

## **Intangible Relationship Value in Service Industries**

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### **Abstract**

This paper describes a differentiated replication, in a service industry, of the test of a model of intangible value in business to business buyer-seller relationships. It models value from the seller's perspective. The original study was conducted by Baxter and Matear (2004) in the manufacturing sector. The current study finds that the model, synthesised from the intellectual capital literature, is broadly replicated in the business services sector, apart from one dimension of value, named "organisation".

### **Introduction**

Customer relationships are considered to be a source of competitive advantage to suppliers. Gouthier and Schmid (2003) suggest that customers involved in a service relationship are playing six roles for the supplier: co-designer; co-producer; co-interactor; substitute for leadership; buyer; and co-marketer. These six roles create not only current profits but also future profits, and hence have intangible value. Gouthier and Schmid also suggest that relationships with customers are valuable, rare, imperfectly imitable, and imperfectly substitutable resources for the supplier, so they fulfil conditions for the creation of sustainable competitive advantage as noted by the resource based view of the firm (Barney, 1991).

Long-term customer relationships do, however, have some disadvantages, such as loss of proprietary information, management complexities, financial and organizational risks, risk of becoming dependent on a partner, and partial loss of decision autonomy. Consequently, firms need to be able to evaluate if the development and maintenance of a long-term customer relationship is worthwhile and compare it with other relationships. But the traditional measures of relationships in the service context are not sufficient to evaluate the performance of relationships. The concept of value as an assessment of a relationship, which is now widely adopted in the marketing context because it puts emphasis on the future as well as the current period (Hogan, 1998), is not well-developed in service industries.

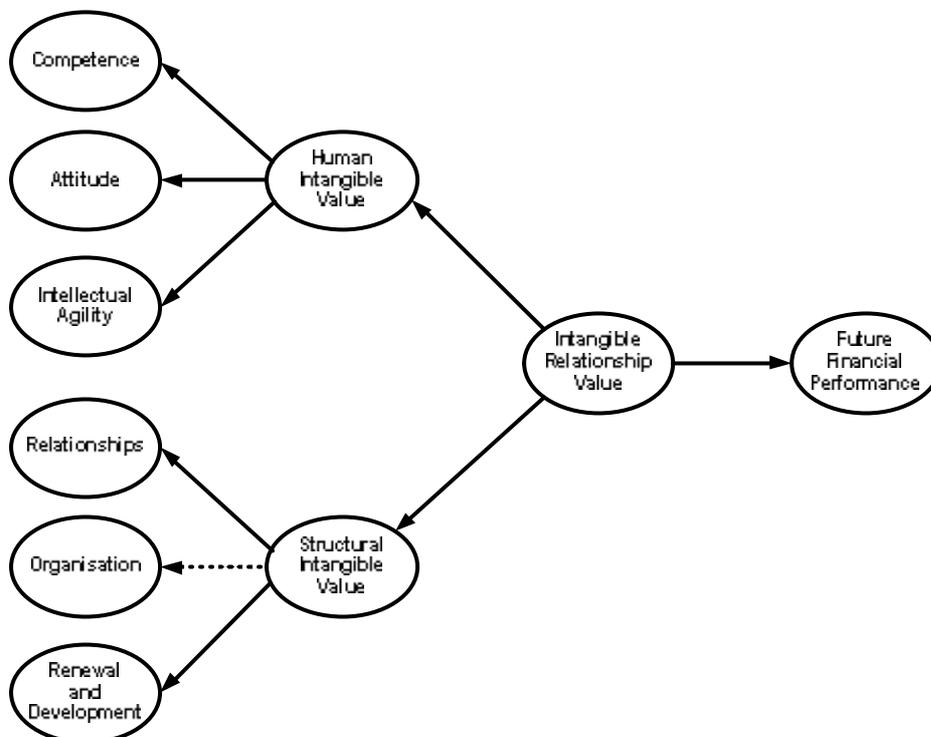
This paper therefore describes a differentiated replication in a service industry of a study of the dimensions of relationship value, to the seller, that was reported by Baxter and Matear (2004). This replication is seen as useful for further theory development for several reasons, some of which are noted here. Firstly, it focuses on the competitively important intangible aspects of the relationship, which are less easily imitable than the tangible aspects. Secondly, the Baxter and Matear model distinguishes the human aspects of the relationships that facilitate information transfer from the information itself. Varey (2002, p. 39) has noted the need, in moving to a more relationship-based view of marketing, to consider that relationship-based marketing "thrives on insight, constant change, creativity, and humanistic values" and (p. 57) that process indicators in relationships are important.

Thirdly, the Baxter and Matear study was conducted in the manufacturing sector, so considering the apparent differences between services and manufacturing industries, a differentiated replication will be a test of model robustness and enable generalization, as Lindsay and Ehrenberg (1993) note. Adopting a “service-dominant logic” approach (Vargo & Lusch, 2004), the co-production of value is a critical aspect of relationships, and especially so for service-intensive industries such as the business services which comprise the sample frame for this study. In these services industries, the inseparability of production from consumption {Zeithaml, 1985 #787} is particularly marked, so this will be a good test of the generalizability of the Baxter and Matear (2004) model.

### Conceptualisation of the Study in Service Industries

The Baxter and Matear (2004) model reflects the potential for intangible relationship value (IRV) provision through the relationship with the customer in two second-order dimensions, human value and structural value. Figure 1 illustrates the model, which was synthesised from the intellectual capital literature (Roos, Roos, Dragonetti, & Edvinsson, 1997). The six constructs on the left - competence, attitude, intellectual agility, relationships, organisation, and renewal and development - are hypothesised as a set of first-order dimensions of intangible relationship value, reflecting the two second-order human and structural dimensions. The dotted line to “organisation” is explained later in this paper. Future financial performance as on the right represents the outcome of the intangible value, giving a test of nomological validity. The domains of the model’s constructs are now briefly discussed, to assess the relevance of the model in service industries.

**Fig. 1: Model of intangible relationship value provision**



In the service literature, competence, the first human intangible value dimension proposed, is widely regarded as a driver of value creation. Employees with more knowledge and skills are considered to be more productive (Ramlall, 2004). Sjöholt (1999) indicates that service production is a complex interactive process between customers and service providers. Thus, Baxter and Matear's (2004) contention that competence of the buyer's employee indicates value potential, because that competence facilitates interaction between customers and service providers, seems justified for service industries. In addition, in being better able to assess the quality of a particular service offering, highly competent service buyers may become more loyal and hence more valuable to the service providers (Coulter & Coulter, 2003).

Attitude represents attributes of the customer's personnel (Baxter & Matear, 2004). It is a reflection of relationship value because, for example, it shows their commitment to working with the seller. Thus, Morgan and Hunt (1994) argue that commitment is a key construct in relationship marketing which can enable value creation for both parties and, specific to the service context, Berry and Parasuraman (1991) suggest that "relationships are built on the foundation of mutual commitment." Intellectual agility refers to the adaptability of customer personnel to enable them to "transfer knowledge from one context to another" (Roos et al., 1997). Because service offerings are usually produced through cooperation of customers with service providers (Gouthier & Schmid, 2003), their intellectual agility enables them to be effectively involved in the co-production of innovative service offerings.

The relationships dimension, the first proposed structural dimension, refers to the relationships in the buyer's network that may be tapped into by the seller through its relationship with the buyer. Bharadwaj, Varadarajan, and Fahy (1993) point out that the more stable the relationship with customer, the greater benefits the service provider can obtain because a wide network of relationships is a source of referral. The buyer's firm may, for example, introduce the service product and its purchasing experience to others in its relationships (Roth, Money, & Madden, 2004).

Organisation refers to the attributes or possessions of the buyer's firm, from which the seller may benefit. It involves resources such as databases, process manuals, culture and management styles, and internal networks; also intellectual properties such as patents, trademarks, brands, and other legally protected processes. Gouthier and Schmid (2003) argue that customers' databases and other sources of information can create competitive advantage for service suppliers through processes such as "the combination of software systems, customer information files, communication technologies". Also, a customer's organisational culture presents important resources for service providers (Bowman, Farley, & Schmittlein, 2000). For example, the service provider can infer the customer's purchase behaviours by examining the characteristics of buyer firms' culture (Roth et al., 2004), or can learn from the customer's culture in other ways. Renewal and development refers to all the resources that the buyer firm has created or is creating that have as-yet-unrealised influences on future value. Warn (2005) concludes that service industries must seek continual renewal and development so as to efficiently adapt to new technologies and demands.

Customer's personnel need to act almost as personnel of the supplier in co-creative (Vargo & Lusch, 2004) service relationships (Gouthier & Schmid, 2003), so human intangible value is interpreted in this study as an assessment of the attributes of the buyer's personnel that will facilitate information flows. Structural intangible value recognises that a service provider can benefit from its customer's structural capital, if they have access to it, for innovations in service offerings. The study includes future financial performance in the IRV model as a

consequence of value (Morgan & Hunt, 1999; Srivastava, Fahey, & Christensen, 2001) to provide a test of nomological validity.

The discussion above briefly justifies the potential applicability of the Baxter and Matear (2004) IRV dimensions and model to service industries, and establishes a conceptual foundation for the empirical study.

### **Testing the Model**

Data to test the model came from a mail survey of sales and marketing managers of New Zealand firms with eleven or more employees randomly chosen from the “business service and consulting” category of the Kompass directory. Of the 1300 surveys mailed out, 89 returned questionnaires were usable, giving a response rate of 6.8%. The *t*-tests on early and late responses to important variables suggested that non-response bias was not an issue (Armstrong & Overton, 1977).

The overall Kaiser-Meyer-Olkin measure of sampling adequacy, at 0.72, suggested the data were suitable for factor analysis (Hair, Anderson, Tatham, & Black, 1998). In preliminary analysis, five items were eliminated, with an increase in coefficient alpha (Churchill, 1979). In a factor analysis, 16 more items were deleted using published criteria for communality, minimum loading, and unidimensionality (Hair et al., 1998), to leave 22 good items which loaded onto five dimensions of the Baxter and Matear (2004) IRV model, whose alpha coefficients were all above 0.7. These are listed in the Appendix.

In the factor analysis, the loadings of two reverse-worded items meant that they were purified out of the scales. For the “competence” dimension, one of the six items, “personal relationship skills” loaded too strongly on the “attitude” dimension and two others cross-loaded onto “attitude”, though their loading on “competence” was strong and they only marginally failed the cross-loading tests we applied (Hair et al., 1998) for the unidimensionality requirement. Of the six questionnaire items used to measure “renewal and development”, although all loaded well on the relevant factor, four cross-loaded too much and unidimensionality requirements meant they were purified out. The remaining two items tap well into the domain of the dimension, which is about the level of benefit the supplier (the business service firm) gets from renewal and development work of the client. The “organisation” dimension was not clearly identified in the factor analysis.

An indication of convergent and discriminant validity of higher-order dimensions was obtained using factor analyses of summated scales. In one factor analysis, the summed scales of competence, attitude and intellectual agility loaded onto one factor, whereas the summed scales each of relationships and renewal and development loaded on another distinct factor. In another factor analysis, the summed scales of human intangible value and the summed scales of structural intangible value both loaded onto one factor.

A Spearman’s rho correlation of 0.284 (significant at  $P < 0.01$ , 2-tailed) between the IRV construct and the FFP construct indicated nomological validity. The IRV model as in Fig. 1 was therefore identified in the data except for the organisation dimension, which is connected by a dotted line.

## Discussion

This empirical study has broadly supported the IRV model proposed by Baxter and Matear (2004) in the service industry that was used as the sample frame. However, the organisation dimension, theoretically proposed in the current study and empirically validated in the manufacturing industry (Baxter & Matear, 2004; Zhang, 2004), is not identified. Possible reasons for this absence in the current study are: the wording of questionnaire items is not appropriate for the industry; the sample is too small; the organisation dimension is not relevant to this industry or services in general; the results are specific to the particular sample in this study. The use of the partial least squares for more sophisticated analysis of a relatively small data set may make the analysis clearer. Detailed study of the items and their factor analysis results suggests that we need to better contextualise the questionnaire items to tap into the domains of the six proposed dimensions. This indicates a need for further research, which will also address the limitations of small sample size and restricted sample frame to enable further generalisation.

The reflection of intangible relationship value in both human intangible value and structural intangible value suggests that service sellers can acquire distinct benefits from both aspects of a relationship and should therefore carefully manage both for optimisation of relationship benefits. Of these aspects, the human one comprises attributes of customer firms' staff, such as their education, their skills, and their intellectual agility. The structural aspect comprises attributes of customer firms' organisation and structures, such as their internal and external relationships, their intangible organisational capital, and their development plans. The study provides a potential tool for understanding customers with respect to these two levels in terms of the 5 distinct dimensions. Tools for analysis of relationship portfolios in terms of the value of portfolio members are available, but they currently focus largely on the more tangible aspects of value. An understanding of the dimensions of the intangible aspects of relationship value, to which this research contributes, can assist in the development of managerial tools to more fully assess value. Intangible relationship resources are particularly important for firm strategy because they are more inimitable (Barney, 1991) than tangible resources (Morgan and Hunt, 1991) and hence contribute strongly to long-term competitive advantage, so further research to better establish these dimensions will be important.

## Appendix: Scale items after purification

Dimension (no. of purified items)	Sample questionnaire items	Anchor points, 1 .. 7	Cronbach alpha
<b>Competence</b> (3)	#2 Technical skills	Competency: Very low levels .. very high levels	0.785
	#6 Their specific training		
<b>Attitude</b> (8)	#2 Fun to work with	Attitude: Strongly disagree .. strongly agree	0.916
	#3 Show enthusiasm		
	#4 Share ideas		
<b>Intellectual Agility</b> (4)	#3 Adapt ideas from one situation to another	Personnel can: Not at all .. to a very great extent	0.837
	#4 Adapt products/services to new situations		
	#6 Create new products/services		
<b>Relationships</b> (5)	#1 Product or service user group	Can utilise: Not at all .. to a very great extent	0.884
	#2 Customer's network of contacts		
	#3 Members of a buying group		
<b>Renewal and Development</b> (2)	#3 Restructuring	Gain benefits from: Not at all .. to a very great extent	0.738
	#5 New system development, including IT systems		

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