

# **Intangible Relationship Value: Towards Deeper Understanding**

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## **Abstract**

This paper briefly reviews recent research into the value of buyer-seller relationships and then focuses specifically on the business to business context. It identifies the different approaches of the published research to the multiple perspectives of a relationship that can be adopted, such as: that of the buyer versus the seller; the identification of value drivers versus dimensions; tangible versus intangible aspects; and the differing extents to which human aspects of the relationship are considered. It then describes a replication which supports Baxter and Matear's (2004) study of the dimensions of the intangible aspects of business to business buyer-seller relationships, synthesised from the intellectual capital literature.

## **Introduction**

There has been interest in the marketing literature recently in the issue of value creation in business-to-business buyer-seller relationships (e.g. Baxter and Matear, 2004; Ulaga and Eggert, 2005; Walter and Ritter, 2003). The modelling of this value takes several different relationship perspectives, each of which provides useful insights. For example, in the citations noted above, Ulaga and Eggert's perspective is of the net benefits and sacrifices delivered to the customer. It deals with the drivers of value in a formative structural model, and its unit of analysis is the delivered value.

The perspectives of both the Walter and Ritter (2003) and the Baxter and Matear (2004) studies above are similar in that they are of the value to the seller provided by the buyer. But in the case of Walter and Ritter, the model adopted is of drivers of value creation, with value as the unit of analysis, whereas the model adopted by Baxter and Matear is of intangible value provided through the relationship, with the relationship as the unit of analysis and an emphasis on what the relationship provides, as described in more detail in the paragraphs below.

This paper describes a replication of the study reported by Baxter and Matear (2004), which is seen as an important perspective for further theory development, for several reasons. The first of these reasons is that their model deals with the more intangible value aspects of the relationship: Vargo and Lusch (2004) note the increasing emphasis on consideration of the intangible aspects of marketing activities.

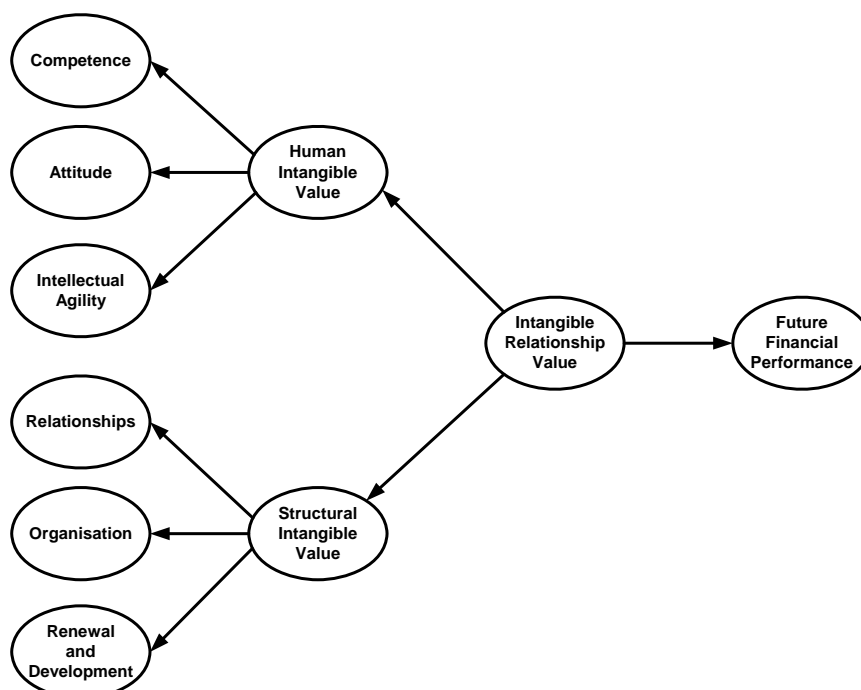
The second reason is that the Baxter and Matear (2004) model distinguishes the human aspects of the relationships that facilitate information transfer (Varey, 2002, p. 39), from the information itself. For full appreciation of a relationship's resource-providing processes, and hence its value to relationship parties, its human aspects need to be considered. Varey (2002, p. 57) has noted that in relationship marketing, "we must consider relational process and outcome indicators" and has also 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" (Varey, 2002, p. 39). Other value models to date have not focussed on these human relationship aspects or operationalised them. The human

aspects of the Baxter and Matear (2004) value model can be seen as an expression of the need to facilitate the information flow between the relationship parties by the boundary personnel in order to realise the value of that information. Thus, the discriminant validity of human intangible value and structural intangible value (refer to Fig. 1) as conceptually distinct constructs is of particular interest in the replication.

Thirdly, using a new synthesis from the intellectual capital literature, the model assesses relationship value in terms of the value provided by the relationship rather than in terms of inputs into the relationship. It is therefore potentially useful as a novel theoretical basis for building a manager's tool to assess relationship value outcomes for individual relationships. It could serve as an analogue to the "brand strength" which is used in the Interbrand technique (Keller, 1998) for brand value assessment and in related techniques. It does, however, need to be more thoroughly validated to serve as a suitable basis for this theory-building, because Baxter and Matear's findings may have "capitalised on chance" (MacCallum, Roznowski, and Necowitz, 1992), so replication is essential for generalisation (Hubbard and Armstrong, 1994; Raman, 1994).

### Conceptualisation of the Study

The model of relationship value provision tested by Baxter and Matear (2004), illustrated in Fig. 1, takes the perspective of the value to the seller of the relationship, as seen by the seller, in a business-to-business buyer-seller relationship. It synthesises a conceptualisation of intangible value from the intellectual capital literature (Roos, Roos, Dragonetti, and Edvinsson, 1997) and has its genesis in the economics of Penrose (1959). The model is formulated as reflective because the relationship is seen as an enabler for the transmission of valuable resources. Measures for a future financial performance construct as an outcome of relationship value are included to assess nomological validity of the intangible value construct.



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

The intellectual capital synthesis is a useful one for modelling intangible relationship value. Firstly, the synthesis is useful because “knowledge is the fundamental source of competitive advantage” (Vargo and Lusch, 2004). Thus, the three “structural intangible value” dimensions in Fig. 1 assess the usefulness of the information that can flow through the relationship. The “relationships” dimension refers to the relationships of the buyer from which the seller might gain benefit. The “organisation” dimension refers to resources of the buyer, such as databases and intellectual property, to which the seller gains access by way of the relationship. “Renewal and development” refers to plant, machines and other resources in the buyer but only as far as the planning stage. In the classification of Constantin and Lusch (1994), these three dimensions are “operand resources”, meaning that they are the kind of resources that are acted on by other, “operant”, resources.

Secondly, as Madhavan *et al* (1998) point out, inter-firm relationships “represent significant flows of knowledge and other resources that are crucial to industry leadership”. This flow aspect needs consideration. The Baxter and Matear (2004) model considers this flow by including three dimensions of the human aspects of the relationship, seen as so important by Varey (2002), because these are characteristics that represent the ability of the boundary personnel to facilitate the flow of information through the relationship. They represent what Varey (2002) calls “insight, constant change, creativity, and humanistic values”. The three dimensions are the competence, attitude, and intellectual agility of the buyer’s boundary personnel who work in the relationship. They may be seen, in terms of the work of Constantin and Lusch (1994), as “operant resources”, meaning that they are the kind of resources that act on other resources.

## **Method**

The method for the study was very similar to that of Baxter and Matear (2004). The constructs in Fig. 1 were operationalised using the same indicators except that two new items were added in the questionnaire. These were a question about “culture” as an indicator for the “organization” dimension and a question about “new plant and machinery development” for the “renewal and development” dimension. The instrument was a self-administered four page questionnaire using 7 point Likert-type scales for the indicators of the six value dimensions and the future financial performance construct. It was mailed to a sample frame comprising 1400 sales and marketing managers in manufacturing firms having five or more employees. This is a similar frame to that of the original study, although responses were such that they included a higher proportion of smaller companies.

Responses numbered 147, for a response rate of 10.5%, and 144 of these were usable after three cases were deleted because their data that was not “missing at random”. The *t*-tests on early and late responses to important variables suggested that non-response bias was not an issue (Armstrong and Overton, 1977). The main analysis used correlations and exploratory factor analysis after assessing Kaiser-Meyer-Olkin sampling adequacy (MSA was 0.886), rather than structural equation modeling software as in the original study.

## Analysis

Before conducting the exploratory factor analysis, two non-performing items were eliminated, with an increase in coefficient alpha (Churchill, 1979, p. 68). In the factor analysis, further items were deleted using published criteria for communality, minimum loading, and unidimensionality (Bristow and Mowen, 1998; Churchill, Ford, and Walker, 1974; Clark and Watson, 1995; Hair *et al.*, 1998), to leave 36 good items which loaded onto six factors. These could clearly be identified as the proposed value dimensions in Fig. 1, replicating the dimensions of Baxter and Matear (2004). The individual questionnaire items loaded onto the factors as expected, except for a “personal relationship skills” question, which was expected to load onto the “competence” factor, but instead loaded onto the “attitude” factor.

As the primary purpose of this study was to assess the validity of the dimensionality of the original study, further purification of the items to more parsimonious scales was not undertaken. The appendix shows how the indicators loaded on the factors in the factor analysis. Internal consistency of the scales as shown in the appendix was high, with coefficient alpha ranging from 0.8139 to 0.9391, and corrected item-total correlations ranging from 0.5150 to 0.8484. Reliability for the four-item scale for the future financial performance construct was also good, with coefficient alpha at 0.8201 and the lowest item-total correlation at 0.5551.

Of the 22 items in the purified scale of Baxter and Matear (2004), 20 remained among the 36 good items left in this study after purification, as shown in the appendix, providing further evidence of their validity as indicators of the six value dimensions. The other two of the original study's 22 items were purified out because they loaded onto two factors in the factor analysis and hence could not be regarded as unidimensional.

Convergent, discriminant and nomological validity of the constructs in the model in Fig. 1 were established using factor analyses of summated scales and the relative values of correlations between constructs. Of particular interest is the discriminant validity of the human and structural second-order value dimensions. As a demonstration of this, a factor analysis of the summated scales of the six intangible value dimensions on the left of Fig. 1 found that the three human dimensions loaded clearly onto one factor, whereas the three structural intangible value dimensions loaded clearly onto another, distinct, factor. A comparison that is of interest is the relative size of the correlations between intangible relationship value and (i) human intangible value (correlation 0.712) and (ii) structural intangible value (correlation 0.854), meaning that the respondents saw the path to structural intangible value as the stronger one, as in the Baxter and Matear (2004) study.

## Discussion

This study replicated the structure of the model proposed and empirically supported by Baxter and Matear (2004). It also replicated nearly all of Baxter and Matear's measures of the six proposed intangible value dimensions. Thus the study provides further support for the validity of Baxter and Matear's work in the manufacturing context. It therefore reinforces the potential of the intellectual capital synthesis as a basis for management action in developing relationship strategies and for further theory development.

Of particular interest from a theoretical point of view is that the analysis further supports the distinct aspects of value, both operand and operant (Vargo and Lusch, 2004), that the model represents. Managers who responded to the survey see value in the information that exists in the customer (structural intangible value in Fig. 1) and that can flow from their customers' companies to their own companies. But the managers also see the facilitation capabilities of their customers' boundary personnel (human intangible value in Fig. 1) as a distinct and important part of the value of the relationship they have with the customers (Varey, 2002), though they weight the human aspect as slightly less important, as in the Baxter and Matear (2004) study. The human aspect has not been a focus of other published studies, so its introduction is a useful addition to the relationship value literature.

The study has several limitations. A larger sample would better support confirmatory factor analysis, although the fact that there are four or more variables per dimension with loadings above 0.60 should mean that the pattern seen in the exploratory factor analysis is valid (Guadagnoli and Velicer, 1988). The further investigation of the dimensions and model in similar and different contexts (e.g. services) and from different perspectives (e.g. buyers'), and of the generalisability of the indicators, will be interesting.

## Appendix: Value dimensions and their indicators

Dimension	Indicator	Coefficient alpha
<b>Competence</b>	<i>Technical skills</i>	0.8139
	<i>Practical know-how</i>	
	Knowledge	
	Training specific	
<b>Attitude</b>	Personal relationship skills	0.9391
	<i>Demonstrate strong commitment</i>	
	Fun to work with	
	<i>Enthusiasm</i>	
	<i>Share ideas</i>	
	Show vision	
	Dynamic environment	
	<i>Ethical</i>	
	Professional	
	Highly motivated	
	Show leadership	
<b>Intellectual</b>	<i>Innovative</i>	0.8963
<b>Agility</b>	<i>Can adapt ideas from one situation to another</i>	
	<i>Can adapt products/services to new situations</i>	
	<i>Can successfully imitate existing concepts/products</i>	
<b>Relationships</b>	<i>Can create new products/services</i>	0.9076
	<i>Members of a product or service group</i>	
	Customer's network of contacts, including their customers and suppliers	
	Members of a buying group	
	Other business units	
	<i>Alliance and joint venture partners</i>	
<b>Organization</b>	<i>Key opinion leaders</i>	0.8328
	<i>Business networks or other networks</i>	
	Internal networks	
	Process and systems	
	<i>Intellectual property</i>	
<b>Renewal and Development</b>	<i>Brands</i>	0.8750
	<i>Training program development</i>	
	Restructuring	
	<i>Report and forecasting of market trends</i>	
	<i>New system development, including IT systems</i>	
	<i>New networks and strategic partnerships development</i>	

**Note:** Items in italics were the ones retained after purification in Baxter and Matear's (2004) study

## References

- Armstrong, J. S., and Overton, T. S. (1977). Estimating Nonresponse Bias in Mail Surveys. *Journal of Marketing Research*, XIV(August), 396-402.
- Baxter, R., and Matear, S. (2004). Measuring Intangible Value in Business to Business Buyer-Seller Relationships: An Intellectual Capital Perspective. *Industrial Marketing Management*, 33(6), 491-500.
- Bristow, D. N., and Mowen, J. C. (1998). The Consumer Resource Exchange Model: theoretical development and empirical evaluation. *Marketing Intelligence and Planning*, 16(2), 90.
- Churchill, G. A., Jr. (1979). A Paradigm for Developing Better Measures of Marketing Constructs. *Journal of Marketing Research*, XVI (February 1979), 64-73.
- Churchill, G. A., Jr., Ford, N. M., and Walker, O. C., Jr. (1974). Measuring the Job Satisfaction of Industrial Salesmen. *Journal of Marketing Research*, 11(3), 254.
- Clark, L. A., and Watson, D. (1995). Constructing Validity: Basic Issues in Objective Scale Development. *Psychological Assessment*, 7(3), 309-319.
- Constantin, J. A., and Lusch, R. F. (1994). *Understanding Resource Management*. Oxford, OH: The Planning Forum.
- Guadagnoli, E., and Velicer, W. F. (1988). Relation of Sample Size to the Stability of Component Patterns. *Psychological Bulletin*, 103(2), 265-275.
- Hair, J. F., Jr., Anderson, R. E., Tatham, R., L., and Black, W. C. (1998). *Multivariate Data Analysis* (5 ed.). Upper Saddle River: Prentice-Hall.
- Hubbard, R., and Armstrong, J. S. (1994). Replications and extensions in marketing: Rarely published but quite contrary. *International Journal of Research in Marketing*, 11(3), 233-248.
- Keller, K. L. (1998). *Strategic Brand Management: Building, Measuring and Managing Brand Equity*. New Jersey: Prentice-Hall.
- MacCallum, R. C., Roznowski, M., and Necowitz, L. B. (1992). Model Modifications in Covariance Structure Analysis: The Problem of Capitalization on Chance. *Psychological Bulletin*, 111(3), 490-504.
- Madhavan, R., Koka, B. R., and Prescott, J. E. (1998). Networks in Transition: How Industry Events (Re)shape Interfirm Relationships. *Strategic Management Journal*, 19, 439-459.
- Penrose, E. T. (1959). *The Theory of the Growth of the Firm*. Oxford: Basil Blackwell.
- Raman, K. (1994). Inductive inference and replications: A Bayesian perspective. *Journal of Consumer Research*, 20(4), 633.

Roos, J., Roos, G., Dragonetti, N. C., and Edvinsson, L. (1997). *Intellectual Capital: Navigating the New Business Landscape*. London: Macmillan.

Uлага, W., and Eggert, A. (2005). Relationship Value in Business Markets: The Construct and its Dimensions. *Journal of Business to Business Marketing*, 12(1), 73.

Varey, R. (2002). *Relationship Marketing: Dialogue and Networks in the E-Commerce Era*. Chichester: Wiley.

Vargo, S. L., and Lusch, R. F. (2004). Evolving to a New Dominant Logic for Marketing., *Journal of Marketing* (Vol. 68, pp. 1-17): American Marketing Association.

Walter, A., and Ritter, T. (2003). The influence of adaptations, trust, and commitment on value-creating functions of customer relationships. *The Journal of Business and Industrial Marketing*, 18(4/5), 353-365.