

Intangible Relationship Value from Buyer to Seller and its Effect on New Product Development

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Abstract

This research will study and validate a model presented by Baxter (2007) through which the relationship between buyer and seller enables new product development success were validated.

For this purpose the Quantitative survey data will be analysed to test whether the data support the conceptual model of Baxter (2007). The data were collected by using self-administered questionnaires forwarded to the managers of cafes in Auckland. These questionnaires validated the attributes of business-to-business buyers effect in the success of new product development (NPD) from sellers who involve in that buyer NPD, and get benefit from resources of buyers' input in that NPD process. The relevant buyers' attributes are their competence, attitude, intellectual agility, relationships, organization with renewal and development. Correlation and exploratory factor analysis will be used to analyse the relationships between buyer's attributes and success of NPD. After that, the quantitative data were thoroughly collected from respondents who were selected on the basis of convenience sampling. Then the gathered data was statistically tested and correlations were determined among hypothesized factors. The results have clearly indicated that the data failed to prove significant relationships among the constructs provided in the Baxter model. On the other hand, this outcome has certain limitations but provides a significant direction for the further studies.

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List of Abbreviations:

NPD	New Product Development
RBCA	Resource Based Competitive Advantage
B2B	Business to Business
SPSS	Statistical Package for Social Sciences
IRV	Intangible Relationship Value

Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the qualification of any other degree or diploma of a university or other institution of higher learning, except where due acknowledgment is made in the acknowledgments.

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Chapter 1 introduction

1.1 Background to the research:

The conceptual model described by Baxter (2007) in figure 1 represents the process of intangible value creation in the buyer/seller interface. This model describes the buyer attributes that facilitate the flow of intangible resources between buyer and seller that in turn results in the creation of relationship value and new product development success. The primary rationale behind this model is that ideas for product innovation come, most of the time, from the buyer and not the seller. This model sees the process of new product development from the seller's perspective.

Zhang (2009) tested Baxter's (2007) conceptualisation of NPD success as a set of outcomes in a qualitatively analysed empirical study of the New Zealand health supplement industry. The study identified the key factors firms use to access their NPD outcomes and how firms evaluate their success of NPD. The author discussed both single-measurement and multi-dimensional evaluation of NPD success. The author found that multi-dimensional evaluation technique is a more effective to assess a broader range of business success. The author enlists a 6th success factor, in addition to Baxter's (2007) five factors, namely "social and ecological sensitivity". Baxter's (2007) framework is considered by Zhang, with the addition of this sixth factor, to be a comprehensive and up-to-date model for NPD success assessment. Zhang also assessed the usefulness to a company of buyer involvement in assuring NPD success.

Relationship marketing is one of the main branches and domains in the subject of marketing and business development. In the buyer/seller relationship, marketing experts argue that the perception of value is important. When a buyer comes to purchase a given product or service, he or she is not simply making purchases of the products or service; instead, he or she pays for the perceived value of the product or service (Peck, 1999).

Research shows that when the perceived value of a product is higher in the eyes of the customer, he or she is willing to pay more and tends to be a more loyal customer. Business development and customer relationship management initiatives are driven by the same intention of enhancing product/service value. Particularly, from the perspective of new product development, relationship marketing is an important marketing domain as it involves a direct resource exchange at the inter-firm interface (G. Hamel, 1994; Lagrosen, 2005). Product development or concept development is potential outcomes of resource exchange

between buyer and seller in the business development process, which not only enhance the ability of a firm to compete effectively but also increase its outreach and market acceptability and hence profitability.

1.2 Statement of Research question and hypotheses:

As has been stated in the introduction, the study will focus on the approaches, where external factors, specifically input of ideas from customers, could bring value to the internal processes (particularly the process of new product development) of the business. The study will attempt to validate the model of co-creation of value by the buyer and seller as presented by Baxter (2007) and as qualitatively supported by Zhang (2009).

The research will test this hypothesis:

There is a positive association between an intangible value of sellers' relationships with buyers and sellers' NPD success.

For true testing of this hypothesis, the data were thoroughly collected and tested against certain statistical criteria. The data were collected in a format so it can reveal the statistics about desired factors. Then a statistical test has revealed the true relation between these constructs. The hypothesis has been placed at the main centre of that study and established in the form of the research question, which is

“Does the analysis of quantitative data support Baxter’s (2007) conceptual model of the effect of relationship value on new product development success”?

That question explored the research problem and provides direction about those factors which should be tested in statistical evaluation. However, although the scales for the constructs in this study appeared valid and reliable, the study did not reveal any significant relation between studying constructs and failed to support Baxter’s (2007) model.

1.3 justification for the research:

NPD is a crucial issue for business because in today’s highly competitive economy, because if a business is unable to innovate then it perishes very soon. In many cases, it is a business customer which adds value to a firm’s product development process by providing feedback,

technical insight or professional suggestion (Varcoe, 2008). Baxter (2007) stated that the flow of resources across the relationship is necessary to effectively develop new products and thereby to quickly and accurately meet the constantly changing needs of the seller's customers. Intangible resources are inimitable, thus they provide long-term competitive advantage for a firm. Therefore, this study focuses on the more intangible elements of a B2B relationship that add value to the new product development process. In this regard, this study proposes the model presented by Baxter (2007) as a valid one for the assessment of the long-term value creation process in the enterprise, for the reason that its focus is on intangible relationship value, as well as for the outcomes of this value in terms of NPD success.

1.4 Methodology:

Baxter's (2007) literature review will be updated. Survey research will be used to collect data for the hypothesis test. The sample size will be roughly 40, depending on the availability of respondents, time and resources at hand. The requirement for effective exploratory factor analysis is about 5 times the number of measures. In this study, there will be six measures of the independent variable, so a minimum of 30 responses is required. The convenience sample frame comprises Auckland cafes that supply to businesses. Special attention will be paid to collect data from those cafes, which are continuously innovating products, Hence the data is not from a random sample. Snowballing will be used by the researcher to personally collect the data on self-administered questionnaires. A combination of multiple choice, scale and open-ended questions will be used. 7-point Likert-type scales will be used to rate competence, attitude intellectual agility, relationship, organisation, renewal and development attributes as indicators of relationship value.

Exploratory factor analysis and correlations will observe if the measures and dimensions of both independent and dependent variables show the dimensionality as expressed in the Figure 1 model. The data will be collected using researcher-administered questionnaires directed at managers of cafes in Auckland to see if the attributes of business-to-business buyers affect the success of new product development (NPD) by sellers who involve the buyers in NPD and hence benefit from the resources of buyers in the NPD process. New product development in the study's context means the development of new menu items for the business customers of the respondent café in its catering operations.

Convenience sampling will be used to collect data. The cafes in Auckland will be contacted for data collection as they will be easy for the researcher to approach. Convenience sampling will be used to find more potential respondents who are concerned with the development and introduction of new products. In this sampling, firstly an initial group of respondents is selected, often at random, and then these respondents are asked to identify others who are of interest. When approaching a café, the owner of the café will first be approached and then s/he will be asked to identify a person who is concerned with NPD and will therefore be suitable as a respondent.

1.5 Outline of the of Dissertation:

This dissertation is divided into five main chapters

1. Chapter one introduction:

This chapter gives a background to the research which justifies the relationship between value relationship and new product development, and highlights the research questions and hypotheses under study which aim to test the relationship between the intangible value of sellers' relationships and new product development, in addition to provide a justification for the research. This chapter also covers the methodologies that will be used in this research which depends on a valid and reliable questionnaire developed by the researcher.

That also includes a detailed explanation of the study outline. The reason for selecting that topic and which gaps are basically addressed in previous studies have initiated this research.

2. Chapter two literature review:

A brief overview conducted about all previous studies done with detail referencing. Previous studies have clearly indicated that viable gap still persist to determine that relation between buyer and seller under the new product development. The researchers have used a different model to authenticate that relationship. However, for our study we have selected the Baxter (2007) model to validate that relationship.

3. Chapter three methodologies:

The chapter discusses all the methodologies which were utilized in that study to evaluate the study factors and their relations. The positivism paradigm and quantitative techniques are chosen for this study. The study will attempt to quantitatively validate the model of co-creation of NPD success by the buyer and seller. The chapter has briefly discussed about the reasons behind a collection of a particular model and the procedure used for collection of primary and secondary data.

4. Chapter four Findings and Analysis:

This chapter thoroughly provides a brief overview about the statistical results of the collected data. The explanation was started with the discussion of the descriptive analysis. Different modes of testing were used to examine the factors and quantified at multiple measures. The buyer and seller relation with IRV and NPD success, the weak correlation and high standard deviations has revealed different relationships about these constructs. Then a second explanation was about the effect of firm size and customer base on new product development success under the consideration of the buyer and seller relation. Following that was the exploratory analysis, the chapter then directed towards the reliability measures of buyer human value and NPD success. In addition to, concluded with the selected model testing on the basis of all achieved results.

5. Chapter five Discussion:

The last part of the research discusses the final observations which were basically based on the evaluation of the previous chapter. The chapter has highlighted final conclusions about the study, and how the results helped in future studies and implications in policies. The chapter also discussed about the limitations faced during that study.

1.6 Definitions:

1.6.1 Convenience Sampling:

It is a non- probability sampling methodology that the respondents are selected on the basis of their convenience of access to the researcher (Zhang, Y, 2009).

1.6.2 Relationship marketing:

A form of marketing which basically emerges from direct response from the campaign of marketing and basically focused on customer retention and the fulfillment of their wants, despite the traditional emphasis on increase of sales volume (Zhang, Y, 2009).

1.6.3 New product development

New product development (NPD) is the phenomenon by which a new product introduces into the market and which is carrying a certain set of benefits and offered against it. The exchange should be done on an tangible and intangible basis. New product involves the idea generation as well as product engineering and product design (Griffin & Page , 1996).

1.7 Delimitations of scope and key assumptions:

Baxter (2007) stated that buyer-seller relationships during new product development (NPD) are crucial in the success of new products in the business-to-business context. The seller takes advantage of the relationship by gaining a sound and reliable information and innovative concepts. Baxter's model sees the buyer as a potential facilitator in the process of new product development, who is not only capable of forming a profitable relationship with the seller, but also shares some highly valuable resources (information, concepts, ideas etc.) with the seller and hence enables product/process innovation and value added to the seller's business.

The study that this dissertation refers to will focus on the way in which the attributes of customers could bring value to the process of new product development by a business. The relevant buyers' attributes which can bring value to the NPD process are their competence, attitude, intellectual agility, relationships, organisation, renewal and development.

The study will attempt to quantitatively validate the model of co-creation of NPD success by the buyer and seller as presented by Baxter (2007) and as previously qualitatively supported by Zhang (2009).

Figure 1 below shows the model. The study will achieve this aim of model validation by asking café managers questions about two issues:

Firstly about the nature of one of the businesses for whom they have developed new menu items in their catering operations (as on the left of Figure 1) and secondly about the success of their development of new menu items for that business (as on the right of Figure 1).

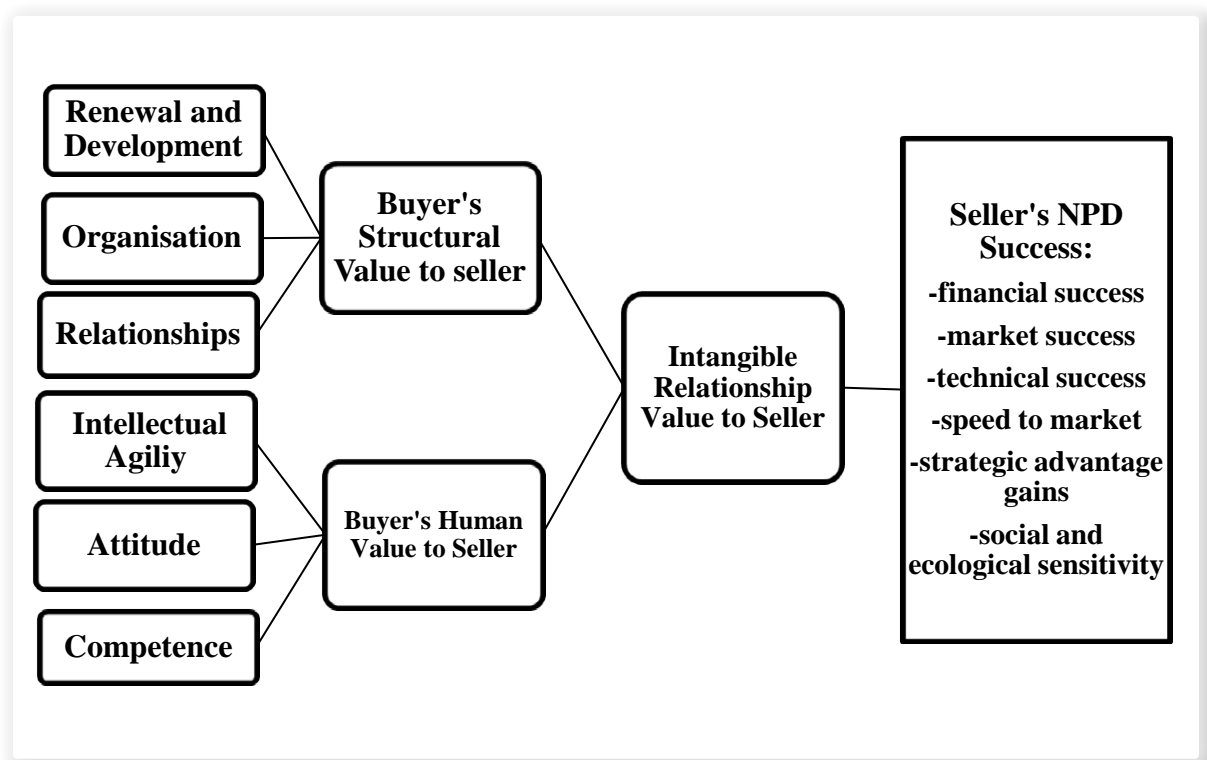


Figure 1 Conceptual model of seller's NPD success outcomes and buyer's attributes as antecedent.

1.8 Conclusions

The chapter is initiated with the brief explanation of the Baxter (2007) model and evaluates its fundamentals. Then the factors which are necessary for NPD success under the buyer and seller relationship and how the relationship marketing works in that phenomenon are discussed. The study has directed towards the establishment of hypothetical scenarios, and

that has been specified through a research question. The research question has been justified under the review of previous researchers and particular models scrutinized for that study.

The Baxter Model has been utilized to validate that study with all constructs. Then the data collection procedure was mentioned in detail for both primary and secondary methodologies. Including how the data collection would help in exploratory factor analysis. The later part of that chapter has discussed a brief overview of all other chapters of study and defines certain technical or specific jargons used in that study.

Chapter2 Literature review

2.1 Introduction:

Successful NPD needs information flows from buyer to seller. Baxter and Matear (2004) discuss relationship value to the seller in terms of the flow of information resources from buyer to seller. This information-based value in a firm's relationship needs to be developed and managed carefully. The information is required to help find new ways to please customers as it is becoming harder and harder to do so. The information will enable the companies to perceive more deeply the needs of customers and hence develop the products to succeed in contemporary markets (Hamel and Prahalad, 1990). Hence, new products developed by companies will be truly successful only if those products are developed with customer involvement.

The literature review that follows will therefore discuss the theoretical background of buyer-seller relationship in the process of new product development. Insights will be provided into the process of NPD and latest trends in NPD in organisations. The literature review further discusses the importance of NPD for the long term success of businesses, followed by the vital factors in NPD success.

The discussion about the value creation initiatives are also presented in a comprehensive way. Buyer – seller model from Baxter (2007) has been taken for a thorough analysis and being discussed with all dimensions like relationships, organizations, renewal, development, competence, attitude and intellectual agility. The literature also includes certain propositions presented by Baxter (2007). Later on the literature review is accompanied by the research question, followed by research methodology, analysis, discussion, conclusion and recommendation.

The classical forms of information-gathering from customers, like focus groups, market researchers or direct interviews provide limited information for new product design. The model is basically based on the rational flow of information. However, it lacks a clear explanation about the basics of customer affection with real wants of the market (Lamberti & Noci, 2009). But that deficiency can be removed if study is carried out in a long term perspective. Actually the basic goal of NPD framework is the value creation for the firm and

for that reason the literature review is basically focused on value creation in buyer seller relationships through the NPD process.

Baxter and Matear (2004) state that this value created in buyer seller relationships needs to be assessed and even quantified, if possible, by marketing managers in order to manage it and in order to argue for their share of the firm's resources to develop it further. Their argument will be discussed in the literature review, with the help of resource based competitive advantage followed by Baxter's (2007) conceptual model of seller's NPD success outcomes and buyer's attributes as antecedents. Then the dimensions of the Baxter (2007) model will be discussed. NPD in the organisation will be discussed in the next part of the literature review followed by the success measurement of NPD.

2.2 New Product Development in Organizations:

According to Zhang (2009), there are several critical factors which are fundamental to the success of new product development, these factors are:.

- a. Competence – Buyers Human Value to Seller: The seller needs to be competent about his product dimensions, industry situation and buyer needs. That factor will create a valid value in the mind of the buyer.
- b. Attitude – Buyer's Human Value to Seller: The second most important factor in that Seller success model is the attitude of parties around the transaction period. The result will be more comprehensive if attitude stayed on a positive note.
- c. Intellectual Agility – Buyer's Human Value to Seller: this has also been categorized as a viable option in that relationship sigma. However, as much as sellers carry on that intellectual gauge in its profile, more buyers will consider this decision during the making process.
- d. Relationships – Buyer's Structural Value to Seller: The seller success also lies in the relationship dynamics with the buyer. That relation is not only on personal base but also in terms of product orientation.
- e. Organization – Buyer's Structural Value to Seller: The buyers also very much influenced from seller organizational capacity. The organizational report and product history have a significant impact on the buying process of the buyer.

- f. **Renewal and Development – Buyer’s Structural Value to Seller:** The buyer also embraced high impacts from the seller product and organizational upgrades. The seller needs to upgrade its product and organization procedures as per the current market scenarios and also to modify all versions as per the buyer’s wants.

However the key to success is the nature of the process and the way it is implemented. The best and worst performers are differentiated on the basis of the ability to deliver differentiated and superior product. Market information, stable product definition, up-front homework and voice-of-customer research are mentioned as strong determinants in new product development. However, these practices will lose their significance, if not able to successfully differentiate between the best and worst performers (Cooper, Edgett, & Kleinschmidt, 2004). However it is not a simple process and many things are at stake during this NPD process. The organizations are taking this whole process seriously and there are many aspects of this process. The focus of this dissertation is on the buyer-seller relationship in the NPD process. Hence in the next section, the creation of value in a buyer - seller relationship will be discussed.

2.3 Value-creation in Buyer-Seller Relationships:

Buyer-seller relationships are required to create value for the organisation. However, appropriate initiatives are required to create value in buyer-seller relationships. Hammervoll & Toften (2010) provide practical guidance for managers on the selection of appropriate value-creation initiatives in Buyer-Seller Relationships. Than relationship benefits have also played a very vital role in value creation and researchers have a valid consensus on this. These relationships will be modified by the absolute behaviours, processes and strategic orientations. However, the customer satisfaction, trust and commitment are being categorized as those crucial variables which can influence the relationship life cycle. And in concluding their remarks about the derivation of value creation and value sharing is based on result oriented customer and supplier relationship.

However, Ulaga & Eggert (2004) concentrate on the managerial emphasis on supplier performance evaluation. The authors propose that relationship value should be included as a key constituent in these models. Their research aims to explore the construct’s links with key constituents of relationship quality (commitment, satisfaction and trust). The findings of research suggest that relationship value is an antecedent to relationship quality and

behavioural outcomes in the nomological network of relationship marketing. A stronger impact is displayed by value on satisfaction than on commitment and trust. The impact of value on the propensity to leave a relationship is mediated by relationship quality. Trust appears in the study as an antecedent of behavioural outcomes as a mediator of the satisfaction commitment link. Hence value is confirmed as a key relationship building block. Cognitive performance is a construct on based on models of business relationships should be integrated by researchers.

The model proposed by Baxter and Matear (2004) focused on the value of buyer-seller relationship value to suppliers in business to business situations. The authors focused on the intangible part of the value in the buyer - seller relationship. Ulaga & Eggert (2004) model also focused on the intangible part in the buyer - seller relationship. That intangibles are a significant part has directed to study the buyer-seller relationship to NPD view.

2.4 Buyer-seller relationship and NPD:

Customers define the target market for companies. In the past, the customer's contribution in the process of NPD was ignored. These days' organisations are increasingly paying more importance to the customer involved in NPD. Vargo & Lusch (2004) indicate that the importance of customer involvement in the marketing process, including new product development, is increasing. Traditionally, the customer was viewed just as the recipient of goods or services. Marketers were segmenting, penetrating, distributing to, and promoting to them. The customer was considered as an operand resource. Nevertheless, in today's marketing process the customer is sometimes viewed as an operant resource. This means things are done in interaction with the customer.

Customers act as active participants in coproduction and exchanges. Traditionally, from a manufacturing perspective, in order to maximize manufacturing efficiency, producers and consumers are viewed as separate entities. This manufacturing efficiency will result in decreasing marketing efficiency and effectiveness. However, production is an intermediary process in a service-centred view of marketing where a heavy focus is laid on continuous processes. In this view of marketing, customer is always involved in the production of value, While the customer is using the product, he is continually involved in marketing, consumption and value creation and delivery. In this sense, the customer becomes primarily an operant resource (co-producer) rather than an operand resource (target).

If the customer is to be involved in successful NPD, then it is important that the measurement of the value of relationships in terms of information flow is important. Baxter & Matear (2004) measures this relationship value. The focus of this study is on the relationship value of buyer seller relationship in the NPD process. Hence the importance of customer participation needs to be discussed. Varcoe (2008) states that there has been a significant increase in the involvement of customers in the process of New Product Development in order to enhance the speed of the development process and innovative appeal of new products. Fang, Palmatier & Evans (2007) state that suppliers' NPD process is improved by customer participation and by increasing information sharing and coordination effectiveness between suppliers and customers. This will result in directing the efforts of suppliers to high return features, preventing costly mistakes and optimizing the cost versus numerous product trade-offs which are required during the process of new product development. Customer participation in NPD also increases the level of specific investment by suppliers and customers in NPD.

Thomke and Hippel (2002) state that most product development is difficult because the customer has the information about "need" (what the customer wants) and the manufacturer has the information about the solution (how to satisfy those needs). Traditionally used means to collect information like market research are costly and time-consuming as the needs of customers are fast changing, complex and subtle. Due to this, traditional product development was based on trial and error. The manufacturer was developing the product based on incomplete information from customers. Then the customers were trying the product and were asking for corrections. So this procedure was time consuming and iterative.

In conclusion, in order to understand the needs of the customers which are vital in the development of new product and success of the organisation, customers need to be consulted and involved in NPD. This will ultimately provide the organisation with the competitive advantage over competitors.

2.5 Resource Based Competitive Advantage:

Schon (1983) states that tacit knowledge is deeply rooted in action, procedures, routines, commitment, ideals, values and emotions. Nonaka and Takeuchi (1996) explain that it is difficult to communicate tacit knowledge to others. It is an analogue process that requires a kind of 'simultaneous processing'. Organisational resources are often gained through

organisational learning. These intangible, highly tacit, learning resources is more sustainable (Hunt & Morgan, 1999) than tangible resources Relationships characterized by trust, commitment, and loyalty between buyer and seller make the firm's desirable partners. If the firm has built the relationships with customers on trust, commitment or loyalty; the access to customers will be largely sustainable (Hagedoorn, 1993). The inventory of firm's informational resources depends on its ability to learn (McKee, 1992). Information is perishable. However, the systems developed by organisation to gather, disseminate and apply information are complex and difficult to imitate making these resources sustainable (Morgan and Hunt, 1999). These inimitable resources are important in providing competitive advantage to firm.

Gaining competitive advantage through resources is crucial for the success for the company. However, resources need to be evaluated for their ability to provide competitive advantage. This will enable the firm to give differential importance to the resources according to the resource's value in providing this advantage. Morgan and Hunt (1999) listed 7 categories of resources and the evaluation of these resources (which follow) for their ability to provide competitive advantage under a set of critical requirements. Thus, financial resource has limited potential as a provider of resource based competitive advantage (RBCA) because of its wide availability. Legal resource also has limited potential as a source of RBCA because of its substitutability, immutability and limited longevity. Physical resource has limited potential as a source of RBCA because the substitute competencies which are based on combinations of more complex resources are superior. Human resources have moderate potential as a source of RBCA as its sustainability is limited by mobility of people, who can easily leave the organization. Organisation, relational and informational resources have high potential as a source of RBCA. Organisational resources are ambiguous and are time dependent for their creation. Relational resources are also dependent on time for their creation and are perceived ambiguity. Unclear or vague informational resources require a complex resource mix to build unique stocks and flow of information. In conclusion, organisational, relational and informational resources are the one acting as source of Resource Based competitive advantage.

As discussed above, of all the resources explored by Morgan and Hunt (1999), organisational, relational, and informational resources, have high potential in providing research based competitive advantage for a firm. These three forms of resource are investigated by Baxter and Matear (2004) and incorporated into a model of NPD success by Baxter (2007).

Specifically, relationships with customers and information provided by customers are vital in providing competitive advantage to a firm. Therefore, in the next section, the Baxter (2007) model is discussed because it suggests conceptually how a seller can take advantage of its relationship with a customer to gain information and hence to develop innovative new product concepts. The model thus discusses the intangible value creation in buyer-seller relationships.

2.6 Baxter's buyer-seller relationship model:

Relationship marketing is now one of the main research domains in the marketing and business development disciplines. In the buyer/seller relationship, marketing experts argue that the perception of value is important. When a buyer comes to purchase a given product or service, he or she is not simply purchasing the products or services; instead, he or she pays for the perceived value of the product or service (Peck, 1999).

Research shows that when the perceived value of a product is higher in the eyes of the customer, he or she is willing to pay more and tends to be a more loyal customer. Business development and customer relationship management initiatives are driven by the same intention of enhancing product/service value. Particularly, from the perspective of new product development, relationship marketing is an important marketing domain as it involves a direct resource exchange at the inter-firm interface (G. Hamel, 1994; Lagrosen, 2005). Product development or concept development is the potential outcomes of resource exchange between buyer and seller in the business development process, which not only enhance the ability of a firm to compete effectively but also increase its outreach and market acceptability and hence profitability. It is important for the supplier to get information from the consumer as the supplier has to make an offering to the customer that is valuable for the consumer. If that customer information is incorporated into the product design, then the offering will be of greater value than if the customer information is not used in the design.

Baxter (2007) states that buyer-seller relationships during new product development (NPD) are crucial in the success of new products in the business-to-business context. The seller takes advantage of the relationship by gaining a sound and reliable information and innovative concepts. Baxter's model sees the buyer as a potential facilitator in the process of new product development, who is not only capable of forming a profitable relationship with the

seller, but also shares some highly valuable resources (information, concepts, ideas etc.) with sellers and hence enables product/process innovation and value added to the seller's business.

The conceptual model described by Baxter (2007), illustrated below as Figure 1, represents the process of intangible value creation in the buyer/seller interface. This model describes the buyer attributes that facilitate the flow of intangible resources between buyer and seller that in turn results in the creation of relationship value and hence leads to new product development success. The primary rationale behind this model is that ideas for product innovation come, most of the time, from the buyer and not the seller. This model sees the process of new product development from the seller's perspective.

Zhang (2009) tested Baxter's (2007) conceptual model of NPD success as outcomes in a qualitatively analysed empirical study of the New Zealand health supplement industry. The study identified the key factors firms use to access their NPD outcomes and how firms evaluate their success of NPD. The author discussed both single-measurement and multi-dimensional evaluation of the NPD success. The author found that a multi-dimensional evaluation technique is more effective to assess a broader range of business success. The author enlists a 6th success factor, in addition to Baxter's (2007) five factors, namely "social and ecological sensitivity". Baxter's (2007) framework is considered by Zhang, with the addition of this sixth factor, to be a comprehensive and up-to-date model for NPD success assessment. Zhang also assessed the usefulness to a company of buyer involvement in assuring NPD success.

The left side of the Figure 1 model, identifying intangible relationship value, is well tested by several researchers (Baxter & Matear, 2004; Yang, 2006; Yang, Baxter, & Xu, 2007; Zhang, 2004). The seller takes advantage of the relationship's value by gaining a sound and reliable information and innovative concepts from the buyer (Baxter, 2004).

The model in figure 1 observes that, the buyer as a potential facilitator in the process of new product development, who is not only capable of forming a profitable relationship with the seller, but also shares some highly valuable resources (information, concepts, ideas etc.) By seller and hence enables product/process innovation and value added to the seller's business (Baxter, 2007). The measures of NPD success on the right side of Figure 1 are well-established in the literature (e.g. Cooper & Kleinschmidt, 1987) and are adopted in the model in figure 1, with the addition of the "social and ecological sensitivity" factor as investigated by Zhang (2009). The "Seller's NPD Success" construct in the model in figure 1 has been

qualitatively investigated and supported (Zhang, 2009). Zhang also supported the importance of customer involvement in achieving this NPD success, thus supporting the link between the intangible relationship value and NPD success. In the next two paragraphs, the dissertation considers first the value-oriented side of the model on the left of Figure 1, then the success construct on the right side.

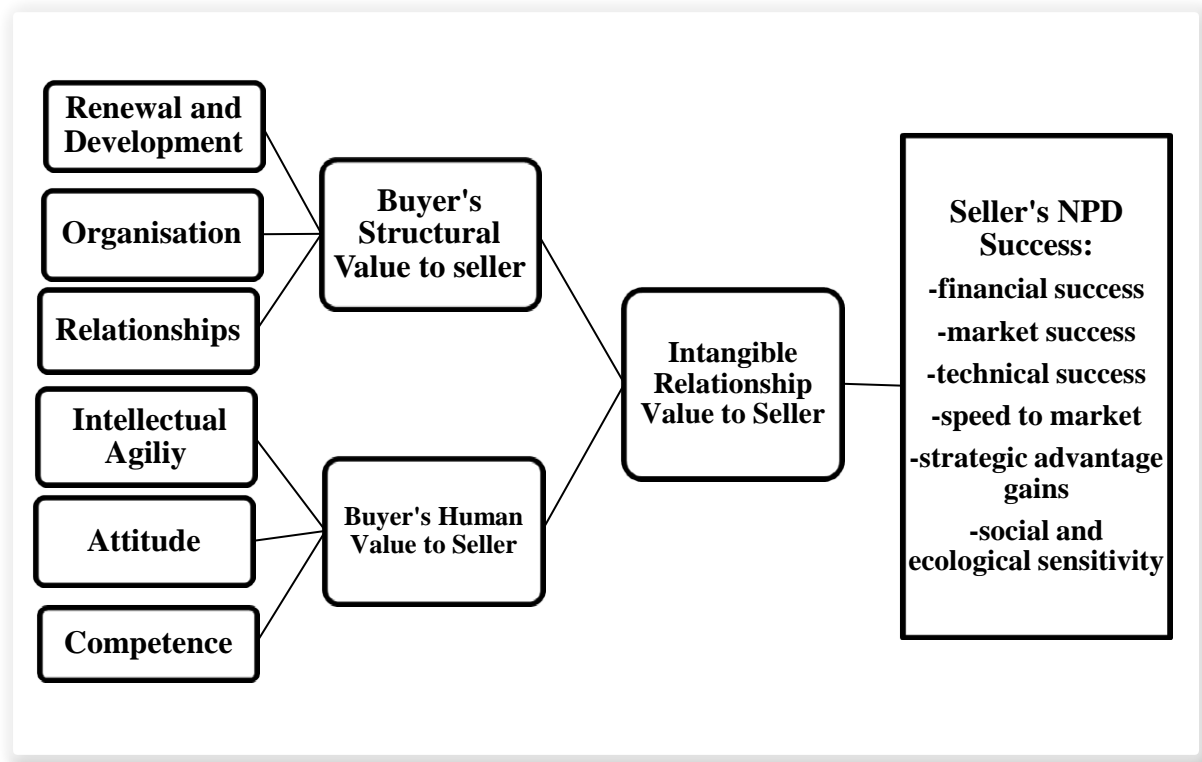


Figure 2: Conceptual model of seller's NPD success outcomes and buyer's attributes as antecedents

Baxter & Matear (2004) developed a model of intangible value in buyer-seller relationships and a set of scales to measure this intangible value. The research focused on the value of buyer-seller relationship value to supplier in business to business situations. The authors focused on the intangible part of the value in the buyer - seller relationship. These aspects of value are important: as Morgan and Hunt (1999) stated, it is the intangibility and hence the inevitability of relationships and the information that flows in them that makes them important to long-term competitive advantage. This study proposes this value as a driver of NPD success, as modelled by Baxter (2007). Because of time and resource limitations in this dissertation, the study uses single-item global measures of Baxter's six value dimensions, instead of the multi-item scales used by Baxter and Matear (2004).

Turning now to the success construct on the right of the Figure 1 model, Zhang (2009) states NPD is the most efficient and effective way to satisfy customer expectations. Customer expectations are difficult to define and changing fast. Firms can gain knowledge about the needs of customers and what will satisfy them easily by involving them in the process of NPD. The author states that the key determinants of NPD success include market knowledge, product knowledge and relationships. These determinants must be considered by firms as these are very important for firms in a successful NPD project. The author finds that financial success, market success and strategic advantage gains are factors which particularly contribute towards success in New Zealand health supplement industry. The results of research supported Baxter's (2007) six dimension NPD success evaluation framework.

Hence, market knowledge, product knowledge and relationships are very important for NPD success. Financial success, market success and strategic advantage gains are found as the factors contributing towards success in NPD. This research was conducted in New Zealand health supplement industry; however the Baxter's (2007) model can be applicable to other industries as well. The dimensions of the framework are discussed in the next section.

2.7 Dimensions of Framework:

The dimensions of Baxter (2007) model will be discussed in this section. The second-order dimension named structural intangible relationship value to the seller is reflected as the lower three first-order dimensions. These first-order dimensions are described as the harder or less tangible aspects in providing intangible resources to the seller (Baxter, 2007).

2.7.1 Relationships:

This first order dimension refers to buyers' relationships to which seller gains useful access by means of its relationship with the buyer. These might also include buyers' relationships with its suppliers, consultants and customers. The buyer can provide access to seller to further information and resources through the relationship (Baxter, 2007).

2.7.2 Organization:

It refers to the possessions and attributes of the buyer's firm from which seller may benefit. This may include databases, culture and management styles, process manuals intellectual properties, legally protected processes and internal networks, etc. (Baxter, 2007). According to Gouthier and Schmid (2003), customers' databases and other sources of information

through the process of refinement, helps in creating competitive advantages to service suppliers.

2.7.3 Renewal and Development:

Yang (2004) states that renewal and development refers to all the items built and created by buyer firm, having potential influences on future value. It refers to those resources of the buyer that are in process and whose impact is not yet manifested in the buyers' organisation (Baxter, 2007). Advanced technologies reduce the cost of service offerings; hence service providers should continuously look for renewal and development to adapt to the development of new technologies (Warn, 2005).

The upper three dimensions (competence, attitude and intellectual agility), or as named buyer's human value to the seller (Baxter, 2007). These dimensions are different from lower three dimensions (relationships, organisation, and renewal and development) and are therefore conceptualized as reflections of a distinct second-order dimension, the human intangible value of the relationship. These dimensions describe people who work with the seller in the relationship. These people might be seen as facilitating resource flow through relationship.

2.7.4 Competence:

The competence of the personnel is the attribute which develops firms' intellectual capital through skills, talents, knowledge and know-how of employees (Roos, Roos, Dragonetti and Edvinsson, 1997). The interaction between customers and service providers can become more efficient and effective with the skills of buyer's employees (Sjoholt, 1999). Highly competent service buyers will become more loyal to service providers as they have ability to assess the quality of the particular service provider (Coulter & Coulter, 2003). This greater loyalty will mean that the customer will be more willing to exchange information with the seller. Baxter (2007) describes competence as a dimension of intangible relationship value to the seller, describes the buyer's personnel working in a relationship (in the perception of the seller). The buyer will provide value to the seller in terms of better information flows if the buyer personnel will be having a high level of competence.

2.7.5 Attitude:

Attitude is described as mutual commitment and is the foundation of relationship building (Berry & Parasuraman, 1991). Baxter (2007) refers to this as a personality trait of buyers' personnel who work in a relationship. This domain includes motivation, behaviour and conduct (Roos et al., 1997).

2.7.6 Intellectual agility:

Roos et. al. (1997) described intellectual agility as the ability to apply competences by way of imitation, innovation and adaptation and further increase them through learning. Customers' personal intellectual agility is important to improve the performance of seller's firm by transfer of ideas from one situation to another (Baxter and Matear, 2004). Intellectual agility will aid in the flow of resources effectively (Baxter, 2007).

These dimensions of buyer-seller relationship are presented by Baxter (2007) as seven propositions. These propositions are discussed in the next section.

2.8 Baxter (2007) propositions:

In the model, Baxter (2007) presented the propositions which are discussed below:

P1: The value of the relationship in terms of its ability to provide intangible resources named as: intangible relationship value to the seller is an antecedent of success in NPD and clearly providing a positive relation between relationship and NPD success.

P2: The value of a buyer-seller relationship is reflected in the attributes of its boundary personnel named as: buyer's human value to the seller. It is conceptualised as their possession of sound skills and capabilities that will facilitate the flow of intangible resources through the relationship to the seller. That factor also directed towards the positive linkup between buyer human value and NPD success.

P3: The value of a buyer-seller relationship to a seller as a partner in innovation is also reflected in the structural organisational attributes possessed by the buyer that will be valuable to the seller. However, any deficiency in structural value will negatively affect the NPD success.

The whole purpose of NPD process for an organisation is to be successful. To measure the success of the seller, tangible and intangible measures of success can be used. Various

authors presented various measures of measuring the success of the NPD process. The next section will discuss the measures that can be used to measure the success of NPD.

2.9 Sellers NPD Successes:

This section will discuss various measures that can be used to measure the success of NPD. The basic three dimensions are competence, attitude and intellectual agility which directed towards buyer's human value to the seller. While for structural value the relationships, organization and renewal with development are prime reasons. These are important because it describes the relation between people, who are basically working with the seller under a constructive relation and facilitate the flow of resources through that. And conclusively the inclusion of all these measures will accurately define the relation as a value provider.

The simple metrics used by firms have issues of failure to capture the complex outcomes and multi-faceted nature of the consumer - firm relationship (Algesheimer, Rene, Borle, Dholakia, & Singh, 2010). Baxter (2007), in a conceptual model of seller's NPD success outcomes and buyer's attributes as antecedents, defined the domain of the success variable comprehensively. The set of these dimensions is added as the outcome variable: "sellers' NPD success". The previous study financial indicators were used to evaluate the success of the NPD process. However, these financial indicators are short term indicators of past performance. Less tangible indicators are needed to assess the long-term success which will be realised in the long term only. The model presented by Baxter (2007) includes both financial success and less tangible providers of financial benefits. Griffin & Page (1996) presented three dimensions as a customer based, financial and technical performance success. Baxter (2007) used financial success, market success and technical success dimensions. Two other dimensions of success of NPD included as speed to market and strategic advantage. In this dissertation, the measures described in Baxter (2007) will be used. The researchers worked on speed of product development role in product success and found that speed has not been considered as a basic fundamental for success under the technical success factor. Then marketing strategy has also provided a viable source for the product performance and buyer loyalty. However, timelines have emerged as an independent and crucial factor in product performance. The researchers also found that inclusion of strategic advantage is also working as a positive factor for product success.

2.9.1 Greater Relationship Value and Greater NPD Success:

The co-creation may influence product/service turnover, employee satisfaction, revenues and profitability, increase efficiency of operations and influence organisational performance. The co-creation will further reduce the risk of product failure, inventory holding costs, and several post launch gains through additional usages of products and continuous product improvements. Hence it is very important to measure the benefits (economic and non-economic) of consumer co-creation. These measures will be beneficial in providing the firm important information regarding the evaluation of the contribution of customers in attracting new consumers, and specific to this study, in providing product support and providing ideas for new product opportunities (Hoyer, Chandy, Dorotic, Krafft, & Singh, 2010).

2.10 Justification of the Study:

Baxter (2007) states that, the seller has proved that the relation with buyers has the highest potential for value creation under the product development. The intangible transfers between two ends have also played an important role regarding new product development. The study also justified because in that writing a framework is being provided for successful relations between buyer and seller. And that relation is gauged under the relationship marketing, new product development, innovation and intellectual capital. The flow of resources across the relationship is necessary to effectively develop new products and thereby to quickly and accurately meet the constantly changing needs of the seller's customers. Intangible resources are imitable, thus they provide long-term competitive advantage for a firm. Therefore, this study focuses on the more intangible elements of a B2B relationship that add value to the new product development process. In this regard, this study proposes the model presented by Baxter (2007) as a valid one for the assessment of the long-term value creation process in the enterprise, because its focus is on intangible relationship value, and for the outcomes of this value in terms of NPD success.

2.11 Statement of Research Question:

As has been stated in the introduction, the study will focus on the approaches where external factors, specifically input of ideas by customers, could bring value to the internal processes (particularly the process of new product development) of the business. The study will attempt

to validate the model of value development and NPD success by the buyer and seller as presented by Baxter (2007) and as qualitatively supported by Zhang (2009). New product development in the study's context means the development of new menu items for the business customers of the respondent café in its catering operations. The research question therefore is "Does the analysis of quantitative data support Baxter's (2007) conceptual model of the effect of relationship value on new product development success"?

The research will test this hypothesis:

There is a positive association between an intangible value of sellers' relationships with buyers and sellers' NPD success.

2.12 Conclusion:

In the process of NPD, buyer-seller interaction is required to increase the chances of success of new products. The firms these days employ formal and systematic methods involve the buyers in NPD. The joint efforts of buyers and sellers lead to value creation in the NPD process. In order to understand the needs of the customers which are vital in the development of new product and success of the organisation, customers need to be consulted and involved in NPD which will provide organisation with a competitive advantage.

Organisation, relational and informational resources have high potential in providing resource based competitive advantage for firms. Relation with customers and information provided by customers is vital in providing competitive advantage to a firm. Baxter (2007) model discusses the intangible value creation in buyer-seller relationship. The focus of the dissertation is on Baxter (2007) conceptual model of seller's NPD success outcomes and buyer's attributes as antecedents in the B2B market. The dimensions of the intangible relationship and measures of success proposed by Baxter will be helpful in providing useful insights into intangible value creation. The dissertation will analyse the application of Baxter (2007) model in the B2B market in café and restaurant businesses.

NPD success is very important to the firm. Previous research focused on the tangible elements of buyer-seller relationship as intangible resources are inimitable and provide a long term competitive advantage to firm. On the other hand, Baxter (2007) focused on intangible

elements of the buyer - seller relationship. The focus of this study is on the more intangible elements of a B2B relationship that add value to the new product development process. In this regard, the model presented by Baxter (2007) is a valid one for the assessment of the long-term value creation process in the enterprise, for the reason that its focus is on intangible relationship value. The dimensions of the model are: organisation, relationship, renewal and development, competence, attitude and intellectual agility. Sellers' NPD success is measured in terms of financial success, market success, technical success, speed to market, strategic advantage gains and social and ecological sensitivity.

Chapter 3: Research Methodology

3.1 Introduction:

This study proposes the model presented by Baxter (2007) as a valid one for the assessment of the long-term value creation process in the enterprise, because its focus is on intangible relationship value and for the outcomes of this value in terms of NPD success. The research is focused on value creation in buyer-seller relationship with café businesses in Auckland region. Research methodology suitable to the topic of study and nature of information required will be applied. This chapter will cover methods of data collection, sampling techniques, questionnaire design as well as ethical considerations related to this research. Primary research will be conducted through data collection and analysis by applying Baxter (2007) model in B2B café businesses in Auckland.

3.2 Research Model:

The model of this research is based on the following two phases:

Phase one consists of a critical analysis of the literature. In this research, the researcher depends on Positivism paradigm and quantitative technique. “Positivism is an epistemological position that advocates the application of the methods of the natural sciences to the study of social reality and beyond” (Bryman and Bell, 2011. p. 15). This paradigm assumes that the only phenomenon confirmed by the senses can be warranted as knowledge. The theory’s purpose is to generate testable hypotheses thereby allowing explanations of laws to be assessed (Bryman and Bell, 2011). In phase two, the dissertation applies the Baxter (2007) model for the B2B relationships of café businesses in Auckland. Hence positivistic paradigm is appropriate.

As discussed in the literature review, the focus of study is on the way in which the attributes of customers could bring value to the process of new product development by a business. Two dimensions of intangible value, the buyer's human value to the seller and buyer's structural value to the seller assess the value of the relationship to the seller. These two dimensions are assessed in terms of measures of the buyers’ attributes: firstly the competence, attitude, and intellectual agility of the buyer’s personnel, and secondly the

relationships, organizational characteristics, and the renewal and development capabilities of the buyers' firm.

3.3 Data sources:

The data has been collected through a questionnaire developed by the researcher and distributed in a specific place where the target audience located . The questionnaire has been filled from the respondents related to the service industry.

3.3.1 Literature review:

The first phase of the research is a literature review, which covered Baxter (2007) conceptual model of seller's NPD success outcomes and buyer's attributes as antecedents in the B2B market. It is stated in the literature review in chapter two that, the previous research focused on the tangible elements of the buyer - seller relationship. On the other hand, intangible resources are inimitable and provide a long term competitive advantage to firm. Baxter (2007) focused on intangible elements of the buyer - seller relationship. The dimensions of the model in figure 1 are identified as: organisation, relationship, renewal and development, competence, attitude and intellectual agility. Sellers' NPD success is measured in terms of financial success, market success, technical success, speed to market, strategic advantage gains and social and ecological sensitivity. Moreover, academic journals, books as well as internet sources are used to get required information.

3.3.2 Primary data:

The primary data was basically collected through a questionnaire were distributed to the respondents on a personal basis. The feedback from respondents collected through mail service, as that privilege will provide a comfort zone to the respondents towards a perfectly correlated response.

A self- addressed pre-paid envelope with the questionnaire will be delivered to the respondents, who will mail them back to the researcher in an envelope which researcher provided. Wren, Stevens and Loudon (2002) state that mail surveys are convenient, efficient and inexpensive. On the other hand, they lack response and coverage. In addition, to the loss of control. However, due to time and resource constraints, the provision of questionnaire was basically conducted by hand to hand basis.

The questionnaires will be delivered to café managers and then will be collected by mail. The respondents will be screened to check that they are responsible for NPD in their work. The basic requirement of that primary data is for the effective exploratory factor analysis, which is about 5 times the number of measures. As in that study there will be 6 measures of the two first-order dimensions of the independent variable, so a minimum of 30 responses is required. Although there is a suggestion that an absolute minimum of 50 cases is required for effective use of exploratory factor analysis, the researcher will analyse the 30 responses, using exploratory factor analysis, as one of the methods to check on the data.

3.3.3 Secondary data:

Secondary data gathered from different sources such as books, journals, essays, online database, and websites to formulate the theoretical framework of this research.

3.4 Structure of questionnaire:

A questionnaire has been constructed to test the hypotheses of this research. The questionnaire has been developed for this study consisted of (12) questions using a seven-point Likert scale that ranged from (7) refer to the highest degree of approval while (1) refers to the least degree of approval.

The questionnaire consists of two dimensions. Dimension one relates to the buyer, and are single-item measures of the buyer's organization, relationship, renewal and development, competence, attitude and intellectual agility. Dimension two consists of the following parts: The first part is the buyer's human value to sell includes three questions, the second part is the buyer structural value to a seller which includes three questions, and the third part seller NPD success includes six questions. The questions of the questionnaire have developed by the researcher. The final version of the questionnaire (appendix 3) has distributed to caregivers. 31 questionnaires have been handed out to required respondents. 31 questionnaires have been returned with a percentage of 100%) and then analysed.

The questionnaire was based on Baxter and Matear's (2004) writing. Then the questions related to our study or highlighting our factors were retained on the questionnaire. However, one factor has been kept in consideration that the questionnaire should be simple and short, so the respondent feels comfortable and provides feedback with required attention.

The questionnaire is divided into two sections. In the first section the questionnaire looks into the relationship that café business has with a specific customer. The café managers were required to choose a business customer which has been actively involved with them in developing one or more new products. In this section, the questions relate to the buyer, and are single-item measures of the buyer's organization, relationship, renewal and development, competence, attitude and intellectual agility.

The questions related to the measurement of seller's NPD success in terms of financial success, market success, technical success, speed to market, strategic advantage gains and social and ecological sensitivity will also be asked in the first section. Seven-point Likert-type scales will be used to rate competence, attitude, intellectual agility, relationship, organization, renewal and development attributes of a relationship and the indicators for that relationship of the outcome variable, NPD success.

In the second section of the questionnaire, some questions related to café managers' own business will be asked. These are primarily to assess the cross-section of companies in the survey. A combination of scale and open ended questions will be used in this section.

3.5 Sampling:

3.5.1 Target population and sample size:

Target population is the managers of cafes who are involved in the process of NPD. The sample frame includes café managers involved in catering to businesses, i.e. In the B2B context. The sample size will be roughly 30,

3.5.2 Sampling methods:

Non-random sampling techniques will be used to collect primary data. The time is limited as the researcher has six months to complete this dissertation. As the researcher is not working in this industry, this limits the access to respondents in café businesses. Hence due to lack of resources, time and access to respondents, convenience and judgmental sampling will be used to make sure that the sample will include certain minimum number of respondents.

Random sampling techniques lead to equal and independent chances of each element of a population being included in a sample. These results in the selection of a more representative

sample (Kumar, 2011). For this dissertation, screenings of respondents are required on the basis of their involvement in the process of NPD. The non-random sampling technique will be used to collect data. The research problem in hand needs the respondents to be screened for their involvement in the process of NPD. The researcher can decide who can provide best information related to the objectives of the study with the help of judgmental sampling (Kumar, 2011). Convenience sampling allows the researcher to collect data at his/her own convenience: in this case, the sampling is restricted by the need for geographical proximity and willingness to participate. A combination of judgmental and convenience sampling techniques will thus be used in this research. Firstly, the researcher will approach the convenient cafes and then further approach the employees who seem to provide required information based on his/her judgment.

3.6 Exploratory analysis:

The fundamental characteristics of the collected data were to evaluate the relationships between selected factors. The (univariate) distributions, correlations, data gaps and normal distributions were evaluated in that segment. The items included in the questionnaire were distributed properly and then examined under the particular model. On the other hand, majority of factors in our study was failing to get normal distribution. In order to check if the data is suitable, exploratory analysis will be performed, the Kolmogorov-Smirnov test of normality will be performed in SPSS.

3.7 Validity and reliability

It is important to make sure that the study of the instrument that developed to measure a particular concept is indeed accurately measuring the variables, by assessing the goodness of data (Reliability and Validity). “Validity refers to the issue of whether or not an indicator (or set of indicators) that is devised to gauge a concept really measures that concept.” (Bryman and Bell, 2011, p. 159). Flynn & Percy (2001) suggest that there are four aspects of construct validity: reliability, convergent validity, discriminant validity and nomological validity. However, considering the model utilized in that discussion part the “Discriminant Validity” is not being considered valid for that study. While, the Nomological Validity is

relevant to that study and for that factor the correlation between buyer's human value to seller and buyer's structural value to the seller is being tested to evaluate the validity.

Yang (2006) tested the validity of competence, attitude, intellectual agility, relationships and renewal and development. All the alpha coefficients in his data are above 0.7, all the item-to-total correlations are above 0.50 and all the inter-item correlations are above 0.30 as recommended by Hair, Anderson, Tatham & Black (1992). Hence, it is concluded by that internal consistency for the mentioned IRV scales are well supported which further provides support to IRV model as a whole. Furthermore, the validity of measurement of structural and human intangible value is tested by Zhang (2004), using correlations.

Reliability is one aspect of validity, which refers to the consistency of the measures of a construct. Stability, internal reliability and inter-observer consistency are three prominent factors involved in determining whether a measure is reliable or not (Bryman and Bell, 2011). Reliability will be assessed with the help of Cronbach's alpha test in SPSS software.

The reliabilities of the factors are calculated through an internal consistency process by validating the inter-item correlation, total correlation from item to item and by alpha coefficient. Then the convergent and (nomological) reliabilities are measured through their correlations. Then once the collected measure assures the settled criteria of reliability then an iteration process will validate the fact that findings from last studies are not because of any chance. That study is carrying all investigations to verify the reliabilities for the measurement of IRV factors.

Cronbach's coefficient alpha is computed separately for each dimension in the questionnaire. Sekaran(2003) indicates that the reliabilities less than 60% are considered to be poor, 70% acceptable, and overall 80% considered good range and acceptable. Table (3.1) below shows the reliability coefficient for the three types of errors. According to the table below, the overall Cronbach alpha is equal to 0.765 which is acceptable.

Table 3.1 Cronbach's alpha coefficients

Dimensions	Number of items	Cronbach's alpha
Buyer's Human value to seller	3	0.543
Buyers structural value to seller	3	0.828
Seller NPD success	6	0.924
Overall	12	0.765

3.7.1 Convergent and discriminate validities:

Convergent validity is the degree of agreement in two or more measures of the same construct. High correlations between the components suggest that these are convergent on same construct (Sin, 2002). This study will measure the correlation between the dimensions mentioned in Baxter (2007) model to check for the convergent validity.

3.8 Limitations of research methodology:

A sample size of 30 respondents may not be representative of the target population. Judgmental and convenience sampling have low representativeness of the population and less generalizability (Asthana & Bhushan, 2007). As this study is using these two sampling techniques, hence these disadvantages can affect the results of a study. The data are all collected from Auckland only so all the data are based in Auckland. English may not be the first language of the respondents. The questionnaire is only in English. Therefore this may create some problems in understanding the questionnaire.

3.9 Data Analysis:

Quantitative survey data will be analysed to test if this data supports the Baxter (2007) conceptual model. The exploratory factor analysis and correlation analysis will examine the relationships between each of the buyer's attribute measures under the assessment of dimensionality relationship value and then to assess the association of this relationship value with NPD success.

3.10 Ethical considerations:

Questionnaire is approved by AUT research committee (Ethics Application Number 12/227) before commencing the survey. Informed consent of the respondents is obtained before collecting the information. The purpose of the study will be explained properly to respondents. Also, there is no deception involved in the study. The information of respondents is kept confidential and only used for this research project. The information is

reported correctly and conclusions are drawn which are based on actual data. The questionnaires do not attempt to seek sensitive information from respondents.

3.11 Conclusion:

The dissertation applies the Baxter (2007) model for the B2B relationship in café business in Auckland. Positivism paradigm and quantitative technique are chosen for this study. The study will attempt to quantitatively validate the model of co-creation of NPD success by the buyer and seller as presented by Baxter (2007) and as previously qualitatively supported by Zhang (2009). Relevant insights into the topic will be gathered with the help of literature review. Primary data will be conducted with the help of convenience and judgment sampling. The sample frame includes the café managers involved in NPD. Mailed questionnaire is used to gather data. A combination of open-ended, multiple choice and 7 point Likert scale questions will be used in the questionnaire.

In order to check if the data is suitable, exploratory analysis will be performed and the Kolmogorov-Smirnov test of normality will be performed in SPSS software to analyse the relationships between each of the buyer's attribute measures as an assessment of the dimensionality of relationship value and then to assess the association of this relationship value with NPD success.

Chapter 4 Results and Analysis

4.1 Introduction:

This chapter describes the analysis of the responses which were gathered to determine whether there is a relationship between intangible value sellers with buyers and the success of new product development. The analysis is achieved in three parts; descriptive analysis, exploratory analysis and finally correlation analysis to test the relationships between the variables in the proposed model as in figure 1.

4.2 Descriptive Analysis:

Table 4.1 below shows the mean, standard deviation, skewness and kurtosis. From the mean values in the table below, it can be seen that the values are greater than four, which is indicating that the values are on the upper side of the scale, showing positive responses.

The standard deviations for the variables are less than 1.8 for all the cases, implying that the responses do not vary by large margins for all the respondents. The kurtosis value, which is a measure of how peaked the responses are, is less than 2.9 in all the cases which shows that the responses to the variables are not severely peaked since it is less than 3. For typical normal distribution curves, however, the results for financial success and success on social and ecological sensitivity registered kurtosis values greater than 2 showing that they have a higher peak as compared to other variables, hence symmetrical (Allen & Yen, 2002). Skewness is the measure of symmetry of distribution of a given data, where negative values of skewness is an indication that there is a long tail to the left while a positive value shows that there is a long tail to the right. In this research, all the variables had a negative value of skewness, showing that the tail is extended to the left of the normal distribution curve. The values are not more than -1.5, implying that the tails are not long; however the data cannot be termed as normally distributed.

The value of standard errors for means ranges between 0.15199 and 0.33013, which are fairly low and thus the means fairly and accurately represent the data. Further, the standard errors for kurtosis and skewness are 0.821 and 0.421, respectively, and therefore those values also fairly and accurately represent the dat

Table 1: Descriptive Statistics:

	N	Range	Minimum	Maximum	Mean		Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Personnel are competent	31	3.00	4.00	7.00	5.8710	.15199	.84624	.716	-.095	.421	-.863	.821
Personnel has a good attitude	31	3.00	4.00	7.00	5.9032	.16300	.90755	.824	-.372	.421	-.649	.821
Personnel are intellectually agile	31	3.00	4.00	7.00	5.7097	.16844	.93785	.880	-.659	.421	-.287	.821
The customer has a network of relationship	31	6.00	1.00	7.00	5.3871	.33013	1.83807	3.378	-1.305	.421	1.065	.821
The customer has attributes that are useful to your firm	31	6.00	1.00	7.00	4.8065	.31595	1.75915	3.095	-.981	.421	.115	.821
The customer's development work is useful to your firm	31	6.00	1.00	7.00	4.8710	.30318	1.68804	2.849	-.895	.421	-.060	.821
Financial success of the new product (s)	31	6.00	1.00	7.00	4.9677	.21495	1.19677	1.432	-1.306	.421	2.841	.821
Market success of the new product (s)	31	6.00	1.00	7.00	5.2581	.24525	1.36547	1.865	-.921	.421	1.682	.821
Technical success of the new product (s)	31	6.00	1.00	7.00	5.2258	.26114	1.45395	2.114	-.838	.421	.965	.821
Speed to market of the new product (s)	31	6.00	1.00	7.00	4.9032	.22886	1.27423	1.624	-.841	.421	1.546	.821
Success in social and ecological sensitivity of the new product (s)	31	5.00	1.00	6.00	4.7742	.20588	1.14629	1.314	-1.087	.421	2.321	.821
Strategic advantage gains from the new product	31	6.00	1.00	7.00	5.1613	.25015	1.39276	1.940	-1.415	.421	1.860	.821
Valid N (listwise)	31											

4.2.1 Effect of firm Size and Customer Base:

Table 4.2 below gives the description of the firm size in terms of the number of employees working in the firm. One of the firms in the education and tertiary sector with more than 2,400 employees was the largest firm in this study followed by telecommunications and corporate insurance sectors. On the other hand, café, sales and hospitality had 5 or less employees and hence termed as the smallest firms in this study. In this study, hospitality and café industry formed the majority of the sample space. This is because there were larger numbers of firms of similar sector in the study. The larger number of employees denotes that the firm is bigger while the lower number of employees means that the firm has a smaller market share.

Table 2 Firm Size and Customer Base

Nature of the Firm	Number Employees
Travel	25
Café	6
Food business	8
Café	4
Companies& university	25
Education & tertiary	2400+
Sales	15
Hospitality	15
Hospitality	6
Real state catering	7
Law	20
Banking	50
Hospitality	3
Education English school	5
Banking	30
Telecommunications	500+
Telecom	500
Sales	13
Education	10
Cornell institute	10
Telecom	15+
Café	5
Sales	5
Education	25
Hospitality	10
Corporate/insurance	500+
Insurance company	20`
Companies	25
Sales	15
Hospitality	10
Hospitality	10

4.3 Exploratory data analysis:

Exploratory analysis is conducted on a data-set in order to understand its characteristics and assess how to best analyse it. This analysis presents data in a more clear way graphically or by using tests such as the Kolmogorov-Smirnov. This analysis is applied in examination of data and consequently formulate hypothesis that help in analysis of new sets of data. The aims of conducting exploratory analysis include: maximization of insight into a given data set, clarification of any underlying structure, extraction of significant variables, and detection of any outliers and determination of optimal factor settings.

Tables 4.3 and 4.4 give the exploratory results which were tested using major variables forming the model for this study. The significant value also known as p-value is the value which is used to determine whether there is the relationship between the variables, groups or subgroups. When p-value is smaller than the .05 test significance value, then there is no relationship between the sample and the normal reference point. The p- values in Table 4.3 ranges from 0.00 and 0.02 are less than 0.05 test significance level. This shows that the values have significant differences from the normal and thus, the data are not normally distributed. The p-values of Table 4.4 range between 0.00 and 0.028 which are also less than 0.05 and, hence, it is similar to Table 4.3.

This shows that the variables are independent and therefore there are no cases of any underlying structure and that the factors are optimally set. Further to these, the data are not normally distributed and therefore influenced the choice of Spearman correlation to use.

Table 3: Test for Normality for Buyer Value Attributes

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Personnel are competent	.206	31	.002	.856	31	.001
Personnel has a good attitude	.220	31	.001	.864	31	.001
Personnel are intellectually agile	.331	31	.000	.816	31	.000
The customer has a network of relationship	.211	31	.001	.804	31	.000
The customer has attributes that are useful to your firm	.235	31	.000	.858	31	.001
The customer's development work is useful to your firm	.264	31	.000	.866	31	.001

a. Lilliefors Significance Correction

Table 4: Test for Normality for NPD success

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	df	Sig.
Financial success of the new product (s)	.253	31	.000	.859	31	.001
Market success of the new product (s)	.167	31	.028	.895	31	.005
Technical success of the new product (s)	.212	31	.001	.895	31	.005
Speed to market of the new product (s)	.175	31	.016	.907	31	.011
Success in social and ecological sensitivity of the new product (s)	.185	31	.008	.828	31	.000
Strategic advantage gains from the new product	.275	31	.000	.817	31	.000

a. Lilliefors Significance Correction

4.4 Measures Development:

Factor analysis is the test done to establish the variability of the variables and extracting the factors that meets some certain criterion.

Table 5: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared			Rotation Sums of Squared		
	Loadings			Loadings			Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.431	40.516	40.516	2.431	40.516	40.516	2.292	38.196	38.196
2	1.463	24.383	64.899	1.463	24.383	64.899	1.602	26.703	64.899
3	.997	16.617	81.516						
4	.695	11.583	93.099						
5	.263	4.379	97.478						
6	.151	2.522	100.000						

Extraction Method: Principal Component Analysis.

From Table 4.5, the extraction criterion was those variables with Eigenvalues greater than 1, which in this case are variables 1 and 2. This gives the accounted variability in the measurement scale for instance variable 1 has 38.196% of its variables accounted for, while the variance gives the accounted variances for the measurement scale. For NPD success variables, only variable 1 has an eigen value greater than 1 and consequently met the extraction criterion giving 72.592% of its variables explained as shown in Table 4.5 below.

Tables 4.6 and 4.7 further give the loading of the factors, where a factor closer to one is termed to have a strong loading factor. It can be seen that the first three variables loaded

strongly on the second loading factor while the remaining had a strong first loading factor. Factor analysis is used in the determination of dimensionality and whether the variables have loaded to their correct constructs and thus the constructs can be readjusted. The test shows a good dimensionality, nevertheless, this will be further checked using Cronbach's alpha.

Table 6 : Rotated Component Matrix

	Component	
	1	2
Personnel are competent	-.188	.833
Personnel has a good attitude	.132	.734
Personnel are intellectually agile	-.151	.593
The customer has a network of relationship	.753	-.093
The customer has attributes that are useful to your firm	.895	-.060
The customer's development work is useful to your firm	.920	-.072

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Table 7: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.355	72.592	72.592	4.355	72.592	72.592
2	.633	10.548	83.140			
3	.375	6.253	89.393			
4	.240	4.008	93.401			
5	.205	3.420	96.821			
6	.191	3.179	100.000			

Extraction Method: Principal Component Analysis.

Table 8: Component Matrix

	Component
	1
Financial success of the new product (s)	.873
Market success of the new product (s)	.887
Technical success of the new product (s)	.804
Speed to market of the new product (s)	.828
Success in social and ecological sensitivity of the new product (s)	.849
Strategic advantage gains from the new product	.867

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

4.4.1 The Reliability of IRV Scales and NPD success:

4.4.1.1 Reliability of buyer's human value to seller:

Reliability analysis is the test used to examine the consistency of the scale used in measurement of variables in a data set. The overall Cronbach's alpha of this data set is 0.543, which is an indication of suitable consistency in the measurement scale; although it is lower than the 0.6 minimum suggested for exploratory work (Hair et al., 1998). This implies that if a respondent had a high score in one of the variables, he or she also has a high score in the other variables as well. This shows that the scale is reliable and the inference made from the data is a true reflection of the findings (Allen & Yen, 2002).

Table 9 : Reliability Statistics of Buyer's Human Value to Seller

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.543	.551	3

Table 10: Item - Total Statistics

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Personnel are competent	11.6129	1.845	.535	.288	.154
Personnel has a good attitude	11.5806	2.185	.292	.180	.539
Personnel are intellectually agile	11.7742	2.181	.264	.144	.588

Table 4.10 gives the test for scale of each of the items and the effect of dropping each of the items on Cronbach's alpha. It can be seen that when intellectual agility is dropped, the Cronbach's alpha increases to 0.588, which shows that intellectual agility has some slight inconsistency in its measurement scale. However, intellectual agility is left in the scale for reasons of content validity.

4.4.1.2 Reliability of buyer's structural value to seller:

Tables 4.11 and 4.12 give the reliability test for the attributes of for structural values to seller. The Cronbach's alpha for loading of the variables is 0.831, which is close to one and, hence,

the consistency of constructing measurement is strong. Further, when some of the variables are removed, there is no great significant increase in Cronbach's alpha.

Table 11: Reliability of Buyers Structural Value to Seller

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.828	.831	3

Table 12: Item- Total Statistics

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
The customer has a network of relationship	9.6774	10.759	.552	.314	.895
The customer has attributes that are useful to your firm	10.2581	9.665	.735	.661	.711
The customer's development work is useful to your firm	10.1935	9.695	.785	.687	.665

4.4.1.3 Reliability of Seller NPD Success:

The reliability for NPD construct displayed a high value of Cronbach's alpha; 0.924 which shows a strong consistency in the development of this construct.

Table 4.14 further gives the implications of removing some of the variables, where all the Cronbach's alpha is less than the overall value and, thus, all the features measured are consistent.

Table 13: Reliability of Seller NPD Success

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.922	.924	6

Table 14: Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Financial success of the new product (s)	25.3226	32.026	.809	.717	.904
Market success of the new product (s)	25.0323	30.166	.826	.719	.901
Technical success of the new product (s)	25.0645	30.729	.718	.620	.917
Speed to market of the new product (s)	25.3871	31.978	.750	.568	.911
Success in social and ecological sensitivity of the new product (s)	25.5161	32.791	.785	.687	.908
Strategic advantage gains from the new product	25.1290	30.249	.798	.717	.905

4.5 Model Testing:

Correlation analysis, which is a measure of the strength of the relationship between variables, was used to test the hypothesis in this research.

			Humsum	Structsum	Valsum	Sucestot
Spearman's rho	Humsum	Correlation Coefficient	1.000	-.031	.342	.046
		Sig. (2-tailed)	.	.870	.060	.806
		N	31	31	31	31
	Structsum	Correlation Coefficient	-.031	1.000	.898**	.088
		Sig. (2-tailed)	.870	.	.000	.638
		N	31	31	31	31
	Valsum	Correlation Coefficient	.342	.898**	1.000	.098
		Sig. (2-tailed)	.060	.000	.	.601
		N	31	31	31	31
	Sucestot	Correlation Coefficient	.046	.088	.098	1.000
		Sig. (2-tailed)	.806	.638	.601	.
		N	31	31	31	31

** . Correlation is significant at the 0.01 level (2-tailed).

From Table 4.15 above, there is a significant relationship between buyer value and buyer structural value registering a spearman's rho factor of 0.898 and the sig-value is 0.000. The relationship between the other variables have Spearman's rho correlation factor less than 0.5 and thus the relationship is not considered significant. Moreover, the sig-value is more than 0.05 which is an indication that there is no significant relationship between the test variables.

This is an indication that success of new product development is not greatly influenced by buyer structural values or buyer human values. The Spearman's correlations factor for the relationships between NPD success and buyer human values, buyer structural values and overall buyer values are 0.046, 0.088 and 0.098, respectively, which are much less than 1 and thus it can be concluded that the data does not show the relationships proposed in the study's model between buyer's intangible relationship value and the success of new product development. This is further supported by significance of 0.916, 0.486 and 0.465, respectively, for the three relationships.

4.6 Conclusion:

The chapter thoroughly elaborated about the statistical results of the collected data. The elaboration was started with the discussion of the descriptive analysis in terms of basic statistical indicators. That includes the mean, standard deviation, skeweness and kurtosis. The outcome has revealed that on all studied factors, a comprehensive and valid relationship has failed to be proven. Different modes of testing were used to scrutinize the factors and quantified at multiple measures. The buyer and seller relationships with IRV and NPD success, the weak correlation and high standard deviations has revealed different relationships about the placed construct. However there was not a very strong response which made it difficult to figure out the aggregate result. Then a second explanation was about the effect of firm size and customer base on new product development success under the consideration of the buyer and seller relation. The next step was then exploratory analysis and for that purpose the Kolmogorov-Smirnov test was utilized and p-values were tested on NPD success and on buyer value attributes. The chapter then directed towards the reliability measures of buyer human value and NPD success. In addition to, concluded with the selected model testing on the basis of all achieved results.

Chapter five: Discussion

5.1 Introduction:

The chapter presents a discussion of the analytical results presented in chapter 4. It begins by presenting an elaborate summary of the research dynamics and how the research question development was guided by the literature review. The success of new product development (NPD) has been shown to be based on information flow originating from the buyer to the seller. This information flow guides loyalty and satisfaction among the customer. Based on this information, customer views about new product launch and related dynamics is the best way to go in driving the success of NPD. Towards this end, this research is based on the impact of buyer-seller relationship on product development with the research question designed to identify the particular success factors that promote the relationship.

Baxter's (2007) conceptual model has been discussed in the literature review chapter and used to direct the research study while the primary data analysis has been used to evaluate the three segment approach to validating the buyer - seller relationship with NPD success. The results are discussed and shaped to deliver a valuable conclusion for the final outcome. This outcome is discussed for further policy implications and implementation. Limitations were identified and discussed with the proposal that they be addressed to increase the validity and reliability of future research studies.

5.2 Conclusion on Research Question:

This research study is directed towards the validation the role of different factors in enhancing company internal processes. This is based on the tenet that company internal processes are influenced by customer ideas. In essence, the analysis is directed towards answering the research question, which is: 'Does the analysis of quantitative data support Baxter's (2007) conceptual model of the effect of relationship value on new product development success?' The analysis also assesses support for the research hypothesis, which is 'There is a positive association between an intangible value of sellers' relationships with buyers and NPD success.'

The research question is resultant from analysis of Baxter (2007) and partially tested by Zhang (2009) through a qualitative study. Customer relationships are strengthened by maintenance over long periods of time. The result is that sellers gain a competitive advantage; in terms of time cost and investment on other resources. To verify these statements, this research study tested Baxter's (2007) model around three scales; Human value; Structural value; and NPD success. It was directed at scrutinizing customer relations and identifying viable strategic decisions that support buyer perspectives. Customer relationships are intended to be of a long term nature. They bequeath a seller with a competitive advantage in terms of time costs and investment resources. In essence, this research study has been directed towards scrutinizing customer relationships and identifying viable strategic decision that support buyer perspectives.

5.3. Scale testing:

Before testing the hypothesis and Baxter's model, by calculating correlations between its constructs, the measures of the model's constructs were assessed for validity, using exploratory factor analysis to check dimensionality and calculating Cronbach's alpha figures to check for data reliability.

Three scales were being tested which are:

1. **Buyer Human Value to the seller:** The construct is measured against the competence, attitude, and intellectual agility. An analysis of the primary data produces a deviation of less than 1 that points towards a weak relationship with the human value.
2. **Buyer Structural Value to the seller:** The construct is measured through relationships, organization with renewal and development. An analysis of the results presented weak correlations and abnormal distribution that failed to identify any significant relationship with the structural value.
3. **Seller NPD success:** The construct was measured through financial success, market success, technical success, speed to market and strategic advantage gains. An analysis of the results had the measures producing high standard deviations and subsequent failure to establish any significant relations.

5. 3.1 Human relationship value:

The ranges of responses to the indicators that are measures of human value were very narrow as most of the responses were of the same nature. Statistical analysis of the responses placed the means at the high scale point with figures greater than 5 while the standard deviation is less than 1. The results implied that customers attach more value to the human relationship thereby assigning it greater significance in NPD success. The human values are had a lower standard deviation thereby indicating stronger relationships between human value indicators. The skewness and kurtosis, after validation of normal distribution, vary the strong relation on the negative side. The results are an indication of a viable relation between human values and buyer-seller relations.

Descriptive analysis of the results shows that the skewness results are on the negative side, less than -1.5 for all, thereby indicating that despite the data tail being on the negative side they are still close to a normally distributed curve. The kurtosis of is less than 2.9, thereby indicating that the responses are not normally distributed with the positive response regarding personal factors strength assigned the greatest strength. Competence had a high mean value though this figure was less than the figure for attitude with a higher range. The standard deviation was, however, at a very high level showing high variation in responses. The skewness figure for customers having a network of relationship was at -1.305 indicating that its tail was towards the negative side. The low peak kurtosis indicated that the responses were not far varied from normal distribution along the scale. The overall result is that customer attributes have been shown to have a moderate impact on buyer-seller relationships.

5. 3.2 Structural relationship value:

The lower mean values and high errors results for the structural relationship are an indication of a very weak relationship between the buyer and seller. The skewness figures further enhance this analysis. Despite the fact that, the firms can take effecting attributes from the customers' directions, a majority of the respondents were inclined towards disfavoring the viable impact of customer attributes on the structural relationship value.

The mean value was on the lower half as opposed to factors thereby affecting the reliability of primary data. Then standard deviation was on the high side indicating volatility in responses. The skewness is less than -1.5, very narrow and has minimal deviation on the negative side. The kurtosis has a high peak with minimal deviation and narrow error. The

skewness, kurtosis and standard deviation figures were a clear indication that the data is normally distributed although a majority of the respondents were not sure of the contribution of the analyzed factors towards the overall buyer-seller relationship. The impact of this analysis is that business establishments can use customer attributes to enhance buyer-seller relationships.

5.3.3 New product development success:

NDP success is a very critical factor in enhancing buyer-seller relationships although statistical analysis of the results has presented a contrary opinion by indicating a very poor relationship between the studied variables. The results exhibit a good relationship between market success and NDP success. Technical success resulted in weak integration and indicated that the respondents did not consider technical margins as a major driver for NDP success. The speed of product penetration into a market has a significant impact on the buyer-seller relationship. Social media were shown to have no significant impact on the relationship.

In conducting statistical analysis of the financial success results of the new product as a measure of NDP success, the mean was 4.96 with a high standard deviation. The skewness value was negative while kurtosis had a high value. Despite of their minimal standard error, the skewness and kurtosis values were non-viable the data were not normally distributed.

Statistical analysis of the results for market success for new products has presented a high mean value close to the extreme end of the limit. It revealed deviation more than 1 although, there was little variance in comparison to the other standards. The skewness value is negative while the kurtosis has a narrow peak. These figures depict a viable standard error and indicate a normal distribution. The results have determined market success as a moderate factor in the determination of the buyer - seller relationship.

Statistical analysis of the results for technical success of any new product determined that it is a valid factor in the buyer-seller relationship. However, these results were determined biased based on the high standard error. The standard deviation was greater than one with high variance indicating errors in the collected data. The skewness value and kurtosis were on an approachable range with effective standard errors consequently indicating that the collected data is normally distributed. The high standard deviation has biased the acceptability of the results.

Analysis of the results for speed of new product delivery to markets has the mean value of the higher half, though weaker than the other factors previously discussed. Despite the fact that the maximum response declined, the standard deviation value was higher than 1. The skewness value is on the negative side lying between 1 and 1.5. The Kurtosis has a high peak, with a mild range and error. The skewness value and kurtosis are an indication that the collected data is not normally distributed. The result is that speed of new product delivery to markets has no significant effect on buyer-seller relationships.

Statistical analysis of social and ecological change results presented a high mean value with moderate variances. Then standard deviation value was low with high variance. The skewness value is -1 with a justified error while the kurtosis has a level peak with an effective error. Although, the data are not normally distributed and the figures are not matched with each other, the results lost their significance in as far as the overall research study was concerned.

Statistical analysis of strategic advantage gain from launch of other product results has gained high mean value though the error margin is on the higher side. The standard error is greater than one and nearer two, while the error margin is on a higher level. The skewness value is nearer to -1.5 and the kurtosis has a low peak.

The overall conclusion statistical conclusion as presented in table 4.1 shows that personal competence has a valid impact on the buyer-seller relation. Personal attitude has also been shown to play a vital role in this relationship as opposed to personal intellectually agile that play an insignificant role in the relationship and was evaluated to have no significant impact on the research outcome.

Considering the customer attributes value and role in moderating the final results, the high deviations weakened their effectiveness. Customer development added to this by failing to create any significant impact on the desired result. With respect to NPD success, technical success had no viable influence on the overall results. Social success, ecological sensitivity and strategic advantage failed to prove any significant relationship.

An analysis of exploratory data by testing the indicators using 'Kolmogorov-Smirnov' and 'Shapiro-Wilk' failed to produce significant results and they did not prove the significance of the buyer-seller relationship. The outcomes of the tests produced low p-values and weak normal distribution. The tests were segregated in three portions that include:

- Buyer Structural Value attributes
- Buyer Human Value attributes
- NPD success

The results of the exploratory data analysis were attributed to an absence of any fundamental factor in study and/or gaps in data collection.

5.4 Implications for policy and practice:

This research study has provided a detailed analysis of the buyer - seller relationship under the consideration of NPD. It has conducted a critical analysis of previously published literature on the same topic, and analyzed different models applied to the same topic in an effort to validate the importance of different factors. Baxter's (2007) conceptual model was selected and applied in this study to explore the buyer-seller relationship strength under different constructs. The results of this research study have determined and emphasized that the buyer-seller relationship can be a key success-driving factor for any NPD success. The implication is that business policies should be established in a way that strengthens the relationship in both human and structural values for the successful accomplishment.

5.5 Limitations of the study:

A number of limitations and delimitations were identified in the course of conducting this research study. They had an impact on the overall research results and outcomes. Sample size was the most glaring limitation as the small sample size applied in this research study did not consider the number of factors evaluated. The small sample size presented more problems in further bifurcation based on questions asked. The sample had to be bifurcated into small and large firms as some structural questions were more related towards large firms as compare to small firms.

The second major limitation was the collection of data from a service oriented company, such that the results could only be applicable to a service oriented company.

An evaluation of all factors using an array of statistical measures and tools shows that some of the results invalidated each other. The outcome is that the results are not comprehensive

and lack potential evidence, such that there was no basis to make conclusive comments. These invalidations were attributed to:

- **Gaps in questionnaire:** The word ‘product’ has been extensively applied to highlight options in the questionnaire such that there is a possibility of respondents being confused or not grasping the gist of the questions. The word ‘Product’ should be replaced by other words that maintain the integrity of the questions being asked.
- **Addition of more questions:** To collect more conclusive and result oriented data, specific questions should be added. The inclusion of such questions would explore added dimensions of the research study and direct the research towards a comprehensive achievement of research goals.
- **Expand the target respondents:** Targeting a higher variety of respondents and add versatile version in the answers would increase the generalizability of the results. They could also increase the results correlation and increase results efficiency.
- **Increase open ended questions:** Open-ended questions allow respondents to express themselves more comprehensively and thus increase the completeness of the results. They also help the research identify new lines of argument.
- **Attraction weakness:** The questionnaire did not evaluate the respondents’ attention proportion in completing the questionnaire and as such it can only be assumed that the questionnaires were completed truthfully and honestly though this may not be the case in reality. Some of the questions need to be spaced out and repeated using different words that maintain the sentence meaning to ensure that the responses are not vague and do not pessimistically influence the results.
- **Management inclusion:** A weak interaction with management staff has been cited as a reason for weak distribution in the results. Coordinating with management staff to collect results on customer attendance, gender segregation, target audience and guest demographics would define the results in more comprehensive and objective way.

5.6 Implications for further research:

This research study has introduced an analysis of the buyer - seller relationship on the basis of NPD success. Aspects of previous research have been discussed and varied models elaborated in the literature review chapter. Baxter’s model was then selected and tested on the

basis of primary data collected using a pre-structured as a data collection tool. Considering this research approach and results, future research on the same should focus on validating other models in relation to NPD success. Future research should also minimize and/eliminate the identified limitations and delimitations since they influenced the statistical test results.

5.7 Conclusion:

The chapter has presented a detailed discussion of the results, statistical tests conducted and their implications in consideration of the research question and objectives. Information flow has been determined as a major factor in fostering buyer-seller relationships. This then directed the research towards discussing the NPD success in detail with the research questions designed on the basis of the Baxter's model. In this regard, three constructs were established based on the mode; Buyer human value; Buyer structural value; and new product success with multiple scales. These constructs were then evaluated against the primary data statistical outcomes. The results show a weak link between the constructs and buyer-seller relationship thereby indicating that there may be flaws between the model construct and selected scale. The study was also conducted with limitations and delimitations, which have been explained to help future researchers minimize and eliminate them.

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Appendix 1: Ethics Approval Letter



MEMORANDUM

Auckland University of Technology Ethics Committee (AUTEC)

To: Roger Baxter
From: Rosemary Godbold, Executive Secretary, AUTEC
Date: 11 September 2012
Subject: Ethics Application Number **12/227 Intangible relationship value from buyer to seller and its effect on new product development.**

Dear Roger

Thank you for providing written evidence as requested. I am pleased to advise that it satisfies the points raised by the Auckland University of Technology Ethics Committee (AUTEC) at their meeting on 27 August 2012 and I have approved your ethics application. This delegated approval is made in accordance with section 5.3.2.3 of AUTEC's *Applying for Ethics Approval: Guidelines and Procedures* and is subject to endorsement by AUTEC at its meeting on 24 September 2012.

Your ethics application is approved for a period of three years until 11 September 2015.

I advise that as part of the ethics approval process, you are required to submit the following to AUTEC:

- A brief annual progress report using form EA2, which is available online through <http://www.aut.ac.nz/research/research-ethics/ethics>. When necessary this form may also be used to request an extension of the approval at least one month prior to its expiry on 11 September 2015;
- A brief report on the status of the project using form EA3, which is available online through <http://www.aut.ac.nz/research/research-ethics/ethics>. This report is to be submitted either when the approval expires on 11 September 2015 or on completion of the project, whichever comes sooner;

It is a condition of approval that AUTEC is notified of any adverse events or if the research does not commence. AUTEC approval needs to be sought for any alteration to the research, including any alteration of or addition to any documents that are provided to participants. You are reminded that, as applicant, you are responsible for ensuring that research undertaken under this approval occurs within the parameters outlined in the approved application.

Please note that AUTEC grants ethical approval only. If you require management approval from an institution or organisation for your research, then you will need to make the arrangements necessary to obtain this.

To enable us to provide you with efficient service, we ask that you use the application number and study title in all written and verbal correspondence with us. Should you have any further enquiries regarding this matter, you are welcome to contact me by email at ethics@aut.ac.nz or by telephone on 921 9999 at extension 6902. Alternatively you may contact your AUTEC Faculty Representative (a list with contact details may be found in the Ethics Knowledge Base at <http://www.aut.ac.nz/research/research-ethics/ethics>).

On behalf of AUTEC and myself, I wish you success with your research and look forward to reading about it in your reports.

Yours sincerely

Dr Rosemary Godbold
Executive Secretary
Auckland University of Technology Ethics Committee

Cc: Rasha Bader Alqahtani rasha-b@windowslive.com

Participant Information Sheet



Date Information Sheet Produced:

14/08/2012

Project Title

Intangible Relationship Value from Buyer to Seller and its Effect on New Product Development

An Invitation

Dear participant, my name is Rasha Bader. You are invited to take part in a research study. To help me with this study, I will ask you to answer a questionnaire about the development of new food or beverage items on your catering menu with one of your business customers. This research is part of my work towards a Master of Business dissertation at Auckland University of Technology.

Before you decide whether to take part in the study is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Please contact us if anything is not clear or if you would like more information. Our contact details are provided at the end of this form. Take time to decide whether or not you wish to take part. If you decide to take part you will be given this information sheet to keep.. Your participation is entirely voluntary and you can change your mind and withdraw from the study without giving a reason at any time prior to the completion of data collection.

What is the purpose of this research?

The purpose of the study for which we are collecting this information is to assess how the nature of the relationships a business has with customers can help the business in its new product development. The study will help to validate a model of creation of value by buyer and seller together in the process of new product development. The result of this research will contribute to my qualification of Master of Business at Auckland University of Technology.

How was I identified and why am I being invited to participate in this research?

I am looking for the managers of cafes in Auckland who are responsible for or are actively involved in the development of new menu items for their catering to businesses.

The participants are selected on the basis that they may provide information about the ways in which the attributes of a business customer help your cafe to develop new products successfully.

What will happen in this research?

I will ask you to fill in a questionnaire which asks questions about your relationship with an un-named customer and about new product development with that customer. This questionnaire will take a maximum 15 minutes. You have the right to withdraw at anytime.

What are the discomforts and risks?

No risks are anticipated. Because the questions are only about your new product development processes, they are not of a personal nature. If the question causes you discomfort or embarrassment, you can decline to answer any question

How will these discomforts and risks be alleviated?

No risks are anticipated. The questions in the questionnaire are not of a personal nature. If any of the questions should cause you discomfort or embarrassment, you are able to decline to answer it.

What are the benefits?

This is a chance for you to help us with information about your experiences concerning customers and their involvement in new product development. The project will have benefits for companies in general because it will help identify how to make new product development successful. A specific benefit for you is that you will receive a brief report on the outcomes of the study, if you request it. This research project is a part of my study towards a Master of Business degree. The results of the study will contribute to a paper at a research conference.

How will my privacy be protected?

Your responses to interview questions will be kept confidential. At no time will your actual identity be revealed to any people other than the researcher and the supervisor named below. The questionnaire, without your name, will be kept in a locked file, until the research is complete. The questionnaire will then be shredded. The data you give me will be used for my Master's dissertation only. I won't use your name or your specific information in a way that would identify you in any publications or presentations.

What are the costs of participating in this research?

The questionnaire will take you a maximum of 15 minutes. A pre-paid envelop will be provided to you to post your response back to researcher.

What opportunity do I have to consider this invitation?

You will be sent mailed questionnaire. If you will be willing to go ahead, you may fill the questionnaire and send it back in pre-paid envelop provided with the questionnaire.

How do I agree to participate in this research?

By completing the questionnaire and mailing it back to researcher, you agree to participate and that your responses can be collected and used for this study.

Will I receive feedback on the results of this research?

Yes, I will provide you with a report of the interview outcome if you would like to receive it.

What do I do if I have concerns about this research?

Any concerns regarding the nature of this project should be notified in the first instance to the Project Supervisor, Roger Baxter, roger.baxter@aut.ac.nz, phone 9219999 ext 5808.

Concerns regarding the conduct of the research should be notified to the Executive Secretary, AUTECH, Dr Rosemary Godbold, rosemary.godbold@aut.ac.nz, 921 9999 ext 6902

Whom do I contact for further information about this research?**Researcher Contact Details:**

Rasha Bader, rasha-b@windowslive.com

Project Supervisor Contact Details:

Roger Baxter

Faculty of Business and Law

AUT University

Private Bag 92006

Auckland, 1142

New Zealand

Phone: +64 9 9219999, Extn 5808

Email: roger.baxter@aut.ac.nz

Approved by the Auckland University of Technology Ethics Committee on *type the date final ethics approval was granted*, AUTECH
Reference number *type the reference number*.

Appendix 3: Questionnaire



Intangible Relationship Value from Buyer to Seller and its Effect on New Product Development

Contact: Rasha Bader
Telephone: 0211125331
Email: rasha-b@windowslive.com

INTRODUCTION

Thank you very much for completing this questionnaire, which is divided into two sections. As the subject for Section A, would you please take one of your New Zealand based business to business customers with which you have actively developed one or more new products. Section B asks for some information about your own firm.

A scale for a rating or a space for an answer is provided for each question, to its right. I would be grateful if you can provide an answer to all questions.

When you are answering the questionnaire, would you please take the role of your firm's representative. This is because the design of this study concentrates on analysis of relationships between firms. I am trying to quantify aspects of these relationships and I am using your responses as a proxy for the firm's overall view of one of its relationships. Please complete all items in the questionnaire so that I can get a full picture.

Some questions may appear similar to others. Please bear with me on this. It is deliberately done for more effective statistical analysis of the survey data.

CONFIDENTIALITY

All information you provide is anonymous. Your responses will be presented only in aggregate and no individual firm's results will be highlighted. They will not be released to any third party. The demographic information that I ask you to provide at the beginning and end of the questionnaire will be used for comparative purposes only.

CONSENT

By completing this questionnaire, you give consent to the collection and use of your responses for this study and acknowledge that you have read and understood the information provided about this research project in the Information Sheet.

SECTION A:

In this section we look at a relationship that you have with a specific customer. Please choose a *business* customer which has been actively involved with you in developing one or more new products. Please answer the questions with respect to your firm's relationship with that customer.

1. **With respect to the customer you have taken as the subject of this questionnaire:**

- For how many years has your firm had a relationship with them?
- What industry type are they in?
- Approximately how many employees do they have?

Please write answer below:

Years:

Industry:

Number:

2. Please consider your café's relationship with your chosen customer and, on the scale to the right, rate the following statements as they apply to the relationship:

- The customer's people you work with are competent.
- The customer's people have a good attitude to their work with you.
- The customer's people you work with are intellectually agile (they are able to use their competence, apply it in practical contexts, and learn as they do that).
- The customer's people have a network of relationships that are very useful to your firm.
- The customer has attributes in its organisation (for example: knowledge; processes; structures) that are very useful to your firm.
- The customer's development work (for example, on products, processes, or markets) is very useful to your firm.

Strongly
disagree

Strongly
agree

1 2 3 4 5 6 7

1 2 3 4 5 6 7

1 2 3 4 5 6 7

1 2 3 4 5 6 7

1 2 3 4 5 6 7

1 2 3 4 5 6 7

3. Please rate, on the scale to the right, the following factors for the new product(s) you have developed with your chosen customer.

- Financial success of the new product(s)
- Market success of the new product(s)
- Technical success of the new product(s) (did it/they achieve what

Very low

Very high

1 2 3 4 5 6 7

1 2 3 4 5 6 7

1 2 3 4 5 6 7

you wanted?)

- | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--|---|---|---|---|---|---|---|
| • Speed to market of the new product(s) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| • Success in social and ecological sensitivity of the new product(s) | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| • Strategic advantage gains from the new product(s) | | | | | | | |

SECTION B:

Finally, we have some questions about your own firm. These are primarily to assess the cross-section of companies we have in our survey.

4. How long have you worked in your firm?years
5. What is your position in the firm? Please write in full. If you are a manager, what do you manage?
6. How long have you been in this position?years

Thank you very much again for your assistance with our research project by completing this questionnaire.