data already available from previous 3PL study reports in order to quantify and take a comprehensive picture of the findings by statistical means. The qualitative approach, on the other hand, aims to analyse and discuss finding of the data collecting (Creswell 2014).

### **3.4 Data collection methods**

Researchers make use of a variety of data collection procedures to get information. According to Hox and Boeije (2005), primary data is information gathered for a specific research problem utilising processes tailored to the problem. Secondary data, on the other hand, is information gathered previously for other researchers or for purposes other than research (e.g., official statistics or administrative records). Similarly, Creswell (2014) points out secondary data is information that has already been collected and is readily available from other sources and when compared to main data, secondary data is less expensive and easier to collect. Secondary data is typically gathered through desk-based research. After

obtaining secondary data, the researcher should assess its validity and reliability (Creswell, 2014).

#### **3.4.1 Primary data**

As primary data for the study, an in-deep interview was conducted. In-deep interviews are conducted in an unstructured manner. These would be used to delve deeper into a general topic of interest. In this circumstance, there is no predetermined list of questions to work through, but the researchers must have a clear notion of the aspects that intend to be investigated as suggested by Saunders (2007). For this study, however, three questions were elaborated based on the research objectives in order to answer the research question (see appendix B) and were asked via telephonic. The senior manager interviewed was chosen based on the experience that the person possesses in the logistics as a shipper perspective.

#### **3.4.2. Secondary data**

Secondary data contain both quantitative and qualitative data, and they are mostly employed in descriptive and explanatory research (Saunders, 2007). This research uses documents as secondary data published by The Annual Third-Party Logistics Study findings reports that reference the state of the third-party logistics industry which consist in a web-based survey. Such survey is sent to both, 3PL providers and shippers around the world in a wide variety of industries, with the aim to study the trends and state of the industry every year (Infosysconsulting, n.d.).

#### **3.4.3. Ethical Issues**

When gathering and presenting information, this study will follow ethical guidelines and norms to conduct fair and respectful research, and credit the authors where data will be acquired. According to Creswell (2014), the respondents' values and beliefs, as well as the institutions through which the data is received, should come first, because the information that is revealed and trusted is fragile.

## **Chapter 4 Literature Review**

### **4.1 Introduction**

In businesses, the overarching goals in the supply chain management are to minimize supply chain operations and expenditures while still providing an adequate degree of customer service in selected market segments (Sweeney, 2002). O'Riordan and Sweeney (2007) suggest that an SCM strategy ensures that the consumer receives exactly what they need at the appropriate price and in a timely manner. Similarly, Trent and Monczka (2003) point out that the capacity to meet customer needs while responding to constant competitive pressure necessitates innovative and often sophisticated techniques to manage a company's supply chain.

In comparison to the other business operations inside the organization, logistics activities such as warehousing, distribution, transportation, and inventory management had been assigned a low level of emphasis at the time (O'Riordan and Sweeney, 2007). In the last 20 years, logistics outsourcing has grown in importance in the supply chain, while it was formerly handled by companies internally as a support role as suggested by the authors. The operations in the logistics functions represent an excellent opportunity for cost-saving to the firms when it comes to outsourcing. These logistics activities are considered as a not foundational part of the business as argued by Zacharia et al., (2011). However, as customers have become more demanding, the logistics function has now emerged as a source of competitive advantage, with an increasing emphasis placed on providing excellent customer service (Razzaque and Sheng, 1998).

Above all, Fadile et al. (2018) point out that outsourcing logistics activities have been adopted for companies as a habitual application, notwithstanding the companies' sizes and this phenomenon has piqued the interest of professionals and scholars.

### **4.2. Outsourcing definition**

The definition of outsourcing might mean different things for every business in diverse scenarios, which causes a diverse understanding of the concept due to its increasingly prevalent in practice and overall, in literature. Bolumole et al. (2007), in their study, identify that one of the reasons for this misconception is the absence of knowledge of the theoretical framework. Outsourcing, as defined by Lei and Hitt (1995), is the process of using external resources to enhance the manufacturing process of component parts while also making use

of external expertise and resources. In other terms, outsourcing is the hiring of specialist external services to help a firm cut costs and streamline procedures. According to Vargas and Lee (2018) to outsource, a company must first identify a weakness in one or more of its processes and then determine whether an external provider's services can improve that weakness. So, the first party can focus on its core business while the second party develops the first company's weaknesses.

#### **4.3. Evolution of logistics outsourcing**

According to Premkumar et al. (2020) by 1950s, logistics was a term mostly used by the military. Following the Second World War, Operational Research ideas were increasingly adopted by businesses where *'the onus of the firms was on getting the right goods to the right place at the right time'*. In later studies in the 1960s and 1970s showed logistics cost as a substantial component to overall cost; nevertheless, an emphasis on cost trade-offs leads to a fragmented perspective of logistics across businesses (Ballou, 2007). As a result, additional efforts have been made both in terms of research and practise in order to develop solutions to lower the costs associated with logistics. Third-party logistics was originated in the 1980s, and was rapidly becoming a very dependable choice for increasing supply chain effectiveness. As a breakthrough business field in the 1990s, soon it expanded to become a popular activity due to the particular skills and experience of providers (Govindan, Khodaverdi and Vafadarnikjoo, 2016).

In more recent years, substantial amount of literature review of logistics outsourcing has been published. For instance, Akbari (2018) explored a large online database from the period of 1996 to 2016 to conduct a research of journals articles that include logistics outsourcing research. The author's findings were that seven literature review studies were issued, as well as decision-making methods and reverse logistics research. On another hand, Selviaridis, and Spring (2007) reported in their study that from 1991 to 2005 survey research method was the driver of the majority of the publications. Marasco's (2008) study showed 33 international journals revision from 1989 to 2006 in order to demonstrate the state of 3PL research.

### **4.3.Reason to outsource**

According to customers who have used 3PL services and 3PL providers perception of the value of 3PL services have indicated that 3PL services have contributed to overall cost savings, improvements in customer service, and the development of new and inventive approaches to increase logistical effectiveness (Langley, Allen, and Capgemini, 2016). Companies began to look for new ways to improve their processes, especially in the area of quality, in the 1980s because they were interested in logistics operations at the time (Vargas and Lee 2018). According to the findings of their research, Maloni and Carter (2006) have determined the following three reasons as to why a company might desire to employ the services of a third-party logistics provider:

1. Cost reductions brought about by the expertise and economies of scale offered by 3PL providers.
2. 3PL's concentration and effectiveness resulting in service enhancements.
3. The use of 3PLs allows the company to concentrate on its core capabilities.

It became more and more important to improve the whole supply chain in conjunction with a more flexible international transportation industry, this reality elevated logistics providers to a critical and crucial position in the supply chain hierarchy as suggested by Vargas and Lee (2018). Hence, services began to proliferate in this way, integrating with storage services. Subsequently, according to Yang (2014), the focusing on delivering one-time and short-term logistics services such as warehousing and shipping in the 3PL industry beginnings has changed in recent years, 3PL companies have focused their efforts on developing long-term contractual ties with their customers through the provision of a wide range of logistics services. Yang (2014) emphasizes that 3PL providers nowadays may provide core services like shipping and storage, as well as more broad activities like crossdocking and export operations. Businesses, on the other hand, struggle to identify a trustworthy partner in order to gain the projected benefits of outsourcing (Aktas & Ulengin, 2005). An important factor in long-term outsourcing agreements is the greater level of commitment from both sides, as well as larger investments in joint operations (Bhatnagar et al., 1999).

## **Chapter 5 Research Findings**

### **5.1 Sampling method**

Sampling plays a central role in a marketing research study; indeed, a marketing research study would not be complete without sampling. Domegan (1999) suggests that the study population needs to be defined and a sampling list of all the people who are valuable has to be drawn up. The author points out that a clear understanding of who to talk or observe is decisive for the study in question, as well as identifying who or what possesses the necessary data for the study. Similarly, Marshall (1996) stated that the selection of a study sample is a critical stage in any research project, as studying entire populations is unlikely achievable.

Onwuegbuzie and Collins (2007) outlined 24 sampling approaches. According to the authors Non-random sampling is represented by the majority of these schemes (also known as non-probability sampling), whereas random sampling is represented by the minority of these schemes (also known as probability sampling). It was decided to use a non-probabilistic strategy for data collection for this study since it was intended to find correlations between key themes from papers discussing research in the 3PL sector. Onwuegbuzie and Leech (2007) affirm that a qualitative researcher that aims to gain insights into a specific phenomenon, individuals, or events rather than generalise to the general population is more likely to select individuals, groups, and settings for this phase. Hence, a purposive sampling approach was undertaken with an initial manual review for the exploratory research of journals in logistics and supply chain management (International Journal of Logistics Management, International Journal Of Physical Distribution And Logistics Management, Journal Of Business Logistics, And Journal Of Supply Chain Management). Studies pertaining to the 3PL industry were compiled and examined in order to choose the most relevant keywords to use. "3PL," "third party logistics," "logistics outsourcing," and "logistics service providers" were chosen as keywords. The keywords were then used to complete a comprehensive search in the ABI-inform database, EBSCO, and Google scholar. Then, a second purposive sampling approach was undertaken by choosing nine documents regarding to The Annual Third-Party Logistics Study findings reports from each year, from 2012 to 2020. In agreement with Domegan (1999), sample members are chosen in accordance with specified criteria that are not necessarily typical of the general population but are crucial to the success of the study.

## 5.2. Data analysis

Data that were obtained from the secondary data discussed above was analysed as below.

The documents to be analysed were loaded into nvivo. Later, keywords such as relationship, service offering, and value-added were identified as codes.

Following that, the keywords in the documents' text were examined. This assignment required recognising how the keywords link to the surrounding text and determining a result during the analysis.

## 5.3 Research Results

*RO1. To identify the service offering (usage) of third-party logistics most frequently outsourced.*

Over the period of time established in the study a great variety of service offering by the 3PL companies were identified. For logistics services, the most commonly are International and Domestic Transportation that were offered by 78% and 71% of the companies in 2012 but in 2020 that number decreased to 65% in international transportation and increased to 73% in Domestic Transportation; Warehousing was offered by 62% in 2012 and has an increasing to 73% of the companies; Customs Brokerage was offered by 48% initially and increased to 54% of the companies, and Freight Forwarding was offered by 57% of the companies and decreased to 52%. These services are more transactional and operational. However, although these operations are typically routine, 3PLs providers must be specialists at delivering them in unique and highly differentiated ways from the shippers' point of view.

Figure 1. Variation of logistics service offering from 2012 to 2020

| Logistics service            | Variation |
|------------------------------|-----------|
| International Transportation | -13%      |
| Domestic Transportation      | 2%        |
| Warehousing                  | 11%       |
| Freight Forwarding           | -5%       |
| Customs Brokerage            | 6%        |

*RO2. To examine how 3PL provider capabilities can add value to the shipper's logistics processes.*

The findings of study emphasise the need of 3PLs providing a variety of IT-based services to help shipper customers achieve value. The technologies that are more focused on execution



and transactional capabilities are the ones that are mentioned the most. These technologies include transportation management (planning and scheduling), warehouse and distribution centre management, electronic data interchange, and visibility. Although 3PL providers are not considered as leading-edge information technology suppliers, these findings are consistent with Lieb and Benz's (2004) survey. According to the authors, third-party logistics providers need to determine effective ways for bolstering their technological capabilities in order to attract potential users. This study demonstrates 3PLs have improved their technology since 2012. In addition, other important technologies more contemporary include network modelling and optimization, the usage of online portals, cloud-based systems, and sophisticated analytics applications. In the 2019 report, blockchain come across for first time with 8% of shippers and 15% of 3PLs responding that this was among the required technologies.

*RO3. To evaluate the relationship between shippers and service providers*

The study showed that 3PLs providers are quickly proving to be capable of much more than simply transferring goods from one location to another. As a result, the interactions between Shipper and 3PL are becoming more collaborative, resulting in higher overall value for shippers as well as better service and supply chain optimization. They are developing supply chains that are dynamic and flexible, which can provide shippers with a competitive edge by enabling them to bring their products to market more rapidly and to scale their capacities in response to fluctuations in the demand. Both shippers and 3PL providers agreed that their collaboration had been fruitful in general. Aspects such as logistics effectiveness, logistics costs are innovative ways which 3PL companies are contributing. Since the 2012 study, there has been a growing interest in cooperating with other organisations, even competitors, to improve logistics and service.

Regarding to the finding in the primary data. When the manager was question about what kind of service is your business outsourcing. The respondent mentioned transportation. This is consistent with what the results of the secondary data showed. In addition, the respondent said that by employing consolidated routes, 3PL service provider helps the company save a significant amount expense. However, the respondent wishes their 3PL had some IT abilities to better serve, because getting a real-time view of the transport position is tough.

## **Chapter 6: Conclusions and Further Research**

In this paper, we have outlined the status and trends of outsourcing logistics functions by examining the findings of The Annual Third-Party Logistics Study reports from 2012 to 2020. The findings showed the challenges for 3PL providers to fulfil shippers' expectations in their outsourcing logistic functions by answering the research question.

Furthermore, the study examines leading trends in logistics outsourcing inside the supply chain, as well as the ways in which shippers and third-party logistics can interact to create value and a cost-effective supply chain that will meet shipper demands. It investigates the growth and changes of the third-party logistics companies, the services that shippers outsource and the services that 3PLs provide, as well as the relationship between them. For years third-party logistics have been evolving, not only offer a service but rather collaborate with partners.

Researchers look into trends and challenges that will likely have an impact on the state of logistics outsourcing in the future as part of the study. Which information technologies systems, or tools a 3PL must have in order to properly provide a service to shippers in their business sector, it generates intriguing and enlightening insights for further study. IT capabilities, regardless of what kind they are, are critical for the efficient management of supply chain operations and activities. In a broader sense, it is obvious that the capacity to supply or oversee the provision of IT-based services is rapidly becoming a required core competency of 3PL providers.

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### Appendix A Project Planning

| Activity                                  | March |   |   |   |   | April |   |   |   | May |   |
|---|-------|---|---|---|---|-------|---|---|---|-----|---|
|   | 1     | 2 | 3 | 4 | 5 | 1     | 2 | 3 | 4 | 1   | 2 |
| <b>Assignment 1</b>                       |       |   |   |   |   |       |   |   |   |     |   |
| Project title                             |       |   |   |   |   |       |   |   |   |     |   |
| Problem definition                        |       |   |   |   |   |       |   |   |   |     |   |
| <b>Assignment 2</b>                       |       |   |   |   |   |       |   |   |   |     |   |
| Searching for literature                  |       |   |   |   |   |       |   |   |   |     |   |
| Reading literature                        |       |   |   |   |   |       |   |   |   |     |   |
| Designing research strategies and methods |       |   |   |   |   |       |   |   |   |     |   |
| Analysing data colleccion                 |       |   |   |   |   |       |   |   |   |     |   |
| Writing                                   |       |   |   |   |   |       |   |   |   |     |   |
| Submission                                |       |   |   |   |   |       |   |   |   |     |   |

### Appendix B Interview transcript

This interview was conducted by the author to senior manager.

1. Is your business using a 3PL service in its logistics function? If this is the case, what kind of service is your business outsourcing?

Yes, we are currently using a 3PL service provider. The function that we are outsourcing is transportation. With the transportation service we are able to deliver products to our customers.

2. Do you consider that your 3PL service provider is helping your business to overtake the issue related to the supply chain? How are they doing it?

Yes, outsourcing this part of logistics functions is allowing us to make some substantial saving. For instance, when we agree to schedule a shipment, they come across with different options regarding to the route the transport could do. Sometimes they come with combined routes where we share truck space with other companies, which means we negotiate on who will load the shipment first depending on the destination.

3. Is there any aspect that you consider your 3PL service provider should improve in its service?

Yes, when we make a shipment, it is common for us to contact the company to track the transport during the transportation of our product, normally it is done by phone call. However, I believe that if the company provided us with a tracking link to locate the transport via GPS, it would be very useful, since we could inform our client of the exact type of arrival of the shipment.

### **Appendix C Réflexion**

This research project has provided me with vital experience. I have a better knowledge of the nature of research and the continuous, often muddled research process. After doing this project research, I have come to understand that it is merely the beginning of my research career in general. During the time I spent doing the research, I felt both happy and frustrated. I learned to be more patient as a result of the numerous setbacks that occurred due to unforeseen events that arose even at the last minute. Research is not something that can be done instantly. The most difficult part of this research project has been to understand and put into context the ideas behind the methodologies so that they can be used.

Confusion over whether some methods and technics could be used in other methodologies led to several issues throughout the planning phase of the study project. It was exhausting to look for academic materials to back up my research approaches, and worries arose that I was not utilising the correct ones. However, I have learned that things do not always fall neatly into categories, and that research may be irritating and laborious at times, but also incredibly gratifying and even exhilarating at other times.

Due to the employment of software for qualitative evaluation, data analysis was another problem. During my travels, I discovered the Nvivo data analysis tool, which was really

intriguing to use because it was tailored to the type of research I wished to conduct; however, mastering this software was challenging and may have affected the quality of the findings.

Finally, but certainly not least. Failures in technology occur at any time. Despite the fact that this is my first research project, as I have never completed one even during my first degree in my home country, it has been really beneficial. This research study also gave several crucial insights that helped me assess my own professional values, as well as guidance for potential modifications to my own future practise.