

# Self and Collective Interest in Business Relationships

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## Abstract

Business relationships are based on interaction, where the parties undertake collaborative activities in pursuit of self-interest. This entwinement of self and collective interest provides a partial understanding of the dynamic underlying business relationships.

This paper examines the association between relationship performance, a collective outcome, and the independent self-interest constructs of a firm's economic goals for joining a relationship, and resource efficiency through ties. A study based on a sample of business software firms finds strong associations between these constructs, with results presented as a structural equation model. The final sections of the paper discuss the research and managerial implications.

**Keywords:** Cooperation, competition, interaction, resource efficiency

## Introduction

Business relationships are based on interaction, where the parties undertake collaborative activities in pursuit of firm self-interest. Without an economic goal of firm profit over the longer term collaborative activities are rarely pursued. This entwining of firms' self and collective interest is central to the relationship and network framework of the Industrial Marketing and Purchasing Group (IMP) (Håkansson, 1982; Håkansson and Snehota, 1995). The concepts of resource ties, activity links and actor bonds (Håkansson and Snehota, 1995) reflect the way collaboration is enacted between firms. In addition, ties, links and bonds rely wholly on the concept that firms cannot operate independently (Håkansson and Snehota, 1989), and so must pursue joint action in their own self-interest.

The distinction between self and collective interest has two important implications. First, the constructs of 'acquiescence' and 'power use' (cf Morgan and Hunt, 1994), or 'influence', by firms are premised upon the distinction. Without difference between self and collective interest, use of influence and the resultant structuring of activities and resources would occur only according to the collective and functional requirements of on-going interaction.

Second, the distinction offers a means to understand the ways firms in business relationships create networks. The relationships and network framework of the IMP Group is founded upon a natural variation in 'firm identity' within an industrial network (Anderson, Håkansson, and Johanson, 1994). Firm identity provides the basis for the differences between self and collective interest, with self-interest implicated in maintaining identity and both self and collective interest involved in creating industrial networks, which can maintain and strengthen, or diminish, a firm's identity.

In this paper self-interest is equated to firm interest and collective interest is associated with the shared interests of a business relationship composed as two firms. However, an important aspect of 'interests' is the ways they are attributed. Interests are not seen in isolation, but are perceived as a result of comparison of one party's advantage against another. In a business relationship the dynamics of such attribution can lead to variations in behavior by a participating firm.

The blend of self and collective interest has been documented in the broader literature as degrees of competition and cooperation. Young and Wilkinson (1997) demonstrate that each business relationship is composed of a blend of both cooperation and competition. Likewise, Bengtsson and Koch (1999) recognize varying degrees of cooperation and competition within relationships and so conceptualize firms in a network of relationships characterized as 'competition', 'co-operation', 'co-opetition' (ie competition and cooperation combined), and/or 'co-existence' and offer a strategic framework for managing relationships. Evidently the ways self and collective interest are entwined in business relationships can also provide an understanding of the limitations and opportunities for strategy development.

However, cooperation and competition within business relationships has rarely been examined in a quantitative manner. This paper elaborates the concepts of self and collective interest as a way of understanding combinations of cooperation and competition as an interaction mode, where the later is defined at the level of the business relationship as the way two firms interact (Medlin, Forthcoming). It is argued that knowledge of the constructs associated with collective interest is reasonably well developed and that the association between self-interest and collective constructs is not so well developed. As a result the paper addresses and tests the nature of a self-interest path to relationship performance, a collective construct. Further, the paper introduces a measure for the construct of 'resource efficiency resulting from ties'. This construct represents firm self-interest in gaining resource efficiency through the way a business relationship activates a resource in a collective manner via resource ties.

The remainder of the paper is structured as follows. First, the problem of entwining of self and collective interest is addressed. Second, a conceptual framework is discussed and research hypotheses are proposed. Next the research method is discussed and then measure validity and hypotheses testing is undertaken. In the final two sections the research and managerial implications are discussed.

## Entwinement of Self and Collective Interest in Business Relationships

This section examines the constructs of self and collective interest in business relationships, starting with a general discussion, which highlights two issues, and then leading into the specific constructs focused on collective and self-interest.

Self-interest, or the act of pursuing one's own right or share (Wilkes and Krebs, 1985), is not diametrically opposed to collective interest. Rather collective interest is composed of the conjoined self-interest of the business parties vis-à-vis the interests of other parties in a network. Thus, at *a point in time* and as the number of parties increases, collective interests are nested in diminishing degrees of freedom by competing self-interests. However, *over time* the dynamic between self and collective interests is more complex, with collective *action* forming an environment composed of changing network opportunities, so that a firm may more easily realize its self-interest or may face a reduced ability to achieve its own interest. One can see this association between self and collective interest over time within path dependence and technological trajectories (cf Araujo and Harrison, 2002; Dosai, 1982; Harrison and Easton, 2002), where collective interest leads to environmental change and this impacts differentially on each firm.

However, the associations between self and collective interest are even more complex when many potential futures are considered (Medlin, 2004). The 'present' is composed of alternate futures and the relationship parties have different views of the past, present and alternate futures (Medlin, 2004). These variations lead naturally to perceptual differences in attributing self and collective interest, depending on the actor's background and time perspective.

However, action requires a reduction in meaning (Luhmann, 1979) and those meanings that are most commonly accepted become the modus operandi of the business relationship. Thus, as interaction proceeds managers must bring their perspectives into partial alignment simply to conduct business. Clearly the degree of ambiguity between managers in partner firms can extend broadly across many matters, but for successful interaction some basic matters concerning the future, such as order and delivery dates, quantities and quality issues, must be agreed. The timing of events, processes and communication are then derived from these agreed future events. However, there is no determinism through business interaction (Håkansson and Snehota, 1998), so that any combination of self or collective interest outcomes is possible from a business relationship, with certainty only partly achieved through the processes of continuous and committed interaction (Dwyer, Schurr, and Oh, 1987). Further, the ways certainty, control and risk reduction, as well as trust and commitment, play out between the partners, as environmental changes impact, is a matter of managerial prerogative and the impact of outside events (ie intention and emergence).

Given the complex entwinements between self and collective interest, in the present, over time and in the face of numerous futures, it can be argued that managers develop preferred relationship management styles for each business relationship (Brennan, Turnbull, and Wilson, 2003; Medlin, 2003a). Further, the embedded nature of relationships within at least three networks (Medlin, 2003a) means these management styles will involve aspects of both the relationship and the firm: that is collective and self-interest.

A second issue with the entwinement of self and collective interest is the way constructs at each level of analysis are associated. There is a considerable literature dealing with the levels issue (Chan, 1998; Dansereau, Yammarino, and Kohles, 1999; House, Rousseau, and Thomas-Hunt, 1995; Klein, Dansereau, and Hall, 1994; Morgeson and Hofman, 1999; Rousseau, 1985). In business research inter-level theory development has relied on descriptions of the mechanisms linking firm and relationship level constructs and in quantitative studies this has led to the development of empirical models with constructs at firm and relationship levels. These empirical patterns represent an early form of 'process models' (Chan, 1998), which associate constructs at different theoretical levels. For example, Morgan and Hunt (1994) associate 'relationship commitment' and 'propensity to leave'; effectively linking two sides of a coin where a relationship level construct has implications for a self-interest level construct.

This example highlights a problem with assessing self and collective interest in business relationships, for any action has perceived outcomes at a firm level and a relationship level. Further, it is important to

note that any action or event does not have equal impact at firm and relationship level, so that perceptions of firm costs and benefits are likely to be unevenly distributed. These problems are compounded by the minimum two-perspective nature of business relationships (Halinen, 1998) so that each party may have completely different views on what actions and outcomes represent collective interests and self-interest.

The next sub-section examines collective interest constructs

### ***Collective Interest Constructs***

With regard to collective interest constructs the literature on trust and commitment is quite strong (Anderson and Weitz, 1992; Gabarino and Johnson, 1999; Geyskens et al., 1996; Gundlach, Achrol, and Mentzer, 1995; Morgan and Hunt, 1994), as is the literature on relational norms (Cannon, Achrol, and Gundlach, 2000; Gundlach and Achrol, 1993; Heide and John, 1992; Joshi and Arnold, 1998; Kaufmann and Stern, 1988). Generally, however, trust and commitment have only been associated with a dependent variable conceptualized at the firm level, so that a collective interest construct is examined through its effect on self-interest. For example, Morgan and Hunt (1994) considered the dependent variables of 'acquiescence', 'propensity to leave', and 'uncertainty'; all of which are firm level constructs. Similarly, the relational norm literature has examined associations with firm level constructs. For example, Heide and John (1992) considered the variables of flexibility, information exchange and solidarity with the firm level construct of buyer control.

While Morgan and Hunt (1994) do consider two relationship level dependent variables (ie 'cooperation' and 'functional conflict') these are both process based and continuous in nature. Also, importantly, the degree of functional conflict and cooperation directly addresses the very nature of the interaction mode between the two firms and so is not outcome based. What is required to understand management styles established around self and collective interests are outcome based constructs measured at the relationship level. These outcome constructs need to be in an entirely different domain to those characterizing the interaction.

In contrast, Holm et al. (1996) examine commitment and other constructs with regard to 'relationship profitability', while Aulakh et al. (1996) examine the associations between the norms of continuity, flexibility, information exchange, and trust to the market performance of the partnership. In both of these studies the dependent variable is at a relationship level. This is an important advance, for as is evident in the previous discussion examination of collective constructs such as trust, commitment and relational norms needs to be undertaken with regard to both collective and self-interest outcomes. Relationship performance, as a collective construct, allows such research to be undertaken. The collective nature of relationship performance also has another advantage in that it allows examination of the interaction modes that exist in different relationships (cf Aurifeille and Medlin, 2001; Aurifeille and Medlin, 2005a; Medlin, Forthcoming).

A study by Medlin, et al. (2005) associated the collective constructs of trust and commitment, and the self-interest construct of 'firm economic goal' to relationship performance. This study found a self and a collective interest pathway explaining 40% of variance in relationship performance (Medlin, Aurifeille, and Quester, 2005). In this study collective interest constructs (ie trust, commitment) contributed 81.4% of the explained variance in relationship performance, according to the squared parameters, with a self-interest construct of firm economic goal contributing the remainder.

While the literature discusses many collective constructs, with some of these known to be associated with relationship performance (Aulakh, Kotabe, and Arvind, 1996; Holm, Eriksson, and Johanson, 1996; Medlin, Aurifeille, and Quester, 2005), there is a dearth of discussion on the ways self-interest constructs are associated with collective outcomes. Yet, the discussions above show that self and collective interest are strongly entwined. This suggests that research should also examine the role of self-interest constructs on collective outcomes, such as relationship performance. The remainder of this paper begins this task by examining the associations between two self-interest constructs and relationship performance. This research should also be seen as a useful way to help characterize the different management styles that firms bring to their business relationships. For example, by using segmentation techniques firms might be portrayed by different degrees of importance on self and collective interest constructs that explain their efforts to achieve relationship performance (cf Aurifeille

and Medlin, 2005b; Medlin, Forthcoming). Such models can then be used to approach an understanding of interaction modes (Medlin, Forthcoming).

The next section discusses past research associating self-interest constructs and relationship performance.

### ***Self-interest Constructs linked to Collective Interest***

As the purpose here is to examine how self-interest results in collective interest outcomes only a few constructs need to be discussed. Aulakh et al. (1996) considered 'output control' and 'process control' as means by which a firm monitors the efforts of the other firm in their self-interest. Aulakh et al. (1996) found a weak negative impact of output control on relationship performance, as expected. However, Aulakh et al. (1996) found no association between process controls, conceptualized as monitoring the other party's product and marketing quality, and relationship performance.

Medlin et al. (2005) examined the association between a firm's 'economic goal' and 'relationship performance'. They found that 18.6% of the explained variance of relationship performance, according to the squared parameters, was attributable to the firm's economic goal in that relationship.

Together these results seem to indicate that self-interest level constructs will not be strongly associated with relationship performance. However, there remains the possibility of self-interest constructs that are linked, as the opposite sides of a coin, to collective action. The next section proposes a conceptual framework and introduces a new self-interest construct, based on resource ties, and explaining relationship performance.

## **Conceptual Framework and Hypotheses**

As the concern here is firm self-interest and its association with collective interest, the dependent variable is relationship performance. This is defined as the perceived economic performance of the jointly acting relationship parties, relative to expectations and competitors in the broader network (Medlin, 2003b). Thus, relationship performance is a relative measure given the firms specific 'value net' (Möller, Rajala, and Svahn, 2005; Parolini, 1999). Of course one might use an objective, rather than a perceived, measure; but objective measures mean little without a benchmark for comparison, so one is immediately back to a perceptual criterion. The question of how the comparison benchmark should be applied relates to the research purpose and as the intention here is to examine self and collective interest as elements of interaction modes, the respondents' perception is appropriate.

Relationship performance is a collective outcome of two parties collaborative activities; whether the parties are cooperating willingly or less than that, for whatever reason. Thus, while the construct measures joint activity it does not imply anything concerning the way that activity is structured with regard to self or collective interest.

Firms enter into business relationships to fulfill their economic goals and so participate in joint activity to achieve relationship performance (Medlin, Aurifeille, and Quester, 2005). This result deserves to be re-examined.

H1: Greater importance of economic goals in joining a business relationship are positively associated with a firm's perception of relationship performance.

What then are other self-interest antecedents of relationship performance? Given the poor associations of the self-interest constructs to relationship performance found in the studies by Aulakh et al. (1996) and Medlin et al. (2005) it seems necessary to seek constructs more closely linked to the joint activity within relationships.

Firms enter business relationships to gain access to resources or customers (Håkansson, 1982; Håkansson and Snehota, 1995); that is to achieve self-interest economic goals. Thus, it can be proposed that relationships offer means for firms to gain efficient use of their own resources. This is so whether a firm joins a relationship to gain access to resources or to customers, for relationship

purpose does not vary the hypothesis that relationships are joined to gain resource efficiency, where resources are defined broadly as knowledge and capital (Awuah, 2001; Wernerfelt, 1984).

Within the industrial relationship and network model of the IMP, resource ties exist between firms so that no resource acts alone or creates value alone; rather resources are tied together in chains creating a network of firms providing value to an end consumer (Håkansson and Snehota, 1995). While it is in the self-interest of firms to own strategic resources to command greater reward from the value created by the network, part of that self-interest also requires that firms are able to tie their resources through adept management of their relationships. In this way firms can change their relationships over time so as to gain efficient use of their resources and so achieve their economic goals. The construct of 'resource efficiency through ties' is proposed to capture this firm self-interest aspect of resource ties (appendix A contains the indicators). It is proposed that 'resource efficiency through ties' results in a firm achieving its economic goals.

H2: Resource efficiency through ties is associated positively with the relative importance of a firm's economic goals in joining a business relationship.

## **Method**

### ***Context, Sampling Strategy and Data Collection***

Continuous relationships between business software principals and their distributor/agents were chosen as the empirical setting. Lists of Australian and New Zealand software companies were obtained from Government web sites, representing software firms in a wide variety of vertical markets. Relationships with international firms were not excluded from the sampling as the software industry employs highly educated Western oriented people. Further, focusing on one industry is likely to have reduced measurement error, as firms would rely on similar management skills in order to perform in that given environment. Second, country and regional borders set market boundaries, so allowing expectations, competition and market position to be easily gauged. Thus, measurement of relationship performance was enhanced by the sample being based on a specific and easily defined 'value net' (Möller, Rajala, and Svahn, 2005; Parolini, 1999).

Each firm was contacted by telephone and their relationships discussed with a CEO or Marketing Manager. A specific relationship was qualified on the basis of being important to the firm's strategy, being arranged only by the two firms, requiring continuous interaction between the firms, and not being an end client relationship. These criteria exclude hierarchical relationships and result in relationships sampled having reasonably high degrees of interdependence, so that relationship and network effects should be stronger than transactional management modes.

In each case the relationship manager was contacted by telephone and a brief overview of the research given. On agreement to participate an email was sent providing the web survey site and instructions and a web site providing some overview of the research. While the study reported in this paper examines firms, the data collection was conducted as part of a broader project on dyads. Thus, on completion the respondent provided the contact details for the partner firm and an email was sent, and often followed up by a telephone call to gain compliance.

The final convenience sample consisted of 82 firms. While this is a reasonably small sample, it allows a study of three well-specified constructs by meeting the criterion of at least five respondents per indicator (Jaccard and Wan, 1996). This study comprises 46 principals and 36 distributors, with 33 relationships measured from both two sides. This is not seen as an issue as past studies have shown partners have considerably different views of sentiment and perceptual constructs (Bacharach and Lawler, 1980; Heide, 1994; John and Reve, 1982). Levene's test for equality of variances found no significant differences across respondents by principal/distributor role.

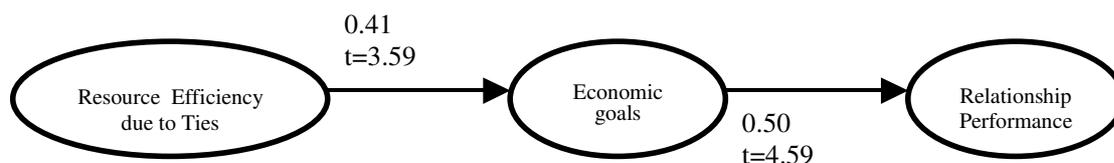
### **Measure Validity and Hypotheses Tests**

Following the two-step approach suggested by Anderson and Gerbing (1988) high quality construct measures were prepared by conducting factor analysis using the Maximum Likelihood method. The

measurement approach for the three theoretical constructs in the model is described in Appendix A. As the factors were considered independent no rotation was used (Iacobucci, 1994). All constructs met the normality criterion and the Kaiser-Meyer-Olkin Measures of Sampling Adequacy ranged between 0.737 for 'relationship performance' and 0.756 for 'economic goal'. The correlation matrix and final measurement model are displayed in appendix B (RMSEA = 0.047). Steiger (1989) considers any value less than 0.05 as a "very good" fit. The RMSEA is an appropriate measure of goodness-of-fit in this study because, as a population-based index, it is relatively insensitive to small sample size (Loehlin, 1992).

Next analysis was conducted using Lisrel 8.54 (Jöreskog and Sörbom, 1996) (see figure 1). The RMSEA of the final global model is 0.047 with a 90% confidence interval extending from 0.000 to 0.011. Browne and Cudeck (1993) suggest that RMSEA values below 0.05 indicate good fit of the model to the data, while the upper limit of the 90% confidence interval is also below 0.05 suggesting very good fit. The Chi-square statistic (29.54) with 25 degrees of freedom is also acceptable ( $p = 0.24179$ ) (Bentler 1990). The ECVI for the model (0.86) and the 90% confidence interval for ECVI (0.8 to 1.08) are less than the ECVI for the saturated model (1.11) (Browne and Cudeck, 1993; Browne and Cudeck, 1989). These measures suggest that the model has a "correct fit". That is, the hypotheses constraining the parsimonious model comply with the observed phenomena. Moreover, as indicated by the R2 of the performance equation, the model predicts 50% of the relationship performance. Further, the t values of the parameters are all significant at the 95% level of confidence (see appendix B), suggesting that a larger sample would result in higher significance levels. Clearly the two hypotheses are supported (see figure 1).

**Figure 1: Structural Equation Model**



## Discussion

The framework proposed in this paper, where relationship performance occurs within a 'value net' (Möller, Rajala, and Svahn, 2005; Parolini, 1999) and hinges on competitive actions in a final market place suggests that firm self-interest can only be achieved through successful joint action. Thus, self and collective interest are strongly entwined. The three constructs examined here show that firms join resources together to achieve their own economic goals for a relationship, and that these goals motivate firms to act jointly to achieve relationship performance. Thus, each firm action, conducted in conjunction with a partner firm's action, has both self and collective interest outcomes. For example, gaining resource efficiency and achieving economic goals, both self-interest actions, require collective action with a partner firm; and are not achievable unless relationship performance is realized.

## Future Research

There are a number of avenues for future research based on the framework proposed in this paper.

First, the entwinement of self and collective interest in business relationships requires continuing theory development. Especially interesting is the two-sided character of firm activity in a business relationship, where both self and collective interest ends are achieved somewhat differently by the one sequence of joined activities. Thus, tightly interdependent firms rely on each other's self-interest and collective interest to map out an unambiguous future and to conduct activities and resource placements to achieve common ends. However, this is not the case with relationships composed of more independent firms. In these, ambiguity plays a greater role and there are also a number of different views of what constitutes self and collective interest. This results in a different relationship dynamic over time, as actions based on the other party's perceived self-interest lead a firm to change

the nature of its commitment; but how that is perceived can influence the first party in any number of ways according to perception of self and collective interests. These dynamics of relationship change can be examined more closely by considering empirical models based on self and collective interests in dyadic settings so that the interaction between two parties is considered (Medlin, Forthcoming).

Second, there remains considerable work to expand the number of constructs that explain the self and collective interest pathways to 'relationship performance'. Further, there is a need to bring more firm and network level constructs into the framework.

A third important area of research is exploration of the different interaction modes at work in business dyads. As the number of constructs associated with 'relationship performance' is increased it becomes possible to use segmentation techniques to explore different management models (Aurifeille and Medlin, 2005b). While self and collective interest are so strongly entwined within business relationships, one can still imagine variations in the ways the underlying constructs are presented across different relationships. Thus, some management styles might exhibit self-interest more strongly by presenting greater importance of 'influence' and 'acquiescence', or 'economic goals' and 'resource efficiency via ties' in their explanation of 'relationship performance'. Conversely, other firms might exhibit stronger elements of collective interest with greater levels of 'trust' and 'commitment'. These variations in relationship management styles require further research, as we do not know which are more effective in either the short or long term, especially when the interaction modes of two firms management styles are considered.

Fourth, the issues of 'influence' and 'acquiescence' have not been examined strongly in more recent literature. This is partly a result of an under-developed theory on 'power use' and 'influence', which rely on attribution of observed behavior of another party and so can only be correctly inferred when dyadic data is examined. The relationship framework espoused in this paper provides a means to model various management styles. However, analysis would require dyad data so that both influence and acquiescence could be contained within a general management model explaining relationship performance.

Finally, a contrasting body of research needs to examine why firms choose to maintain arms length relationships with some firms, while choosing close relationships with others. Evidently the dynamics of self and collective interest are considerably different within arms length relationships. While the essential aspects of the two-sided nature remains, the balance between self and collective interest must vary.

## **Managerial Implications**

It is apparent from the empirical evidence presented in this paper that business relationships are an important means of achieving resource efficiency within a firm. This implies that choice of partner firm is important in deriving a firm's profit, and further that the way a relationship is managed will impact on the efficiency of a firm's resource use. These implications support the view of business relationships as important investments in the strategy of a firm (Johanson and Mattsson, 1985; Turnbull, 1987).

Evidently the degree of resource fit between firms is an important factor in relationship strategy, with partner choice and longer-term capital planning strongly influenced by the partner's resource mix and the joint processes of adjusting that mix into the future. Further, there is the potential for firms to plan their resource mix separately, and together, and so capitalize on their own strengths and those of their partner firms to reduce the risks arising from many potential futures.

It is important, however, to note that firms can still maneuver their resource mix so as to gain a greater share of relationship performance. Thus, the degree of self-interest attributed by one firm of another must influence the processes of relationship development, willingness to jointly plan resource mix, and so the 'identity' and the attractiveness of a continuing relationship with a partner firm.

Together these results suggest firms can work collaboratively to effect joint planning within business relationships. However, there are likely to be many ways to achieve coordination of resource mixes between firms, with some firms preferring equal responsibility, while other relationship will be composed of one firm to coordinate resources and another who follows. These variations require

further research for very little empirical evidence relates these management styles to relationship performance. Aurifeille and Medlin (2005b) offer some indication that a leadership-follower interaction mode results in greater relationship performance, but these early results deserve re-examination.

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## Appendix A

### Construct Indicators

Construct	Indicators	Response Anchors
Resource Efficiency through Ties	This relationship will allow efficient use of our firm's resources. This relationship will lead to sound economic use of our firm's resources. This relationship will allow effective use of our firm's knowledge base.	9 point scale Strongly agree to strongly disagree
Economic Goal	For each goal, below, indicate its relative importance to your firm's overall strategy with regard to the focus relationship. 1. Profit, 2. Sales, 3. Sales growth	9 point scale Strongly agree to strongly disagree
Relationship Performance	Consider all of the costs and revenues with the Focus Relationship. Relative to your firm's expectations in the focus market, what has been the performance of the inter-firm relation on the following dimensions? 1. Sales, 2. Sales growth, 3. Market share	9 point scale Extremely strong to extremely weak

## Appendix B

### Correlation Matrix

	Res-1	Res-2	Res-3	Goal-1	Goal-2	Goal-3	Perf-1	Perf-2	Perf-3
Res-1	1.00								
Res-2	0.84	1.00							
Res-3	0.73	0.75	1.00						
Goal-1	0.42	0.42	0.37	1.00					
Goal-2	0.37	0.35	0.32	0.86	1.00				
Goal-3	0.31	0.35	0.28	0.85	0.93	1.00			
Perf-1	0.27	0.20	0.08	0.45	0.46	0.42	1.00		
Perf-2	0.32	0.25	0.18	0.45	0.47	0.44	0.85	1.00	
Perf-3	0.31	0.27	0.17	0.28	0.33	0.26	0.74	0.73	1.00

### Measurement Model

Construct	Item	Lambda	t-value	R <sup>2</sup>
<b>1. Resource efficiency due to Ties</b>	1	0.91	10.23	0.83
	2	0.93	10.66	0.86
	3	0.81	8.60	0.66
<b>2. Economic goal</b>	1	0.89	10.23	0.79
	2	0.98	12.01	0.96
	3	0.95	11.49	0.90
<b>3. Relationship Performance</b>	1	0.93	10.64	0.86
	2	0.92	10.57	0.85
	3	0.80	8.46	0.64

$\Phi_{12} = 0.41, \Phi_{23} = 0.51, \Phi_{13} = 0.20$