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**TQM implementation: a  
conceptual study of the  
impact of implementation on  
two companies**

A comparative investigation about the understanding of and impact of  
Total Quality Management programmes within Post Haste Couriers,  
Palmerston North and Rayonier New Zealand, Wellington.

A thesis presented in partial fulfilment of the requirements of the degree  
of MBS at Massey University

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## Abstract.

Much has been written about the concepts associated with TQM, but little exists on the impact of TQM implementation in New Zealand companies.

This paper is a comparative study on the understandings and impact of TQM within two New Zealand companies, Post Haste Couriers Palmerston North and Rayonier New Zealand, Wellington. Semi structured interviews were carried out and the data compared with a variety of theoretical approaches.

The findings show that TQM means different things to different levels in a company's hierarchy and its successful implementation depends on the management style, company resourcing and the amount of control that can be exercised over the business environment.

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## Section Overview.

The structure of this thesis adopts the following format:

**Section One** Introduction to the research. This section outlines the aim of the research and states the research questions. It describes the data sources and data gathering methods, the research methodology, selection of participants and, lastly, some of the limitations of the research.

**Section Two** Academic definition of Total Quality Management (TQM) based upon New Zealand and overseas literature. This section describes of the nature of quality, the need for an operational definition of quality, similarities between quality definitions, a description of the fundamentals of TQM, the science, theories and assumptions that TQM is based upon, arguments in defence of TQM and lastly arguments criticising TQM.

**Section Three** Case studies describing the operations of Post Haste Couriers, Palmerston North and Rayonier New Zealand, Wellington, including the key elements to their profit making.

**Section Four** The meaning of quality to the managers and operatives and the importance they attach to it. This section identifies the hierarchical nature of understandings of the importance of quality, and different meanings held by each of the affected parties within their company although individuals at the same hierarchical level in each company hold similar understandings.

**Section Five** Reasons for implementation of quality programmes. This section outlines the reasons for quality implementation and identifies high consistency between the companies for their actions.

**Section Six** The effect that the quality programmes have had on the managers and operatives of the companies.

**Section Seven** Commentary on the extent to which the research questions are met and summary of the major findings of this thesis.

**Section Eight** Presentation of further research questions. Questions for further research warranting investigation in the area of quality management within New Zealand companies that were developed through the process of this research.

## **Section 1: Introduction to the Research.**

“Research without an actively selected point of view becomes a ditty bag of idiot, filled with bits of pebbles, straws, feathers, and other random hoardings.”<sup>1</sup>

Lynd, 1959, pg183

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<sup>1</sup> Lynd, R.S (1959) Knowledge for what? the place of social science in American culture Princeton, N.J Princeton, University Press.

## 1.1 Introduction.

Work place reform is rapidly gaining acceptance as the way forward for New Zealand industry. Increased exposure to international competition following the deregulation of the 1980's has put organisations under strain to develop more efficient methods to produce goods and services. A growing number of companies are initiating reforms through quality programmes. Total Quality Management (TQM) is the latest development in quality programmes which shifts organisational actions from being functionally organised to the flow of the product or service. This is supposed to bring about numerous advantages. Of these advantages three seem to dominate: worker participation, performance enhancement, and increased customer satisfaction.

However, the jury is still out concerning TQM's place as an effective quality management method. A myriad of arguments exist claiming TQM to be anything from a panacea of business ailments to a system, too bureaucratic to be feasible to a management style where management needs dominate over concern for workers. Consider the following statements:

*"Analysts have credited TQM with leading Japan to global economic prominence in the postwar years.... and more recently with restoring America's economic competitiveness."*<sup>2</sup>

*The total quality movement, one of the biggest fads in corporate management, is floundering,... Despite plenty of talk and much action many American companies are stumbling in their implementation of quality improvement efforts.... A key reason, the study concludes: Many quality management programmes are simply too amorphous to generate better products and services."*<sup>3</sup>

These statements represent the major arguments concerning the effectiveness of TQM in literature today. To add spice to the quality debate, some analysts and practitioners of quality argue that there is a delivery gap between the TQM model and its application to organisations where TQM in practice cannot imitate the expectations of the model.

It appears that TQM implementation in New Zealand organisations is still in its infancy and New Zealand literature suggests that implementation has occurred mostly in larger organisations and by those who export. To a large extent the effect of TQM on New Zealand organisations is unknown, as the majority of literature makes reference to Japanese or American companies.

It is the aim of this research to investigate New Zealand companies whose management beliefs support a TQM programme within their operations. Specifically, the interest was in understandings affected groups internal to the

<sup>2</sup> Powell, T.C (1995) Total Quality Management as a competitive advantage Strategic Management Journal Vol 16 Pg 15.

<sup>3</sup> Fuchsburg, G Quality programme shows shoddy results NBR. ( remaining details unknown)

company had about quality and the impact of quality efforts on their performance. Post Haste Couriers, Palmerston North and Rayonier New Zealand, Wellington offered to participate and these two companies therefore became the convenient sample from which data was drawn for this thesis.

## 1.2 Research questions.

This research has four main questions

A) How do the branches of Post Haste Couriers, Palmerston North (Post Haste) and Rayonier New Zealand, Wellington (Rayonier) operate and what are the key elements in making profit at the branches?

B) What does Total Quality Management (TQM) mean to the different categories of staff, contractors and customers at Post Haste and Rayonier and what importance do they attach to it?

C) What motivated the introduction of TQM in Post Haste and Rayonier?

D) What differences do the staff and contractors see in the operations of their companies as a result of TQM, and how does this show up in the performance of the business?

## 1.3 Research Strategy.

To achieve an answer to the research questions, a case study approach was taken. According to Yin (1984), a case study is an empirical inquiry that:

- “- Investigates a contemporary phenomenon within its real life context; when
- The boundaries between phenomenon and context are not clearly evident, and in which
- Multiple sources of evidence are used”<sup>4</sup>

The basis of selection was pragmatic being determined by the willingness of the companies to participate.

The case study presentation methods of Gilbertson and Knight (1992)<sup>5</sup> were used as it was felt that their methods allow the views and perceptions of participants to be expressed. In line with their methods sections of interviews are used in the text of the thesis, as this facilitated the transcription of participants understandings of quality into the research.

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<sup>4</sup> Yin, R.K (1984) Case study research: design and methods. Sage Publications, London, Pg 83

<sup>5</sup> Gilbertson, D & Knight, R.M (1992) Innovation and management in New Zealand, a casebook. Dunmore Press, New Zealand.

This research is about the concept of quality. This concept cannot be defined in absolute terms. Because of the difficulties of definition the research is largely concerned with recording and describing the perceptions of participants. It was important to have a certain amount of flexibility built into the methodology to allow the researcher to explore the responses of respondents.

Following Yin's example, interviews were based on semistructured questions of an open ended nature:

*An investigator can ask key respondents for the facts of the matter as well as for the respondent's options about events. In some situations, the investigator may even ask the respondent to propose his or her own insights into certain occurrences and may use such propositions as the basis for further inquiry.* <sup>6</sup>

The data was analysed by using content analysis.

*"Content analysis is a research technique for the objective, systematic, and quantitative description of the manifest content of communication. This technique measures the extent of emphasis or the omission of emphasis, on any analytical category. Content analysis deals with the study of the message itself. It involves systematic analysis as well as observation, to identify the specific information content and characteristics of the messages".*<sup>7</sup>

From this analysis themes arise and comparisons are made between Post Haste Couriers and Rayonier New Zealand, Wellington about the operative's understandings of quality programmes and their impact on performance.

The objective of the literature search is to provide an overview of TQM. The literature is referenced in question two to determine quality meanings and approaches to quality by the companies. The workings of Deming and Crosby are particularly referenced to highlight the different approaches to quality by the companies. To answer question four, the quality definitions of Deming, Juran, Crosby, Feigenbaum, Ishikawa, and Taguchi are used to identify the desired outcomes of TQM. To determine elements the efforts of Powell (1995), who developed 12 variables of quality that companies and literature have in common, are used.

#### **1.4 Sources of data.**

The following data sources were made available to the researcher, confidentiality issues and commercial sensitivity prevented full referencing of these sources.

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<sup>6</sup> Yin, R.K (1984) Ibid. Pg 83

<sup>7</sup> Zikmund, W. G (1991) Business research methods (third edition) Dryden Press, Orlando

### Post Haste Couriers.

- The Regional and Branch Manager of Palmerston North Depot
- Customer Services Manager
- Three office personnel
- A sample of five couriers
- The Depot supervisor.

### Rayonier New Zealand.

- The Area Manager of Rayonier
- The Quality Control Supervisor
- The Procurement Supervisor
- The Log Production Coordinator
- Both Administration Secretaries
- A forestry gang that contracts to Rayonier.

### Other participants.

- The manager of the warehouse and distribution section of Toyota, New Zealand, Palmerston North, which is the largest client for Post Haste.
- Access to an interview with Ross Henderson, author of a thesis titled 'TQM, myth or messiah? A practical guide to TQM implementation.
- A communications consultant who has developed a programme which incorporates quality implementation titled 'communications link'.

### Documentation.

- Information pamphlets and marketing documentation for both organisations
- Job descriptions from both organisations
- ISO Quality Manual from Rayonier
- Q Base Quality Manual from a forestry contractor
- Annual reports from Rayonier
- Selected documentation released from Post Haste Couriers head office including courier contracts and weekly trend reports of key performance indicators
- Graphs and charts of operative and courier performance from Post Haste Couriers, Palmerston North.

## **1.5 Selection of participants**

Essentially I was concerned with the individuals who could provide the most information. Hence, the selection of participants was not random. They were selected by recommendations, nature of work, position, accessibility, and willingness to participate.

The initial interview with each organisation was with the branch manager. These interviews were used as an opportunity to break the ice with the managers, explain

the thesis and to accumulate a general understanding about relevant issues. A proportion of this time was allocated to discussing the selection of participants. Chosen individuals were then approached and asked to participate as appropriate.

No restrictions were made on the number of times people were interviewed. Post Haste averaged three to five interviews per person and Rayonier averaged one to three interviews per person, a total of 35 interviews.

Each participant was offered the opportunity to review a transcription of their interview to edit any text that they didn't think suitable to be included in the research and to ensure the validity of the transcript.

## **1.6 Research constraints**

Because quality is not a concrete concept, it cannot have a universal definition. TQM has prominent aspects that create a theme but which differ in importance from situation to situation. It would be wrong to consider the definitions in this thesis to be the absolute.

When using case studies the available information is limited by the participant's ability to pass it on. Because of this some issues could not be investigated to the extent hoped for.

Since this study involved a two organisation sample with known similarities in their operations, conclusions cannot be generalised to other companies or industries.

## **Section 2: The Fundamentals of TQM.**

“Novelists should never allow themselves to weary of  
the study of real life.” lb 19 <sup>1</sup>

Bronte, Charlotte (1816-1855)

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<sup>1</sup> Collins (1993) Quotations, the wit and wisdom of 700 authors Collins Sons & Co, London Pg 62

## 2.1 Introduction

TQM has arisen as a syncretic mix of elements drawn from a number of approaches toward quality control and from theoretical understandings of the nature of the concept of 'quality'. It is helpful to outline these approaches as a background to TQM.

## 2.2 The nature of quality.

Currently, there appears to be two approaches to quality management. It can be seen as a method of application or as a philosophical argument. This is illustrated by Deming and Crosby's approaches to quality "where Deming is the philosopher"<sup>2</sup> and Crosby "sets out a pragmatic programme for practitioners to follow"<sup>3</sup>. (See table one. )

<b>Table one: The process to achieve quality illustrated by Deming and Crosby.</b>	
•Demings 14 points.	•Crosby's 14 quality steps
Consistency of purpose Adopt the philosophy Don't rely on mass inspection Don't award business on price Constant improvement Training Leadership Drive out fear Break down barriers Eliminate slogans/exhortations Eliminate quotas Pride of workmanship Plan of action	Management commitment Quality improvement teams Quality measurement. Cost of quality evaluation Quality awareness Corrective action Zero defects committee Supervisor training Zero defects a day Error cause removal Recognition Quality councils Do it over again

The two are not mutually exclusive. "Quality *per se* is not a physical characteristic of an object and consequently it cannot be directly measured by physical means."<sup>4</sup> Rather, it is an abstract concept that has been operationalized by the properties of things making it a relational concept. Smith (1993) describes it well:

*"Rather than being an inherent attribute of things, quality indicates the relationship between the important attributes of an object - its 'quality characteristics' (Ishikawa 1990) and an evaluative standard or criteria." 5*

<sup>2</sup> Dawson & Palmer (1995) The theory and practice of implementing change . Longman, Pty, Ltd. Pg 27

<sup>3</sup> Dawson 7 Palmer (1995) Ibid Pg 24

<sup>4</sup> Smith, G.F (1993) The meaning of quality Total Quality Management, Vol 4, #3 pg 236

<sup>5</sup> Smith, G.F (1993) Ibid. Pg 236

There are two types of standards:

- The ideal, based upon preconceived images
- The evaluative, which represents the interests of dominant groups by the establishment of an order of priority.

*“Because quality cannot be directly measured, its assessment is a judgmental process.... Quality assessment entails determining user needs, identifying entity attributes or quality characteristics which relate to those needs, assessing the entity’s merit on each of the attributes, and consolidating these partial scores into a final judgment of quality”.<sup>6</sup>*

Most of the operational definitions can be summarised with the following focuses:

- Product based or the amount of desirable attribute which is present
- User based in the context of fitness for use
- Manufacturing based or conformance to requirements
- Value based or satisfaction relative to price<sup>7</sup>
- Loss to society, where the greater the quality the smaller the loss.

A more philosophical definition, which best supports Deming’s approach, focuses on innate rather than relational qualities. Smith<sup>8</sup> links quality with synonyms such as ‘excellence’ and ‘goodness’ which reflect the concept’s meaning but don’t assist with its measurement. He further argues that experts who have operationalized quality may have done so with the assumption that its meaning will be transferred with their methods. What a concept means is one thing; how to measure it is another.<sup>9</sup> What may represent the meaning may not assist in its measurement and what may assist in its measurement may not represent its meaning. Therefore, what is offered to us by the experts may be misleading.

What then is the meaning of quality? Both producers and consumers claim to recognise it. Is it part or sum of our knowledge and experiences? Currently quality is perceived to be the either physical, measurable attributes of something or an abstract concept. It can be implemented in two relative manners, the ideal and evaluative.

### **2.3 Why have an operational understanding of quality?**

It is necessary for any company to translate the abstract nature of quality as a concept into a workable meaning for those who must apply it. Deming wrote that the “concept of quality is only the beginning of meaning since concepts are

<sup>6</sup> Smith, G.F (1993) Ibid. Pg 236

<sup>7</sup> Dotchin, J. A & Oakland, J.S (1992) Theories and concepts in TQM Total Quality Management, Vol3, #2, Pg 135.

<sup>8</sup> Smith, G.F. (1993) Ibid Pg 237

<sup>9</sup> Smith, G.F (1993) Ibid. Pg 237

ineffable.”<sup>10</sup> “ The TQM concept must be translated into practice in such a way that it can be exploited by an organisation”.<sup>11</sup>

Here, operational meanings are deciphered through records of evolution, implementation and maintenance of quality managements systems.

## 2.4 Similarities of quality definitions.

Although the literature offers many recommendations for implementing TQM a more careful analysis reveals surprisingly similar content.<sup>12</sup> And since none of the models are considered to be more appropriate than any other, TQM is described as material borrowed from a mixture of philosophies.

## 2.5 Describing the fundamentals of TQM.

While the elements below are inextricably mixed in practice, it is easier to understand them by describing them individually.

### Philosophy.

Dawson and Palmer (1995) summarise the essence of TQM well:

*“In essence it is a management philosophy of change which is based on the view that change is a necessary and natural requirement of organisations wishing to keep pace with dynamic external business market environments and continually improving existing operating systems.”<sup>13</sup>*

Such thinking brings about changes in the manner a business operates. (See table two). TQM thus encourages the mind set that there will always be a better way to run a business and that quality is a journey rather than an end. It is no surprise that TQM is seen as a permanent philosophy, concerned with the organisation as a whole and with those who associate with it. TQM holds everyone in an organisation responsible for instilling quality into operations.

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<sup>10</sup> Deming, W.E (1982) Quality productivity and competitive position Cambridge, Ma, Mit Press

<sup>11</sup> Bossink, B, Gieskes, J & Pas, T (1993) Diagnosing total quality management part Two Total Quality management, Vol 4, # 1

<sup>12</sup> Dotchin, J. A & Oakland, J.S (1992) Ibid Pg 133

<sup>13</sup> Dawson & Palmer (1995) Ibid Pg 28

<b>Table 2: The change in the focus of the way an organisation operates brought about by the TQM philosophy.</b>	
<p><b>TQM</b></p> <ul style="list-style-type: none"> <li>• Customer focus</li> <li>• Quality first</li> <li>• Multiple quality dimensions from customer definition</li> <li>• Management &amp; worker involvement</li> <li>• Process oriented</li> </ul>	<p><b>Traditional management</b></p> <ul style="list-style-type: none"> <li>• Management focus</li> <li>• Profits first</li> <li>• Single quality dimension defined by the organisation</li> <li>• Little or no worker involvement</li> <li>• Results oriented</li> </ul> <p>adapted from Toblin, L.M. (1990)<sup>14</sup></p>

### **Continuous improvement.**

*Masaaki Imai has elaborated the Japanese management strategy of Kaizen, which stresses that incremental improvements are equally as important as radical (break through innovations ) in securing and maintaining competitive success.<sup>15</sup>*

Quality should not be portrayed as a programme with a definite end point, but as a process. Quality management can include improvement towards zero defects, advocate annual improvement targets or work towards constant improvement within various steps to quality control<sup>16</sup> . The belief is that processes must be continually monitored and reorganised to perform their functions better which, in turn, will improve the quality of goods and services. This is done by small steps over a long period of time rather than by large spasmodic jumps. The basic rule is, it's always possible to improve quality.

### **TQM is customer focused.**

In a nutshell TQM tries to create a competitive advantage through meeting and/or exceeding customer needs and wants. Dale, Lascelles and Plunkett explain it well:

*Characteristics of companies aspiring to high levels of quality management is the widespread application of the concept that every one in the organisation has customers and that customers deserve the highest quality of goods and services.<sup>17</sup>*

<sup>14</sup> Toblin, L.M (1990) The new quality landscape: TQM Journal of Systems management, 41 (11), Pg 10-15

<sup>15</sup> Dawson & Palmer (1995) Ibid. Pg 21

<sup>16</sup> Dawson & Palmer (1995) Ibid.

<sup>17</sup> Dale, B. Lascelles, D. & Plunkett, J. (1990) The process of Total Quality Management Managing Quality , London.

TQM proposes that there are two types of customers, the internal and the external, both of whom should be treated with the same amount of respect. Internal customers are the next person or group in the process of manufacturing goods or providing services. Apart from those involved with external customers and supplier relations, everyone should have an internal customer.<sup>18</sup> External customers are individuals and organisations who use the goods and services of the business but don't constitute a part of it. Thus customer satisfaction is determined by customers, suppliers, intermediary services (transport and middlemen) and employees.

### **Empowering employees to participate in achieving high quality.**

Morrison & Rahim (1993) wrote:

*"The positive relationship between quality and productivity may be largely rooted in the use of worker participation schemes to execute quality agendas. Participation is typically cited as a common feature of successful TQM initiatives. In short, the quality gurus dictate it, empirical evidence supports it and most importantly, organisational experience demonstrates it. Employee participative strategies will be a potent force in the realisation of the total quality challenge."*<sup>19</sup>

The knowledge that participation by employees is an element in successful TQM programmes is linked to the concept of empowering people so they can realise their potential in the workplace.<sup>20</sup> There is also the belief that the desire to attain a high standard is part of the human condition and is evident in peoples out of work activities.<sup>21</sup> The best people to comment on work and work processes are the people who are most involved with the work. They have the insights and knowledge that is needed to make improvements.

*"Through training programmes, education, multi-skilling, cross career developments and multi function project teams, employees are actively encouraged to be involved in current organisational problems and the future competitive success of the company."*<sup>22</sup>

The relationship of trust that builds between management and employees leads to a more collaborative method of industrial relations in which employee groups are considered critical players. Participative management becomes an essential tool in this process, placing imposition of management objectives of change from above, thus avoiding a lack of employee involvement leading to distrust of management.

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<sup>18</sup> Dawson, P & Palmer, G (1993) TQM in Australia and New Zealand companies: some emerging themes and issues. International Journal of employment studies. 1 (1)

<sup>19</sup> Morrison, C.M & Rahim, M.A (1993) Adopt a new philosophy: the TQM challenge Total Quality Management, Vol 4, #2, PG 143-149

<sup>20</sup> Dotchin, J & Oakland, J (1992) Theories and concepts of TQM management, TQM management Vol 3 #2.

<sup>21</sup> Dotchin, J & Oakland, J (1992). Ibid.

<sup>22</sup> Dawson & palmer (1995) Ibid Pg 34

## Vision and goals.

Vision and goals provide direction for the continuous process of monitoring and refining activity. Such actions need to be directed. Companies that successfully implement a change programme such as TQM have a vision into which the new processes and activities fit.

Goals are determined with the vision in mind as their purpose is to help the organisation make their vision a reality. They begin with top management and are usually quite general as they are intended to be guiding policies for lower level management. As they work their way downward they are restated to be more specific and action oriented. (See table three). Eventually, they become precise and quantitative statements. The setting of goals and their deployment is a way for top management to instil commitment to quality throughout the organisation.

<b>Table 3: The relationship of vision to goals and the process of goal implementation.</b>	
<b>Management level</b>	<b>Nature of goals</b>
<ul style="list-style-type: none"> <li>•Top management</li> <li>•Division management</li> <li>•Middle management</li> <li>•Supervisors</li> </ul>	<ul style="list-style-type: none"> <li>•General statement of direction for change (qualitative)</li> <li>•Definition of top management statements (quantitative)</li> <li>•Specific goals (quantitative)</li> <li>•Specific actions (quantitative)</li> </ul>
adapted from Imai (1986) <sup>23</sup>	

## Measurement.

There are two important components to any programme of continuous improvement. They are statistical control and motivation. Statistical tools are seen as a simple way to monitor and evaluate process operations.<sup>24</sup> The crux here is to measure for variation in production or to aim for consistency. Where variations are excessive the process is considered to be non conforming and adjustments are necessary. Where variations are considered to be random the process is considered to be conforming.

Statistical process control (SPC) is a technique that measures the variation in processes. This basically works by using the Pareto 80/20 rule to find the areas that cause the greatest number of goods and services be produced out of specifications. Such data is recorded and statistical analysis is employed to help understand the process so actions can be taken to put production within tolerance levels.

<sup>23</sup> Imai, M (1986) Kaizen: the key to Japan's competitive success Random House, New York, Pg 301

<sup>24</sup> Dawson & Palmer (1995) Ibid Pg 31

Suppliers are evaluated against a set of criteria that the purchasing organisation sets as quality standards and satisfies itself as to whether a particular supplier is competent. This is known as second party evaluation and determines if suppliers are fit to be associated with the business and what can be done to improve their services.

### **Take notice of the cost of quality.**

The philosophy of TQM provides for a framework for analysing the expenses associated with producing goods and services that meets given standards. Quality costs, as they are called, are the result of some specific segments, each traceable to some specific cause. These segments are unequal in size and relatively few of the segments account for the bulk of the costs. A major by-product of evaluation of quality costs is the identification and improvement of these segments. It is the objective of management to minimise the sum of these associated costs.

The majority of literature divides quality costs into four categories:

*“Assurance costs are associated with inspection, testing, collecting and processing quality control data. Prevention costs are incurred in avoiding poor quality. Internal failure costs arise from scrapping or rework. External failure costs arise from defective costs that reach consumers”.*<sup>25</sup>

## **2.6 The science, theories and assumptions that TQM is based upon.**

Undoubtedly, a large percentage of the TQM concept comes from the science of work study. Broadly speaking, work study is the analysis of any form of work. It involves people, machines, equipment, tools, materials and layout with the aim of finding the mix that will yield the most productivity. There are five stages of work study. They are job selection, recording, examination, development of methods and installation.

A large part of work study involves convincing the relevant parties that change is necessary otherwise improvements will be neutralised through lack of support. Once employees are made aware of the advantages of suggested improvements resistance to change can be removed and there is a better chance of success.

Related to work study and important enough for recognition is Adam Smith's discovery of division of labour. Describing the work in a pin factory Smith wrote:

*One man draws the wire, another straightens it, a third cuts it, a fourth points it, a fifth grinds it at the top for receiving the head ...” Ten men working in this fashion can make 48 000 pins in one day. But if they*

<sup>25</sup> Lovelock (Wyckoff, D) (1986) Managing services: marketing, operations and human resources. Prentice Hall, Englewood Cliffs, New Jersey. Pg 232-233

*had all worked separately and independently, each might at best, have produced 20 pins a day.* <sup>26</sup>

To assist employees to work to their highest potential, they are treated as internal customers and provided with the highest quality of goods and services possible. Two approaches to leadership in organisations, Theory X and Theory Y form contrasting reasons for behaviour in the workplace.

*Theory X assumes that people have a distaste for work and will avoid it where possible. Work is only done to satisfy needs, which are met through being paid. The worker is motivated through threats of being punished and must be coerced and controlled to ensure effective performance. Theory Y assumes that people will exercise self control in working toward objectives to which they are committed. People are regarded as having potential for self development, seeking responsibility, and being motivated by esteem and self actualisation needs which, if met, will satisfy both individual and organisational goals.* <sup>27</sup>

Elton Mayo and his Harvard associates conducted a study of human behaviour in work situations at the Hawthorn Plant of Western Electric from 1927 to 1932. They divided employees into test groups who were subjected to changes in lighting and a control group whose lighting remained consistent. As expected the productivity of the group whose lighting increased went up. What confused Mayo and his associates was the productivity of both the control group and the group that had poor lighting conditions also increased.

The experiments were altered to incorporate a number of variables in the test group. Salaries were increased, breaks with differing lengths and intervals were introduced, work days and weeks were shortened, and the researchers allowed the groups to suggest other changes.

Once again productivity went up in both the test and control groups. This experiment led to the discovery that special attention causes people to increase their efforts. This phenomenon has become known as the Hawthorn effect. The concept of social man being motivated by relationships had to be recognised as well as the concept of rational man being motivated by economic needs.

TQM is based within Theory Y and also incorporates the positive aspects of the Hawthorn effect through the attention it pays to all members of staff. The fundamentals of TQM, in turn, make the following assumptions about work and workers:

- ° Everyone in the organisation has the knowledge and experience to contribute to the improvement of efficiency and effectiveness
- ° Traditional management practices and organisation arrangements do not allow

<sup>26</sup> Huseman, Galvan & Prescott (1985) Business communication: strategies and skills, Holt, Rinehart & Winston, Sydney, Chpt 9, Pg 292

<sup>27</sup> Huseman, Galvan & Prescott (1985), *Ibid*, Chpt 21, Pg310

- for people to participate and contribute in a satisfactory manner
- People want to contribute and feel involved in organisational activities
  - Participation will lead to commitment on a continuous and daily basis
  - Businesses can always improve productivity and profitability as well as reduce costs through quality management techniques
  - Suppliers and consumers want to be involved in the activities of organisations and believe the consequences of TQM to be fair and just
  - The optimum place for an organisation to operate is at the intersection of management's need for profitability and customer's needs for products, which is a point that can be determined.

## 2.7 In defence of TQM.

TQM is, in fact, part of the wider general movement that has been apparent in management for many years. Social, political and economic developments have influenced changes in management style. The first of these was the emergence of consumerism as a social and then as a commercial force. This movement, supported by product liability laws, put pressure on companies to consider customer needs and wants rather than what customers could be persuaded to buy.

Ruckleshaus describes this movement well:

*...quantity was the goal. Business was designed to produce lots of the same thing as efficiently as possible, and there were enormous rewards for those who could do it best. ...Organisations were characterised by tightly centralised hierarchies, pyramids on top of pyramids whose major credo was control. The ideal was to create a product you could sell forever and to everybody. Today was a good predictor of what tomorrow would be like.*

*That world is gone. Markets are international, or becoming so. Innovation in products and services is essential to the survival of firms. Today is not a good predictor of tomorrow. The critical business skill is the ability to discover or anticipate customer needs and the most advanced business organisations are decentralised, close to the customer and keyed to the ever changing variations in the demands of particular markets. <sup>28</sup>*

This describes the conditions upon which the majority of modern management theories are based, and includes the four that dominate current management literature: TQM, organisation re-engineering, liberation management, and learning organisations.

*Stripped of their rhetoric and hoopla, continuous improvement systems can be narrowed down to a few strategic elements:*

<sup>28</sup> Ruckelshaus, W.D (1991) Quality in the corporation: the key to sustainable development Corporate Quality/ Environmental Management: The First Conference. Washington DC. January 9-10, Pg 5-9

*customer focus, an identifiable vision/mission in the organisation, the role of top management empowerment and active involvement of employees, consistent reward structures and emphasis on staff development and training".<sup>29</sup>*

The second is the emergence of Japan and other Asian countries as industrial nations who are able to compete on equal terms with western countries mainly due to quality management techniques. During the 1960's Japan took over many of the traditional British and US markets with a policy of achieving a long term market share of a least 50 percent in various product sectors and geographical locations, via effective leadership and cost effective management of quality. Customers were offered more choice than ever before and were able to choose from a new range of products that satisfied their needs and wants better than the products previously available.

Many of the tools used in quality management have a rigorous theoretical background and are proven empirically. <sup>30</sup> This gives the concept a sound footing based upon both theoretical frameworks and practicable application. The quality tools such as Taguchi statistical methods and Ishikawa Total Quality Control tools, namely, cause and effect diagrams, Pareto charts, run charts, histograms, check sheets, flow charts, control charts and scatter diagrams, enable understanding of the processes before enacting remedial programmes.

*In some cases, award winners have set about documenting their processes to gain international accreditation and hence, combine formalised procedures with a broader philosophy of continuous change and employee involvement at work (Hill and Freedman 1992:81) In short the current drive for quality has roots in both traditional quality assurance practices for setting standards and the more philosophical approach which emphasises continual employee involvement in process improvements...<sup>31</sup>*

Business logic is shifted from managing internal efficiency of capital and labour to managing efficiency based on a notion that customer perceived quality drives profit. With economies of scale companies find that internal efficiency is the prime source of profitability and issues relating to excellence get little or no attention. With TQM internal efficiency is not the prime issue. It is integrated with external issues and geared to revenue generation through customer perceived quality (customer satisfaction).

The aim of TQM is to retain customers and encourage loyalty. It changes emphasis from the traditional accounting systems focus of sales and revenues over a period of time to the possible cash flow of a customer throughout a life time. TQM

<sup>29</sup> Showalter, M.J & Mulholland, J.A (1992) Continuous improvement strategies for service organisations Business Horizons. July August

<sup>30</sup> Dotchin, J. A & Oakland, J.S (1992) Theories and concepts in TQM Total Quality Management, Vol3, #2, Pg 133.

<sup>31</sup> Dawson & Palmer (1995) Ibid Pg 44

proponents argue that if companies knew how much it costs to lose a customer, they would reevaluate investments designed to retain customers. Companies need to recognise that customers generate increasing profits each year they stay with the company and that when customers defect, they take all their potential profit with them. Companies with long term customers can generally charge a premium for their goods and services due to the customer's confidence in the business and the company also capitalises upon the free advertising customers provide.

## 2.8 The criticisms of TQM

Text books are riddled with 'revolutionary' management techniques that claim to be the next generation of organisational development yet research indicates that they all have a similar substance and goals. Some individuals argue that TQM is simply the latest in a series of techniques that tries to find a competitive advantage by moving away from traditional management methods and like it's predecessors it is a fashion that will pass.

On the theoretical level of application TQM finds itself in a mire of bickering and politics. For example, Deming attacks one of Crosby's contributions, the concept of zero defects, as a fallacy.

*There is obviously something wrong. When a measured characteristic barely inside a specification is declared to be conforming; outside is declared to be non conforming. The supposition that every thing is all right inside the specifications and all wrong outside does not correspond to this world. <sup>32</sup>*

Crosby also has opinions about Deming's principle of continuous improvement.

*Continuous improvement, for instance, as a programme can be utilised to avoid heading for defect free performance..... If we move 10 per cent closer to a target each week we will never get there. Don't deny customers their rights by getting tangled up in programmes of efforts that delay things. <sup>33</sup>*

The confusion which surrounds quality management is also evident in the response and concern for the various national quality awards programmes as illustrated by Garvin's (1991) article on the American Malcolm Baldrige National Quality Award.<sup>34</sup> This award originated from USA's the Malcolm Baldrige National Quality Improvement Act 1987 which advocated that awards should be given for quality efforts. The legalisation cited elements that should be important to quality programmes but "little attention was paid to the criteria for evaluation." <sup>35</sup> This has led to bickering as to what is important for quality programmes. The award

<sup>32</sup> Slaughter, J & Parker, M (1993) TQM and higher education. NEA Thoughts and Action

<sup>33</sup> Slaughter, J & Parker, M (1993) ibid Pg 46

<sup>34</sup> Dawson & Palmer (1995) ibid Pg 19

<sup>35</sup> Palmer & Dawson (1995) ibid Pg 19

is accused of encouraging standardised practices not improvement, being result oriented and not process oriented, and generally denouncing the objectives of quality management as the award criteria becomes the organisational focus rather than customer perceived quality. Also recipients of the award have been criticised, particularly for poor financial performance, which has fuelled further debate as to whether this is as important as other quality elements.

Perhaps the major reason for this is the cloud of subjectivity that surrounds TQM. The only proposed indicators of successful implementation are metaphysical concepts for which physical data must be collected in order to identify areas in which TQM might improve performance. The consequence of this is that there are no concrete variables that indicate to organisations how successful they are with implementation.

It is no surprise that the criteria for awards tend to become the focus for organisations as they offer some stability and credibility. However the amount of credibility offered by awards varies from some to none. For example none of the finalists in the 1994 New Zealand National Quality Awards measured up to the international standards required to win, yet all maintain they operate quality systems.<sup>36</sup>

TQM associates quality with customer satisfaction. That is, the higher the quality of the product or service the more the customer should be satisfied. This idea is questionable. Determining who the customer is can turn out to be more difficult than it appears. In any business there are a number of candidates who could play this part. TQM requires that such a definition should be made, as defining the customer is a pre TQM question and programmes cannot advance without it. In practice it is management and marketing departments that select the targeted customers, what to offer them, and the prices of goods and services. Quality therefore, is built around the agenda of management, not the perceptions of customers.

What, in practice, happens to workers under TQM? Workers may benefit from creative, well paid jobs. However if the management moves the business to China to take advantage of lower wages and production costs, this is an acceptable outcome of TQM, but New Zealand based workers lose their jobs.

The SPC techniques used to measure processes facilitate controls that choke the creativity of workers. Many process improvements in businesses come from experienced workers making informal changes for their own benefit but without affecting the result. Measurement to reduce variation means standardisation that puts human resources into a robot function which is contradictory to participative methods. Furthermore, standard procedures make employees easier to replace in the event of industrial dispute, and this compromises the power of employees to negotiate.

Are customers a reliable source of information? Michael Mayell the owner of the Giant 'Cookie Time Cookies' (New Zealand) took his recipe to the street and

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<sup>36</sup> Dominion, (1994) Firms don't measure up, says judges P 12, 1 December

offered samples in return for opinions. He states:

*They said they would pay 25 cents. I asked them if they would pay 50 and they said no way. What that lesson taught me was that you don't ask people whether they will want something or not. You just give it to them, because people don't know what they are going to like or dislike until it is sitting there in front of them, packaged up on sale.*<sup>37</sup>

Currently the cookies retail between \$1.00 and \$1.25 depending on the outlet.

Also, customer perceptions are not consistent. They continuously change, especially for services, forcing businesses to pick and choose amongst identifiable variables (some may not be identifiable) and implement what they feel prudent. Looking for satisfaction variables suggests that businesses are coming close to deciding what makes customers happy, and then telling them when they are. There are assertions that businesses who emphasise customer satisfaction strategies actually stifle technological developments. Levin (1994) describes it well:

*Striving for customer satisfaction in the era of the adding machine would yield refined adding machines, not spreadsheets. Likewise, striving to improve satisfaction with our conventional means of cooking would not give us microwave ovens.*<sup>38</sup>

Hamel & Prahalad (1994) and Levin (1994) accuse organisations of being short sighted when they yield to customer's expectations. They argue that customers are notoriously lacking in foresight and by serving their needs you are operating in today's business and you pass over the ability to capitalise upon unexploited opportunities. Customers don't take markets, technologies and trends into account when they offer opinions. Rather than creating a competitive advantage with quality concepts, businesses are in fact becoming market followers who offer 'me too' products.

The notion of it always being possible to reduce costs and improve quality has implications for the internal operatives of businesses. The Japanese call it Kaizen but another translation is 'management by stress' as top management introduces methods to ensure Kaizen is improving. The originator of the Toyota production system, Taichi Ohno, explains:

*Lets suppose that a start up department has the requirement to make 100 cars per day. I would give the resources for 90 percent of what was required..... As time went on, the department team would find problems that would be resolved through Kaizen activities. .... As soon as the no overtime activities were met I would again remove 10 percent of the resources.*<sup>39</sup>

<sup>37</sup> Goulter, J (1995) Just do it and learn along the way NZ Business, March, Pg 14

<sup>38</sup> Levin, W (1994) The fallacies of customer satisfaction and competitiveness CMA Magazine April

<sup>39</sup> Slaughter, J & Parker, M (1993) Ibid. Pg 53

The result of this method is that TQM has an internal rather than external focus. Tangible measures take priority over intangible measures such as customer satisfaction and employee morale and attitude. Management reduces the resources and staffing, while demanding an increase in productivity through what ever means necessary, capitalising upon worker pride, loyalty, and insecurity. As the balance of power changes in favour of management, accountability is forced down the hierarchy, and employee involvement is nothing more than figuring out how to survive while being under resourced.

There seems to be an assumption with TQM that it is universally applicable to all businesses. What works in Japan will work in America, England, Australia and New Zealand. Organisations that failed with their TQM programme were either not committed, focused, or did not fully understand what was necessary for implementation. There seems to be little consideration of influencing variables such as culture, customs, work attitudes, religions, and philosophies that vary between countries.

Also, TQM appears to be very much a self fulfilling prophecy where the positive aspects are concentrated upon and negative ones are glitches to be worked out. Hence the saying- 'There are no problems, only opportunities'. With respect to both these circumstances, in most instances, the concept remains blameless, and the business is at fault.

Finally, the strength of TQM stems from the Japanese economic miracle. It is now becoming clear that this miracle is based upon certain conditions and consequences. The Japanese industry had the patience to wait five to ten years for the effects of TQM to become noticeable, where as Western industries want more immediate effects. It has become evident that, after a period of time, TQM loses its lustre for most western companies because of lack of results. Life time employment is the norm in Japan with employers having a difficult time encouraging employees to take vacations. This has an interesting consequence, with sudden deaths from overworking and stress now a recognised problem.<sup>40</sup>

## 2.9 Quality management in a historical perspective.

There seems to be uncertainty as to what constitutes a TQM programme. Its history offers some explanation. Quality control has largely moved from the establishment of quality assurance to issues of quality control and, finally, to the incorporation of more behavioural and attitudinal aspects of quality, which are all encompassed in the term TQM.<sup>41</sup>

Quality management seems to have developed in four stages:

- ° "Quality Inspection (QI)
- ° Quality Assurance (QA)

<sup>40</sup> Slaughter, J & Parker, M (1993) *Ibid.* Pg 54

<sup>41</sup> Dawson & Palmer (1995) *Ibid.* Pg 15

- ° Total Quality Control (TQC)
- ° Total Quality Management (TQM)".<sup>42</sup>

Quality Inspection is a long recognised after-the-act inspection totally separate from any preventative actions in the production process. It is primarily concerned with separating the rejects from acceptable products by finished product inspection. Workers may have no voice about operations and be seen simply as hands to perform duties.

A second evolution, Quality Assurance came in 1924 when the QA department of Bell Laboratories in the USA developed a series of statistical control charts which were able to detect changes in the variability of a production process before defects were produced, rather than separating defects from acceptable components after production.<sup>43</sup>

Quality Assurance is concerned with controlling the process of manufacturing for conformance to specifications and procedures. The Statistical tools offer some solution to technical problems and, often, QA is the responsibility of individuals or a department who perform independent inspection and remove items or adjust processes which fail to meet specifications. Workers are considered to be a source of information but still have a reduced influence on organisational operations.

Armand Feigenbaum continued to develop the principle of QA and in 1956 used the term 'Total Quality Control' to convey the view that quality is the responsibility of all groups within an organisation who should work together in a systematic effort to achieve TQC. <sup>44</sup>

Palmer and Dawson define this concept well:

*"It promotes strict adherence to standards- but it encourages continual reexamination of processes and standards and embodies a formal method for changing operations as needed to improve quality and productivity.....Everybody should be involved in the process of satisfying customer requirements, rather than quality being the preserve of a small group of specialists".<sup>45</sup>*

TQC is similar to QA as operations must conform to specifications, procedures and requirements and there is a reliance on statistical methods. The major differences are workers are expected to actively contribute to operational improvements and quality parameters are extended to include the actions of suppliers and requirements of customers. Also the focus has changed from detection to prevention of non conforming products which introduces cultural manipulation for quality achievements.

<sup>42</sup> Bossink, B, Gieskes, J & Pas, T (1992) Diagnosing total quality management part one Total Quality management, Vol 3, # 3

<sup>43</sup> Dawson & Palmer (1995) ibid. Pg 16

<sup>44</sup> Dawson & Palmer (1995) ibid. Pg 16

<sup>45</sup> Lovelock (Wyckoff, D) (1986) .ibid Pg232

In TQM measurement functions are likely to continue, but there will be a number of marked differences with the adoption of TQM.<sup>46</sup> First TQM incorporates both service and manufacturing industries whereas TQC tends to be concentrated in manufacturing. Second it seems to be more of a philosophical approach on which non tangible and cultural elements become the keystones to change and statistical operational techniques and group problem solving forums are the methods for gaining employee involvement.<sup>47</sup> Lastly, TQM changes quality focus from operational techniques to manipulation of attitudes in order to develop inter-organisational, inter-company and customer relationships based upon trust, thus improving industrial relations and organisational and product improvements.

## 2.10 Quality related operation practices.

Some available methods of organisational operation incorporate aspects of quality principles and consequently, may be included within quality control programmes. However, they can be used as stand alone techniques and have proved useful for improving organisational performance divorced from the intentions of quality control programmes such as QA, TQC and TQM.

### Just in time inventory control.

This system was developed by Toyota Motors in Japan and is an ingeniously simple idea based on receiving the necessary supply of raw materials or semifinished parts for the production process literally just in time.<sup>48</sup> In essence this system places the cost of inventory on to suppliers and forces customer priority so there are requirements to enable this environment to exist. Organisations must have a stable relationship with suppliers, forecasting abilities to predict demand and suppliers must be able to depend on this demand.

### Quality Circles.

Within Japan, early attempts to tackle the problem of poor quality were based on the use of 'quality circles'.<sup>49</sup> The quality circle concept may be adapted to any setting, as long as one respects the brain power of human beings.<sup>50</sup> A quality circle is a group of employees who meet regularly to discuss the problems of operating or work related projects which are intended to improve company performance. Participants are taught quality concepts and how to use problem solving techniques.

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<sup>46</sup> Dawson & Palmer (1995) *Ibid* Pg 16

<sup>47</sup> Dawson & Palmer (1995) *Ibid* Pg 18

<sup>48</sup> Gilbert, Jones, Vitalis, & Walker(1992) Introduction to management in New Zealand Harcourt Brace Jovanovich, Publishers.

<sup>49</sup> Dawson & Palmer (1995) *Ibid* Pg 17

<sup>50</sup> Lovelock (Wyckoff, D) (1986) *Ibid* P232

## Standardisation programmes.

In New Zealand, the standardisation programme that seems to have the most popularity is the ISO Certification Series. The purpose of the ISO 9000 series of quality system standards is to standardise requirements of a quality management system and not, as often believed, to standardise requirements for products and services.<sup>51</sup> However, these standardisation programmes do assist with consistency of operations and conformance to specifications.

The following describes how these programmes may be applied:

The most comprehensive model is 9001 because it covers quality assurance in all phases- design, development, production, installation, inspection, test and servicing. ISO 9002 has a narrower scope, restricted to production and installation, and ISO 9003 is even more restricted, covering only quality assurance in the final inspection and test. ISO 9004-2 is a broad guideline aimed at the service sector.<sup>52</sup>

Lastly, ISO standards must be revised every five years which implies some amount of organisational improvement.

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<sup>51</sup> Johannsen, C. G (1995) Application of the ISO 9000 standards of quality management in professional services: an information sector case. Total Quality management , Vol6, #3 p 232.

<sup>52</sup> Johannsen, C. G (1995) Ibid Pg 233

**Section 3:  
Case studies of Post Haste  
Couriers, Palmerston North  
and Rayonier New Zealand,  
Wellington.**

“An apology for the devil: it must be remembered that we have heard only one side of the case; God has written all the books. [Notebooks]”<sup>1</sup>

Butler, Samuel (1612-1680)

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<sup>1</sup> Collins ((1986) Concise dictionary of quotations Collins Sons & Co Ltd Pg 70:10

# **POST HASTE**

**Couriers**

**Delivering a better package.**

### 3.1 Post Haste Couriers.

Post Haste Couriers is a national organisation in the volume express parcel market that specialises in delivering consignments up to 35 kilograms or point three meters cubed in size, with a service standard of delivery by noon the next day throughout New Zealand or within two hours for local deliveries.

In conjunction with eleven depots nationwide, the Palmerston North depot is interdependent with a number of organisations that are diversified into specific areas of distribution services under the Freightways' Group, forming a web of national and international deliveries, including areas where the organisations don't officially operate.

We [Post Haste] assist, and get assisted by, the other Freightways' companies including New Zealand Couriers (NZC) which is concerned with smaller parcels delivered at an earlier standard, Castle Parcel which specialise in larger freight at a later delivery standard, New Zealand Document Exchange (NZDX) which is an overnight alternative to the postal service, DPE an international courier service based in Auckland, and finally a line haul service called Parceline, which delivers all the freight from and between these services overnight.

Branch Manager

Post Haste has operated in Palmerston North for ten years and currently employs thirteen operatives and ten couriers who serve the regions, north to Raetehi, south to Manukau, east to Dannevirke, Woodville and Pahiatua, and west to Wanganui. (See chart one).

### 3.2 Company philosophy.

Post Haste believes it provides a generic service that currently has little to differentiate it from competitors. A research programme was conducted during 1991 involving many clients and it was concluded that quality of service is an area where Post Haste can be different.

I guess the philosophy is to provide the best possible service to the client in terms of the quality and standard of service. A good quality service means a 100 per cent satisfaction rate from the client and 99.99 per cent of the time we do do that right. The customers main interest is getting their item from point A to point B. If our clients are happy then more products will go through us because we are the service provider that is doing a good job.

Branch manager

The mission statement defines the philosophy:

*We exist in the courier market to add value to our customers through the provision of superior services at competitive prices. We are committed to quality of people and systems designed to minimise our customer's operating costs and to improve the performance of their business. Our company will set the industry standards for reliability and responsiveness to customer needs.*

### 3.3 Transporting freight.

Post Haste operates a hub and spoke network where hub centres are conjunction points for all inter island and some long haul carriage where freight is either loaded onto planes or trucks. (See chart two). The distribution net work consists of:

- ° 11 Post Haste Branches nationwide
- ° 3 hub centres in Auckland, Palmerston North, and Christchurch
- ° 280 couriers and vans (as at May 1995)
- ° 12 B train line haul carriers
- ° 4 aircraft
- ° the rural delivery service of six delivery areas in Manawatu
- ° 4 agencies.

All between island freight is flown. Parcels are packed separately and transported to the airport packed into igloos and onto one of three planes, which circulate nightly between Palmerston, Christchurch, and Auckland. From the hub, parcels are reloaded into Transport Container Pools (TCP's) which are loaded on to the line haul trucks and depart for the appropriate depot.

Rural areas cannot be serviced by Post Haste directly, so deliveries must be made through rural contractors. Two of the six contractors come into the depot to pick up parcels, for the others goods are delivered to an agreed venue. Service standards extend to the drop off point only. Receivers get their parcel on the standards of either the rural delivery or their next to visit the local agent.

### 3.4 Courier operations.

Couriers are self employed business people who contract to Post Haste, they are not an employee of the company. The company is their biggest client as a proportion of their income is inbound freight. (See table four.) They are not required to purchase their run area. It is provided by Post Haste with a restriction on sub contracting. They are expected to purchase their vans and pay for maintenance, pay for the decals, purchase uniforms and rent their RT's. Couriers require a Goods Service Licence and a Hazardous Goods Licence.

At 3 am the depot supervisor and deconners begin to sort the freight into courier bins (by the destination address on the parcel). Couriers start times depend on the time it takes to complete their runs and vans are loaded in the order of deliveries; first on, last off.

Couriers service an allocated area twice a day as there are two distinct emphasises on operations; inbound (am) and outbound (pm). (See table five). The morning is concerned with delivering inbound freight and the afternoon is concerned with outbound freight. Any local deliveries that have to go from one side of town to another will pass onto another courier's area so the parcel is exchanged at scheduled times of 10:15, 11:15, 1:15, 2:15 and 3:15. Splits are behind the old

Selwyn Ford Building except for the 1:15 which is at the depot. Local deliveries after 3.15 are held overnight at the depot in courier bins as it is impossible to make delivery after this time'.

Couriers are encouraged to extend the customer base. This varies in complexity, as courier runs vary in density. Some are in the central business district which have a high chance of enlisting new clients, whereas others are in rural areas where there are few areas to generate new business. Rural runs include a payment per delivery as well as ticket redemptions to compensate for having lesser income due to the high amount of driving. These amounts change in respect to monthly redemptions to keep consistency of revenue. When developing a new run couriers are paid a decreasing guarantee for a specified period to allow time to enlist clientele. The company reserves the right to reallocate the routes and couriers are paid a guarantee to compensate for any loss of income until they can rebuild their clientele. All promotional activities by couriers must be approved by management.

Couriers begin as early as 4.30 am and work until six at night. They are constantly on the move throughout the day to keep to schedules. 'This is a demanding occupation that takes its toll on people and subsequently couriers are coming and going for a variety of reasons.' (Courier 818) The training of replacements is important.

Two contractors are appointed as buddy contractors who accompany new couriers for two weeks. They are given guidelines and standards that the branch want the new courier to achieve. The other half of this strategy is to bring them in for in house training for two days so they know how the staff operate and the type of work they do. This provides a good grounding for new entrants and when they start the buddy contractor stays with them for the first month to act as a guide and first point of contact through the RT if they have a problem.

Branch Manager

Couriers must provide and train relief drivers who can be on call in case they are sick or unable to work and they must meet the approval of Post Haste.

Couriers are expected to obtain signatures for each parcel they deliver. Many of the couriers have arrangements with companies that makes it acceptable to bypass signatures and leave parcels at a designated location. Post Haste does not recognise this and if problems arise, due to lack of signatures, it is between the courier and company. If a courier suspects that an inbound package is damaged they will take it to the operatives for inspection which relieves them of any liability in the event of a claim. In the case of a local delivery where the depot is often excluded from the path of transporting parcels, couriers ask the client to open packages if they have reservations about its condition.

### **3.5 Head office influence and operative operations.**

Branches compile an annual budget but this is overwritten by the expectations and budgets imposed by head office concerning how they understand each branch to contribute to annual goals and where the company should be over all. Branches

are judged by size and ability to meet a certain percentage of the overall company budget. Branches are categorised into three categories, A,B, and C which are determined by size, revenue, the amount of staff and contractors. Palmerston North is a B branch and is expected to perform to standards set against national revenue expectations.

From a financial point of view they are extremely tight. Every month we receive graphs and documentation ranking us against the other branches in terms of claims, misdirects, and correct deliveries. Every Wednesday we receive a weekly trend report which details the revenue generated by inbound and outbound freight from each contractor for the individual courier, the branch revenue, and the revenue per item. Also head office issues couriers a monthly statement illustrating their monthly revenues and expenses including vehicle charges owed to the company, insurance, radio and telephone rent, and any prepaid tickets purchased by the courier.

Palmerston North Branch Manager

The individual branches are autonomous and branch managers have the responsibility of running their businesses. (*See table six*).

It is fairly autonomous to implement your own strategies given that the overriding factors are set by head office (management fundamentals) and you implement strategies that meet expectations, which is the greatest return for the least possible cost. Our strategy is to ensure that we retain clients as well as bring new clients in. The customer service manager and myself have a portfolio of clients to look after, by making sure we contact them, put up barriers of entry for competition, getting a close association with and working in a partnership with the client.

Palmerston North Branch Manager

The majority of work done by the operatives is via the telephone. Call chits are used to record details from clients including time the call was made, where parcels are going to be picked up from, any specified time for the pick up, its destination, and what time the call was made to the courier. Couriers must acknowledge all calls. Chits are placed in a cubbyhole designated to individual couriers and counted and collected each day and graphed at the end of the week.

Misdirects are placed in a bin and inspected for details, including parcel destination, where the parcel was delivered to, ticket number and type and whether there is a destination label on it or not. These details are inputted into the data base where they can be accessed nationwide. They also help identify who is responsible for the delivery to the wrong depot. They are counted and graphed daily with a goal of six or less to aim for.

Misdirects can be Parceline's responsibility where they have made the mistake with delivery by putting parcels in the wrong TCP where mixed TCP's are involved. If the manifestors have put the correct destination label on and the parcel is misdirected then it is a Parceline error and any cost to deliver that parcel will be directed to them. If the TCP is pure they are delivered as a unit and the fault lies with the manifestors so any cost of delivery is responsibility of the sending branch. Also customers may have wrongly addressed the parcel so it is not our fault at all and any cost of delivery will be forwarded to them.

Customer Services Manager

A proof of delivery (POD) both provides reassurance to senders and receivers that their parcel has been delivered or identifies that there is a problem in the system. Before POD is carried out a proof of pick up (POP) must be completed.

This proves that the parcel has been sent and more importantly sent with Post Haste

Customer Services Manager.

For a POP to take place the operative must know the date of pick up, the ticket number, the type of ticket, and the name and addresses of the sender and receiver. These details are held by customers only.

When couriers pick up or deliver parcels they keep a redemption proportion on their courier sheets which the operatives collect daily.

This is our record of all the freight that the couriers have handled for a particular day. We use these to trace the path of the parcel by referencing the senders address to the courier who services that area by looking for a ticket number.

Customer services manager

If the proof of pick up can't be verified by searching redemptions the computer is used to look up the ticket number to confirm if the company did purchase the book which contained that ticket. When a pick up can't be confirmed then there is no liability for a claim.

Once there is proof that the parcel has been picked up, the receiving branch is approached to determine where they sent it (POD). Operatives identify the involved courier by the address of the receiver and look in the redeemed tickets for the ticket type, number and signature which is faxed to the requesting branch. If there is no signature a claim can be made.

The big difficulty with this system is that it is labour intensive and time consuming. At times you can have a person employed full time doing POD's. A common event with organisations that have branches nationwide is to address a parcel to an existing address in another town. This is something we hope to solve by bar coding and wandng the parcels in, as information will be kept centrally on a data base that can immediately identify ticket numbers and all the details pertaining to it.

Customer services manager

POD's are broken down into their elements of inbound or out bound parcels, if a signature was obtained, if the ticket was redeemed and if the response time of two hours was maintained. Information from claims are recorded as to how many per week, how much was paid out, if it is a depot or Parceline fault, and which couriers were involved.

Manifestors begin work at five pm and around six pm couriers begin to arrive with out bound freight. Parcels are emptied from the vans into the appropriate TCP by location and company (Post Haste or Castle Parcel). The TCPs are then loaded on to a line haul truck for delivery. (*See table seven*).

We measure how many parcels are handled by manifestors and deconners by multiplying the average amount a TCP can hold by the number of TCP's delivered for an estimate of parcels and divide this number by the number of people involved. We also divide the number of parcels by the wages involved to get an idea of how much it costs the branch to handle every parcel. All of this information is recorded on a graph.

Branch Manager

Internationals are recorded on a manifest system which is faxed nightly as a pre alert and DPE employees check the parcels off as they come into the hub via the line haul trucks. DPE measures performance every month on the amount of packages that are signed for as opposed to unsigned ones as Post Haste has a benchmark of acceptability to maintain.

### **3.6 Liability for damages.**

'From time to time there is a black hole where parcels disappear or are damaged in transit. In these situations the sender has the option to make a claim against us' (Branch Manager). All contracts are made with the sender and payments are at cost value as it is cheaper for Post Haste to compensate this way. For claims to proceed, branches must be notified within seven days for damaged goods and 14 days for loss. However, these deadlines are waved depending on the importance of the customer.

All goods are inspected by an operative to assess damage. If the damage was due to a fault in packaging then Post Haste will not accept responsibility. If responsibility is acknowledged then compensation will be either a payment for the item's value or the cost for repairs, depending which is the less. All goods that are not repaired become the property of Post Haste or the contractor, depending upon the amount of the payout and who is responsible for it.

Acknowledging responsibility and apportioning liability are two different issues, involving two different processes. There can be a number of individuals involved with transporting parcels, so responsibility is often shared. Allocating costs is a process of tracking the movement of the parcel to identify the parties involved.

Head office act as the insurers where they decide to accept or decline a claim. If the claim is accepted then the cost is set against the branches involved and it is up to the branch to seek compensation from couriers. The individual branch can be liable up to \$1500 but in most cases there is a 50/50 split between the sending and receiving branches.

Operative # 1

If the parcel is identified as damaged directly from the TCP then the receiving branch is not liable, responsibility lies with Parceline or the sending branch. If it is delivered and the ticket is signed then there is a 50/50 split of costs between branches. If a branch has a delivery ticket with no signature then they are solely responsible for costs incurred. Parceline can accept liability for damaged and lost goods but the parcel must be valued over \$100.00 and 'making this decision is quite difficult and it is very much a judgment call'

Operative #2.

Pure TCP's are delivered as a unit, only mixed TCP's are sorted by Parceline staff. Courier liability is very much a situation decision and usually involves neglect on their side. For local deliveries, where pick up and delivery is by the same contractor, if that contractor neglected to get a signature and the parcel is lost or damaged, then the contractor is liable up to \$300.00 and the branch is liable for the balance. If it is a local delivery involving two couriers but the depot is not involved, and the parcel is lost or damaged there will be a 50/50 split between the couriers and the branch is liable for the balance. In both these situations the courier must have insurance with the Post Haste, otherwise they are liable for the full \$1500.00 or the cost of the excess of their insurance company.

Every week the redeemed tickets of three couriers are inspected for signatures, which are counted and graphed.

### 3.7 Ticketing.

Tickets are based on colours where a colour represents a different proximity to Palmerston North.

- Green is local service @ \$2.40 up to a maximum of 25 kilograms
- Pink is rural service @ \$4.00 up to a maximum of 25 kilograms
- Orange is regional service @ \$5.40 up to a maximum of 25 kilograms
- Blue is delivery within the North Island @ \$8.30 up to a maximum of eight kilograms
- Grey is for delivery to the South Island @ \$11.25 up to a maximum of eight kilograms.

For local, rural and regional deliveries, any packages that weigh in excess of 25 kilograms rural an additional ticket to be purchased at the cost of \$4.00. For North Island deliveries an extra ticket must be purchased for every 8 kilograms; this number doubles for deliveries to the South Island.

Each ticket has three portions - a customer copy, a pick up, and delivery. The latter two carry value to both the depots and couriers. This method enables couriers and depots to be compensated wherever deliveries may be in New Zealand. In the event of a courier doing both the pick up and delivery then both portions are claimed.

Charge labels are slightly different to ticketing and are commonly used when sending businesses are at fault for incorrect, unordered or misdirected parcels. With this method the receiver is charged and couriers don't receive a redemption instead the courier number is included in the documentation and they are paid by the company.

We get a message through on the computer screen providing the details of where the parcel is to be picked up from, a contact, a phone number, an order number and a charge code. Different codes represent different distances and therefore have

different prices. We contact the company any parcels are to be picked up from and organise a time. The charge label is completed at the depot, placed with the package, which has to be brought to the depot, and the original sending company is invoiced at the end of the month.

Operative # 1

Another option is for companies to pay a monthly clearance fee where satchels are provided with no weight limit. This is mainly used for daily delivery to the Post Office and NZDX documents to the depot where a NZDX employee picks them up at 6.30 pm.

### **3.8 Ticket redemptions.**

All tickets from the distribution services of the Freightways' group can be redeemed under the Post Haste system. They have different colours and redemption values but pose no problem to redeem. This facilitates coordination between the companies of the Freightways' group in terms of redemptions, claims and misdirects.

Customer Services Supervisor

Each night couriers must set out their portions of tickets out on a daily redemption sheet in sequence of ticket types for ease of POD's. On Saturday morning the redemption summary must be handed in to the office staff between eight and ten. This provides a total of all their tickets by day, ticket type, pick up and delivery which are inputted into the computer and sent to head office. The process is manual and the redemption summary is inspected as it is possible to put an incorrect total and under or over compensate couriers. Three couriers are checked each week on a cyclical basis.

### **3.9 Clients.**

Clients belong to the company. They are not the contractor's customers, and we set standards that the customer will be looked after and serviced. Anybody operating as our agent, employee, or contractor really has to have the approval of the company and meet the company's standards.

Those individuals who don't have a contract with Post Haste are deemed as cash clients. It is one of the objectives of management to minimise the number of cash clients served by couriers. In the case of a depot sale parcels are not handled by the contractor and tickets are redeemed under the branch.

We get quite a lot of people that come in off the street and we encourage that because of the Consumer Guarantees Act. We don't know what is being picked up at a private home and it is very hard for the contractor to ask what the item is or the customer to tell us what the item is and then make them aware of the conditions of carriage which don't apply to cash customers that aren't issued receipts. In effect, if they have a particular claim they can sue the company for tens of thousands of dollars. Their receipt explains the terms of carriage which automatically places them under the protection of the Goods and Services Act which is a maximum of \$1500 excess payout.

Operative # 2

The major problems are clients under-ticketing their parcels, as this affects courier as well as branch revenue, and the size of some parcels, which makes them difficult for the couriers and Parceline to transport.

It's crazy what some people will do to save a ticket. One client will cellotape a number of parcels together that are going to the same address because they won't fit in one box and just use the one ticket. These people get a reputation and we won't make special efforts to help them out of a tight spot. Generally people are pretty good. They will place the correct amount of tickets on parcels and ticket every parcel, even if they are all going to the same address. Here we don't mind waiting around making ourselves a little late or making a special trip to pick up a forgotten parcel as long as we are back at the depot by 6:30 pm so we don't hold up the line haul truck.

People forget that we regulate parcels by size as well as weight. Sometimes we get a parcel that is well under the weight restriction but really too big to transport easily. I may drive a truck and accommodate larger parcels better but I don't know what the other courier is driving which is usually just a van. It's not just my problem it also affects Parceline workers especially if it is an inter island delivery and the courier at the other end. But if the client is good and worth a lot to us we generally make allowances but in some cases we have to ask them to find an alternative delivery method.

Courier 821

Palmerston North has the responsibility of servicing Post Haste's largest client, the Toyota Warehouse. Currently, Toyota is transporting 7000 parcels per month and accounts for eight per cent of revenue for Post Haste and three manifestors are employed specifically for Toyota on location. Rather than redeem tickets, payment is made by total weight and the courier is contracted at a specific amount to make deliveries. *(See table five and table eight.)*

### 3.10 Contingency operations

Most emergency operations must be resolved by sprinting the parcel to its destination.

If any sprints come up the normal procedure is that we will first give the option to the duty courier that worked the Saturday previous. If he can't do it then we will put the option out to the other duty couriers. If they can't do it then we put the option out to all couriers, if this fails we make arrangements with staff to see if they can get friends or family to make the delivery.

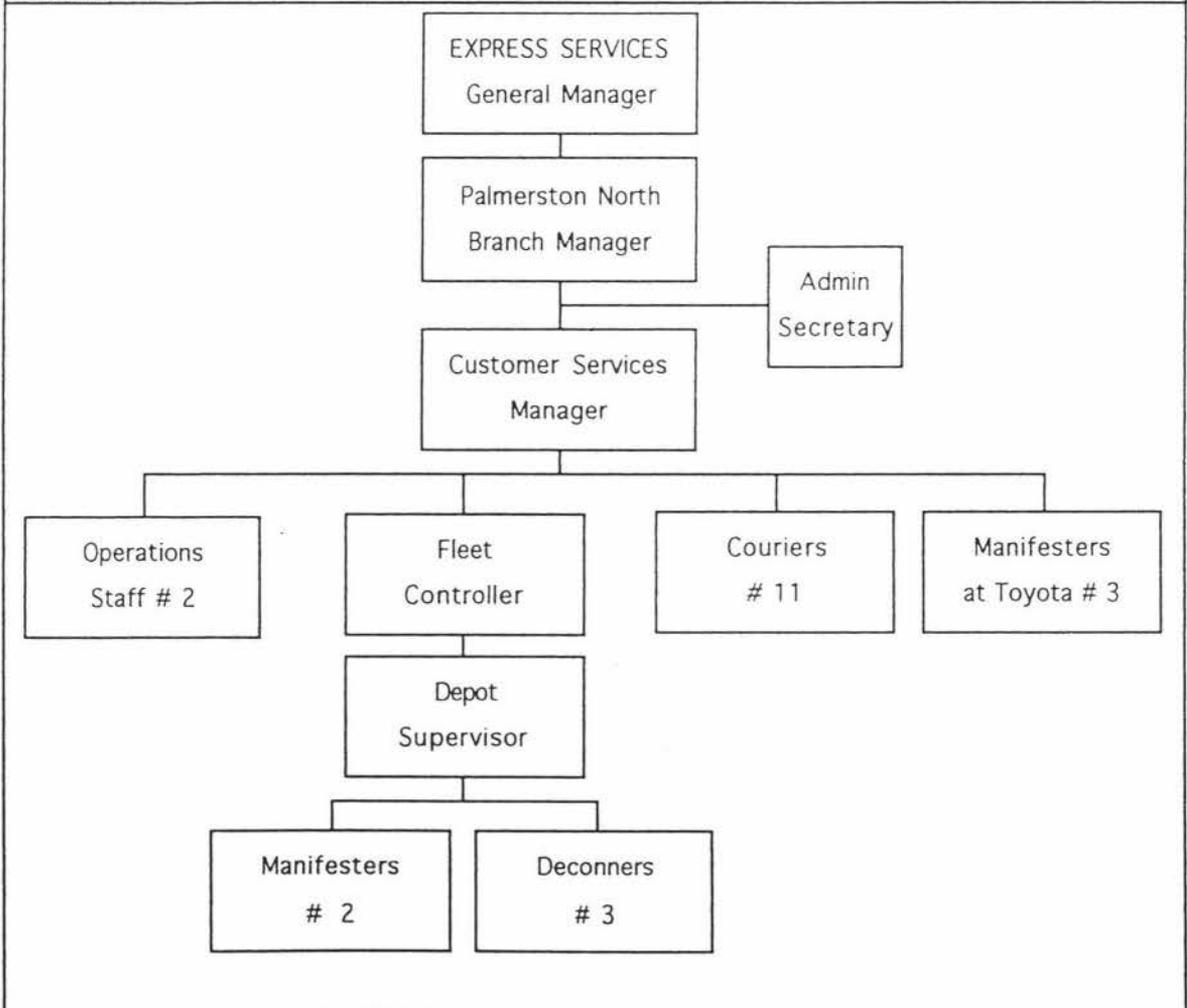
Customer services manager

In the event of a cash customer or client having an urgent delivery Post Haste can arrange a sprint anywhere within the country. This costs more as charges are per kilometre. The branch will take a percentage to cover administration, toll calls and time, and the courier will get the difference. At times a misdirect is an operational fault by Post Haste who contact the client and enquire if delivery can be a day late. If the parcel must be sprinted then the cost will be credited to the branch at fault. Alternatively, if NZC has a day run in the required area, Post Haste may use them for misdirects.

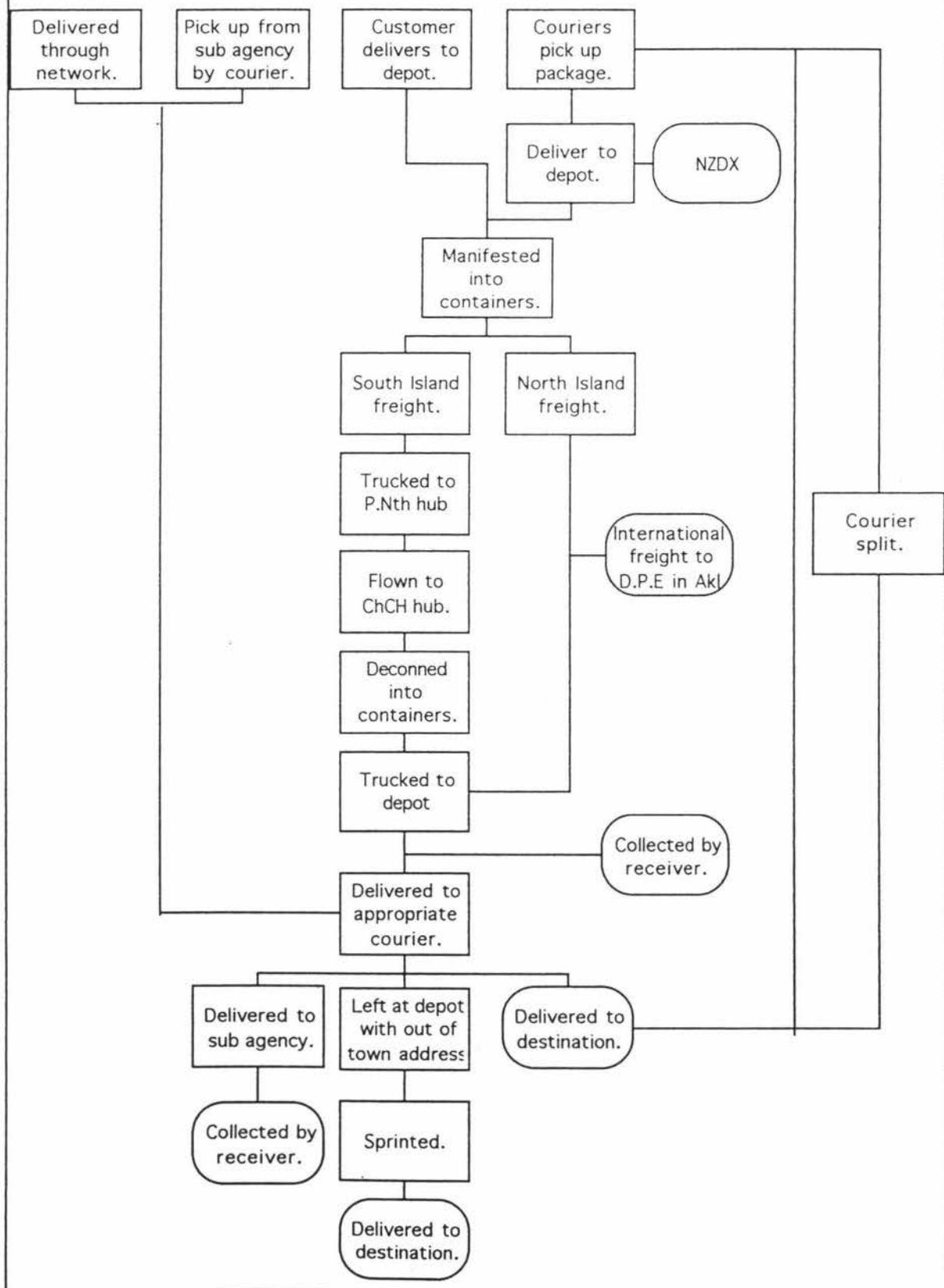
'We purchase a book of their tickets and every time we have a parcel we will use their tickets accordingly as their service costs more than ours'.

The delivery service is a seasonal industry with busy periods at Easter and Christmas. It is quite common for the couriers to employ relief drivers at these times or on an as needed basis to maintain the service standards. Relief drivers are the responsibility of the employing courier and are usually compensated by a wage of around \$70. 00 per day and the courier will redeem all ticket portions.

**Chart 1: The Organisation Chart of Post Haste Palmerston North.**



**Chart 2: The Post Haste Network with emphasis on the Palmerston North depot.**



**Table 4: The percentage of freight provided by Post Haste and generated by contractors.**

Courier	Inbound %	Outbound %
811	57	43
812	67	33
813	80	20
814	68	32
815	60	40
819	93	7
821	60	40
822	67	33
825	86	14
827	91	9

Note, outbound includes local delivery.

**Table 5: Courier runs and depot supervisor duties.**

Courier number	Runs
811	Hokowhitu area, Fitzherbert Ave. Terrace End, run to Linton for blood samples at 4pm, and BNZ Proof Centre to drop off at Data Bank at 11pm Monday to Friday.
812	Block formed by the intersections of Tremaine Ave, Ruahine St, Main St and Rangitikei St. Block is not inclusive of these streets.
813	Twice a day to Foxton Levin, Shannon, and Rongotea. Back at depot for 1:15 split.
814	Highbury, Awapuni, West End, The DSIR and MAF. Linton between 10:15 and 12. Longburn between 1.15 and 4 pm.
815	A wage earner who operates in the areas of Cloverlea, Milson, the airport, Roslyn and Kelvin Grove.
818	A Wanganui courier who lives in Palmerston North and picks up any NZDX bags or misdirected parcels before leaving for Wanganui in the morning. Back at Palmerston North for the 1.15 split returning to Wanganui and back to Palmerston depot by six pm servicing Bulls and Marton when required.
819	Twice a day to Pahiatua, Woodville, Dannevirke, and Ashhurst. Back at depot for the 1:15 split
821	Takaro, Square, Main Street, Showgrounds, Rangitikei St, Tremaine Ave and up to but not including Botanical Rd.
822	Six times a day to Feilding. Marton at 4 :30 and The Doctors by Pa & Save at 8:30pm.
825	First run in the morning to Longburn. Twice a day to Foxton, Levin and Shannon. Meets Wellington day run at 1pm at Manaku. Back for the 11:15 and 3:15 split. Finishes at 3:15 where parcels to the depot are passed on to another courier.
827	Daily run to Sanson, Bulls, Marton, Hunterville, Taihape, Waiouru, Ohakune, Raetehi. There are no splits and the day finishes at 4pm.
Depot Supervisor	Owner of 815 run and redeems tickets from this run. Deconning freight at depot at 3 am to 6 am. Places any misdirected parcels into the misdirect bin. Delivers residential parcels in 815 areas between 10 and noon. Organises 1:15 split for couriers while they lunch. Organises TCP,s for manifestoring. Manifestors freight from 6 to 7 pm. Forwards any problems that couriers may have to appropriate person upon request by self appointed responsibility. Cleans depot.

**Table 6: Management and operatives duties**

Title	Job description
Branch Manager	Policeman and promoter of depot. Oversees and staff of Wanganui and Palmerston North. Has a monthly budget for introducing new business into Palmerston North. Regularly visits client and attends meeting that concern Post Haste.
Customer services Manager	Oversees operatives at depot and Toyota. Has a portfolio of clients to attend. Deals with difficult customer complaints and queries. Ensures smooth operations
Fleet Controller	Receives customer's telephone calls and dispatches orders to appropriate courier by radio, telephone or pager system. Processes proof of delivery requests. Inputs ticket redemption data (Saturday morning). Processes rural delivery parcels by ticket # and type, return address and destination. Assigns in freight storing. Identifies appropriate destinations for misdirects and problem freight.
Customer Service Supervisor	Receives customer's telephone calls and dispatches orders to appropriate courier by radio, telephone or pager system. Processes proof of delivery requests. Compiles and processes daily misdirected freight report. Processes international freight documentation on a daily basis. Audits ticket redemptions by couriers weekly. Processes international customer inquiries.
Customer Services	Receives customer's telephone calls and dispatches orders to appropriate courier by radio, telephone or pager system. Processes proof of delivery requests. Processes claims (damage and loss).
Customer Services	Part time employee to generally assist other operatives. Specifically receives customers telephone calls and dispatches orders to appropriate courier by radio, telephone or pager system. Signature audits for couriers.
Administration	Receives customer's telephone calls and dispatches orders to appropriate courier by radio, telephone or pager system. Processes proof of delivery requests. Misdirected inbound freight to be inputted into the computer with a national list printed by eight thirty am. Input ticket redemption data (Saturday morning). Banks monies from cash sales. Depot management and collection. Reconciles cash account weekly. Stocktakes and orders tickets on Mondays. Receives processes and dispatches all ticket sales for both cash and charge customers.
Deconner	Employer between 3 and 6am to remove parcels from TCP's and place them in the appropriate courier's bin by the address on the parcel.
Manifestors	Employed between 4 and 7pm to place parcels from couriers vans and bins into appropriate TCP's for transportation by Parceline. With respect to Toyota one manifestor will check parcel details, place a destination label, call out particulars including parcel weight. Another manifestor will record particulars. The third manifestor stacks parcels into correct TCP or tray for delivery by courier 817

**Table 7: Cartage of freight to and from Palmerston North depot.**

Inbound freight	Destination
Hamilton	Freight from Auckland, Hamilton, Rotorua, Tauranga, Whangarei and the South various TCPs including Gisborne, Taupo & Wairoa are exchanged at Taupo by swapping trailers with another line haul carrier. Freight from Palmerston North has a North various TCP for the same destinations of the South various.
New Plymouth	Freight to and from the New Plymouth region is delivered from depot to depot.
Hawkes Bay	Freight from the Hawkes Bay region is taken to the hub and delivered with the South Island freight.
Wanganui	Freight to and from the Wanganui region is delivered via a small truck catering for these destinations only.
Wellington	Freight to and from the Wellington region is delivered from depot to depot.
South Island	South Island freight is transported to the hub in igloos via aeroplanes transferred into TCPs and delivered to the depot. The reverse applies to outbound freight. Planes land at Palmerston North hub 5 times a night but are not necessarily carrying freight for the Palmerston North depot.

**Table 8: Cartage of outbound freight from Toyota.**

Carriage	Destinations
Pure TCP's	TCP for each destination for Auckland, Hamilton, & Whangarei.
Mixed TCP's	Freight to Rotorua, Tauranga, & Whakatane share a TCP and is distributed as they go.
Packed at Parceline	Freight to New Plymouth, Hawkes Bay, Wanganui, & the South Island is delivered to Parceline, sorted at the hub into appropriate TCP's or igloos.
Delivered by 817	Contracted to deliver to Palmerston North, Feilding, Levin, Otaki, Paraparaumu, Porirua, Wellington and Lower and Upper Hutt Toyota dealers.

Leading  
The  
World  
In  
Professional  
Tree  
Farming

**Rayonier**  
NEW ZEALAND

*'Essentially we have a product or a raw material which is the trees growing in our forests. Our job, as the operations side of things, is to extract maximum value from those trees. Our guiding principle is the quality process which involves a number of activities and a whole lot of analysis to make sure we are doing just that'.*

Branch Manager

### 3.11 Rayonier New Zealand, Wellington.

Rayonier is an international company engaged in the trading, merchandising and manufacture of logs. Rayonier had its origins in the United States in 1926 and currently owns, leases or controls approximately 1.5 million acres of timberlands with approximately 863 000 located in the Southeastern U.S and 253 000 acres in New Zealand. Rayonier was founded in 1926 in Shelton, Washington, USA as the Rainier Pulp and Paper Company. It became a subsidiary of the international company, ITT Corporation, in 1968, but reestablished its position as an independent public Company in 1994.

Rayonier New Zealand began in 1989 in Auckland. The purchase of Kohitere Forest from the Government in 1991 was the Company's first land purchase. The further purchase of 100, 000 hectares of Crown forests in May 1992 was the catalyst to begin regional operations in New Zealand.

Rayonier is headquartered in Auckland with regional operations throughout New Zealand situated by plantations and ports. Forests and regional activities are located in Northland, Bay of Plenty, East Cape, King Country, Taranaki, Wanganui, Horowhenua, Nelson, Marlborough, Otago and Southland.

Rayonier New Zealand is autonomous from the American parent and separated into eight operations, of which 6 are dependent on two distinct operations operating in a cyclical nature. (*See chart three.*) Resources are concerned with growing and presenting the forests at any stage from seedlings to a mature tree of 25 - 30 years. Operations are concerned with harvesting, transporting the logs to ports and sawmills and to domestic marketing and exports. Once the forests are logged the land is then handed back to Resources for replanting within 15 months of being cleared.

An operations activity has been sustained in Wellington since 1992 and currently employs six operatives, eight logging contractors and three transport contractors. (*See chart four.*)

### 3.12 Company Philosophy.

Rayonier seeks quality trees, maximum value from logs and satisfaction from customers. The location and nature of activities incorporates some rugged and difficult sites and conditions in the New Zealand terrain. Managing these variables means regional forest managers require latitude and autonomy in their operations: decision making is left to the regional districts. This provides the scope for the regions to develop their own philosophies.

The programme that we've gone through is peculiar to the Wellington office. Generally, it is centred around extracting as much value from trees as possible, the environmental issues concerning our own, private and Crown land, and employee welfare.

Branch Manager

This quality statement defines the philosophy for Rayonier, Wellington and also applies to their logging and carriage contractors.

*Rayonier New Zealand, Wellington region, is committed to providing correct quality goods and services to our internal and external customers. We will be responsive to customer requirements and deliver products and services within specification and on time. Our goal is to be the supplier of first preference, and for our products and services to command a premium in the market.*

### 3.13 Contractor Operations.

Logging contractors are self employed business people who contract to Rayonier, Wellington; they are not an employee of the company. (See chart five.) Rayonier contract a job to the prime contractor who then is responsible for the fulfilment of that order and the management of their crew. They are free to work for other forestry companies. The prime contractor is the individual who owns the machinery and burdens the capital outlay from approximately \$100 000 up to a couple of million. Generally they employ a crew of four to ten people. They are responsible for all their machinery maintenance, safety equipment, training, book keeping, their quality manual and quality audits.

The logging contractors are the group of people who cut down the trees, pull them into a central landing area, cut them into logs, and put them on a truck. (See table nine.) They do all the back breaking work and are responsible for the profitability of the company as they fell the trees and cut the stems into logs.

Procurement Supervisor

Contractors are allocated a customer order and a block. Their instructions are stipulated in two documents, the priority cutting sheet and the specifications (spec) book. The priority cutting sheet lists the log types they are going to be cutting in order of the most valuable to the least profitable. This is to stop the contractors from sub optimising. Each grade has a code which is listed in the spec book which stipulate what particular qualities a log must possess in order to make that grade, including a minimum and maximum length, small end diameter, and long end diameter a maximum acceptance for log sweep, wobble, and knot size.

Because of our marketing commitments, because we're trying to maximise value, or because we've said to a land owner this is what we are going to do, we have a priority cut. Ideally the priority cut works like a value recovery exercise, it stipulates that this is the highest grade log, this is the next and so on. In reality these grades chop and change as we might have a commitment to supply a sawmill a certain amount of a certain grade, so there is a trade off and at times we are forced to sub optimise a log to get that grade. The spec book acts as the contractor's bible. It describes what to look for when cutting a log and how to cut it. This ensures customer satisfaction.

Branch manager

Every Monday the logging contractors send in a docket summary which lists the loads sent the previous week, by docket number, by date, by grade, and by

destination. Contractor payments are based upon these docket. Also they must include what they have on stock at their skid site by volume of truck loads and what they think they can produce for the following week. This forecast is based upon their priority sheet.

They basically know what they are going to produce in volume and can have an educated guess of grade makes. While it is not an exact science it is a hell of a lot better estimate than we could ever get. So we know first thing Monday morning if we are going to have problems meeting any customer requirement or a shipment.

Procurement Supervisor

Training of the crew is the responsibility of the prime contractor as essentially the crew members have to perform to the standards of that person not Rayonier. However, Rayonier provides training to the log maker of each crew so they may attain increased value recovery from logs.

Training mainly involves an experienced log maker with an optimising tool going to assist the cutting up of stems. Our log maker measures it with the computer, then the contracted log maker will figure how to divide the tree up for himself. The computer will make comparisons with his results and tell the log maker how the log can be cut for more value. When we started our quality system we had our log maker visiting every crew every month for a day. Now it is every six weeks and we want to reduce it to every three months.

Branch Manager

Log makers have a great deal of responsibility in this decision making and it is recognised that, even with the computer, they will sometimes not achieve the best value from a log.

Everyone is human and we accept that. The log maker is not going to make the best decision 100 percent of the time but that is one of the reasons for this training is to give regular feed back and direction. Our aim is to get 96 percent value recovery and most of the gangs are approaching that anyway.

We have two crews that have two full time computerised log makers on sight as they are the critical crews who are working in high value bush so they have the most potential to lose value. When you are cutting just one or two grades a man can make similar decisions to the machine but when you are cutting 11 or 12 different grades those decisions become quite complex and the machine is almost more capable of making the decisions. Even though the computers really go with the bush they tend to move with the crews as we give our best log makers the high value orders.

Quality Control Supervisor

When logging a private wood lot contractors are expected to confine operations within the stumpline of the block, keep tracks to the minimum and are allowed one main access road'. Damage to fences that could have been avoided is the contractor's responsibility but if there is a risk of damage then it is the farmer's duty to take them down for the duration of the contract or repair them. Any special logging conditions outside the general prescription must be noted on the Sale and Purchase of Forest Produce Contract. This must be shown to the logger prior to logging rate negotiations to allow the logger to see the total scope of the job.

Requests usually pertain to native trees which may require extra or special machinery which limits who the contract can be offer to.

There is a requirement for all accidents to be reported to Rayonier, whether an injury results or not, within 24 hours.

One of the conditions for employment in 1996 is that logging crews who contract to Rayonier must possess a registered quality management system or be in the process of achieving certification. Qbase, which is overseen and audited by Telarc, is the chosen quality system for the logging contractors as part of the Rayonier TQM system. For consistency, the contractors had to take on board the quality goals of Rayonier.

We had worked with Qbase before and it is the logical qualification for the smaller businesses' (Procurement Supervisor). Currently there are eight logging contractors achieving the Q Base quality management system of which '...there are three that are paying lip service to it

Branch Manager.

### 3.14 Operative operations.

It all begins with Resources. Operations are not totally separate, but ultimately the decisions about how to plant, fertilise, thin, prune, where to build access roads and which ones to maintain, are their responsibilities. Operations doesn't have any influence on the quality of trees that are being produced at the moment.

What this office is trying to do is to match the sales to the resources we have. (*See table ten.*) We are allocated a certain amount of bush, say 100 000 cubic meters and we have customers where we know what sort of logs they want. We are trying to match the two. Resources tells us what we can produce about two years in advance and what I have to do is sell that mix at the right price so we can maximise the dollars.

Branch Manager

At the beginning of each year the Regional Manager produces an annual budget concerning the mix of domestic and export sales. The company policy is to give preference to domestic sales but currently there is a 50-50 split between the two. Once the production figure is decided upon it is divided up and allocated to the blocks that are scheduled to be logged and the volume of grades that should be retrieved from each block. Production is seasonal to match the months of the year as production increases in summer and decreases in winter. (*See chart six.*)

The allocated blocks from Resources usually fall short of the predicted production, and to compensate the shortfall, wood lots are purchased from private owners. The focus of purchases are around their harvest time or within a year or two of being a mature plantation (mid 20's to early 30's). After 31 - 32 years there it little to gain by letting trees grow as the wood properties don't change. As an investment, they will not provide the returns that replanting will.

At a guess, 25% of our harvest would be from sources other than our own. Most of it is private individuals but we did purchase a wood lot with all the cutting rights from the receivers of Manu Pacific, about 18 months ago. This was a major private purchase but mainly our private purchases are 20- 25 year old wood lots from farmers, but plantations are purchased that vary from 15 years to 60 years.

Wood lots are purchased through the wood lot tracking system. Calls are entered into the book and we allow two days to respond to the initial call. Once we've inspected the wood lot we must make a decision to purchase or decline within 14 days. In the process of purchase we measure the area and make an estimate of value through experience or bring in an independent consultant to do an analysis. Every week on a Thursday the book is taken into the operations meeting and the entries are discussed. It's pretty simple but it only came about through the quality system.

When blocks are to be logged we select the stands that have a high percentage of the type of log we have the order for and extract the highest value per log. If they are not in the order we are cutting to, we take them to what ever markets we have, so we optimise all the time. In theory, everything runs smoothly as production and sales match up, but every now and then it gets out of sync and I'll have to use two stands to match an order.

Branch Manager

A specification exists for every grade of log that Rayonier cuts, be it for the export market or the domestic market. From time to time new grades are developed and introduced and existing grades are altered. When either of these happens the logging contractors have to be informed. This is done by introducing or updating customer specification sheets and redistributing them in the form of a log specification book. In the event of a customer changing an order or a new grade being introduced the book must be exchanged to an updated version of a different colour.

Previously we used to hand the contractors a sheet of paper with the new specifications which some of them promptly lost

Branch Manager.

For the purpose of accuracy of log production a 13 week, forecast is in place which is updated every week. From this, head office is kept informed of the expected export production by volume and volume of grades each week for 13 weeks in advance. This assists them in selling the correct products and in chartering vessels to match these volumes. The forecast is faxed to Auckland no later than 10 am each Monday.

Basically, we are sending Marketing information every week which says for the next 13 weeks this is what we are going to do so its a rolling number. The marketing people are selling wood by forward selling. With the export business you can't decide this week to ship 10 000 cubic meters next week. You must have lead time. It takes five to six weeks to assemble a cargo and it takes three weeks to a month to organise a charter. As you would expect this forecast is quite consistent and accurate.

Procurement Supervisor

In order to meet weekly customer requirements the office must know what grades of logs are in stock at the end of each week and what is likely to be produced the

following week. This information is obtained from the document summary faxed in by the logging contractors. It can determine the possibilities of producing too much or not enough of certain grades. In such cases, remedial action can then be planned.

If we can't meet demand or fulfil an order all we can do is talk to the customer. We have a perception of who the customers are that we really need to look after, and who the ones are that it is not going to matter much if their supply is a bit up or down.

Log Production Coordinator

A crew production report is produced once a week on a Monday. The intention is to show how many tonnes per day each crew produced for the previous week. This can be compared to what they had stated on their stocks and plans. It is an accuracy check to determine how much faith to place on contractor's forecasts and to make company adjustments.

Each month, the mills report to Rayonier concerning logs out of specification. A Rayonier employee does an inspection and if claims are accepted they down grade the log to a lesser value or credit the log, depending on the damage. Inspection includes measurement of the length, the small end diameter, cracks, branches that haven't been trimmed, sweep, wobble, rot, holes, and damage by machine. This is documented, signed and returned to the office for a credit note at the end of the month .

A cartage schedule is produced each week to inform the trucking companies and the Port of Wellington what grades of logs need to be transported and where they are to be picked up and delivered. The delivery of domestic logs is checked daily so the progress can be monitored against what was planned. Every morning McCarthy Transport and T Pye Cartage Ltd fax through to the Wellington office a copy of their deliveries. At the end of the week each customer is totalled up and entered into the data base.

In respect to quality, logging contractors are graded on three factors: quality, value recovery, and reliability. Quality is the quality of wood measured on the skid, in stockpile ready for the delivery to the customer. This is done by measuring a sample of fifty logs per week against the specification sheet. An employee measures the length of the logs, the knots, the log sweep, wobble, rot, holes, damage by machine and all other parameters listed in the spec book.

Value recovery is getting the best value for that tree and avoiding sub optimisation. Assessment by Volume of Individual Stem (AVIS) is software that is use to roughly estimate how much money crews are losing in the bush. An independent company, Intertwine, select ten logs from each gang and enter them through a computer programme which calculates the optimum way that log should be cut by cross referencing spec books and the priority sheet. They get the logging contractor to mark the tree up to the way they think it should be cut and they compare solutions.

To determine reliability, contractors are ranked against one other by comparing

performance on docket returns, environmental issues, safety standards, information transfer, machine availability and maintenance, level of production, and reject wood.

Generally we are looking for a high level of value recovery, consistency, understanding, support and ability to achieve what we are trying to do

Branch manager

. If a contractor has performed better than they had the previous quarter the ranking is reordered.

From this data we rank the contractors where the variables are weighted evenly so they are each worth a third of a mark if you like. If there is a downturn on work the worst contractor with quality, value recovery and reliability gets laid off first.

Branch Manager

### 3.15 Export Operations.

Shipping schedules are sent to us from Auckland and are updated whenever necessary. They tell us that in six weeks we have a vessel coming in and these are the orders. Auckland is informed about what remains at the port and they inform us when the next vessel is due and the customers orders. We know then that we have to get certain volumes and grades of wood which may or may not be a problem. If it is a problem we have to try and organise someone to supply the wood to us or tell the customer that their order can't be fulfilled and here's what we have to offer.

Quality Control Supervisor

Rayonier contracts the Port of Wellington to store up to a certain amount of wood as well as to marshal the wood.

When the trucks arrive they go to the marshal hut and because they are export logs they are measured individually. All export logs have a mark on their large end diameter to indicate that it is the large end. A bar code is attached to the short end diameter which is also measured and inputted into a computer which is down loaded to the regional office every day. From this we can identify each log to a docket number. Each docket has information on how many logs were on that particular load, who logged it, the grade, and the specifications. So if the log fell into the water we can identify where it should be. Once the logs have gone through the marshalling area they are unloaded into rows by volume, grade and length.

Quality Control Supervisor

A wharf reject report is used to document the reject data which stipulates what sort of rejects were transported to the port with the intention to be delivered to which customers and in what quantity.

The lotting plan stipulates the allocated area per customer and the order. Port workers use that plan to go through the rows and match the logs to the lots on the ship, making sure the oldest wood goes first and that the customer gets what they want in their little areas. There are numerous customers and destination points so it is like a jigsaw puzzle. To keep the customer orders separate they mark orders with a

particular colour of paint and when they unload and come to another colour they know they have reached the end of the order.

Quality Control Supervisor

Front end loaders are used to load logs onto a cradle at the ship's side which is hoisted by a crane directed by a person with a radio. At this stage there is a double check as the logs are counted and the bar codes are removed and collected so we can keep a tally of what's going on to the ship. Once the logs are in the correct position the cranes have a radio control release device.

From when the truck drives into the port, until the logs are put into the cradle is called marshalling which is done by the Port Of Wellington. As soon as the logs are in the cradle that is called stevedoring and we can have a separate company doing that so we have the option to change companies to whoever's more efficient.

Quality Control Supervisor

### **3.16 Revenues and Payments.**

The value of logs is calculated differently for domestic and export sales. However, both methods have a reliance on dockets as evidence of delivery, receipt and means by which payment is made to the contractors.

All documentation comes back to the office with the sale as that drives our payment system. Our logging contractor, our carriage contractor, the land owner, if its a private sale, gets paid on that docket.

We have a system in place where all of our dockets have to be in the the office within five days of issue. We check them off to make sure they are in the office and if they are missing we try to track them down. The docket information is entered in to the computer where it cross references the information to the data base and determines who logged the wood and how much they should be paid per tonne, who carted the wood and that cost, where the wood came from and how much stumpage the owner should be paid per tree. On a Monday morning a dummy run is done where all the invoices are collected and the manager inspects them for obvious errors and direct credits are made fortnightly.

Administration Secretary

There are six copies in the docket book. One stays with the book and the other five are removed for the logging contractor, the land owner, the trucking company, a customer copy, and a Rayonier copy. When the trucking contractor leaves the site there are three copies with that person.

In the case of a domestic sale, payment is based upon tonnage so the load is weighed at one of five weigh stations. The weight of the trailer is subtracted and the weight bill is stapled to the customer and Rayonier copy. The Rayonier copy is left at the weigh bridge and couriered to the office and the customer receives their copy with the delivery.

In the case of an export sale, all customer's payments are based upon log volume. The small end diameter and the length of the log is used to determine the volume of wood by a formula called the Japanese Agricultural Standard (JAS), which has a taper equation built in to the formula. The formula basically cubes the log from the small end diameter.

The two methods often bring about a difference in the value of the wood depending on the circumstances. If the wood is light and has little taper then the JAS formula will yield more value. If the wood is heavy and has a large taper then payment by the tone will yield higher returns.

'At times a tone by weight can be the equivalent to .6 of a tone by the JAS conversion'  
Contractor # 1.

Because of the bar coding which is referenced to a docket, when the ship sails we know exactly how many cubic meters went away and we get a bill from the marshalling and stevedoring contractors. So the wood sits at the port and we don't pay for anything until its gone.

Quality Control Supervisor

The contract with the Port of Wellington thus has major advantages for Rayonier.

### **3.17 Production and Sales.**

At the time of purchase the age of the 100 000 hectares ranged from 1 year to 60. The purchased forests are still relatively young with the median age between 13-14 years. On a 25-30 year maturity cycle the peak production period will not be achieved until early next century. As the forests grow there is more that becomes mature each year.

That's what's driving the increased harvest.

Branch Manager

Domestic customers purchase high grade logs, middle grades are exported and processing plants want pulp wood.

Internationally, Rayonier export to over 60 countries but the regional offices don't have an input into negotiating the prices. Regional focus is domestic sales and to determine the volume of logs that can be produced. The major overseas buyers are Korea, Japan, and the USA, in that order, as they are the consistent buyers, whereas the other overseas buyers are more spasmodic.

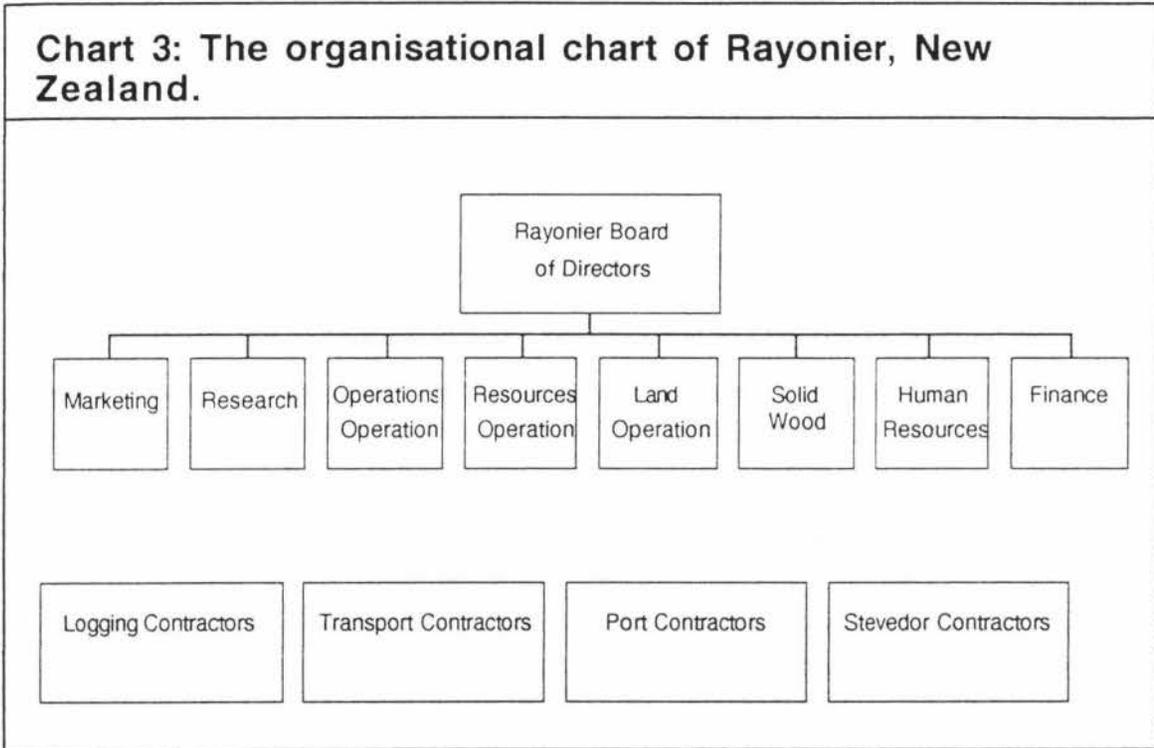
Rayonier boast that they have the largest domestic base of any forestry company in New Zealand due to geographic spread and service to over 100 domestic customers. Domestic demand is growing at the rate of 4- 5 percent per annum with 12 percent in 1995, but the long term predictions are slower.

Currently we have people knocking on the door wanting to buy wood. The trick will be

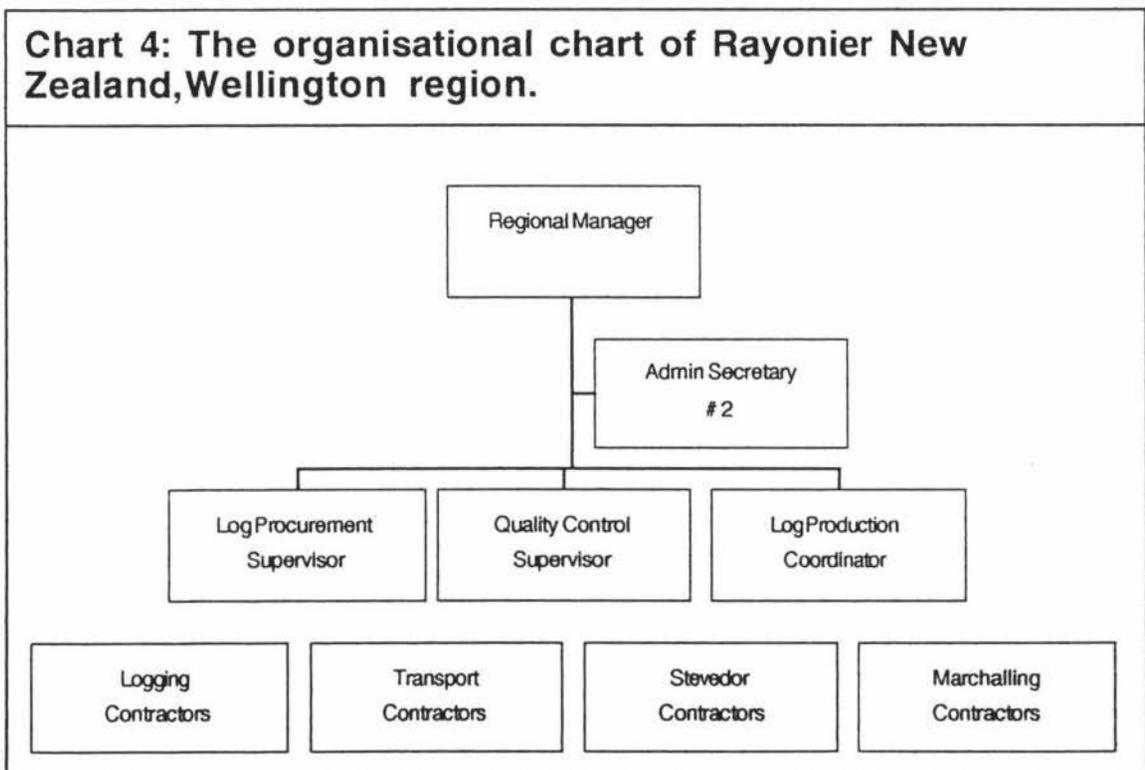
to get into selling the end product so we need more processing to get higher value. Over the next ten years Rayonier should expand its processing facilities quickly enough to take advantage of the reduction in the harvest world wide.

Branch Manager

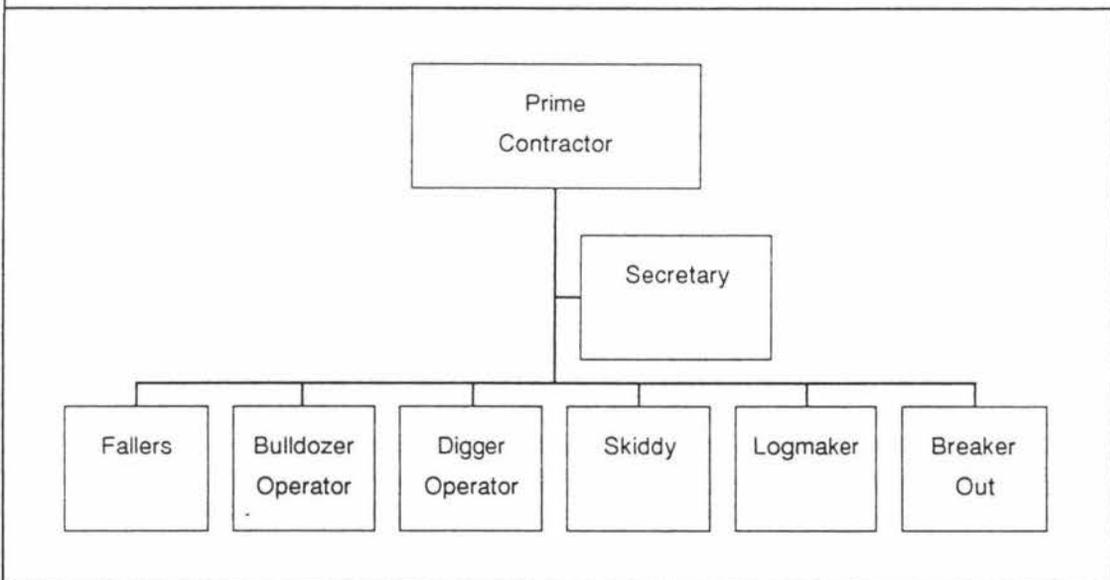
**Chart 3: The organisational chart of Rayonier, New Zealand.**



**Chart 4: The organisational chart of Rayonier New Zealand, Wellington region.**



**Chart 5: The organisational chart of logging contractors.**



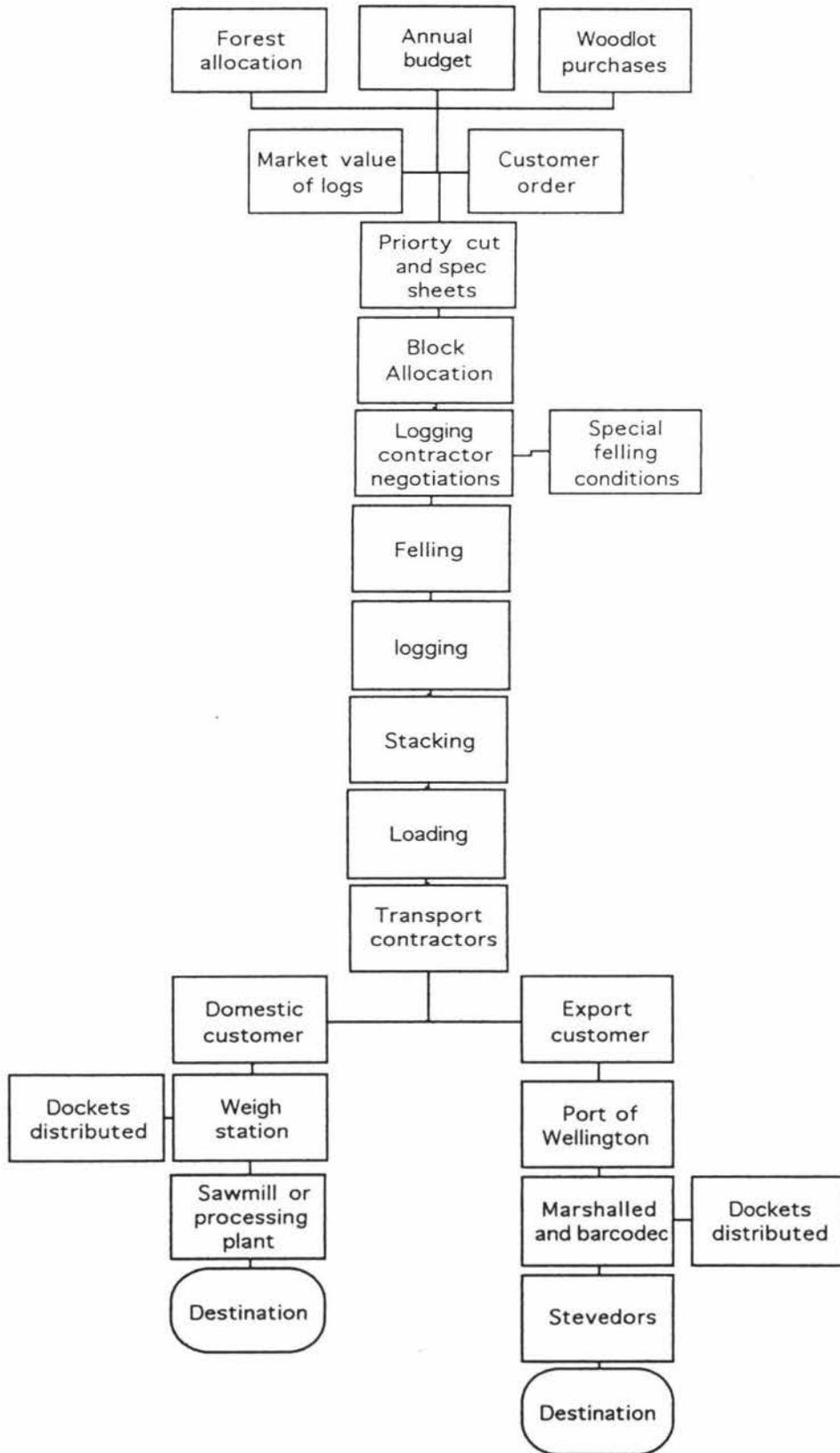
**Table 9: Logging contractors duties.**

Title	Job description
Prime contractor	Overall management and control of company affairs. Coordinates employees to achieve customer satisfaction, maximum productivity and profit, safe work environment. Manages capital investments. Monitors and evaluates staff performance. Trains and educates staff. Negotiates with customers. Ensures that all policies, procedures and systems are in compliance with the quality manual and strategic planning.
Foreman	Manages of daily operations. Coordinates employees to achieve a safe and productive operation outlined by the quality manual. Liaises with Rayonier personnel. Ensures maintenance of equipment is carried out.
Quality and Safety Coordinator	Ensures all employees comply with the quality and safety programme. Ensures there is a working document control system. Ensures that any new instructions for any new or amended processes are documented. Maintains a quality system for checking logs and safety aspects. Ensures that an equipment calibration and maintenance system is maintained.
Log Maker	Works in accordance with the quality manual and Bush Code for Forestry operations. Makes logs to specification and to Rayonier's cutting instructions. Remakes logs to cutting instructions when logs fail quality inspection audits. Maintains saw and log makers equipment. Ensures equipment is calibrated and fit for use. Maximises log recovery according to cutting plan given by the customer.
Faller	Directionally fells timber to minimise wastage and provide easy extraction. Maintains saw and equipment. Works in compliance with the quality manual and the Safety Code for Forest Operations. Is fully trained in accident and emergency procedures.
Machine Operator	Operates machine at maximum productivity. Minimises damage to stems, logs and residual crops. Ensures that machines are maintained and service checks are made at due dates. Observes start up and close down procedures. Complies with the quality manual and the Bush Code for Forestry Operations. Assists other personnel within the crew as required. Participates in safety training.
Breaker Out	Select logs for dragging making sure not to overload the machine. Does any preparation before the bulldozer arrives. Works with bulldozer operator to pull out rope and strop up. Works in compliance with the quality manual and the Safety Code for Forest Operations.
Skiddy	Works in the activities of skid work, tree processing, tree felling, and breaking out. Maintains saw and equipment. Works in compliance with the quality manual and the Safety Code for Forest Operations.
Secretary	Part time position. Office administration duties. Ensures out going correspondence occurs on time. Purchases authorised goods.

NB. The duties of the Foreman, Quality and Safety Coordinator and Secretary are duties that may be assigned to an other existing position such as the Prime Contractor or a senior employee.

<b>Table 10: Management and operative duties</b>	
Title	Job description
Area Manager	Polices and promotes Wellington region and assist coordination with inter-company departments. Overseas procurement of logs and log production, merchandising, distribution, domestic sales. Directs training programmes and is responsible for all port operations.
Log Production Coordinator	Responsibility for coordination of log production and delivery. Manages delivered log supply by understanding log specifications and supervising logging and road maintenance contractors. Prepares documents for resource consent approval on private wood lots. Assists in log production forecasts. Ensures compliance with Health & Safety Act 1992.
Procurement	Responsibility for timber appraisal. Collect, analyse and present to manager. Supervises potential timber sales. Manages profit performance of all purchased timber. Supervises appraisal of potential timber purchases and cost estimates of sales. Negotiates with private owners for purchase of timber. Maintains data base identifying resource availability. Manages aspects of quality for contractors. Advises on special projects.
Quality Control Supervisor	Manages log quality of domestic, export, and pulp sales. Manages all phases of log quality including cutting, landing and yard quality. Responsibility for training and supervising quality control standards. Responsibility for log accountability in log movement from yard to ship side or mill. Supervises yard operation to ensure proper tagging and sorting by species, grade and sort and ship loading operations. Responsibility for port security. Negotiates domestic log sales. Customer service representative.
Administrative Secretary #1	Receptionist. Answers phones and takes messages. Maintains radio contact with field crews. Types and maintains the office filing system and produces all contract documentation. Manages log production system. Handles all queries concerning docket information. Maintains office supplies.
Administrative	Part time secretary, part time TQM manager and part time project work. Updates procedures of quality manual and tests feasibility of ideas. Does project work for other operatives on an as needed basis for a variety of tasks.

**Chart 6: Flowchart of Rayonier New Zealand, Wellington regions operations.**



## **3.18 Key elements to profit.**

“For what shall it profit a man, if he shall gain the whole world and lose his own soul”.<sup>1</sup>

St Mark 8,36

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<sup>1</sup> Hyman, R (1993) The Pan Dictionary of famous quotations Grange Books, London Pg 58:58

### 3.19 Post Haste Couriers.

Each of the companies in the Freightways Group is concerned with a specific market so as to achieve what Freightways believes to be market coverage. Post Haste has found its positioning with strategies of volume of work and competitive pricing and is primarily concerned with pick up and delivery of packages for businesses on long term contracts rather than spasmodic deliveries for and between households.

The distribution network and relationship with Freightways Distribution Services especially Parceline, is critical to Post Haste. Close cooperation, standardised times, ensuring all incoming freight from Parceline arrives at the depot overnight thus allowing Post Haste to both prepare incoming freight for delivery by its operatives to have outgoing freight sorted ready for transport by Parceline. Parceline is compensated by either payment per volume of parcels or a percentage of revenues from the Post Haste branches. The latter is used by Palmerston North, where 40% of outbound revenue is credited to Parceline. Deliveries by New Zealand Couriers and Castle Parcel are compensated by ticket redemptions from any pick ups or deliveries they may make on behalf of Post Haste.

Post Haste doesn't actually deliver any freight. It is focused upon coordination of self employed people. Post Haste is not capital intensive. Rather, its main expenses are wages, payment to couriers and Parceline and compensation for claims. Head office generates and holds all revenues by receiving the payment for books of tickets purchased by customers. When the customers use their tickets. Head office allocates the appropriate amount of funds to the branches redeeming the ticket portions.

Each branch operates as a separate entity and is expected to generate an individual profit to contribute to Post Haste. Head office monitors important operations and any branch that is not performing to a budget is expected to turn the situation around with guidance. Costs incurred by one branch can be assigned to another if liability can be proved.

To encourage managers to enlist clientele there is a weighting in favour of pick up redemptions as they can be up to several hundred percent more valuable than delivery redemptions. A receiving branch will receive \$1 per delivery proportion of a ticket and half is credited to the courier. In respect of pick up proportions, Post Haste has divided New Zealand into delivery regions where the cost of delivery increases by distance to that region and by parcel weight.

Generally, the further the parcel must travel, the more revenue as the cost of sending increases while the acceptable weight per ticket decreases. This is more than proportionate to the increase in the cost of transportation making long distance out bound freight the cash cow.

Economics dictates that the cost of a product be cheaper for the producer than the purchaser. Post Haste takes advantage of this by stipulating that all contracts of

carriage are made with the sender. In the event of a claim, Post Haste organises with the sender the replacement of damaged and lost items at the cost price of production to the sender.

### **3.20 Rayonier, New Zealand.**

Rayonier is primarily concerned with coordination of activities. The trees are not presented, grown or harvested under the immediate actions of Rayonier employees but rather by a number of contractors, contracted to do specific tasks. The majority of Rayonier efforts are concerned with administrative functions. Because of this structure, Rayonier is not capital or labour intensive and the New Zealand operation consists only of approximately 130-135 people.

The company, as a whole, is concerned with profitability by assigning the costs of growing, logging, marketing and transporting logs back to the forest. This is called return to stumpage. The business strategy seems to be to match wood lots to orders, while at the same time extracting the maximum value out of every tree by taking trees of a higher grade to fill other orders. This strategy ensures maximum value with no storage costs or double handling.

Each regional branch, resources and operations, operates as a separate entity and is expected to generate an individual profit, and to minimise costs, thus contributing to the overall profit of Rayonier. Rayonier is fortunate enough to have their forests located by the major New Zealand ports, which allows the distance and cost of transportation to be minimised for regional branches.

Operations produce to order through cooperation of efforts between export marketing and domestic regional sales. A priority sheet is compiled and dispatched to the logging contractors based upon the grades that are returning the highest revenues. The priority cuts constantly change to represent the demand and prices for logs. Regional operatives are responsible for negotiations with their various contractors and the prices for each are not consistent and vary from contractor type, logging crew and job. This makes some orders more profitable than others and results in a constant inconsistency of returns to stumpage. All profits are estimated before an order is undertaken and progress is monitored so actual profitability is compared with projected profitability on a job to job basis.

Revenues and payments for logs are based upon the volume of wood calculated by either weight or linear equation. Priority is given to domestic sales as this valuing method is worth slightly more per tonne to the logging contractors and Rayonier.

The annual revenues and profits are primarily through the activities of the marketing department and operations. However, the remaining operations do impact on profitability in the long term, especially resources and research, by either making organisational activities easier and/or more cost effective.

Nursery operations are capable of producing 40 million seedlings per year. Ten to

15 percent are kept for planting, the rest are sold. About 2.5 million seedlings are specialised trees such as Douglas Fir and Eucalyptus which are all sold domestically.

Rayonier is involved in a range of cooperative research activities with other forestry companies and The New Zealand Forest Research Institute. If the current rate of generic improvement continues, each new crop of seedlings should produce at least 25 percent more wood than the crop it replaces.

**Section 4:  
What does quality mean to the  
operatives and what  
importance do they attach to  
it?**

"The public buys its opinions as it buys its meat, or takes in its milk, on the principle that it is cheaper to do this than keep a cow. So it is but the milk is more likely to be watered."<sup>1</sup>

Butler, Samuel 1835-1902

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<sup>1</sup> Collins, William & Sons (1993) Quotations. The wit and wisdom of 700 authors Diamond Books 1993 Pg 90

## 4.1 Operational approaches towards quality achievement.

Post Haste has taken a philosophical (Deming) approach to the meaning of quality. The company's mission statement is a compilation of words promoting an ideal business situation. For example, some excerpts are "we exist in the courier market to add value to our customers", "committed to quality of people and system design", and "minimise customer's operating costs". Rayonier has opted for a more pragmatic (Crosby) view offering more guidance. For example, "correct quality goods and services", "deliver products and services within specification and on time" and "command a premium in the market".

In evaluating quality, Post Haste has opted to describe preconceived images (dreams) to work towards and Rayonier has opted to represent company interests (evaluative) by establishing priorities of stem cuts and customers. Of the five operational definitions presented, Post Haste is best represented by value base or satisfaction relative to price, as the Freightways' Group does offer quicker service at a premium or slower service at a discount. Rayonier is best represented by conformance to requirements.

It is not incorrect of Post Haste to approach quality in this manner, but on a practical level those words offer little guidance, especially with an absence of a plan stipulating how these intentions are to be attained. Perhaps the intention of the mission statement is to assist businesses towards Just in Time Inventory Control with Post Haste wishing to be recognised as a business partner link within a production chain thus enabling clients to pursue the benefits of lower inventory costs, dependent, of course, on suppliers.

There is a higher possibility for Rayonier to action it's quality statement as it is more quantifiable. Essentially, it is about delivering within specifications and on time. From these actions they hope to capitalise on some of the benefits of TQM by charging higher than market prices.

## 4.2 Quality in action.

### Post Haste Couriers

The manager of Post Haste supports a philosophical understanding of quality.

If I have all my staff doing 100 percent of their operations 100 percent right does that mean our operations are of a high quality? I know I have 100 percent control over the operations but is it quality? I think not, and believe that it is not the process of work but the attention paid to the process. Some of my staff are better at servicing clients than others, yet they all follow the same procedures for getting details. This means that the impression on other people that some of my staff make are more favourable than others, and are perceived as quality workers by head office and our clients. This is more of the attitude, manner, and personality traits of individuals than meeting the performance criteria of the company. How do I instil these virtues into the staff and couriers to make everyone a quality worker?

Post Haste Couriers Branch Manager

These thoughts have been organised into a model for a technical approach to its application. (See table 11.) This model places the emphasis of quality application to a marketing and revenue strategy with the intent to guide operatives and couriers by the way of financial targets. A monthly financial target is decided by management which reflects the seasons of the business. This figure is broken down into weekly and daily revenues and then transcribed into the various ticket amounts and types needed to achieve this target. The remainder of the model is the means by which the financial target can be achieved. It is based upon the level of customer contact.

As a guide for lower management, The Freightways' Group has compiled a list of fundamentals. (See table 12.) The aim is to provide consistency throughout the group. This guide has similarities to both Deming's 14 points and to Crosby's 14 steps, offering a mix of ideals and practicality. Like TQM, it is intended to be applicable to the delivery of services. It expands the meaning of quality presented by the depot manager to include operating efficiency and analysis, as well as marketability.

However there is a marked variation in the meaning 'quality' has to the various categories of workers within the company. This variation has a hierarchical structure, with greater importance and a wider application being attached to quality by management than by operatives. Operatives have a 'hands on' perspective about quality; simply, it is doing their part in the company's activities. The general consensus is to try and make the dealings with Post Haste as pleasant as possible for the customer whatever the circumstances and to adhere to company standards. Quality expectations from Post Haste to the operatives is operationally based and quality involvement, over and above duties, is the licence of the depot manager. It appears that little is done to train individuals in quality procedures.

Couriers operate in a 'no man's land' situation. They are not deemed to be an employee of the company, yet neither do they share the flexibility and privileges of self employed people. They are expected to operate under the direction and instructions of Freightways', Post Haste Couriers, and the branch manager. This often leads to a sense of frustration on behalf of the couriers, who seem to maintain a work to rule attitude. For the majority, the focus of operations is the delivery and pick up of parcels. At the moment, quality to couriers means delivering parcels within the time restrictions upheld by the company.

Currently, the branch manager is trying to increase courier awareness of quality to include: politeness, marketing, and completing administration within the specified times. This is being done through 'the courier of the month' where the last Friday of every month a courier is nominated by the operatives based upon results of measurements, and feedback from clients, if any is received, and is rewarded with a bottle of their own choosing. This is a social function designed to work in conjunction with the application of the quality model.

## Rayonier

Rayonier has little time for philosophical thoughts and quality is pursued in accordance with a technical and pragmatic approach. Initially, the beginnings of a quality manual was constructed with the assistance of a consultant. This was later abandoned in the belief that exclusion of co-workers in its formulation would lead to rejection because of lack of ownership. Instead personnel were instructed to participate by documenting their activities with an emphasis on quality perspectives..

Quality means team and every one doing their bit. Every one is a customer of every one else in the office. I have something to do and somebody in front of me relies on what I do and someone else relies on them. Its an ongoing thing. We all have to do our bit to make sure we are conforming. You have to have input from everybody. It is no good just writing a manual and handing it out.

Rayonier, Branch manager

This method has been coupled with regular meetings to develop a company wide understanding that quality applies to the existing system and is enhanced by incorporating formality into operations through standardisation, measurement and documentation of contracted activities. There are two objectives. System enhancement is determined by operational specifications and contractors and company employees then conform to those specifications. (*See tables 13 & 14.*)

It is fair to assume that the operatives within Rayonier share the same understanding of quality as the manager, but this does not necessarily mean they all agree with its importance to the business activities. Perceived importance ranges from a perception of the manual being an ...

effective training tool' to ... 'a good thing to have'... to a programme that 'facilitates maximum value recovery and elimination of trouble spots within our operations'.

Administrative Staff and Procurement Supervisor.

This variation appears to be linked to the level of involvement that individuals have had in the development of both the region's activities and the quality manual, as not all of them have participated from the beginning of each.

There is a general consensus that the ISO 9002 certification is a milestone in the process of quality and the aim of the quality manual is to assist personnel in continually improving their activities. Procedures are to be updated when individuals have thought out a more effective method for doing an activity or, more realistically, changes in the external environment make it necessary for internal ones, where procedures and standards indicate the need.

Rayonier has extended their efforts at quality control to include contractors, a move which has impacted to varying degrees. Logging contractors are required to become Qbase certified if they wished to remain part of Rayonier operations.

McCarthy's Transport, who does 80 percent of the Wellington regions carriage, opted to become ISO certified as a courtesy. The other two carriage contractors did a modification of their documentation processes. It is \ not known whether any change requirements have been implemented by the port operations for marshalling and stevedoring.

This indicates that the understanding of quality to the contractors varies from a necessary qualification for employment to a changed method of recording details. Whatever the extremities of actions imposed by Rayonier the understandings of quality are consistent with the applied understandings of Rayonier as...

We don't want different levels of quality so they must take on board our performance requirements.

Quality Control Supervisor

### 4.3 Analysis.

Analysis revealed that Quality has different meanings for the different categories of staff in the company. The importance attached to quality also varies with the hierarchy: the higher ones position in the company the more importance is attached to quality. (See table 15).

In both companies Quality execution had a similar meaning to the managers. Management in both companies take a technical approach, with reliance on data rather than attitude manipulation. However, for Post Haste this may be an imposition on the branch manager to act to the requirements of superiors. Branch managers are the most interested party and they envisage quality systems to impact on the entirety of their business activities. They have an internal approach, with a reliance on measurement to reduce operational variations to random occurrences. The level of customer satisfaction cannot be greatly improved with this approach. Rather the likely outcome is to reduce the amount of customer dissatisfaction from service inefficiencies. Hence, "TQM is not solely about meeting the most extreme demands of customers".<sup>2</sup>

The quality principles of both companies are not "intended to replace traditional management concerns although they do look to solve management problems in an enlightened fashion.<sup>3</sup> Included among the Freightway's fundamentals are aims to secure economies of scale, and better asset utilisation and one of the quality policies of Rayonier is to operate in accordance to contract documents and within agreed cost parameters. It would appear that both companies hope that quality will prove useful in achieving these aims.

The operatives of both companies have a more distant relationship to the quality programmes as the emphasis for them is not to think about the quality system but to

<sup>2</sup> Fowler, R.J & Park, N,S (1996) Contracting out quality: a case study in task cultures Massey University. Pg 5

<sup>3</sup> Fowler, R.J & Park, N,S (1996) Pg 5

maintain it by promoting and conforming to expectations and standards. Rayonier appears to be more open to accepting quality improvement ideas from staff and contractors. The quality efforts impact on the contractors to varying degrees. Basically, it means the requirement to perform to the expectations stipulated in their contracts and monitored by the operatives.

A priority does exist with servicing customers. However, they are derived from different hierarchical levels in the two companies. Rayonier is contractual and existing contracts take priority over other orders. Post Haste may try to establish relationships with their larger clients but success is largely dependent on the couriers' perception of the clientele, which is based upon their revenues. Fortunately, the two are highly correlated.

There is evidence to suggest that quality is activated in an autocratic manner for both companies.

If table 11 is cross referenced with table 15 inconsistencies become apparent between the theory and application of quality for Post Haste. The model emphasises that couriers, and to a lesser extent operatives, have the most client contact and are central to customer perceived quality. In reality, quality is activated in an autocratic manner with little input into quality issues by operatives and couriers. Management supports a hands-off work role for couriers and couriers support a work-to-rule attitude. It appears therefore, that those who have less to do with customers appear to be more concerned with customer-perceived quality and yet do not accept feedback from those (couriers) who have the most contact and may provide knowledgeable input.

The 'courier of the month' idea is flawed. It rewards the efforts of one courier by excluding the efforts of others, thus promoting competition. At best, it is a public relations exercise on behalf of the manager, not an action of TQM. The manager would be better to reward all couriers who exceed standards.

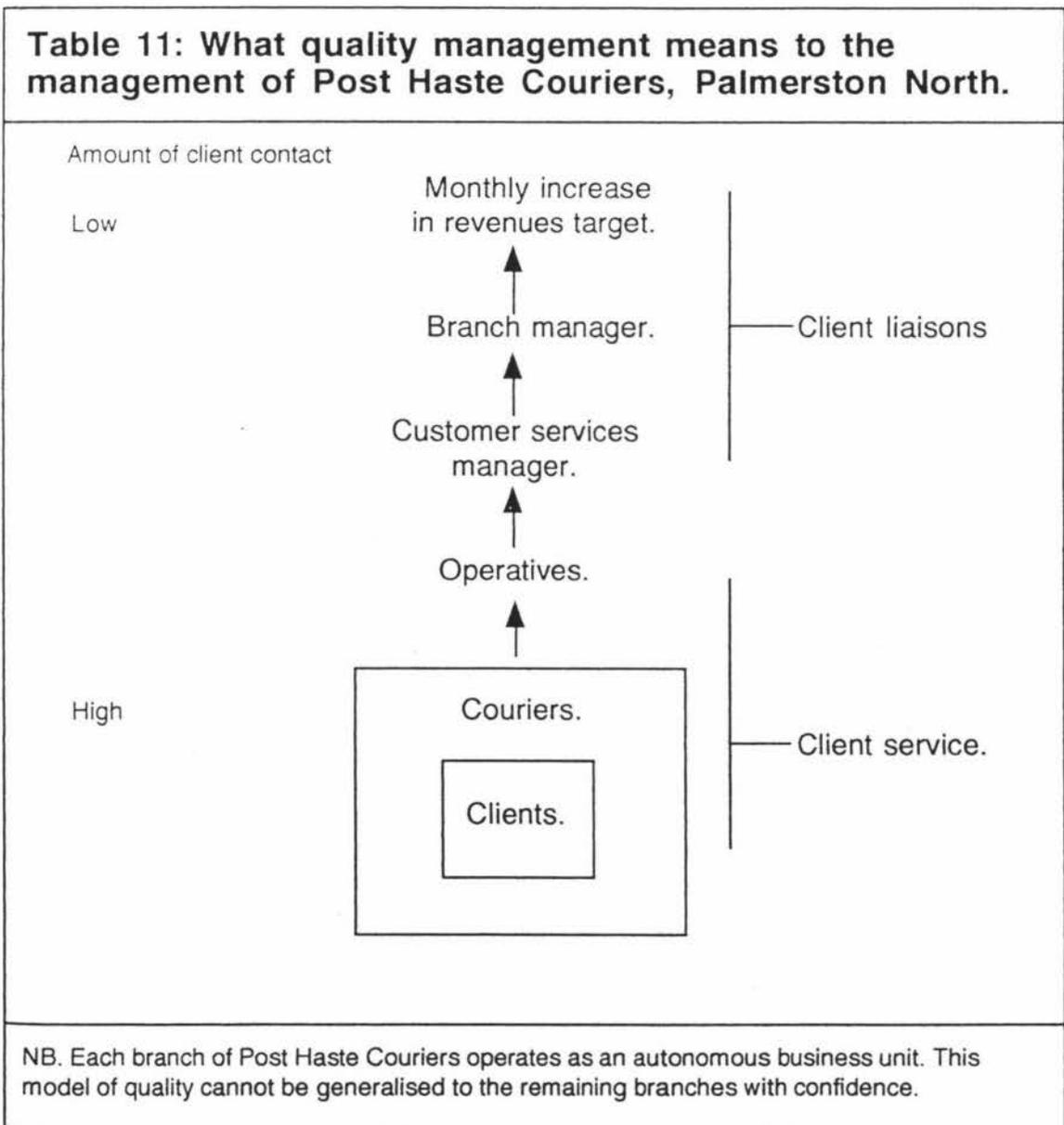
Essentially, Rayonier employed the technique of Quality Circles. However, there are indications of an autocratic approach, especially to staff and logging contractors. Staff were required to participate rather than given the option and the use of the words "provide staff with the agreed policies" and "provide staff with feedback", on the quality policies implies, possibly unintentionally that policies were imposed rather than formulated with staff.

Logging contractors were given little choice but to participate. If they wish to continue working with Rayonier they must become quality certified and are monitored on performance with poor performance possibly resulting in termination. This is a powerful motivation force, as they are contracted on a job basis where loyalty in past performance is the main reason for further contract offers. Measurement is understandable as this is the point that has the most impact on profitability and has proved worthwhile. But contractors agree that Qbase offers little operational help.

Perhaps the major reasons for the leniency on some contractors is that there are few to no other alternatives for Rayonier to contract some operations to, especially port operations. They cannot, therefore, exercise equal amounts of power over the contractors.

In sum, it appears that Post Haste has done little to transcribe thoughts into action, where as Rayonier has developed their system around quantifiable objectives. This will affect any impact on operations the quality efforts of Post Haste and Rayonier may have.

**Table 11: What quality management means to the management of Post Haste Couriers, Palmerston North.**



NB. Each branch of Post Haste Couriers operates as an autonomous business unit. This model of quality cannot be generalised to the remaining branches with confidence.

Fundamental	Description
Mission statement	The Freightway's group is committed to superior business performance through the constant application of the Freightways' fundamentals.
Branch Manager responsibilities	Branch managers are responsible for creating the environment and maintaining the momentum in applying and refining the fundamentals.
Financial objectives	Financial performance is the ultimate measure of management performance. Each business unit must have individual financial targets consistent with these overall objectives.
Key performance indicators	Managers and staff must use key performance indicators to measure: costs, revenues, service quality, operational productivity, sales productivity.
Weekly reporting	Key performance indicators should be demonstrably linked with the weekly financial report through charts which reflect the operation concerned.
Continuous improvement	Everyone in the organisation is responsible for the continuous improvement of every facet of our operation through: training, innovation and technology.
Commitment to service	Every one must be committed to ensuring the highest possible service standards relative to market positioning.
Competitive positioning	Each business should be strategically focused on the creation and exploitation of quantifiable, sustainable competitive advantages in terms of lower costs, higher prices and better asset utilisation.
Segment analysis	The cost and profitability of each operation, each service provided and every customer served must be clearly understood and monitored.
Sales' focus	Sales management must focus selectively on customers and market segments which complement existing operations, reinforce competitive advantage and provide superior margins.
Account planning	All revenue projections should be supported by major account plans which clearly specify our understanding of the clients segments and our strategies for the profitable satisfaction of those needs.
Strategy	Strategies should clearly specify the means by which results will be achieved in terms of: raising barriers to entry and participation, securing economies of scale, systematically developing core disciplines.
Market positioning	The positioning of each business, products and services in its market must be clearly defined and maintained in terms of quality and price.
Market and competitor analysis	Continuous analysis of markets and competitors is the foundation upon which sound strategies are based.
Cross subsidies	Cross subsidies between services, customers and branches are weaknesses which must be measured and managed.

### **Table 13: The documented quality policies of Rayonier New Zealand, Wellington.**

The Rayonier New Zealand Quality Management System shall be based on the current requirements of ISO 9002 "Quality Systems for Development, Production, Installation and Servicing".

The aim of the system is to:

Provide staff with the agreed policies and procedures so that the quality objectives can be maintained.

Reach specified service by ensuring that their stated and implied requirements are consistently met on time, in accordance with the contract documents and within the agreed cost parameters.

Provide staff with feedback on how 'excellent' the quality system is when measured against the quality objectives.

Enable Rayonier New Zealand to be a more efficient organisation and to maintain opportunities for continuous improvements in terms of effectiveness, and service.

### **Table 14: The documented key quality concepts of Rayonier New Zealand, Wellington.**

The Rayonier New Zealand Quality Management System is based upon a number of key concepts.

Quality is everyone's responsibility, as everyone who works for Rayonier New Zealand can contribute to quality.

Prevention is better than cure. Do it right first time, every time, by planning the work and by anticipating and addressing potential problems.

Communicate and work as a team. The quality management system creates a framework where everybody knows what to do, where they fit into the organisation and with whom they interact.

**Table 15: The importance of and actions for quality by the management, operatives and contractors of Post Haste and Rayonier.**

Management level	Importance	Quality in action
<u>Post Haste Couriers</u>		
•Branch management	• High	• Idealism values with technical approach via controls over operations for attainment of specifications.
•Operatives	• Operational	•Conformance to management requirements. • Recording of operations and performances for management. • Provide best service possible. • Reduced influence with quality issues.
•Contractors	• Work to rule	• Conformance to requirements as stipulated by contract. •Priority to favoured customers. •No involvement with quality and operational issues.
<u>Rayonier</u>		
•Branch Management	• High	• Technical understanding and approach via controls over operations for attainment of specifications.
•Operatives	• High to operational	•Conformance to management requirements. • Recording of operations and performances for use. •High involvement with quality issues
•Contractors	•High to work to rule	• Implementation of their own quality systems. • Reduced influence with quality issues of Rayonier • Conformance to requirements as stipulated by contract and quality manual.

## **Section 5:**

**What motivated the introduction of Total Quality Management in Post Haste Couriers Palmerston North and Rayonier New Zealand, Wellington?**

Associate yourself with men of good quality if you esteem your own reputation; for tis better to be alone than in bad company.

George Washington, Rules of Civility<sup>1</sup>

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<sup>1</sup> Hyman, R (1993) The Pan dictionary of famous quotations, revised edition. Pan Books, London, Pg 339:33

## 5.1 Post Haste Couriers.

There appear to be two sources of motivation stemming from upper management. Firstly, managers are responsible for the performance of their depots under the guidance of the Freightway's management fundamentals. These management fundamentals seem to include many quality principles (*see table 13*). Secondly Post Haste intends to attain an ISO certification by the end of 1997. This will be based upon the conclusions drawn from surveys done in 1991 and 1995 for quality of service and is the one area in which Post Haste can differentiate itself from competition. It is believed that the ISO certification will allow the company to capitalise on these conclusions<sup>2</sup> thus fulfilling the following company policy:

We wish to demonstrate to our clients that we are dedicated to our service standards and committed to helping their business.

National Marketing Manager

The depot manager of Palmerston North has held an ongoing interest in quality management, even before the decision to attain ISO Certification. There appear to be three reasons why quality became a priority to him. They are:

- The quality concept promotes his ideals of business management
- The media attention that quality has received plus a lack of knowledge about alternative methods of business improvement
- His understandings of quality uphold the Freightways' management fundamentals.

Clients also act as a source of motivation. As the largest client and contributor to profits Toyota New Zealand wields considerable influence over the actions of Post Haste and are in the position to make demands upon performance.

We want them to come up to our standard. We want them to handle our goods to our level of accuracy which is 99.97 per cent.

Warehouse Manager, Toyota

## 5.2 Rayonier, New Zealand, Wellington.

There appear to be two sources of motivation for the ISO programme, in which one sparked the other. The initial source of motivation came from Head Office when they approached the Wellington branch about becoming quality certified with ISO 9002.

Head office felt that maybe some of our competitors are becoming more competitive through quality programmes so they approached us and gave us the option to become ISO certified.

Branch Manager

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<sup>2</sup> Currently, I am of the understanding that Post Haste is endeavouring to certify the company as a whole rather than the depots being responsible for their own certification. At this time, Post Haste is unsure if Parceline is to be included in the certification process as they operate under a separate management.

Rayonier, Wellington became motivated when their head office asked them if they wished to become ISO certified as it was seen as an opportunity to enhance the performance of the operatives and logging contractors.<sup>3</sup>

I guess the underlying reason for the quality programme is that we wanted to manage ourselves a bit better and be good at what we do. If it wasn't us it would have been another branch so I thought why not.

Branch Manager

More specifically, applied internally, the quality system is to assist with attaining the maximum value recovery from stems, and better efficiency with the delivery of logs. Externally, the quality procedures are expected to instil confidence about Rayonier's performance, to the point where a premium can be commanded for services. (see case study; company philosophy).

Also, the efforts of competitors to become quality certified hadn't gone unnoticed by Rayonier Wellington and this had a major influencing factor on their decision.

Those companies that don't have a quality management system don't have a future in the long term because there's a general movement worldwide towards quality systems. There are some companies that won't buy your materials unless you have a recognised quality assurance programme of some sort. We thought, we either get ISO 9002 certified now or wait until its forced upon us.

Quality Control Supervisor

### 5.3 Why choose the quality concept?

Essentially, both companies are trying to enhance management and operative abilities. But why was TQM chosen as the method to do this? The answer is quite simple; there is lack of knowledge, within both organisations, about alternative management methods, other than traditional, that are purported to improve organisational performance.

The choice to pursue TQM was essentially beyond the discretion of the depot managers in both cases. The management fundamentals of Freightways were already in place before the depot manager's appointment and higher management intend to become ISO certified. Rayonier's head office encouraged them and Rayonier Wellington saw that it was going to be a case of 'sooner or later' anyway.

The reasons given by both companies for placing emphasis upon quality are highly consistent. They include pressure from the expectations of others such as higher management, other businesses (Post Haste From Toyota) and the international climate (Rayonier from export pressure). Quality management was seen by both companies as a method of performance enhancement and, lastly, a neither company knows of any alternatives.

<sup>3</sup> No explanation has been officially forwarded as to why the Wellington region was asked to become quality certified in favour of other regional operations and why no other regional operations were or have since been approached. However, I am led to believe that the efforts of Wellington are to guide the efforts of the remaining branches. Also, no explanation has been forwarded as to whether quality certification will remain an option or become compulsory for the remaining branches.

**Section 6:  
The impact of the quality  
programmes on operations.**

Total Quality Management is like an eclipse of the sun, everyone notices its passing but little else.

Peter Slade<sup>1</sup>

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<sup>1</sup> Slade,P (1996) Supervisor of this thesis.

## 6.1 The application of the quality model.

In his description of TQM Thomson (1995) wrote:

*TQM being such far reaching proportions that descriptions of it are often difficult to comprehend.... At the same time, there is a common sense logic about the way TQM brings many research and practical ideas into a practical model.<sup>2</sup>*

*Presently practitioners depend on a model which has an inherent logic and appeal about it but which reveals deficiencies when applied in practice.<sup>3</sup>*

TQM does seem applicable and achievable on a theoretical level but how can the theory be measured for success? In part answer, the major outcomes that TQM should provide can be summarised from proponents and their definitions. (See Table 16 ).

**Table 16 : Shows the proponents of TQM and illustrates the similarities with their definitions of quality.**

<b>Guru</b>	<b>Applicability sector</b>	<b>Definition</b>
Deming	Manufacturing	Satisfy customer by exceeding expectations.
Juran	Manufacturing & services	Fitness for use (determined by customer & manufacturing company ).
Crosby	Manufacturing	Conformance to requirements ( as with Juran).
Feigenbaum	Manufacturing & services	Satisfy customers through marketing, engineering, manufacturing & maintenance of products & services.
Ishikawa	Manufacturing	Development, design & production of a product that is the most economical & useful to customers.
Taguchi	Manufacturing	Loss imparted to society from the time a product is shipped. The smaller the loss the greater the quality.

The table above suggests three outcomes for TQM programmes:

- satisfied customers by customer's terms
- economic and useful products
- minimum wastage.

<sup>2</sup> Thomson, S (1994) Organisational Change: Some aspects of the TQM movement Massey University: Discussion paper 5 pg1.

<sup>3</sup> Thomson, S (1994) , *Ibid.* pg 14

It is possible to achieve these outcomes without TQM, using instead Total Quality Control (TQC) or Quality Assurance (QA). It would also seem that these are desirable outcomes for all organisations, regardless of quality intentions. How then, is the distinction made? The evolution of quality illustrates that organisations evolve into advanced quality programmes by exercising control over and manipulating processes. The more an organisation achieves attitudinal manipulation of operatives, the closer they advance to TQM. As was seen with the Malcolm Baldrige National Quality Award, there is evidence as to what constitutes a quality programme but a lack of criteria for evaluation that how much of each quality fundamental must exist to fulfil TQM.

Guidance can also be found in Powell's (1995) review of theory research and practice. (See table 17.)

*"The researchers developed a TQM measurement scale based on an exhaustive review of the TQM literature, and revised this scale through repeated discussions and site visits with consultants and quality executives".<sup>4</sup>*

**Table 17: The factors of TQM by Powell (1995)**

**Committed leadership.** Long term commitment by top management to the philosophy under an appropriate name like TQM, Continuous Improvement, or quality improvement.

**Adoption and communication of TQM.** Using tools like mission statements, and themes or slogans.

**Closer customer relationships.** Determining customers (internal and external), then meeting those requirements no matter what it takes.

**Closer supplier relations.** Working closely and cooperatively with suppliers, ensuring they contribute to customers end use requirements.

**Bench marking.** Researching and observing best competitive practices.

**Increased training.** Usually includes TQM principles, team skills and problem solving.

**Open organisation.** Lean staff, empowered work teams, open horizontal communication and a relaxation of traditional hierarchy.

**Zero defect mentality.** A system in place that will spot defects as they occur, rather than through inspection and rework.

**Flexible manufacturing.** (Applicable only to manufacturers). Can include just in time inventory, cellular manufacturing, design for manufacturability, SPC, and design for experiments.

**Process improvement.** Reduce waste and cycle times in all areas through cross departmental process analysis.

**Measurement.** Goal orientation and zeal for data, with constant performance measurement, often using statistical methods.

Powell's variables are a good summary of the various interests in TQM and form a suitable adequate vehicle for assessing the efforts of Post Haste and Rayonier toward TQM.

<sup>4</sup> Powell, T (1995) Total Quality Management as competitive advantage: a review and empirical study. Strategic Management Journal, Vol 16 Pg 24

## 6.2 Operational considerations.

Powell states:

....manufacturers were significantly more satisfied with their TQM programmes than service firms...

Rayonier characterises itself as a manufacturing firm where as Post Haste sees itself as a service provider. However, performance expectations will vary between them for reasons other than this, as both companies are fraught with distractions that are inherent within their operating systems.

For example both companies deal with a number of parties; Rayonier supervise logging contractors, coordinate three transportation companies, and supervise the port operations of marshalling and stevedoring. Post Haste must rely on up to five groups, two groups of couriers, manifestors, Parceline, deconners and NZC. Parceline efforts can be responsible for parcels being repacked for flying and replaced again on trucks for delivery to the depot.

Rayonier has control over their process as each stage through a traceable and measurable system. Post Haste has no choice but to temporarily pass responsibility to Parceline, where they lose the traceability of packages. But traceability problems go deeper. If tickets are misplaced, parcels can only be traced to the other proportion. If parcels are lost in transit, in both cases they are lost without a trace.

TQM is a long term application. Rayonier pursues TQM because it “ knows how to both coordinate and plan for the long run. And the company has little option but to look to the long term since for sustainable returns the minimum harvest cycle in forestry is 25 years”.<sup>5</sup> Post Haste is structured around meeting immediate needs. Their strategic task is to predict how to make meeting immediate needs profitable in to the future .

Of the two companies, Rayonier is far more comfortably situated for TQM. It has a shorter operating chain, a traceable operating system, and a long term focus by nature. Post Haste does not share any of these advantages. This has a significant impact on bench marking, zero defects, process improvement and measurement.

## 6.3 Organisational culture and quality.

Post Haste depot management is often interjected by higher management who prioritise their agendas over lower management ideals and operating targets. Hence, the quality efforts of the depot manager are often squashed. This problem is not experienced by Rayonier, but it does bring the hierarchical argument (agendas) of quality into perspective for both companies. TQM application records data of important operations so the managers (Rayonier and Post Haste) can monitor

<sup>5</sup> Fowler,R.J & Park, N,S (1996) Ibid Pg 6

performance and interfere where necessary. In terms of results, it offers the depot managers the most as the system produces data that enables:

- Confidence in dealing with the demands of higher management; and
- Confidence in the abilities and actions of the operatives and contractors.

Some of the operatives of Post Haste were unaware that the depot manager believed a quality programme operated within the depot. This is not as outlandish as it may seem, as many recordings have been implemented for a number of years. However, only one of the operatives has worked for longer than two years. It seems reasonable that these practices already existed and new staff undertook them as part of their duties without explanation of what they are expected to achieve. Moreover, since the application of quality is based upon the management fundamentals of Freightways', which are policed by higher management, this current understanding is reasonable as their actions are satisfying the demands of management.

The efforts of management seem to have had a nominal affect on courier performances. Management and couriers seem to have a level of contempt for one another, finding fault with the other's actions rather than familiarities. Often, couriers feel they have the short end of the stick as they must keep the turnover is high, paying off their vehicles, their uniforms and their decals at 50c a parcel<sup>6</sup> as well as paying out for damaged or lost parcels at up to the value of \$300.00 per incident. carrying all this risk load leaves them with no great feelings of loyalty to management.

Post Haste promote themselves as business partners to clients. To do this, working relationships must exist between the management and clients, clients and couriers and management and couriers. These relationships are dependent on personalities but the attitude of management towards couriers as a renewable resource, and couriers dependence on speed and volume rather than pleasantries for their income, makes the management view of the relationship between themselves and the couriers seem rather Utopian. Also, it is difficult to maintain relationships between clients and couriers when couriers have a high turnover and clients are constantly seeing different faces.

Management and couriers have different ideas as to what their job should involve. Management expects couriers to act as sales people on behalf of the company, whereas couriers expect this to be the responsibility of the company.

They can certainly help influence getting a customer by meeting service standards, by getting signatures on tickets, and being pleasant. Each courier is issued a leads book and whenever they see a new business opening or a potential client, they fill it in and pass it on to the sales consultant. Alternatively, they can make the approach to take that freight or offer the customer an opportunity to use our service.

Branch Manager

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<sup>6</sup> Fowler, R.J & Park, N.S (1996) Ibid Pg 10

....We are paid on volume, that is how many parcels we deliver is how much we make and time is our biggest enemy as we often run out of it. Sometimes what Post Haste expects us to do is too much. How much would you do for \$0.50 a parcel ?

Couriers 811,818 & 819

In contrast, Rayonier's forestry operation demands trust and teamwork.<sup>7</sup> There are combined research projects with the New Zealand Forestry Research Institute, a reliance on the predictions of logging contractors on both volume and log gradings and, if necessary, an independent is used to recommend wood lot purchases.

Even though operatives have varying levels of commitment, all can appreciate TQM in one form or another. They are empowered in their duties to instigate process improvements that best relate to their areas of expertise. In application this will be when circumstances dictate actions but Rayonier will remain responsive to its environments and does not rely on decisions of higher management.

Rayonier remains focused in their quality objectives and are realistic as to how they are to be attained. They train and monitor their contractors for outcomes but recognise human limitations in respect to industry outputs. Technology is used to extract maximum value from plantations that have higher grade stems. The importance of distinguishing between grades is important, as lower and upper grades do vary largely in price.

There is a consensus that the actions of Rayonier have impacted upon the logging contractor's ability to produce logs. But there is debate, by the contractors, about the worthiness of expanding quality systems to include them becoming certified:

Nothing has really changed, we are still doing the same things in the same way. Basically Qbase put down on paper what was in our heads. The manual cost us \$2500 and I estimate additional expenses to be around that again. I sometimes wonder if its a lot of money for very little.

Logging Contractor # 1

I would say log making ability has improved across the board some more than others. It didn't affect us much, we are just more careful how we classify logs. Previously we would put some border line logs in to the higher grade, but now we are more careful with selection. When they check our log maker we are usually 98 to 100 per cent correct.

Logging Contractor # 2

However, both companies offer nothing to support a change within the role of management. The organisational structure remains intact, so too does the chain of command. Considering what the managers wanted from their quality programmes that is unlikely to change in the near future. The quality programmes were built around the agenda of management rather than the needs and wants of operatives or customers. Both companies involved operatives only when it became necessary. Increasing employee participation wasn't initially on the agenda and has been used on an as needed basis, particularly in Rayonier.

<sup>7</sup> Fowler, R.J & Park, N.S (1996) Ibid Pg 7

The emphasis of TQM can be determined by what is measured. Post Haste record costs and blame for higher management use, who in turn provide a weekly report for collective and individual revenues for contractors and items. At branch level the manager collects data about operations that are measurable, including inquiry response (*charts 7,8,9,10*), the number of misdirects, and the percentage of signatures (*table 18*). These recordings lull the manager into a false security, as many of the recordings have daily alterations which are not accounted for. Secondly, these measures are dependent on how conscientious operatives are, as the operative responsible for the recording performs the function. Last, the charts serve no purpose other than as data reports to head office.

Rayonier measures performance for their own purposes. This offers Rayonier opportunities to analyse, criticise, and rectify their operations. The emphasis is log specification as reject logs are a cost they wish to avoid. This is done by two measurers, on forest location through sampling by Rayonier and an independent and on location at port and mill sites. Little is left to chance in respect to worker quality. Each contractor is graded so the poorer performers can be disposed of when necessary, ensuring ongoing log quality in tougher times. Costs are measured against predicted ones to determine actual profitability. This is a formality of common sense rather than a process indicator. Rayonier feel that if all is correct in the process, profitability will be the consequence.

## 6.4 Quality Outcomes

Both companies offer nothing to support a change in focus from efficiency and effectiveness to customer perceived quality. The reason for quality implementation is financially based for both companies. Post Haste intend to use quality to attain a monthly revenue target, and Rayonier intend to use quality to charge a premium on their log prices over the current market rates.

This is in contradiction to Ruckelshaus' argument about business performance as both of these companies are using quality as a means of organising their systems and both companies believe enormous rewards still exist for those who can do this.

Despite these intentions TQM has proved useful in dealing with customers. To varying degrees they both companies capitalise on the loyalties of their customers. Rayonier has situated themselves into a win win situation. Log prices are gauged by the market at the time and are often set for the duration of a contract. By charging a premium Rayonier has hedged themselves against price movements and reduced the opportunity cost of contracts.

Our main thing is our contractual commitments to our domestic customers. We have a sawmill who receive logs to for \$89 a tone for a five year sale with a committed volume. The market rate for those logs is \$115 but we supply 8 - 10 loads a week because that is our contractual commitment and anything left over we sell at the going rate.

Log Procurement supervisors

Post Haste's efforts have been noticed by Toyota.

Post Haste is the closest courier company to having a TQM programme. They still have a long way to go but compared to the other two that we use, they are streets ahead, as they meet our needs better than the rest.

Warehouse Manager

As a result, a contractual relationship has been formed. However, this relationship is based on a contract of charges by weight and payment of wages to a courier. It does not appear to work for ticketing. One of the responsibilities of manifestors is to identify freight that has been under ticketed so extra charges can be made to clients. This responsibility does not extend to include freight that has been over ticketed and no refunds are made. It is unknown if overcharging is an accepted way to boost revenues. It is, however, contradictory to the good of minimising customer's operating costs. It is up to customers to ensure value for money but this is not always appreciated by couriers, who label such clients cheap.

Rayonier has improved regional value recovery from 89 to 96 percent. On current values (1995) this is worth \$900,000 annually in the Wellington region, with \$290,000 to be spent to maintain that level of performance<sup>8</sup>. Initially it would seem to be profit of \$ 610,000. But is this improvement due to TQM? Some managers don't think so.

If we didn't have a formalised TQM programme 90 percent of the stuff we are doing would have happened anyway, I guarantee it.

Branch Manager

A 90% increase in revenues of \$810,000 without a formal TQM programme means it is possible that Rayonier spent up to \$290,000 for a gain of \$90,000 although it is not known if the same expenses would apply with or without the programme.

For Rayonier, economic cycles may have more to do with profits than TQM, as the forestry industry is beginning a boom cycle especially in New Zealand.

The New Zealand Forestry Industry cuts 16 million cubic meters per annum currently in round figures and by the turn of the century it's going to be 18-19 million cubic meters and by 2010 they're talking 25 million cubic meters so in 25 years it's going from 16 to 25 million cubic meters. This year we will cut about 1.2 million cubic meters which is about 15 per cent of the total harvest and we will go up to 3 million in 2010.

Other countries are reducing their harvest. Malaysia is currently cutting 30 million and have to reduce to 15 million by the turn of the century. In the North Western States, their annual harvest used to be around 60 million which has dropped to 30 million. In theory this trend is not only going to continue but it will speed up for New Zealand at least.

Branch Manager

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<sup>8</sup> These figures were presented by Rayonier and not determined through the research, so, I cannot comment on their validity.

The ISO 9002 certification has yielded immediate benefits. These include elimination of impaired communication about potential private wood lot purchases, decrease in documentation errors over 75 percent, confidence in dealing with the demands and inefficiencies of head office, the saving of loss of sales due to incorrect orders, and lastly, the manual has become an efficient training method.

## 6.5 Are they TQM programmes?

Both companies seek the desired outcomes of TQM. However, this comes as no surprise as it would be difficult to maintain profitable operations whilst ignoring these outcomes.

Post Haste revolves around standardisation of times. There are time constraints for the delivery of customer parcels, rural delivery, Parceline, NZC, Castle Parcel, and NZDX coordination, and lastly, administrative functions. With an absence of employee and contractor involvement in quality application, this would indicate a QA culture. There is evidence of QI systems. Misdirects from Palmerston North are totalled daily and sent to the depot and costs for misdirects or damages are assigned to either the couriers, the depots or Parceline through inspection. These actions formulate the fundamentals of operations and, until traceability and inclusion is improved, Post Haste cannot advance beyond those programmes. Regardless of intentions, they do not satisfy the elements of Powell to any large degree.

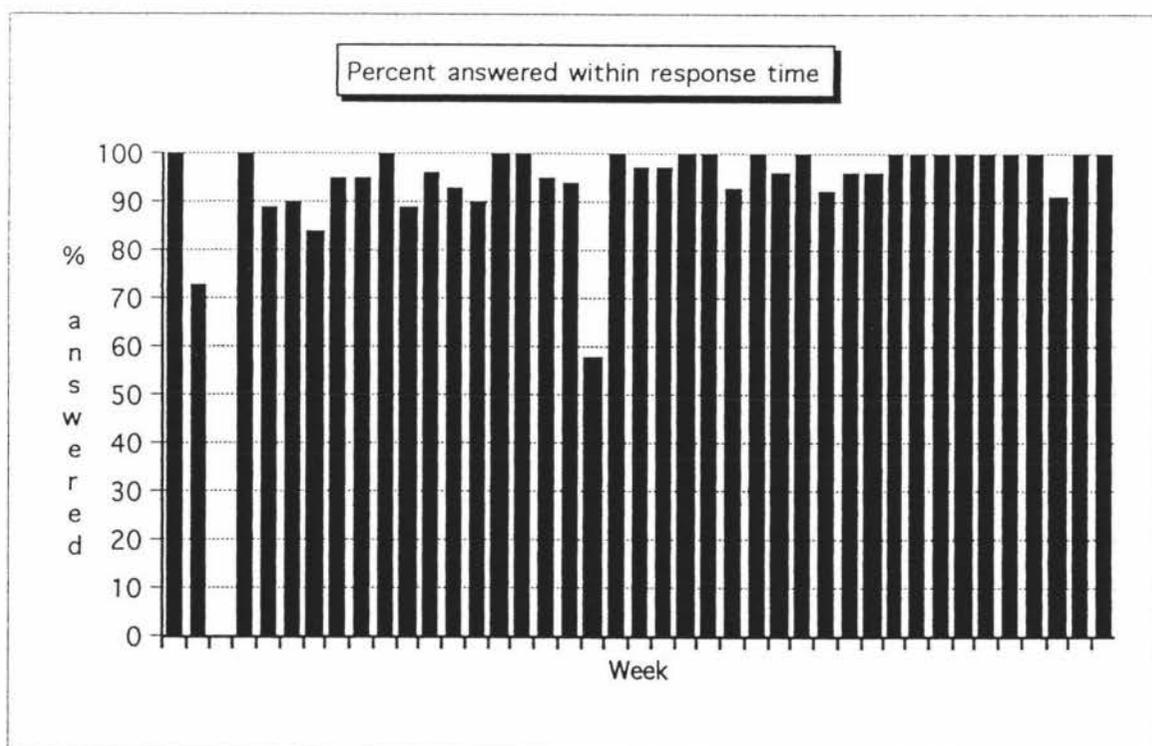
Rayonier is also constrained by times; logging schedules, customer orders and time schedules of exports. Unlike Post Haste, Rayonier is open to participation by interested parties and with process traceability the chances of securing TQM are likely and highly probable for TQC. QI does exist through weekly log inspections, along with QC with the documentation processes. However, these do not distract from proactive efforts towards compliance via AVIS audit. Rayonier thus satisfy the elements of Powell to a greater degree.

The conclusions drawn by Fowler and Park summarise the essence of the companies and the effectiveness of their quality efforts well:

*Rayonier appear to have established a certain congruence between their company strategy and their quality strategy. They have created dialogue with their stockholders. Since they have only 100 potential clients in New Zealand and leave overseas marketing to headquarters in the USA their task is quite finite and achievable. Furthermore Rayonier have a relatively open, inquiring, researched based culture which is not adverse to change or improvement and well founded criticism. Furthermore, it has a rich resource base and a long term outlook which relies upon the development of its product and all elements of its processing. TQM holds no threats complements its outlook, and provides opportunities for all its stakeholders.*

*Post Haste is much more limited. While it has a regular client base it is potentially part of a very large network. It is limited in the services it offers and its operations are marked by a difficult tension constantly beseeching its workers to commit their energies towards serving others while seeking to impose demanding rules to secure its own benefits . It is a culture where the weakest are always likely to go to the wall and TQM is unlikely to offer health, wealth and happiness, or further development in such a situation.<sup>9</sup>*

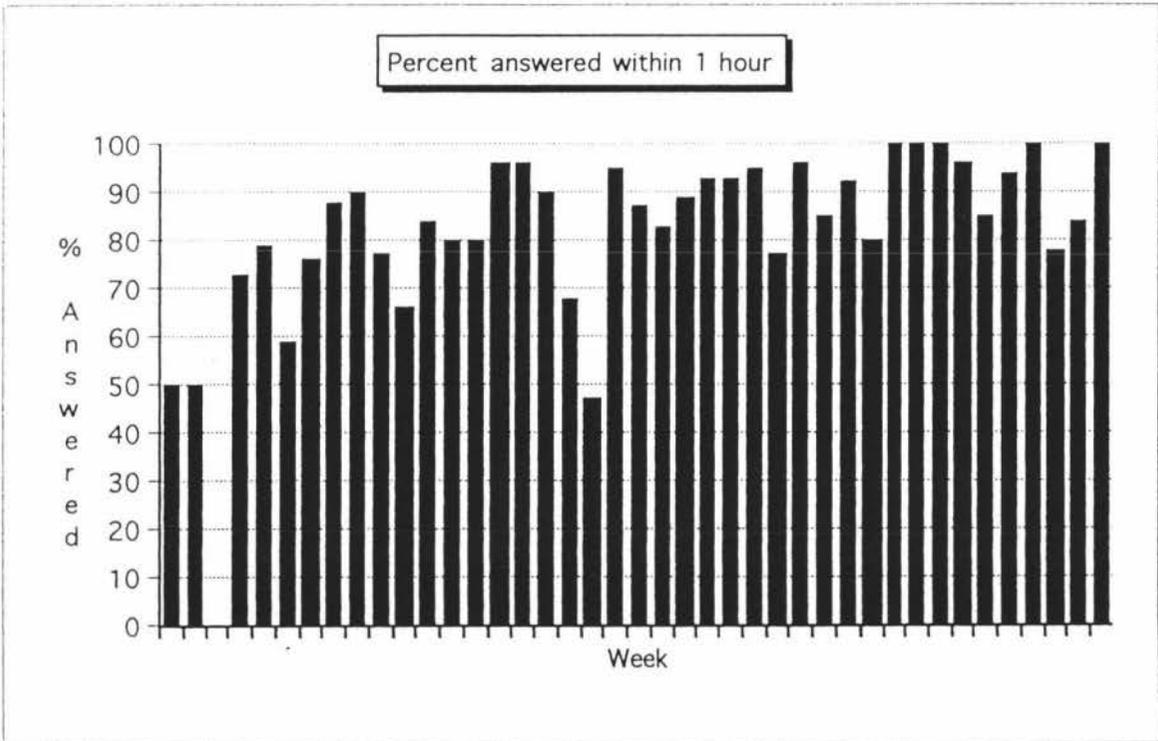
**Chart 7 : The percentage of inquiries answered by Post Haste, Palmerston North operatives within the company response time.**



NB. The third week of this period was not recorded

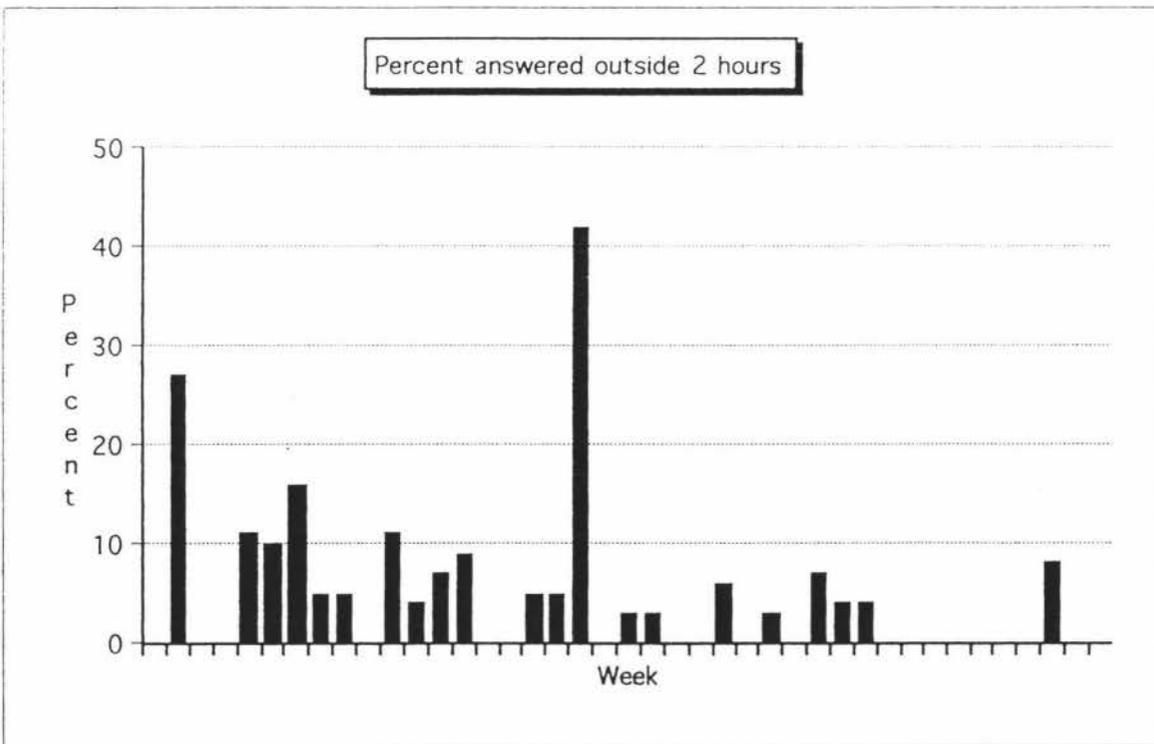
<sup>9</sup> Fowler, R.J & Park, N.S (1996) *Ibid* Pg 10

**Chart 8 : The percentage of inquiries answered by Post Haste, Palmerston North operatives within one hour.**



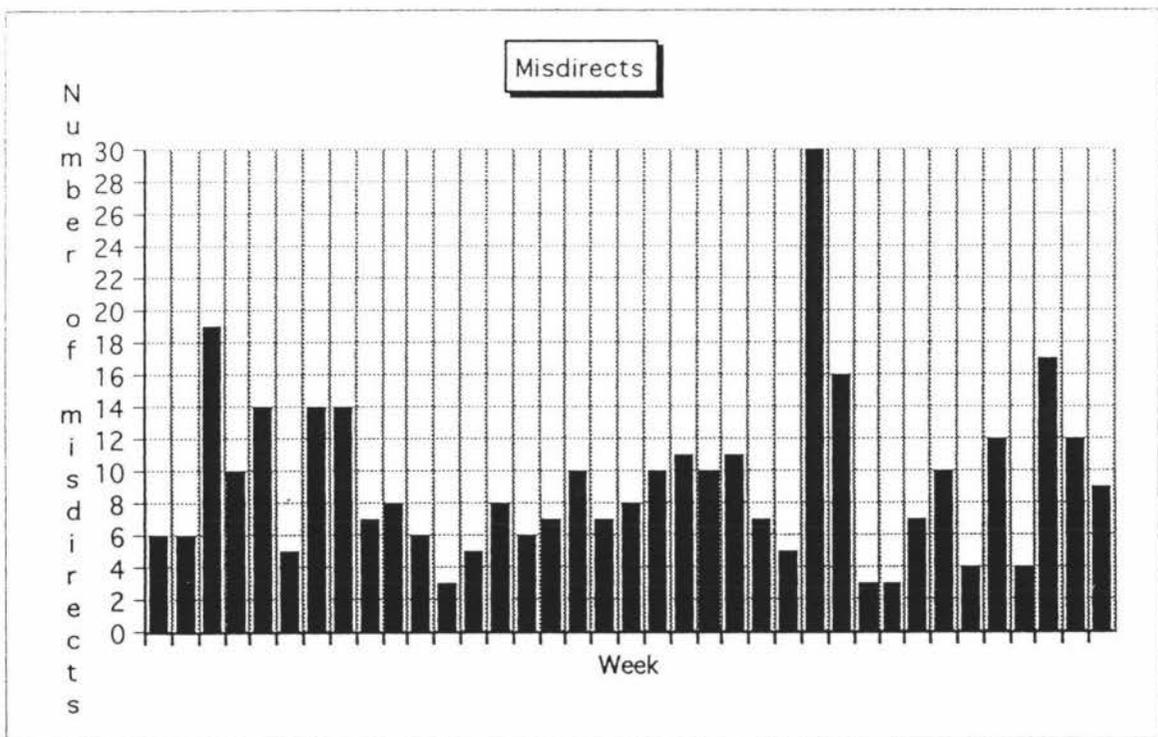
NB. The third week of this period was not recorded.

**Chart 9 : The percentage of inquiries answered by Post Haste, Palmerston North operatives outside the company response time.**



N.b The 19th week of this period where 42 percent of PODs were answered outside of the two hour company standard was due to an operative being on annual leave leaving the customer services section one individual short. Also this operative is mainly responsible for the PODs.

**Chart 10: The number of misdirects sent from Post Haste, Palmerston North.**



NB. There is a correlation between the amount of misdirects and the volume of parcels. The highest amount is over Christmas and some of the low amounts are due to three and four day working weeks.

**Table 18 : The percentage of signed tickets attained by couriers from Post Haste, Palmerston North.**

Courier	Cycle								
	1	2	3	4	5	6	7	8	9
811	75	65	75	64	75	66	85	87	89
812	50	90	96	86	69	80	85	95	94
813	30	62	44	60	82	76	81	82	94
814	38	51	62	73	74	67	87	77	73
815	90	55	55	66	58	87	97	73	85
818									
819	33	55	80	54	66	80	95	92	83
821	77	60	64	67	71	75	95	96	86
822	75	80	78	10	41	54	71	93	75
825	75	72	97	97	86	94	87	95	91
827	51	88	80	96	89	93	95	96	98
	10	11	12	13	14	15	16	17	18
811	88	93	83	87	85	57	93	72	83
812	94	97	95	97	95	95	97	96	97
813	90	83	91	91	91	90	92	89	81
814	66	72	80	75	53	53	57	38	92
815	88	81	84	84	90	78	86	76	77
818		96	83	96	97	97	98	100	100
819	90	87	92	93	92	93	90	87	87
821	89	85	90	94	93	93	95	89	87
822	81	85	83	86	82	83	98	83	82
825	91	96	90	93	96	94	93	93	92
827	72	93	87	94	95	96	93	91	94

NB. Any large weekly percentage changes either way is due to relief drivers.

Courier 819 employed a relief driver from cycle 4 onwards.

Courier 822 employed a relief driver for cycle 4, 5, and 6.

The responsibility for signature audits changed to a different operative from cycle 6 onwards. Where the ability to detect a forged signature varies between the operatives, this accounts for the noticeable increase in scores.

## **Section 7: Conclusions.**

“Life is the art of drawing sufficient conclusions from insufficient premises”.<sup>1</sup>

Butler, Samuel (1612-1680)

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<sup>1</sup> Collins (1993) Quotations. The wit and wisdom of 700 authors. Collins & Co Ltd Pg89

This study revealed a range of differences in the operating background of the two companies and raised some interesting considerations as to the suitability of TQM in certain operations.

Both companies were supposedly autonomous within their organisations, but Post Haste had more direction from head office. This meant local managers had less control over their operations and considerations of TQM were always secondary to meeting budgetary expectations. Rayonier's more decentralised operations allowed Rayonier Wellington control over long term planning as compared to Post Haste's necessity to focus on immediate needs. TQM requires a long term approach and was thus better suited to Rayonier's operation.

The key elements to profit varied greatly. For Rayonier, there was a great certainty in their key elements to profit. In any given wood lot, logs were cut to maximise value and produced to advance order. Trees above job specification could be transferred to a more appropriate order. TQM was well suited to ensuring the fulfilment of these aims. Rayonier also had long term control over their assets through the ownership of forests.

For Post Haste, profit elements were much less stable. Profit depended on daily parcel movement and on the maintenance of contracts with major firms. Maintaining contracts depended largely on individual couriers, who had to maintain a balance between speed and making the time to build good customer relationships. This meant TQM implementation, in practice, depended almost entirely on the couriers.

It was clear that TQM had vastly different meanings at various hierarchical levels. There was a greater degree of congruence between the contractors at Rayonier and the couriers at Post Haste than between the managers and contractors/couriers within the companies.

TQM had a greater practical application for the contractors at Rayonier, for whom its benefits had visible reward. Renewal of contract was based upon measures of quality.

For couriers at Post Haste, TQM meant little. They had no involvement in either its implementation or application, even those they were the key personnel in ensuring ongoing company profitability, and no change to their working conditions occurred because of TQM implementation.

Rayonier had a small operative staff who were all involved in TQM implementation. TQM enabled them to perform their functions better and to reduce inconsistencies in systems. Post Haste had a larger pool of operatives but the role of these staff members in TQM was limited to doing their job properly and to filling in data on charts for head office. Mostly, staff members appeared to have little understanding of the role of these charts in the broader sense of TQM. Rayonier had more permanent involvement, trust and teamwork than Post Haste.

Managers in both companies had similarities in their understanding of the meaning of TQM. To both, it meant better control over operations and more confidence in business dealings. Both managers gave far greater priority to TQM than did their subordinates or contractors/couriers.

Motivation for the introduction of TQM came from higher management in both companies. However, there was a marked difference in the approaches from the two head offices. Post Haste had no choice but to gear their operations towards TQM so as to fulfil head office expectations of ISO accreditation in the future. Rayonier, on the other hand, were invited by their head office to implement ISO 9000. It was their own choice to utilise TQM principles to achieve ISO 9000.

Both companies saw TQM as a tool which would assist them in marketing and in reducing costs and increasing customer satisfaction (although, in practice, the latter meant decreasing the number of complaints rather than increasing the level of customer satisfaction).

Research findings thus indicate that TQM offered far more to Rayonier than to Post Haste. Post Haste, despite their beliefs, operated in a Quality Assurance and a Quality Inspection culture. TQM elements were mainly evident in management philosophy regarding business ideals and contained a mix of pragmatic and philosophical ideals known as Freightway's Fundamentals. However, these were compiled by the parent company, rather than the individual Post Haste branch and served as a guide, not a concrete management policy. Post Haste expected TQM to assist them to build partnerships with their customers, but, despite TQM implementation, these relationships were still dictated mainly by courier performance and attitude. The Post Haste TQM programme did not allow for courier participation and had little impact on courier practice and attitude towards the company.

Rayonier appeared to have approached their TQM programme in a more holistic and pragmatic manner. They identified their potential problem areas as lying in the key hub of their operations, namely logging and, to a lesser degree, port storage. TQM elements thus became more evident at lower levels of company operation and were reflected in the technology, the training and the renewal of contracts. Staff participation was also far greater and company efforts more appreciated by the staff. To a lesser extent, this also applied to the contractors, who gained greater recognition of high skills levels, which led, in turn, to more certain employment for those who met quality requirements.

Business performance, for Rayonier, had changed since the implementation of TQM because it forced them to look at three key outcome areas: customer satisfaction on customer's terms, production of economical and useful products, and minimisation of wastage. It is possible that methods other than TQM may have achieved these goals, but Rayonier credited TQM with their successes in these areas.

Post Haste applied TQM retrospectively to practices already in progress. Research data analysis led to the conclusion that TQM had, in terms of outcomes, made little practical difference to Post Haste.

It is important to note that the nature of the industries were very different. Firstly, Rayonier had a long term focus, with extreme control over all aspects of their company processes whereas Post Haste had to constantly deal with other companies, upon whose short term good will and loyalty they relied for incoming business. A further research conclusion was, therefore, that the operating environment of Rayonier was better suited to the implementation of TQM and that this was reflected in the company outcomes.

Secondly, Rayonier had an emerging asset, in the form of cheaply acquired forests, in a world climate of increasing demand, whereas Post Haste had a more mature and finite market in a climate of increasing competition. TQM offers more to companies with greater resources and control over their environment, which again led to the conclusion that TQM was better suited to Rayonier's operations.

A comparison of these two companies revealed two vastly different backgrounds in which TQM was implemented and illustrated that these backgrounds greatly affected the outcomes. Other companies thinking of implementing TQM would need to think very carefully about their goals and resources and the ways in which TQM could be implemented so as to ensure the greatest value return for their efforts. TQM may not necessarily be the best method to achieve those aims.

**Section 8:  
Suggestions for future  
research.**

“Our researchers into Public Opinion are content

That he held the proper opinions for the time of year;

When there was peace, he was for peace; when there was war he

went.”<sup>2</sup>

*The Unknown Citizen*

Asquith, Herbert Henry, 1st Earl of Oxford and Asquith, (1852-1928)

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<sup>2</sup> Hyman, R (1993) The Pan Dictionary of famous quotations Pan Books Ltd, London Pg 28:62

It appears that available research about applied TQM within New Zealand is limited and many opportunities exist for those who wish to pursue this topic. This thesis investigated only a limited number of the variables that could assist with understandings of TQM in practice.

Some business areas that I believe warrant investigation are:

Who's interests are being served by the implementation and maintenance of TQM programmes?

How do diseconomies of scale affect the implementation and maintenance of TQM programmes?

How can TQM be successfully implemented where economies of scale don't exist?

"How can the wider concept of Total Quality management be conveyed to New Zealand Leaders who ' typically lack the ability to involve their people and align them around a vision ... who do not have the trust to let go of controls and allow their staff to make decisions' (Draper, 1993). How can these people be trained to lead and inspire employees" ?<sup>3</sup>

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<sup>3</sup> Thomson, S (1994) Organisational change: Some aspects of the TQM movement Massey University Discussion Paper # 5. Pg 14

## Glossary.

**Cash customer** A user of Post Haste Courier services who does not have a contract for carriage. Users are often individuals who need courier services spasmodically.

**Decals** The company colours and slogan painted on the vans.

**Deconners** Part time employees of Post Haste Couriers who sort inbound freight into courier bins prior to delivery. Also known as deconning or decons.

**Igloos** Containers designed specifically for aeroplanes in which parcels are temporarily stored while being transported between the North and South Islands.

**Inbound freight** Freight destined for Palmerston North from the other depots of Post Haste Couriers and Castle Parcel throughout New Zealand.

**Line haul carriers** Container trucks used by Parceline to deliver TCP's throughout New Zealand from depots and hub centres.

**Log sweep** The amount of curve a stem and/or log has to the left or right. When a log is straight it has little sweep.

**Manifesters** Part time employees of Post Haste Couriers who sort the out bound freight from courier bins and vans into TCP's for overnight delivery.

**Misdirects** Parcels delivered to the Palmerston North depot by mistake instead of being delivered to another branch of Post Haste Couriers.

**Mixed TCP** A TCP that is used to transport freight to depots at different locations. It is emptied as the line haulage progresses eg Hamilton, Tauranga, and Rotorua.

**Operatives** Individuals specifically employed by the company who are not management but perform duties essential to company performance.

**Out bound freight** Freight from Palmerston North destined to other Post Haste depots or Castle Parcel depots throughout New Zealand.

**Pure TCP** A TCP that is use to transport freight to one depot only E.g. Auckland Post Haste.

**Run** A geographical area of township or local region that is assigned to a courier to service.

**Small end and large end diameter** The natural shape of a tree is to progress from a thick stump to a slender tip. Thus, when stems are cut into logs, one end is larger in diameter than the other. Hence small end and large end diameter.

**Stems** Trees that have been felled and trimmed of branches but not yet cut into logs.

**Stumpage** The amount of monies generated from logging a forest or wood lot, minus the costs incurred and assigned back to the forest or wood lot

**Suboptimising** Not attaining the maximum value from stems when cutting them into logs. This is done by cutting logs to a grade of lesser value than they could possibly be.

**TCPs** (Transport Container Pool) Collapsible storage containers into which parcels are temporarily sorted for transport by line haul trucks.

**Wood lot** Areas of trees that are small, relative to the forest sizes in New Zealand. Usually planted by farmers and other land owners.

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# Appendices.

## **Appendix A**

### **Letters sent to companies inviting them to participate in this research.**

[REDACTED]  
[REDACTED] [REDACTED]  
[REDACTED]

Fax

Thursday 20 April

Dear

I am a 23 year old business student at Massey University doing a thesis as part of the requirements for the Master of Business Studies degree. The thesis research topic considers the advantages to people involved in TQM programmes.

I would greatly appreciate the opportunity to do work with organisations that are in the process of either using or implementing a TQM programmes. Post Haste and Rayonier have agreed to be part of this research and I am currently seeking the participation of a manufacturing firm.

My research questions and methods are listed on the following pages. I would be able to meet with you to discuss any of these points or other details on a face to face basis, should you wish.

If you have any concerns or questions, please don't hesitate to contact me or my supervisors. Nick Park, can be contacted at the department of Management Systems, phone 356 9099. Peter Slade can be contacted at his home, phone 353 6571.

The benefits of participating is that you gain a better understanding of TQM and how it is affecting your business.

I look forward to hearing from you before mid may. Thank you for your time and consideration.

Yours sincerely

Richard Fowler

## Appendix B

### **Companies that were approached to participate.**

Allflex New Zealand Limited, Palmerston North

Metalcraft, Palmerston North

Pacific Helmets, Wanganui

Post Haste Couriers Palmerston North

Rayonier New Zealand, Wellington

Snowy Peak Ltd, Christchurch

Steelfort, Palmerston North

Sunbeam Limited, Palmerston North

John Dey Forestry Consultant who, on my behalf, contacted companies that may have been willing to participate.

## Appendix C

### **Prompt questions for initial interviews with the branch managers.**

How long has this branch operated in (Palmerston / Wellington)?

How old is (Post Haste Couriers / Rayonier New Zealand).

How many people do you currently employ in your branch?

Can you describe the geographical size of the regions you service?

Can you describe the basics of your operations?

Does this branch operate with any of the other branches and to what extreme?

What does quality mean to you?

How long have you been maintaining a quality programme?

Why did you implement the quality programme?

Do you have any documentation that can assist in describing your quality programme?

Which employees do you think may be helpful and willing to participate in this study?

Do you know of any individuals outside of your organisation that has been involved with or affected in your quality programmes that I can approach?

## Appendix D

### Letter sent with transcription of interviews.

My Address

Work address of participant

Dear \*

Enclosed is a copy of the transcription from our interview on (date).

Please read the document, if there is any part of the interview you do not wish to be used in my thesis, please contact me as soon as possible.

Thank you for your time and information.

Yours Sincerely

Richard Fowler

## Appendix E

### Diary of thesis.

#### 1995

##### January

- Confirmation of Post Haste Couriers, Palmerston North to be a participant of the thesis.
- Accompanied a sample of couriers on their runs.

##### February

##### March

- Letters to various companies requesting their participation in thesis.
- Interview managers of Post haste Couriers Palmerston North.
- Accompanied couriers on their runs.
- Literature search.

##### April

- Letters to various companies requesting their participation in thesis.
- Literature search.

##### May

- Confirmation of Rayonier New Zealand, Wellington to be a participant of the thesis.
- Interview managers of Rayonier New Zealand, Wellington.
- Literature search.

##### June & July

- Interview managers, operatives, couriers of Post Haste Couriers, Palmerston North and the warehouse manager of Toyota, New Zealand.

##### August

- Interview Managers and employees Rayonier New Zealand.
- Interview Logging contractor.
- Inspection of completed ISO Manual
- Interview managers and employees of Post haste Couriers Palmerston North

##### September

##### October

##### November

##### December

#### 1996

##### January

##### February

##### March

- Interview with a Communications consultant