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**Reverse Logistics Optimization --- A Research to the Uncertainties in  
the Third Party Reverse Logistics**

*Case of New Zealand Couriers Ltd*

A Thesis Presented in Partial Fulfillment of the Requirements for the Degree of Master of  
Logistics and Supply Chain Management

**At Massey University,**

**Auckland, New Zealand**

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**2011**

## ABSTRACT

During the past decade, there has been an increasing emphasis on supply chain management as a vehicle through which firms can achieve competitiveness in markets (Porter, 1998). A large number of example in the 1990s show how companies have made large investments to streamline their supply chains in order to improve customer satisfaction and increase their internal productivity (Christopher, 1998). The core of this research is to explore the uncertainties in 3PLs reverse logistics. The uncertainty is one of the significant factors, which directly influence the performance of supply chain system (Chopra & Meindl, 2004). There are many researches and theories about the uncertainties in traditional forward logistics; however, there has been limited attention to theory-based research in the returns management arena (Jahre, 1995a; Carter and Ellram, 1998; Daugherty et al., 2001). Managing these returns is known as reverse logistics (Louise, 2010). With the development of economics, the 3PLs reverse logistics will play an increasingly important role in the supply chain system; therefore it is necessary to consider how to improve the 3PLs reverse logistics. This research focuses on the case of New Zealand Couriers, which is Freightways' flagship brand, is positioned as the premier provider of network courier services to New Zealand businesses. Since 1964 New Zealand Couriers Limited has been the leading Courier Company. Case study is one of the significant qualitative research methods, tending to provide in depth information and intimate details about the particular case being studied. This research concerns the reverse logistics in third party logistics companies. Outsourcing already became one of the significant trends in today's logistics and supply chain industry, and the third party logistics company (3PLs) is originally the outcome of the outsourcing logistics function in businesses. Therefore the findings of researching the third party logistics company could have high level of external validity (Cameron & Price, 2009) and the results can be widely applied in many other companies.

**Keywords:** uncertainty, reverse logistics, supply chain optimization, supply chain management, third-party logistics provider, New Zealand Couriers.

## **ACKNOWLEDGMENTS**

First of all, I thank all the people, who were supporting me during the period of research.

I deeply thank my supervisors, Prof. Norman Marr and Alan Win, whose help, advice and supervision was invaluable.

Words alone cannot express the gratitude I owe to my family, for their encouragement and assistance.

Special thanks to my bosses and colleagues, who helped me in many ways.

Finally, I would like to thank the New Zealand Couriers. This research could not be done without supports of the company.

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