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FREIGHT BROKERAGE IN NEW ZEALAND
FROM THE PERSPECTIVE OF THE ROAD CARRIER

A dissertation
submitted in partial fulfilment
of the requirements for the Degree of
Master of Professional Studies

At

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By

P.J. Cochrane

Lincoln University

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FREIGHT BROKERAGE IN NEW ZEALAND
FROM THE PERSPECTIVE OF THE ROAD CARRIER

By P. J. Cochrane

A freight broker is an intermediary acting between a provider of a transport service and a shipper who has goods that they want transported. With the increase of shippers outsourcing the logistics components of their businesses, third party logistics (3PL) service providers have become evident, and the freight broker is a third party logistics provider. Since deregulation of road transport in New Zealand, shippers' expectations of transport has changed. Freight brokers worldwide now use the internet as a tool to bring carriers and shippers together. This benefits the carrier by adding visibility to freight that can help to reduce empty mileage and the shipper by reducing transportation costs and resource requirements.

A questionnaire was distributed to 90 randomly selected carriers throughout New Zealand. This research reveals that the benefits for the carrier and shipper when working with a freight broker are fundamentally the same as identified in the literature, but highlights disadvantages for both the carrier and the shipper that are not listed in the literature. The low opinion that carriers hold of freight brokers was evident in the results from the questionnaires.

This research makes several significant contributions to the literature. Firstly, it identifies the advantages and disadvantages of freight brokerage for the carrier and the shipper from the carriers' perspective in New Zealand. Secondly, it provides freight brokers with some ideas, again from the perspective of the carrier, that could make freight brokerage operate more efficiently and in many cases, gain respect from the
carriers. Lastly, this research identifies areas concerning freight brokerage in New Zealand that could provide a base for future research.

Keywords: Third party logistics (3PL), freight brokerage, freight intermediaries, load matching, under utilised capacity, empty running.
ACKNOWLEDGEMENTS

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An enormous thank you goes to my wife, Anne, who gave birth to our first child, Lucy Margaret, during the course of this dissertation. Thank you for your continuous support and encouragement.
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CHAPTER 1
PURPOSE OF THIS RESEARCH

1.1 Introduction

Over the last decade, an increasing number of shippers have been outsourcing the transport and distribution sectors of their businesses. Due to this increase in outsourcing, specialist third party logistics (3PL) companies have developed and improved their services offering a wide range of logistics functions to the manufacturer.

As an example, in 1982 the General Manager of Cadbury predicted that in the future, all grocery manufacturers would deliver their goods to one central warehouse. Here, the customer’s order would be individually broken down and delivered from this warehouse on one truck rather than a separate truck for each individual manufacturers item. Because products would be dispatched in bulk to wholesalers, a manufacturer would not require individual warehouses in every city. The manufacturer’s truck fleet would be sold and they would withdraw from distribution completely. Thompson et al. (2001) agree with this by stating that a fleet of vehicles does not have to be owned and maintained by the manufacturer or retailer for this type of operation.

Sink and Langley (1997) define third party logistics as using the services of an external supplier to perform some or all of a firm’s logistics functions. More recently logistics companies have been offering services such as inventory management, packaging and product labelling, tracking and tracing systems, order processing and final assembly of products in addition to transportation and warehousing (Browne & Allen cited in Brewer, et al., 2001). Many shippers believe that they do not possess the expertise required in-house to achieve the level of logistics service that they require. Furthermore, they see logistics as operating outside their core competencies so a third party logistics supplier is used to provide such services (Browne & Allen cited in Brewer, et al, 2001).
1.2 The Freight Broker
An example of a third party logistics supplier is the freight broker. A freight broker is a non-asset based freight management firm providing solutions to optimise transport (PR Newswire, October 29, 1999). A freight broker arranges transactions between a supplier of freight (shipper) and a provider of a transport service (carrier). Freight brokers provide services for both shipper and carrier. Brokers will find a carrier that will efficiently and economically transport freight for shippers. Brokers work with many carriers so can provide shippers with low cost efficient transportation. They work with carriers that have unused freight capacity and then charge the shipper a competitive rate. (Johnson et al., 1995). Depending on the clients needs, freight brokers can provide either one-off solutions, regular solutions and also a continuous review of existing solutions.

1.3 Aims of this Research
This dissertation examines freight brokerage in the road transport industry in New Zealand from the perspective of the carrier. The dissertation discusses the following questions:

- From the perspective of the carrier, what are the advantages and disadvantages to the shipper and the carrier by using a freight broker?
- Are there some commodities that are not suited to this type of service?
- Do shippers take advantage of backload rates to their initial starting destination, organised by the freight broker that has recruited carriers looking for return loads?
- Are there carriers that work only under freight brokers and therefore have no clients of their own?
- How important is the relationship between the shipper and the carrier under a freight broker agreement?
- Does the shipper or the carrier benefit most from a freight broker agreement?
- What are carrier’s opinions on making freight brokerage more efficient in the future?

By seeking answers to the questions above, this dissertation reviews pertinent literature and analyses the practice of freight brokerage in New Zealand as seen from the perspective of the road carrier.
CHAPTER 2
RELEVANT LITERATURE

2.1 History of Freight Brokerage

Road haulage capacity is sometimes limited in countries where regulation has been strict and the preferred use of transport services may be managed in-house. Countries that have a deregulated road transport regime tend to see 3PL's used more widely (Browne & Allen cited in Brewer, et al, 2001). Since the deregulation of road transport in New Zealand, the way in which shippers perceive transport’s role in their firms have changed, along with their expectations of what this transport should deliver (Mollenkopf, 1997). Changes in the transport industry have contributed to the closing of small rural branch warehousing which has resulted in consolidation into bigger operations in the major centres (Hurman, 1991). This is a result of improvements in service since road transport deregulation. Near the end of 1983, the 150 kilometre restriction was lifted for road transport where rail alternatives were otherwise available. By mid 1984, the licensing system, which imposed route, load frequency and time of day restrictions, was effectively removed (Sankaran, 1998).

2.2 Internet Usage

Freight brokerage companies now use freight matching programs via the internet to match empty space of carriers with shippers. These programs eliminate the need for shippers to make numerous telephone calls to identify the best rate and availability from carriers. Programs such as these will help to reduce empty line hauling kilometres by providing added visibility to potential freight that will benefit the carrier. For the shipper, benefits include reduced transportation costs and resource requirements. In the United States, this has been taken one step further. The shipper will enter a specific tender that it is willing to pay for the shipment, and then the carrier will enter rates that it is prepared to accept for shipping the product. This results in carriers discounting unused capacity and therefore enhancing profits (PR Newswire, 1999).
2.2.1 United States

One particular company is Freightwise Inc. in the United States (US). Freightwise Inc. runs a truck-load matching site. Freightwise is one of the first exchanges that allow the shipper to buy and pay for transport services online. One transport operator states that their equipment that is sitting idle is advertised through Freightwise at no cost until a load is found, whereas previously a staff member would have to contact customers or other dispatchers to find loads for this equipment. (Gallagher, 2000). Others sites, such as Getloaded.com, boast a 24 hour load availability board that can be accessed by truckers to secure loadings even while they are on the road. This eliminates the time consuming and frustrating phoning of as many brokers or shippers as possible to secure a return load, and can result in the difference between solid profit and just break-even (PR Newswire, 1999).

One Way Locator works on the same basis as the online freight matches. One Way Locator helps carriers find loads and shippers to advertise loads that they have ready for transporting. It also advertises and provides a link for people that need to get from one place to another without paying the high cost of transportation. This is based on people looking to reposition their recreational vehicles (RV’s) and an individual that wants to make a journey can enter their points of departure and destination on the One Way Locator site and may find someone who requires an RV to be repositioned (One Way Locator, 2003).

2.2.2 Europe

CargoDirect is an on-line freight database based in Germany catering for the whole of Europe. By using cargoDirect, it is possible for carriers to simply compare information regarding free capacity, vehicle location and loads via the Web. A commission is not paid by the carriers for accessing loadings, only a monthly rental fee for the utilisation of the cargoDirect database (cargoDirect, 2003). Like most freight brokers using the internet as a tool, cargoDirect offers advantages such as:

• 24 hour access to the freight database
• reduction of your disposition expenses
• optimisation of transport routes
• avoidance of empty runs
• reduction of expenses for telecommunications.

The Timocom freight exchange is another virtual market place for freight forwarders and carriers claiming that throughout Europe they offer almost 22000 empty truck capacities and loads from approximately 8600 clients daily (24 January, 2003). TimoCom is available in 14 different languages and the information is translated simultaneously (TimoCom, 2003).

2.2.3 Australia
E-Freight Auctions is an interactive and real-time web site that has been established in Australia because of the need for freight forwarders and transport operators requiring new technologies to improve their operating efficiencies. Along with users improving their productivity and freight management, E-Freight Auctions will also help the Australian freight industry achieve better service levels through greater levels of market penetration and competition by both shippers and carriers. The freight auction is the core business of the web site. The carriers with empty capacity bid for freight and the lowest bid is then accepted by the shipper. The carrier will receive notification from E-Freight Auctions and from that point, E-Freight Auctions have no further involvement in the freight movement. E-freight Auctions state that they are an intermediary and are not an agent for the forwarder or carrier (E-Freight Auctions, 2003).

2.2.4 New Zealand
In New Zealand, the closest freight brokerage firm resembling those in the United States is eCargo. eCargo is internet based software that links shippers and carriers and enables significant efficiency gains in freight management. It is designed to achieve better fleet utilisation and save time and money. eCargo has two different tools that both carriers and shippers can use. The “Contract Market” tool provides visibility, improves communication and measures performance, for all parties involved. This market focuses on the relationships between the sender, carrier and the receiver along a supply chain. The “Spot Market” tool is an online freight matching tender service. For the carrier it helps identify back-load opportunities and appropriate pricing. For the shipper it has advantages in finding carriers with spare capacity. This market is more suited to unexpected and urgent freight requests (eCargo, 2002).
eCargo Ltd was launched in October 2000 and the company believes that by matching supply and demand through communication, both the carrier and the shipper will benefit. Transport operators who have registered with eCargo, are instantly notified of a job by email and/or text message on their phone. After an on-line tender, the shipper selects which carrier they wish to perform the service. Carriers are able to plan back-loads and tender for extra business with little extra effort (eCargo, 2002).

For shippers, eCargo takes away the problems of managing the tender process themselves, which can be very time consuming.

2.3 Electronic Applications
Transportation Partners.com is an electronic exchange and Application Service Provider (ASP) for freight intermediaries. The company has developed SmartLoad™, the first integrated, web-based, real-time electronic marketplace for the brokered trucking segment of the freight transportation industry in the United States. The company's solution provides brokers with pay-per-use load matching, quoting, tracking, and billing services using an integrated suite of productivity tools (Business Wire, May 16, 2000). Transportation Partners.com believe that SmartLoad will strengthen the relationship that already exists between freight brokers and their primary carriers and will deliver a solution that enhances a freight broker's value to its trading partners, while providing significant benefits to carriers and shippers.

2.4 Advantages of Freight Brokerage
Advantages of using a freight broker are varied for both parties concerned. For the carrier, often there are many vehicles carrying less than full loads which results in an under utilisation of capacity. (Thompson et.al., 2001). A freight broker will help to reduce empty running kilometres by making freight more visible. Shippers will be able to ship less than truck-load consignments without paying full load rates (PR Newswire, October 29, 1999).

For the carrier, visibility of freight movements enables scheduled backloading, and improved fleet utilisation. It allows for much more efficient planning.
A freight broker will usually keep up-to-date information on carriers and therefore knows immediately which routes they travel and the type of trucks that the carrier uses. A broker will identify the carriers that will provide the right type of service for the individual shipper (PaloAlto Software, 2002).

Freight brokers provide services for both shipper and carrier. Brokers will find a carrier that will efficiently and economically transport freight for shippers. Brokers work with many carriers, so can provide shippers with low cost efficient transportation. They work with carriers that have unused freight capacity and then charge the shipper a competitive rate (Johnson et al., 1995).

2.5 Opinions and Confusion

Many carriers have personal opinions of freight brokers that are negative. Johnson et al., (2000) state cases where carriers call brokers ‘parasites’ and a ‘curse to the road transport industry’. Their reasoning behind this is that shippers used to deal directly with carriers, but now can contract through freight brokers for freight. Carriers believe that the freight broker is interested in the cheapest possible way of transporting their client’s goods and then take a percentage of this. They go on to say that the freight broker takes no risks and has nothing invested in the trucking industry besides a telephone, yet they mange to extract a proportion of the revenue when a product is shipped.

Freight brokerage can sometimes be confused between freight forwarders and freight brokers. Under the latter agreement, the shipper deals with one operator rather than numerous operators for different modes and regions. Complications can arise when brokers and forwarders extend their services into each other’s markets (Muller, 1992). Pettigrew (1971) defines the freight forwarder as someone who joins the consignor and consignee together through efficient utilisation and control of the transport media. Under a freight forwarding agreement, the carrier deals with one client who consolidates freight into much more manageable volumes and not a multitude of different sized consignments from different clients.
CHAPTER 3
RESEARCH METHODOLOGY

3.1 Methodology
To analyse the advantages and disadvantages of freight brokerage in New Zealand from the road carrier’s perspective, along with general questions relating to freight brokerage, a mail questionnaire was employed to carry out this survey. A mail questionnaire was deemed to be the most cost effective method available to complete this survey because New Zealand transport operators are geographically dispersed from one end of the country to the other. Because the objective of the survey was to obtain the opinion of the carrying company, the operations manager was targeted in larger firms whereas the owner operator was targeted in smaller firms. Such a person would have a better understanding of freight brokerage and the advantages and disadvantages that freight brokerage may have for their individual firm.

3.2 Questionnaire Format
The questionnaire was divided into three sections. Section A gained general descriptive information about the carrying company being surveyed (sectors within the industry that the firm operates, size of firm, regions in which the firm operates and the volume of their work, and if any of that work was organised through freight brokers).

Section B was solely concerned with the advantages and disadvantages for the carrier, and how the carrier perceived the advantages and disadvantages for the shipper. For each question, several choices were provided, and the respondents asked to select all those they believed were applicable. Each question was also open-ended, so that if there was an issue that the respondent felt had been omitted, they could include it.

Section C was mainly made up of standard 3 and 5 point Likert scale questions, enabling the respondent to select whatever they felt was appropriate. There were two open-ended questions included, asking what commodities the respondent believed were unsuitable for carriage organised by a freight broker, and what, in the carrier’s opinion, could make freight brokerage more efficient than it is at present.
3.3 Sample Size

The Yellow Pages on the internet were used to obtain a sample for this survey. The Yellow Pages was chosen because it was a reasonably comprehensive listing that could be obtained readily. Transport operators that had listed themselves in the Yellow Pages were considered to be representative of the total population. A search looking for transport operators in the Yellow Pages, returned 1312 matches. This was the most comprehensive listing that could be found out of an estimated 5300 transport operators (NZ Trades Directory, 2002) plying for hire or reward in New Zealand. The sample of 1312 transport operators, were further segmented by region (see Appendix 1). Canterbury and Timaru/Oamaru, Marlborough and Nelson Bays, Wanganui and Taranaki, and Waikato and Bay of Plenty were combined to form single regions. For all regions that had less than 75 listed transport operators, a random sample of 7 was selected. This left the Auckland Region (259), Waikato/Bay of Plenty (250), and Canterbury/Timaru and Oamaru (234) and 21 transport operators were selected from each, so that the sample would have the same representation as the smaller regions with respect to total population.

This produced a total sample size of 140 transport operators. A telephone call was made to each operator prior to the questionnaire distribution. This was to enhance the response rate to the questionnaire. The operations manager was targeted, and once contact was made with this person, the questionnaire was explained and then they were asked if they would participate. They were also encouraged to leave an email address so that a brief synopsis of the results of the research could be sent to them if they wished.

Of the 140 identified in the sample, two had ceased to operate and three had the wrong telephone numbers listed. Of those contacted 18 declined to take part. 27 could not be contacted. For those that could not be contacted, an attempt was made to telephone them three times before they were omitted from the sample. Of these 27, 11 were contacted but the operations manager/owner operator was not available. These firms were told what the survey was about and the person on the telephone said that it would be better to wait until the operations manager was available and to speak to them in person. The remaining 16 did not answer their telephones. These people were
telephoned during business hours, and for those that did not answer, were phoned again after hours in case they were a small owner operator and were out driving their truck during the day.

3.4 Sample Composition
This research sought to target transport operators in New Zealand across all sectors. All operations managers/owner operators that questionnaires were sent to, were expected to be familiar with freight brokerage in the road transport industry, irrespective of whether or not their particular firm used freight brokers. Of the representative sample of seven selected from each region, it was decided that one of these seven would be a large operator (100 trucks or more), two would be a middle-sized operators (30 - 100 trucks) and four would be smaller operators (less than 30 trucks). The reasoning behind this was that there are more smaller transport firms operating in New Zealand than larger firms.

3.5 Data Collection
The data collection followed the procedures outlined by Dillman (1978). The questionnaire along with a cover letter and a stamped self addressed envelope were sent to the operations manager/owner operator of 90 transport operators previously contacted by telephone. The cover letter included an explanation of the research, the reason the firm had been selected for this survey and an assurance that their replies would remain anonymous. The cover letter and questionnaire can be found in the Appendices.
CHAPTER 4
RESULTS

4.1 Response Rate
A total of 59 questionnaires (66%) were returned from the original 90 questionnaires distributed during the main data collection. Out of these 59 questionnaires, two were deemed unusable due to the lack of questions being answered and one respondent was a freight broker, so that questionnaire was omitted also. This made a usable total of 56 questionnaires (62%).

4.2 Usage Rates
Twenty-one (38%) of the 56 questionnaire respondents indicated that they used the services of freight brokers. Among the users of freight brokerage services, 80% indicated that work gained through freight brokers made up less than 5% of their total work, 5% indicated 10%, 10% indicated 20% and 5% indicated that 50% of their work was gained through freight brokerage services.

Hereafter, firms that use freight brokers will be deemed users and those that do not will be deemed non-users.

4.2.1 Size of firm

<table>
<thead>
<tr>
<th>No. vehicles</th>
<th>Users %</th>
<th>Non-Users %</th>
<th>Combined %</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;10</td>
<td>38</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td>11-50</td>
<td>33</td>
<td>50</td>
<td>43</td>
</tr>
<tr>
<td>51-100</td>
<td>14</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td>101-150</td>
<td>5</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>151-200</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>200+</td>
<td>10</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>
As Table 4.1 shows, of those firms that used freight brokerage services, 38% had less than 10 trucks, 33% had between 11 and 50 trucks, 14% had between 51 and 100 trucks, 5% had between 101 and 150 trucks and 10% had more than 200 trucks.

This was compared to the total survey respondents (including those that used freight brokerage services and those that do not). 38% had less than 10 trucks, 43% had between 11 and 50 trucks, 9% had between 51 and 100 trucks, 4% had between 101 and 150 trucks and 6% had more than 200 trucks.

The mean number of trucks in a fleet for users is 46.45 whereas the mean for non-users is 30.44. The range for the two populations is the same (219) displaying that firm size ranges from the small one truck operator to the large nationwide operator.

4.2.2 Usage Compared to Size of Firm

Of the 8 firms that had less than 10 trucks that used freight brokers, 5 used freight brokerage for less than 10% of their work, 1 used freight brokers for 10% of their work, and 2 used freight brokers for 20% of their work. Of the 6 firms that had between 11 and 50 trucks, 5 used freight brokers for less than 5% of their work, and 1 firm used freight brokerage for 50% of their work. All larger firms that used freight brokers comprised of less than 5% of their total work.

4.3 Advantages and Disadvantages of Freight Brokerage to the Carrier

For the following responses, the interviewee could indicate more than one option if they so wished as Table 4.2 and Table 4.3 show.
Table 4.2 Advantages for the carrier of using a freight broker

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Users</th>
<th>Non-users</th>
</tr>
</thead>
<tbody>
<tr>
<td>More accessible loads</td>
<td>24</td>
<td>9</td>
</tr>
<tr>
<td>Providing back-loads</td>
<td>71</td>
<td>68</td>
</tr>
<tr>
<td>One point of contact to assemble a variety of loads</td>
<td>29</td>
<td>24</td>
</tr>
<tr>
<td>Reducing administrivia</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td>No advantages listed</td>
<td>10</td>
<td>24</td>
</tr>
</tbody>
</table>

Both users and non-users indicated that the biggest advantage to the carrier of using a freight broker is providing back-loads (71% and 68% respectively). This followed with the broker being one point of contact to assemble a variety of loads (29% and 24%). 24% of users indicated that a broker provided more accessible loads compared to only 9% of non-users. 10% of users indicated that the broker offered no advantages to the carrier and 24% of non-users agreed with this.

The carrier that indicated that 50% of their work was organised through a freight broker listed all options as advantages and was the only carrier to do so. Other advantages that carriers listed were a broker enables the carrier to work outside of their normal operating area and when costing a job, a sales margin does not have to be included as the broker is doing this. A small operator indicated that the broker can sell, price and execute the job, which lets the carrier concentrate solely on cartage.

The biggest disadvantage to the carrier of using a freight broker was indicated by both users and non-users as offering lower rates to the carrier once the broker takes their fee (86% and 94% respectively). This was further indicated when carriers listed other disadvantages such as brokers driving freight rates down and that margins are too small to allow another party to participate. Not dealing with the shipper directly was regarded as a disadvantage by 48% of users and 85% of non-users. Insufficient information given regarding loadings was listed by 19% of users and 38% of non-
Table 4.3 Disadvantages for the carrier of using a freight broker

<table>
<thead>
<tr>
<th>Disadvantages</th>
<th>Users %</th>
<th>Non-users %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower rates to the carrier once the broker takes their fee</td>
<td>86</td>
<td>94</td>
</tr>
<tr>
<td>Insufficient information given regarding loadings</td>
<td>19</td>
<td>38</td>
</tr>
<tr>
<td>Not dealing with the shipper directly</td>
<td>48</td>
<td>85</td>
</tr>
<tr>
<td>No disadvantages listed</td>
<td>10</td>
<td>0</td>
</tr>
</tbody>
</table>

Users as a disadvantage and 10% of users indicated that there were no disadvantages to the carrier by using a freight broker.

All options were listed by 19% of users and 35% of non-users as disadvantages while a further 14% and 44% respectively listed as disadvantages both lower rates to carriers once the broker takes their fee and that the carrier is not dealing directly with the client. Other disadvantages that were listed included poor terms of payment and payment schedules to the carrier.

All hypotheses were tested with chi-square tests (see Appendix C), all were statistically significant except for disadvantages for the carrier of using a freight broker that was statistically insignificant, $x^2(2,N = 103) = 16.39$, n.s.

4.4 Advantages and Disadvantages of Freight Brokerage to the Shipper

The biggest advantage to the shipper when using a freight broker is that the broker is one point of contact for organising all transport (81% and 68% respectively). This is followed by the increased availability of transport options to the shipper (43% and 32%). For better service levels, 29% of users indicated this was an advantage whereas only 6% of non-users indicated this. 10% of users indicated there were no advantages to the shipper and 21% of non-users indicated the same.
Table 4.4 Advantages for the shipper of using a freight broker

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Users</th>
<th>Non-users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction in transport costs</td>
<td>33</td>
<td>26</td>
</tr>
<tr>
<td>Reduction in administration costs</td>
<td>19</td>
<td>26</td>
</tr>
<tr>
<td>Better service levels</td>
<td>29</td>
<td>6</td>
</tr>
<tr>
<td>Increased availability of transport</td>
<td>43</td>
<td>32</td>
</tr>
<tr>
<td>One point of contact for organising all transport</td>
<td>81</td>
<td>68</td>
</tr>
<tr>
<td>Continuous review of best transport options</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>No advantages listed</td>
<td>10</td>
<td>21</td>
</tr>
</tbody>
</table>

One carrier (user) with a fleet size of more than 200 listed all available options as advantages while 3 other carriers listed 5 of the 6 options. Of the carriers that listed no advantages, the users used freight brokers for approximately 1% of their work and the non-users listed general freight as their main sector of operation.

Table 4.5 Disadvantages for shippers of using a freight broker

<table>
<thead>
<tr>
<th>Disadvantages</th>
<th>Users</th>
<th>Non-users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not building relationships directly with the carrier</td>
<td>67</td>
<td>76</td>
</tr>
<tr>
<td>Different carriers being used constantly</td>
<td>71</td>
<td>85</td>
</tr>
<tr>
<td>Some carriers inexperienced carrying some products</td>
<td>67</td>
<td>79</td>
</tr>
<tr>
<td>No disadvantages listed</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

As Table 4.5 shows, all responses were roughly the same for the three options given and 3% of non-users listed that there were no disadvantages to shippers by using a freight broker. 33% of users and 64% of non-users listed all options as disadvantages to the shipper.
Other disadvantages listed by users were that freight brokers were an added cost to the shipper and that the shipper risked the goods being held under carriers' lieu if the broker failed to pay the carrier.

Non-users listed further disadvantages to the shipper as levels of service being reduced through a broker transaction and non-conformance issues such as the broker not being able to directly address service or people problems such as unreliable operators with poor drivers and equipment was also seen as a disadvantage. A further disadvantage listed was that brokers create an unrealistic view in the shippers' mind of what the freight rates are as brokers tend to drive freight rates down.

4.5 Importance of Relationships under a Freight Broker Agreement

Table 4.6 Importance of relationship between carrier and shipper

<table>
<thead>
<tr>
<th></th>
<th>Users %</th>
<th>Non-users %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Important</td>
<td>19</td>
<td>32</td>
</tr>
<tr>
<td>Important</td>
<td>19</td>
<td>14</td>
</tr>
<tr>
<td>No different</td>
<td>33</td>
<td>21</td>
</tr>
<tr>
<td>Unimportant</td>
<td>29</td>
<td>21</td>
</tr>
<tr>
<td>Very Unimportant</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>No answer</td>
<td>0</td>
<td>12</td>
</tr>
</tbody>
</table>

Table 4.6 displays the importance of the relationship between the carrier and the shipper under a freight broker agreement. The most frequent response for users indicates that the relationship is no different to that of a direct transaction between a carrier and a shipper or unimportant (33% and 29% respectively). The most popular response for non-users was that the relationship is very important (32%).
4.6 Freight Brokers in New Zealand in the Future

Table 4.7 Future role of freight brokers

<table>
<thead>
<tr>
<th></th>
<th>Users</th>
<th>Non-users</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Larger</td>
<td>24</td>
<td>18</td>
</tr>
<tr>
<td>Similar</td>
<td>38</td>
<td>47</td>
</tr>
<tr>
<td>Smaller</td>
<td>38</td>
<td>32</td>
</tr>
<tr>
<td>No answer</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 4.7 displays how carriers viewed the role that freight brokers would play in the New Zealand road transport industry in the future. Users responses were relatively uniform with 38% indicating a similar role, 38% indicating a smaller role and 24% indicating a larger role. The carrier that indicated that 50% of their work was organised through freight brokerage was one of the carriers that indicated that they thought freight brokerage would become larger. The other firms that used freight brokerage for more than 5% of their total work indicated that they thought freight brokerage would remain similar to what it is now. 47% of non-users indicated that they thought freight brokerage would remain similar to what it is now, with 32% indicating smaller and 18% indicating larger than what it is now.

4.7 Accessibility of loads from Isolated Areas

Table 4.8 Likelihood of carrier using broker to access loads from isolated areas

<table>
<thead>
<tr>
<th></th>
<th>Users</th>
<th>Non-users</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Very Likely</td>
<td>10</td>
<td>18</td>
</tr>
<tr>
<td>Likely</td>
<td>38</td>
<td>50</td>
</tr>
<tr>
<td>Neither</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Unlikely</td>
<td>42</td>
<td>14</td>
</tr>
<tr>
<td>Very Unlikely</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td>No answer</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>
In Table 4.8, it is indicated how likely a carrier would be to use a freight broker to source loads from isolated areas. Users indicated that 38% were likely and 42% were unlikely to use freight brokers to source loads from isolated areas. Non-users indicated that 50% were likely and 18% were very likely to use a freight broker to source loads from isolated areas.

4.8 Which Party Benefits more from the Services of a Freight Broker?

Table 4.9 Who benefits more from the services of a freight broker

<table>
<thead>
<tr>
<th></th>
<th>Users %</th>
<th>Non-users %</th>
</tr>
</thead>
<tbody>
<tr>
<td>The carrier</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td>Both</td>
<td>42</td>
<td>21</td>
</tr>
<tr>
<td>The shipper</td>
<td>48</td>
<td>43</td>
</tr>
<tr>
<td>Neither</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>The broker</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>No answer</td>
<td>0</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 4.9 identifies which party benefits more from the services of a freight broker. The most common response for users and non-users was the shipper and indicated 48% and 43% respectively. 42% of users indicated that both the shipper and the carrier benefited whereas only 21% of non-users agreed. All the operators that freight brokerage made up 10% or more of their work indicated that both parties benefited. 5% of users believed that the carrier benefited most and 18% of non-users indicated the same.

4.9 Geographical Dispersion

Table 4.10 displays the geographical dispersion of carriers and the areas that they operate in. As can be seen in the table, the figures are relatively similar with the exception of 24% of users as opposed to 15% of non-users that haul inter-island. The South Island figures were very similar with only 33% of users hauling in the North Island using freight brokers compared with 44% of non-users.
Table 4.10 Geographical Dispersion of Carriers

<table>
<thead>
<tr>
<th></th>
<th>Users</th>
<th>Non-users</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Island</td>
<td>33</td>
<td>44</td>
</tr>
<tr>
<td>South Island</td>
<td>43</td>
<td>41</td>
</tr>
<tr>
<td>Inter Island</td>
<td>24</td>
<td>15</td>
</tr>
</tbody>
</table>

4.10 Commodities Unsuitable for transporting by Freight Brokers

Table 4.11 Commodities that are not suited to freight Brokerage

<table>
<thead>
<tr>
<th></th>
<th>Users</th>
<th>Non-users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialised product</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Perishable freight</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Small consignments</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Livestock</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Fragile freight</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Low revenue products</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Heavy haulage</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Bulk</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Dangerous goods</td>
<td>1</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 4.11 displays commodities that carriers believe are not suited to freight brokerage. Not all carriers agreed that there were commodities that were not suited. 47% of users believed that all products were suitable and 33% of non-users believed that this was so. As can be seen in Table 11, perishable freight is considered by non-users to be the commodity that would least suit cartage under a freight broker agreement, followed by livestock for users and non-users, then specialised freight. Specialised freight was taken to mean commodities requiring special attention (eg. concrete products, glass, resin in bags) and equipment.
CHAPTER 5
DISSCUSSION AND CONCLUSIONS

5.1 Discussion of Findings
A freight broker arranges transactions between a provider of a transport service and a supplier of freight, therefore providing services for both shipper and carrier. Freight brokers fill a void by providing freight for carriers who have underutilised freight capacity. The carrier will in turn transport freight for shippers. The freight broker is a non asset based freight management firm providing solutions to optimise transport (PR Newswire, 1999).

Freight brokerage has become very popular in overseas countries (particularly the United States, Europe and Australia) and to an extent, New Zealand. Freight brokerage is not as prevalent in New Zealand compared to other countries because of the lack of population and therefore the lack of freight tonnage to be transported. Because of New Zealand’s elongated geography (and the lack of population) there is a limited opportunity to apply hub and spoke distribution systems (Neil Reid, Personal Communication). Other countries that do not have such an elongated geography can consider hub and spoke applications, which helps make freight transportation much more efficient. New Zealand also has unbalanced freight flows between North and South Islands. This is evident in many rate structures of carriers where their rates are cheaper to move freight northbound from Christchurch to Auckland as opposed to southbound from Auckland to Christchurch. Freight brokers can however assist to match these freight flows with a carrier. An example of the imbalance of freight rates is the firm Hannahs who have recently located their distribution centre in Wellington to take advantage through economies of scale of the imbalance of freight rates.

Deregulation of the road transport industry in New Zealand in 1983 opened the market for freight brokers as there was no real opportunity before this (Peter Goodwin, Personal Communication). Most freight brokers work in the line-haul sector of road transport. The road transport industry allowed freight brokers to emerge as carriers were not strong enough initially to resist them (Neil Reid, Personal Communication). It took carriers 4 to 5 years to gain their own contacts and catch up
to the freight brokers. The effects of the freight broker on the industry were dramatic decreases in rates and minimised margins. Once deregulation began, the emergence of freight brokers was influenced by the need to obtain return loadings since the 150 kilometre restriction on competition with rail was lifted.

Freight brokers in the United States use the internet to match the empty capacity of carriers with shippers who have freight to transport. Also on these freight brokerage sites, the shipper will enter a specific tender that they are willing to pay for the shipment and then the carrier will enter rates that they are prepared to accept for transporting the product. The end result of this is carriers discounting unused capacity and therefore increasing profits (PR Newswire, 1999). There is one such freight broker in New Zealand that operates along these lines. Launched in October 2000, eCargo believes that the carrier and the shipper will benefit through utilisation of their service through enhanced communication and matching freight supply and demand. There is a number of other freight brokers in New Zealand, but none who use the internet as a tool.

Johnson et al. (2000) conducted a survey of freight brokers and the advantages and disadvantages of their jobs in the United States. A major disadvantage was the low respect held for freight brokers by carriers, and the same is evident in New Zealand. It was made evident by some comments during the course of this study by many carriers that freight brokers are held in low esteem. One of the main reasons behind this is that many freight brokers are taking a commission off the carrier’s rate, therefore eroding the profit margins of the carriers. Some carriers felt that freight brokers had no capital outlay in the road transport industry and therefore had no risk invested. 48% of users and 43% of non-users believed that the shipper benefited more from the use of a freight broker. As the freight broker builds business and increases the amount of freight handled, they can leverage lower freight rates from carriers. This, in effect, can force down the overall industry rates resulting in it being unprofitable for the carrier. Levels of service offered decrease and accident rates rise as carriers flout load and operational regulations in search of profitability (Peter Goodwin, Personal Communication). It has been observed that there are carriers who will operate at either nil or negative margins for freight brokers on some routes, thereby lowering the apparent freight rate to both freight brokers and shippers.
One of the most important aspects from both carriers and shippers is the integrity, honesty and reliability of the freight broker (Peter Goodwin, Personal Communication). Increased communication between all parties would enhance the freight broker relationship. Terms of payment were listed by some carriers as a disadvantage for carriers. However, one carrier commented that their relationship with the freight broker that they used was very good and terms of payment was not an issue.

From the carrier's perspective, there are courses of action that could be undertaken to make freight brokerage more efficient. Apart from better communication and more realistic rates paid to the carriers, some large carriers mentioned the need for better advertising and the involvement of more substantial players, including brokers, carriers and shippers becoming involved on a larger scale. The broker could become part of a 'Star Alliance' type of arrangement supported by well-known and established carriers. The broker could provide a clear definition of the product to be handled, and the equipment needed to transport the product. Brokers already develop relationships with carriers, but they could establish even closer relationships understanding the carrier's regular patterns of movement and therefore optimising routes to take advantage of where and when equipment is available. One carrier suggested that a freight broker should enter an agreement with either one or a limited number of carriers for a particular commodity rather than switch between many different carriers, thereby minimising the risk of damage by carriers inexperienced in transporting that particular product while building a stronger relationship with a core group of carriers.

Many brokers charge the shipper the amount quoted by the carrier for a movement, and then pay the carrier this rate less a commission. To remain financially viable, the freight broker must then increase the volume of freight that they deal with. They need to broker more freight in order to disperse overheads and fixed costs and therefore increase profitability. With large volumes of freight they can leverage market rates from carriers.
38% of carriers that responded to the questionnaire indicated that they used the services of a freight broker. Although this indicates a relatively extensive penetration of freight brokers into the road transport industry, 80% indicated that loads organised through a freight broker made up 5% or less than 5% of their total work. 5% of carriers indicated that loads organised through a freight broker made up 50% of their work.

When comparing the size of a carrier (number of vehicles in their fleet) to the usage of freight brokers, 38% had less than 10 trucks and 33% had between 11 and 50 trucks. This reflects the sizes of the total carrying firms surveyed and reflects the number of firms in existence in New Zealand. There are more firms this size than there are larger firms with more than 50 vehicles. 10% of users surveyed had more than 200 vehicles operating.

The main advantage for a carrier listed by both users and non-users was that a freight broker can provide back-loads. A freight broker is one point of contact to provide a variety of loads and was listed by both users and non-users as a significant advantage, but 24% of users listed that a freight broker made loads more accessible compared with 9% of non-users. 24% of non-users listed no advantages of using a freight broker for a carrier. Some carriers act as a broker for their clients when that particular carrier may not service an area where a client wishes goods to be transported. Many do not gain extra remuneration for this, but do it as a service for their client.

The main disadvantage to the carrier mentioned was that after the broker takes their fee, it results in lower rates for the carrier (86% of users and 94% of non-users). A major reason for this response was that as the margins are already so small in the road transport industry in New Zealand, they were made even smaller by the freight broker taking their cut. Perhaps instead of taking their fee from the carrier’s rate, they could add their fee on so that the shipper was paying directly for their service rather than the carrier. One respondent from the questionnaire stated that a freight broker is motivated by volumes and has little regard for the realistic minimum that the carrier needs to continue to operate. This results in the freight broker gaining their commission regardless of whether the carrier makes any margin from the job. The carrier is not building an ongoing business in working through a freight broker as the
lowest price bidder will determine who gets the work. The freight broker often has a requirement from the shipper to achieve lowest transport cost. 85% of non-users believed that not dealing with the shipper directly was a disadvantage to the carrier where 48% of users believed the same.

Customer service has always played a large part in the road transport industry. In many cases that depends upon direct contact with the client. Another party (the freight broker) can risk either straining the relationship, or slowing the whole transportation process down.

The carrier’s perception of advantages for the shipper from using a freight broker are that the shipper has one point of contact to organise their total transport requirements. 81% of users perceived this to be the main advantage along with 68% of non-users.

For larger shippers, they may need one or more full time employees to organise their transport arrangements, but by using a freight broker, the role would only be to manage the relationship with the broker instead. However, this can be achieved by a carrier having a contract with a shipper and sub contracting to other carriers.

Increased availability of transport was listed by 43% of users and 32% of non users as an advantage for the shipper. The freight broker will usually have a broader base of contacts than an in-house person would be able to maintain over a period of time.

Surprisingly, although the reduction in rates was listed by most of the respondents as a disadvantage for the carrier, only 33% of users and 26% of non-users listed a reduction in transport costs as an advantage for the shipper. However, service levels to some degree reflect the price paid for the service, ie. The lower the price the lower the level of service.

Not building relationships directly with the carrier, different carriers being used constantly and carriers inexperienced in carrying particular product were listed as disadvantages to the shipper and all options were agreed upon by more than 65% of users and more than 75% of non-users. 33% of users and 64% of non-users listed all options as disadvantages. This again comes down to personal contact between the parties that diminishes with an extra party (freight broker) added. Shippers know that their carriers understand the transportation of their product and this trust decreases when a different carrier arrives, as happens frequently when organised through a
freight broker. By use of a broker, carriers will not build a trusting relationship through direct contact with clients that often may lead to a reduction in freight rates. A further disadvantage for the shipper can be non conformance. The broker will not be able to address directly service problems or staff problems. A freight broker can often create an unrealistic view in the shipper’s mind of what the freight rates are, and some carriers will not use a broker, so at times this fact could pose a restriction on the availability of transport.

The questionnaire results showed that non-users believed that it would be more likely that a carrier would use a freight broker to access loads from isolated areas. 50% indicated it would be likely and 18% indicated it would be very likely. This compared with users indicating corresponding figures of 38% and 10% respectively. Surprisingly 42% of users believed that this situation would be. When compared with the results from Table 4.2, 71% of users and 68% of non-users believed that an advantage for the carrier of using a freight broker was providing back-loads and a further 24% and 9% respectively indicated a broker provided more accessible loads.

From the perceptions of the carriers surveyed, the shipper benefits more than the carrier from the use of a freight broker. 48% of users stated this along with 48% of non-users. One of the underlying reasons for this result would have been the reduction in rates paid to the carrier once the broker had taken their fee. 5% of users and 18% of non-users were of the perception that the carrier benefited more from the services of a freight broker. However, 42% of users and 21% of non-users perceived that both parties benefited from the services of a freight broker, meaning that they saw advantages in the use of freight brokers for both the shipper and the carrier.

For geographical dispersion of areas covered by carriers, 24% of users haul inter-island compared with 15% of non-users. 43% of users haul in the South Island compared with 41% of non-users and 33% of users haul in the North Island compared with 44% of non-users. All but one of the users hauled inter-regional and this user hauled through-out Canterbury. There were carriers that mainly carried livestock that did not use a freight broker, and many of these limited their areas of coverage to one region. Those that transported general freight were more likely to use the services of a freight broker. Although there are brokers spread nationwide, many of them may deal
more with shipments originating in their home base area, and that may have had an impact on these results.

47% of users believed that all commodities were suitable to be handled by a freight broker and 33% of non-users agreed. The most common commodities that were deemed as unsuitable for arrangement through a freight broker were perishable goods and livestock. Perishable freight has to be transported quickly, and it was taken that when organising this through a freight broker, it may slow down the transportation. Livestock is more often than not transported from the farm to the processing plants and do not often travel nationwide. There are exceptions to this. However, in many cases a stock agent will organise the transportation of stock to the processing plants.

Specialised product was taken to mean any product requiring special attention or equipment such as concrete, glass and construction equipment. Fragile freight and small consignments were also rated as commodities not suitable for transportation through a freight broker. Again, the notion of different carriers not handling the product correctly is the reason. Many of these explanations have come from the negative opinions of freight brokers by carriers. If all commodities destined to be transported through a freight broker had a proper product description, specification of the equipment needed to transport them and an indication of the time frames required, so long as the carrier complied with these specifications, there should be no problem carrying most commodities when organised through a freight broker.

5.2 Summary of Conclusions and Recommendations

- Freight brokerage is very popular in overseas countries such as the United States, Europe and Australia, but due to the lack of population and the resulting lack of freight tonnage to be transported, is not as prevalent in New Zealand.
- Once deregulation of the New Zealand road transport industry began in 1983 which saw the 150 kilometre restriction on competition with rail lifted, the emergence of freight brokers was influenced by the need for the carrier to obtain return loadings.
- It was evident that many carriers held freight brokers in low esteem, with the two main reasons being that the broker's fee was deducted from the carrier's rate
resulting in lower margins (86% of users and 94% of non-users indicated this). Another reason was that the freight broker does not have a lot of capital invested in the road transport industry unlike many carriers.

- One of the most important aspects of freight brokerage is the honesty, integrity and reliability of the broker.
- 38% of the questionnaire respondents indicated that they used the services of a freight broker. 80% of these indicated that loads organised by a freight broker made up 5% or less of their work volume.
- 71% of users and 68% of non-users listed the main advantage to the carrier of freight brokerage as providing back-loads.
- The carrier’s perception of the main advantage for the shipper of using a freight broker was that the broker is one point of contact for the shipper to organise all their transport requirements (81% of users and 68% of non-users).
- 33% of users and 64% of non-users listed all available options listed in the questionnaire as disadvantages for the shipper when dealing with a freight broker. The most popular disadvantage for the shipper listed was that different carriers are constantly being used under a freight broker agreement which increases the risk of damage and minimises any relationships being made between shipper and carrier.
- Non-users believed that it would be more likely that a carrier would access loads organised through a freight broker originating from isolated areas.
- 48% of users and also 48% of non-users believed that the shipper benefited most from a freight broker service compared with 5% of users and 18% of non-users believing that the carrier benefited most.
- 47% of users and 33% of non-users believed that all commodities were suitable to be handled through a freight broker. Perishable goods and livestock were listed most frequently as commodities not suitable to be transported using the services of a freight broker.

5.3 Opportunity for Further Studies
A number of areas for further study have been identified through this research. This dissertation has limited itself to freight brokerage from the carrier’s perspective in the New Zealand road transport industry. Aspects that could be analysed further are outlined below.
A parallel study should be undertaken from the shipper's perspective rather than the carrier's perspective. In a study such as this, shippers would be asked how they perceived the advantages and disadvantages in using freight brokers, as well as what they perceived the advantages and disadvantages to the carrier might be.

There is an annual study of this type conducted in the United States by Robert Lieb (Arkaslojistik, 2002) of the College of Business Administration, North Eastern University, Boston. This survey, first initiated in 1991, is an ongoing research effort that examines the use of 3PL services by US Fortune 500 manufacturers annually. Although Lieb's survey concentrates on the use of 3PL's generally, a study could be undertaken along these lines in New Zealand based on the shipper's perspective of freight brokers. This could then be compared with the survey being undertaken from the carrier's perspective.

Too little is known in New Zealand about the number of carriers and shippers who make use of freight brokers. Likewise, too little is known about the commodity types involved if freight movements are organised by freight brokers. Further analysis is required to ascertain if a freight broker should specialise in a particular type of commodity. Although questions were posed in this dissertation about the volume of a carrier's work that is organised through a freight broker, the sample size is inadequate. By using a larger sample survey, a more representative figure could be found.

Further refinement could be to determine if shippers take advantage of back-load rates when their industry/business is located in an isolated area or region. One question that needs to be asked is whether geographical location is a major reason for the shipper to take advantage of back-load rates. For example, road freight rates from Christchurch to Auckland are much cheaper than those from Auckland to Christchurch. The difference in freight rates represents the amount of freight and availability of resources to transport this freight moving in both directions. For example, the firm Hannahs have set up their distribution centre in Wellington. This is a response to an imbalance in freight rates and has been achieved through economies of scale (Neil Reid, Personal Communication, November 2002).
Energy Efficiency and Conservation Authority (EECA) are developing strategies to reduce energy consumption and pollution from the transport sector's energy use and EECA support the uptake of energy efficient initiatives. Much has been discussed regarding cleaner burning and more efficient engine technologies and driving styles resulting in improved fleet operations. To add to these topics, freight brokerage (or similar) could be included with the aim of reducing the number of trucks on the road therefore leading to reduced vehicle congestion in urban areas and along main transport corridors. Freight brokerage could assist in more efficient load matching with available vehicles by making both freight and the available trucks more visible to all parties involved. This would result in a reduction in the number of trucks on the road therefore reducing congestion, and leading to improved fleet management by minimising the amount of empty kilometres travelled (EECA, 2002.)
REFERENCES


APPENDIX A

Population of Regions that Samples were taken from

- Auckland Region (259)
- Bay of Plenty (104)
- Canterbury (192)
- Gisborne Region (31)
- Hawke’s Bay (49)
- Manawatu (45)
- Marlborough (15)
- Auckland Region (259)
- Bay of Plenty (104)
- Canterbury (192)
- Gisborne Region (31)
- Hawke’s Bay (49)
- Manawatu (45)
- Marlborough (15)
- Nelson & Bays (34)
- New Zealand (0800/Mobile) (34)
- Northland Region (58)
- Otago (71)
- Southland (68)
- Taranaki (52)
- Timaru & Oamaru (42)
- Waikato & King Country (146)
- Wairarapa (27)
- Wanganui Region (21)
- Wellington Region (72)
- West Coast (14)
Appendix B

Carriers who agreed to participate in the survey.

Ryal Bush Transport Ltd
Central Southland Freight
Hokonui Haulage Ltd
Southern Freight Services
Evans Freight 2000 Ltd
McClellan Freight Ltd
Cromwell Transport Ltd
Fulton Hogan Central
Taieri Freight Ltd
Jefferis Vehicle Deliveries Ltd
Hilton Haulage Transport Ltd
Canterbury Westland Transport Ltd
Container Transport & Storage Ltd
Hanham Transport
Jacksons Transport
Makikihi Transport Ltd
MG Transport
Temuka Transport 1967 Ltd
Waimak Transport Ltd
Waitaki Transport Ltd
Phillip Wareing Ltd
Whiteline Freight
Opzeeland Transport (Hornby) Ltd
Cochrane Bros Ltd
Aratuna Freighters Ltd
Arnold Transport Ltd
T. Croft Ltd
Johnson Bros Transport 2000 Ltd
Heagny Bros Ltd
Marlborough Produce Freighters

Brett Mytton Transport
Heines Cartage Contractors
Sollys Contractors
TNL Freighting
Homedale Transport (2000) Ltd
Norton Carriers Ltd
Wingate Freight Ltd
Cooksley's Transport Co Ltd
Shannon Bulk Haulage
Palmerston Transport Services Ltd
Martinborough Transport Ltd
JD Hickman Ltd
Hooker Pacific
Scown Transport
Q Transport
Barrett & Taura Transport
Whitlock Freight Ltd
Bearsley Express Ltd
Emmerson Transport Ltd
Hawkes Bay Taupo Freight Runner
Rydale Container Transport Ltd
Kiwi Transport Co Ltd
Pacific Haulage Ltd
MacDonalds Carrying Co Ltd
Kevin Kirk 2000 Ltd
Farmers Transport Ltd
Weatherall Transport Ltd
Eastlite Carriers Ltd
Cochranes Transport Ltd
Wigmore Carriers
Bulk Haul Transport Ltd
Tony Galbraith Ltd
Matamata General Carriers Ltd
Normans Transport Ltd
John Robinson (Hikutaia) Ltd
Vowles Transport Ltd
Taylor Bros
Total Transport Ltd
NZL Transport Ltd
Selwyn Road Freight Ltd
Aaron Transport (2000) Ltd
Brady's Transport
Carr & Haslam Ltd
Clark & Rogers Ltd
East Coast Bays Carriers Ltd
Hiab Transport Ltd
Knight & Dickey Ltd
Lyall Gardner Transport Ltd
Nicholson Transport Ltd
Powell Transport Ltd
Redfern Freight Express Ltd
United Carriers Ltd
Cooper Wilson Transport Ltd
Florahort Freight
Maungatapere Transport Ltd
Dibble Transport 1997 Ltd
Appendix C

Statistical Analysis

For all statistical analysis, a chi square test was run in order to determine whether or not hypothesis were met or not (significant or insignificant). All tests were performed with an alpha level of 0.05 and results were as follows:

Table 2. Advantages for the carrier of using a freight broker

Table 3. Disadvantages for the carrier of using a freight broker.
Insignificant. $x^2(2, N = 103) = 16.39, n.s.$

Table 4. Advantages for the shipper of using a transport broker
Significant. $x^2(5, N = 110) = 4.25, p < 11.07.$

Table 5. Disadvantages for shippers of using a freight broker
Significant. $x^2(2, N = 125) = 0.01, p < 5.99.$

Table 6. Importance of relationship between carrier and shipper
Significant. $x^2(4, N = 51) = 1.92, p < 9.48.$

Table 7. Future role of freight brokers
Significant. $x^2(2, N = 55) = 0.97, p < 5.99.$

Table 8. Likelihood of carrier using broker to access loads from isolated areas
Significant. $x^2(4, N = 54) = 5.66, p < 9.48.$

Table 9. Who benefits more from the services of a freight broker
Significant. $x^2(2, N = 48) = 3.58, p < 5.99.$

Table 10. Geographical Dispersion of Carriers
Significant. $x^2(9, N = 55) = 0.97, p < 5.99.$

Table 11. Commodities that are not suited to freight Brokerage
Significant. $x^2(8, N = 38) = 9.28, p < 15.50.$
Appendix D

Cover Letter & Questionnaire

Pete Cochrane
Wolfes Road
Springston South
RD4
Christchurch

23 November, 2002

Dear Carrier

Enclosed is a questionnaire regarding freight brokerage in the road transport industry as discussed previously by telephone.

I am studying towards a Master of Professional Studies in Transport. This study programme requires that the student completes a dissertation on a topic that the student chooses, hence my dissertation being on freight brokerage from the perspective of the carrier.

A sample of 125 carriers have been chosen to complete this questionnaire. This list of carriers was selected randomly from the Yellow Pages on the internet out of 1326 listed under transport operators.

Please be assured that all information given in this questionnaire will remain anonymous and will be combined for analytical purposes. If you wish to receive a synopsis of the results, please leave an email address in the space provided on the questionnaire.

Once the questionnaire is completed, please use the stamped self addressed envelope to return it by no later than December 13, 2002.

I would like to take this opportunity to thank you for your time to complete this questionnaire. Your input will be invaluable for this research project.

Yours faithfully

Pete Cochrane
A Study of Freight Brokerage in New Zealand

December 2002

When answering these questions, please be assured that all information given will remain anonymous and will be combined for analytical purposes. No individual answers will be identified.

Section A: Introduction

Please tick the boxes provided or write answers where appropriate. If more room is needed please use extra paper.

1. In which sectors does your firm operate? Tick all that apply.
   - General freight
   - Bulk haulage
   - Heavy haulage
   - Vehicle transportation
   - Stock
   - Town deliveries
   - other(s) (please specify)

2. How many vehicles are operated by your firm? _______ vehicles.

3. a) Please specify the region(s) in which your firm operates. Tick all that apply.
   - Northland
   - Auckland
   - Waikato/Bay of Plenty
   - Poverty Bay/East Coast
   - Hawkes Bay
   - Taranaki
   - Manawatu
   - Wellington
   - Nelson/Marlborough/Tasman
   - West Coast/Buller
   - Canterbury
   - Otago
   - Central Otago
   - Southland

   b) Please specify where the head office of your firm is located.

4. Approximately what percentage of your current work is organised through a freight broker? _______ %.
Section B: Freight brokerage—advantages & disadvantages

1. What do you see as the advantages for the carrier from using a freight broker?

- more accessible loads
- providing back-loads
- one point of contact to assemble a variety of loads
- reducing 'administrivia'

- other(s), (please specify)

2. What do you see as the disadvantages for the carrier from using a freight broker?

- lower effective rates to the carrier once the freight broker takes their fee
- insufficient information given regarding types of loads and the equipment needed
- not dealing with the client directly

- other(s), (please specify)

When answering these questions, please be assured that all information given will remain anonymous and will be combined for analytical purposes. No individual answers will be identified.
3. What do you perceive to be the advantages for the shipper from using a freight broker?

- reduction in transport costs
- reduction in administration costs
- better service levels
- increased availability of transport
- one point of contact for organising all transport
- continuous review of best transportation options
- other(s). (please specify)

4. What do you perceive to be the disadvantages for the shipper from using a freight broker?

- not building relationships directly with the carrier
- different carriers being used constantly
- some carriers not experienced in carrying particular products
- other(s) (please specify)

When answering these questions, please be assured that all information given will remain anonymous and will be combined for analytical purposes. No individual answers will be identified.
Section C: Freight brokerage—general

1. a) Are there some commodities that are **not suited** to this type of service?
   
   [ ] Yes  [ ] No

   b) If yes, please specify what commodities are not suited.
   

2. How important do you think that the relationship between the shipper and the carrier is under a freight broker arrangement rather than a direct shipper–carrier arrangement?
   
   very important  important  no different  unimportant  very unimportant

3. In the future do you see freight brokers playing a:
   
   [ ] larger  [ ] similar  [ ] smaller

   role in the road transport industry in New Zealand?

4. How likely would a carrier be to use the services of a freight broker when requiring loads originating from isolated areas? (i.e. West Coast of South Island, East Coast of North Island).
   
   very likely  likely  neither  unlikely  very unlikely

5. In your opinion, who benefits more from the transportation of commodities through a freight broker?
   
    [ ] the carrier  [ ] both  [ ] the shipper

6. What could make freight brokerage more efficient than it is now?

   

Thankyou for your time in filling out this questionnaire, it is invaluable for this research project.

   If you wish to receive a synopsis of the results of this research, please provide an e-mail address below.

   Once again, please be assured that all information in these questionnaires will remain anonymous.

   E-mail address: