

# **The Effect of Discontinuity on Business Relationship**

Competitive Paper

Peter Thilenius

*Uppsala University, Business Studies, Uppsala, Sweden*

## **Abstract**

**Purpose:** Ongoing interactions and continuity in business is commonly the presumption when studying long-term oriented business relationships. Still, there are many long-term oriented businesses that are characterized by intermittent affairs with periods of high activity interlaced with periods of little or no business exchange. The business relationships formed around this kind of intermittent business can be described as discontinuous in character. This paper raises the question of whether there is diversity in the relationship behaviour of firms having discontinuous relationship with their partners and if so what this diversity entails. By comparing business relationship based in discontinuous with business relationship founded on continuous businesses this paper aims to develop a conceptual view and test it statistically. Empirically the system selling firms are viewed as having discontinuous business and compared with firms that are involved continuous, ongoing selling of various goods. The paper aspires to add new knowledge to the field of business relationship.

**Research method:** The study differentiates industrial firms into those having continuous selling of equipments and components and those engaged in discontinuous selling like project selling. The theoretical foundation rests on firms' relationships, and the view developed contains the four relational elements of commitment, trust, adaptation and relationship development. Differences/similarities in these two types of relationships are measured statistically for 353 firms.

**Research findings:** The outcomes demonstrate that while the driving force for long-term relationship in 'industrial' firms consists of relational elements of adaptation, trust and commitment, the discontinuous relationships lack mutual adaptation. The conclusions drawn from the analysis are discussed as having an impact on research on long-term relationship and the varieties in the relationship content.

**Main contribution:** The findings would be helpful for managers to get deeper knowledge on the needs for actions in different type of industries aiming to preserve relationship longevity. It can aid to develop strategies to keep customers in specifically project selling markets.

**Keywords:** Business relationships, discontinuity, trust, commitment, cooperation, adaptation

## **Introduction**

Ongoing interactions and continuity in business exchange is the common presumption of researchers when studying long-term oriented business relationships. With few exception researchers in business network have their general standpoint on continuity in the firms' relationship irrespective if they are discontinuous. Still, there are many long-term oriented businesses that are characterized by intermittent affairs with periods of high activity interlaced with periods of little or no business exchange (Burdett, 2007; Easton and Araujo, 1999). But relationship elements as distinctive aspects connecting actors to engender long-term relationship (Håkansson and Johanson, 2001; Ford, 1990; Håkansson, 1997) are explained irrespective of the kind of business relationship. The presumption in this essay is that business exchange is not always stable; it sometimes is discontinuous with month or years of interruption. This discontinuity holds characteristics different from a relationship with continuity in the exchange. The paper raises the question of whether there is diversity in the contents of these two types of relationships and if so what this diversity entails. More specifically; what are the differences and similarities in the relationship elements trust, commitment, cooperation and adaptation? The aim is to develop an analytical view for deeper understanding of the firms' relationships differences and statistically test the question. With distinction between the two kinds of business relationships the paper studies the content of discontinuous business relationship and compares it with the stable exchange of continuous business relationship. The paper aspires to add new knowledge to the field of business relationships.

While studies in industrial marketing persist on long term relationships behaviour in general, studies in the fields like collaborative interactions (Caughlan et al, 2003) or project marketing (Turner and Müller, 2003; Lundin and Steinthórsson, 2003; Hadjikhani, 1996) raise the issue of relationship discontinuity. Researchers like Burdett (2007) proclaim the new age of relationship which is based on discontinuity. Whereas some connect the discontinuity to the nature of business (Hellström and Wikström, 2005; Cova and Ghauri, 1996) others like Nadler (1995) or Caughlan, et al., (2003) relate it to the events disrupting relationships or Burdett (2007) connect the issue to the rapid change in the market. In these efforts the characteristic behaviour like of relationship discontinuity has become a distinctive factor to split the stable from non-stable industrial firms' relationships. The unspoken assertion in these studies is that there is diversity in the relational behaviour. But the question of if and how these relationships

are different remain untouched. With its comparative aim, the paper aims to develop a view to compare the relationship contents for these two types' of exchanges. Understanding the differences in these two types of firms' exchange relationships are essential from both theoretical and managerial point of views. Studies like this can increase our knowledge on content and elements of relationships constructing the behavioural differences. The study may also aid firms for how and with what relational tools they can avoid problems in the relationship longevity. The study develop a theoretical view and empirically test the similarities and differences in the four relational elements of commitment, trust, adaptation and relationship development with data from 353 firms.

### **Business Relationship Continuity/Discontinuity**

Business relationship studies generally assume that all the relationship, no matter of continuity and discontinuity contains the characteristics of, a) stability in the exchange; b) high frequency in the exchange relationship; c) relationship adaptation; d) relationship commitment and trust (Ford, 1990; Forsgren, 1989; Håkansson, 1982). Following these presumptions, researchers have developed notions and provided evidence to verify relationship elements like mutuality (Lundin and Steinthórsson, 2003; Yilmaz, et al., 2004; Wathne and Heide, 2000), adaptation (Fang, 2001; Hallén et al., 1991) and relationship development (Hallén et al., 1987). On contrary to this view of continuity, researchers in crisis management (Paraskevas, 2006; Hadjikhani, 2000), technological cooperation (Spedale, 2003), component selling or system selling (Cova, etc ), change in the market (Burdett, 2007) elaborate thoughts on short-term oriented interaction and imply the need for research in discontinuity with elements developed for stable relationships. In this vein when one type exchange relationship has continuity, the exchange in another type can be active in one period and non-active in another period. When dividing the relationships into two types, researchers in discontinuity shed light upon characteristic aspects of: a) a high variation degree in relationship frequency; from active exchange to low/non-active exchange; b) interaction uniqueness when it is active, and none/low when partner stop exchanges and have sleeping period (Hadjikhani, 1996), c) time and cost boundaries (Hellström and Wikström, 2005; Cova and Ghauri, 1996; Ford et al., 1988; Goodman, 1981). As Hadjikhani (1996) and Coughlan, 2003 denotes, these characteristics elucidate diversity in the content of the two types of relationships. While in one relationship commitment, for example, contains an steady and accumulative development, commitment in the other has a prompt increase in one period and

low or none in another. Some researchers in the fields like system selling (Burdett, 2007; Artto and Wickström, 2005; Cova, Ghauri and Salle, 2002) or collaborative manufacturing and design, EME studies (Stock et al., 2000; Coughlan et al., 2003) and technological cooperation (Spedale, 2003) raise the essentiality of further research on relational elements which compose the content of each type of relationships. As studies like Coughlan et al., (2003) and Hadjikhani (1996) stress, there can be differences in the contents of these two types of relationships and also in the relationship elements bounding the actors.

Relationships elements which construct the theoretical view of this study are extensively studied by those in believe of relationship continuity. Researchers studying discontinuity have infused concepts like relationship interdependency (Welch, 2005), trust and its connectivity (Hadjikhani, 1996; Cova and Salle, 2000), adaptation (Everdingen and Wierenga, 2002; Cova and Salle, 2005; Canning and Hanmer-Lloyd, 2001), commitment (Hadjikhani and Johanson, 1996), trust (Coughlan et. al, 2003). In the latter truck, Hadjikhani (2000) and Cova, Ghauri and Salle (2002), discuss the elements in discontinuity type of relationship when it is active. These efforts do not attempt to study what happens with the relationships when the exchange is inactive. However, there are researchers like Coughlan *et al.* (2003) and Hadjikhani (1996) studying trust and commitment elements in discontinuous type of relationship. But there is a deficiency of research on similarities or differences in the content of the two different type's buyer-seller relationships.

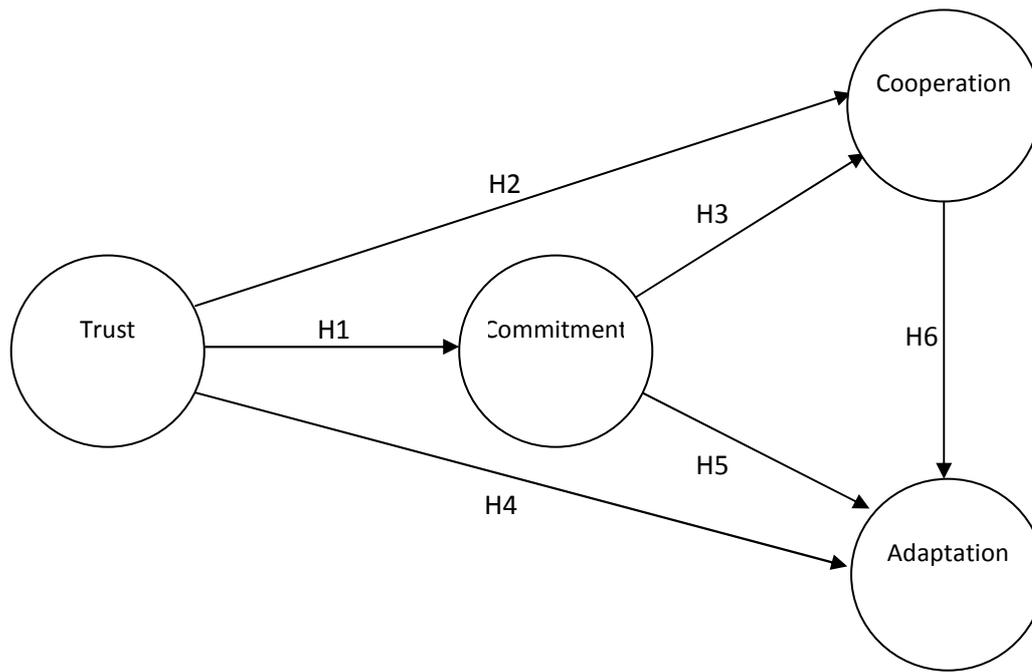
### **A Theoretical View and Propositions**

For the comparative aim, the view is constructed on relationship content holding the four elements of; a) trust, b) commitment, c) cooperation and; d) adaptation. Commitment and trust, as Morgan and Hunt (1994) state, are the two central keys for longevity (Coughlan *et al.* 2003). The study of adaptation in business firms' relationship (Hallén, *et al.*, 1991) and in project market (Cova, Ghauri and Salle, 2002) is proposed by researchers as an essential element for understanding relationship development (Bonaccorsi *et al.*, 1996; Fang, 2001). Although, no matter the type of business relationship, business actors have to commit resources, have social interaction, and make adaptation in their resource exchange.

Long-term relationships (Reddy and Czepiel, 1999) and close relationships, despite their discontinuity (Skaates *et al.*, 2002), are described as having their roots in commitment and trust between the partners (Cova, Ghauri and Salle, 2002; Hadjikhani, 1996; Gundlach *et al.*, 1995). Commitment is defined as the investments made by the partners to maintain a

relationship (Morgan and Hunt, 1994; Gundlach *et al.*, 1995). Commitment is the set of partners' actions and utilized resources that affect decisions to remain in a relationship (Hunt et al, 1985; Anderson and Weitz, 1992). Trust is explained as the willingness to rely on an exchange partner in whom another has confidence (Moorman *et al.* 1993). High and low trust and commitment will accordingly affect the longevity of a relationship. These two elements are explained by researchers like Morgan and Hunt (1994) and Anderson and Weitz (1992) as the two central keys in the relationship continuity (See also Hausman, 2001; Mohr and Spekman, 1994; Morgan and Hunt, 1994).

Relationship trust and commitment in a continuous relationship contains a cumulative exchange of resources (Håkansson, 1982; Ford, 1990). But the enclosure of these elements into discontinuous relationships is explained by some researchers to involve some problems. This is due that exchange relationships for example contains, higher commitment during an active period while lower during a period of discontinuity (Spedale, 2003; Caughlan et al., 2003; Artto and Wickström, 2005; Cova and Salle, 2000; Hadjikhani, 1996). While commitment in discontinuous relationship has an intensive, complex and heterogeneous content over a limited time and less/none in another time period, commitment in continuous relationship type is comparatively less intensive and lower time-sensitive commitment (Paraskevas, 2006; Artto and Wikström, 2005; Hadjikhani, 1996). In discontinuous type of relationships partners, after an intensive resource exchange, stop further commitment. In solving the problems inhibited with relationship discontinuity, some researchers refer to the exchange of resources to induce life in relationship in the period of discontinuity, for example, selling spare parts or service after completion (Hadjikhani, 1996; Cova and Salle, 2000). Relationship trust and commitment leaves a residue of cooperation and adaptations bounding actors to each other. Thus, the content of relationships, as demonstrated in Figure 1 below, is constructed of four elements and the relationship.



**Figure 1:** A Conceptual View of Buyer-Seller Relationship

When connecting trust and commitment to discontinuity, some researchers (see for example, Welch, 2005; Arto and Wikström, 2005; Hadjikhani and Thilenius, 2005; Cova and Salle, 2000; Hadjikhani, 1996; Cova and Ghauri, 1996) and specifically studies like Skaates *et al.* (2002) and Hadjikhani (1996), introduce the concept of a sleeping relationship to preserve the longevity in relationship. A sleeping relationship is defined as preserving partners' relationships by means of the history of the commitment. Earlier commitment leads to trust which incorporates the content of the relationship when there is an absence of resource exchange (Hadjikhani, 1996; Cova and Salle, 2000). While absence or low commitment and trust is a burden for discontinuous relationship, in continuous relationships the element of commitment and trust is presumed to follow the rule of stability, having a cumulative nature (Ford, 1990). Following this reasoning the first hypothesis on the similarities/differences between continuous and discontinuous business relationships is;

Hypothesis 1: There is no difference between continuous and discontinuous business relationships regarding the effect of Trust on Commitment.

Hypothesis 2: There will be a difference between the two groups (continuous vs. discontinuous) regarding the effect of Trust on Cooperation.

Hypothesis 3: There will be a difference between the two groups (continuous vs. discontinuous) regarding the effect of Commitment on Cooperation.

Adaptation is a concept of central concern when buyers and sellers have a relationship or partnership (Canning and Hanmer-Lloyd, 2002; Everdingen and Wierenga, 2002; Hallén *et al.*, 1991). By definition, adaptation means that partners change their resources and actions to each other's needs. The definition envelops technological cooperation as well as finding procedures for financial or information exchange. Håkansson and Waluszewski (2002) and Axelsson and Easton (1992) treat commitment as resource input into a relationship and explore technological interdependency with the concept of adaptation. The relationship between the commitment and adaptation and that commitment leads to adaptation is well explored by Hallén *et al.*, (1991) which are further examined by those like Canning and Hanmer-Lloyd, (2002) and also Everdingen and Wierenga (2002). Adaptation means to capture the suitability of the resources commitment into the relationship.

The element of adaptation inspires a notion on the impact of trust and commitment on adaptation (see also Hallén *et al.*, 1991 and Canning and Hanmer-Lloyd, 2002). For these notions, relationship adaptation contains mutuality, keeping buyer and seller in a long-term relationship. Commitment and adaptation, as two different but interrelated elements, are widely discussed by researchers into business-to-business relationships (Håkansson and Waluszewski, 2002; Brennan and Turnbull, 1995). In this construction, commitment can have, for example, a simple nature or/and complex product and technological adaptation. A high and extensive reciprocal input of partners into relationship, i.e., adaptation, is a prerequisite for longevity in the relationships. This study, similar to the findings of Canning and Hanmer-Lloyd (2002) separates adaptation from concepts like commitment and trust. It can be presumed that in discontinuous relationships, the aspects of resources combination entail adaptive and cooperative actions in a specific period of time. The uncertainty can rest on the transient nature of activated period of exchange. Adaptation may be limited to processes until the project is finished. But interdependency for the reason of adaptation may possibly continue to the period of discontinuity, as elements like the complexity of the technology or spare parts interconnect buyer and sellers for a long-term relationship.

Hypothesis 4: There will be a difference between the two groups (continuous vs. discontinuous) regarding the effect of Trust on Adaptation.

Hypothesis 5: There will be a difference between the two groups (continuous vs. discontinuous) regarding the effect of Commitment on Adaptation.

Hypothesis 6: There will be a difference between the two groups (continuous vs. discontinuous) regarding the effect of Cooperation on Adaptation.

## **Research Methodology**

The outset of this study is to analyse the differences and similarities between how continuous business relationships and discontinuous business relationships regarding the relation among four central relationship components, i.e., trust, commitment, cooperation and adaptation. The statistical approach to provide the appropriate data is based in structural equations modelling using constructs of indicators for measuring the latent variables. The empirical analysis is based on information on 353 supplier firms in Sweden collected using a standardized questionnaire which was mailed to 836 randomly selected firms. The database used for the sampling covers all firms with limited liability in Sweden and is constructed on the firms' annual reports. In the questionnaire different sections were devoted to the firm's characteristics in terms of managerial, financial, operational and technical issues but a substantial part of the questions were directed toward on of the firm's most important customers and the impact of connection in the wider business network. The selection of important customer was made by the responding managers and thus made in a real business perspective. To ensure a high response rate, the firms' general managers were approached by telephone and were asked if they were willing to participate in the study before mailing the questionnaire.

The final sample consists of a wide range of firms selling industrial goods, such as raw and semi-finished materials (9%), components (22%) and light and heavy equipment (14%), B2B-services (34%) and B2B end-user products (21%). The average duration to date of the business relationships in the sample is 13 years and the longest continuous relationship observed is 90 years.

In order to perform the intended analysis, i.e., comparing continuous business relationship with discontinuous, the sample had to be divided into two groups. The division into two groups, dichotomizing business relationship based on a scale ranging from continuous to discontinuous is necessary for the statistical comparison targeted for this study. An alternative approach to would have been to operationalize the continuity/discontinuity into a single

variable used in a model, although that would not allow for the juxtaposition of continuous vs. discontinuous business relationship in this study. Thus, by carefully examining the type of each firm's industry, the character of the products sold, the frequency of product delivery, stability in delivery patterns as well as other interactions like frequency of meetings between representatives of the supplier and customer firms business relationships displaying discontinuous characteristics were identified as base for the grouping. The identification followed a scheme where each of the parameters was considered independently followed by an assessment of the combined impression of measurements. Of the total of 353 business relationships, 80 were identified as discontinuous relationship and considered as representative. In the subsequent analysis, the identified form the group of discontinuous business relationships, while the remaining 273 form the group of continuous business relationships.

For the comparison it is necessary to use the same constructs for the two groups meaning that the measurements were developed using the whole sample. To indicate trust three statements concerning the way information is handled in the relationship, the notion being that a high willingness to exchange information closely mirrors the level of trust in the relationship. Commitment is also indicated by three statement covering general as well as aspects of calculative commitment and affective commitment. The third construct is formed by two indicators focusing on the cooperative climate in the business relationship closely relating to production and product development. The final construct on adaptation employs three indicators on technological, logistical and administrative changes made by the supplier in their relationship with the customer.

**Table 1:** The constructs and indicators used in the analysis

<i>Construct Indicator</i>	<i>Mean</i>	<i>S.D.</i>	<i>Factor-loading</i>	<i>T-value</i>	<i>R<sup>2</sup></i>
<i>Trust</i>					
We are always willing to make information available for this customer	5.62	1.39	0.51	8.42	0.26
We have full confidence in the information provided to us from this customer	5.65	1.31	0.87	16.02	0.76
We have full confidence in the information provided to us from this customer	5.43	1.50	0.59	9.93	0.34
<i>Commitment</i>					
This customer has devoted time and money to develop our business relationship	3.93	1.99	0.49	7.98	0.24
We feel a high level of commitment in this business relationship	5.65	1.34	0.80	14.47	0.63
We like dealing with this customer	6.32	0.88	0.68	11.93	0.46
<i>Cooperation</i>					
We are to a large extent making our production plans together with this customer	3.99	1.96	0.73	11.16	0.54
We have joint product development projects with this customer	3.72	2.07	0.80	11.96	0.63
<i>Adaptation</i>					
We have made extensive technological adaptations to this customer	3.78	2.09	0.74	12.50	0.54
We have to a large extent adapted our ways of delivering to this customer	5.06	1.64	0.69	11.53	0.47
We have changed internal routines in order to adapt to this customer	3.99	1.94	0.78	13.38	0.61

By comparing the paths in the confirmatory measurement models, i.e. the relations among the constructs evaluated in terms of level and significance, the differences and similarities between the two groups can be assessed. To ensure a satisfactory quality for the analysis the models were evaluated through the examination of several model fit indices apart from the chi-square and the significance level. Specifically, the Goodness of Fit Index (GFI), the Adjusted Goodness of Fit Index (AGFI), the Comparative Fit Index (CFI), the Tucker-Lewis coefficient (TLI), and the root-mean square error of approximation (RMSEA) were examined to assess the statistical quality of the models (Bollen, 1989). The results from the analyses relating to the models' fit indices are presented along with the fit guideline for each presented index in Table 2.

Table 2: Models' fit statistics

Fit measures	Fit guideline	Reference	Continuous (n=273)	Discontinuous (n=80)
$\chi^2$ (p-value)	$P \geq 0.05$		83.86 (0.00)	48.59 (0.048)
$\chi^2/df$	$P \leq 3.0$	Segars and Grover (1993)	2.33	1.47
GFI	$P \geq 0.90$	Hayduk (1987)	0.95	0.91
AGFI	$P \geq 0.80$	Hayduk (1987)	0.90	0.80
CFI	$P \geq 0.90$	Byrne (2001)	0.97	0.96
TLI (NNFI)	$P \geq 0.90$	Bentler and Bonett (1980)	0.95	0.92
RMSEA	$P \leq 0.08$	Byrne (2001)	0.070	0.077

The resulting fit measures across the two groups are all in accordance with the criteria of the model fit indices. The chi-squared is though insignificant for the Continuous group but very close to significant for the discontinuous group. Still, the results from the analyses clearly support the claim for an adequate fit of the models to the data thus allowing for further analysis of the differences and similarities between the groups. This analysis is based on evaluating and comparing the strength and significance of the effects among the four relationship elements between the two groups. The relevant statistical output from the structural equation modelling is displayed in Table 3.

Table 3: Models' paths and significances

Relations	Continuous (n=273)		Discontinuous (n=80)	
	Estimate	t-value	Estimate	t-value
H1 Trust – Commitment	0.96	25.86***	1.14	10.82 ***
H2 Trust – Cooperation	0.26	3.53***	0.62	5.79 ***
H3 Commitment – Cooperation	0.37	5.20***	0.62	5.46 ***
H4 Trust – Adaptation	-0.03	-0.34	0.37	2.90 **
H5 Commitment – Adaptation	0.21	2.77**	0.24	1.87 †
H6 Cooperation – Adaptation	0.54	8.84***	0.89	11.13 ***

†  $P < 0.1$ , \*  $P < 0.05$ , \*\*  $P < 0.01$ , \*\*\*  $P < 0.001$

The results reveal that the effect of Trust on Commitment for the continuous group of business relationships (0.96; 25.86) displays the similar strength and significance as for the discontinuous group (1.14; 10.82). This provide support for accepting Hypothesis 1, i.e. that the effect of Trust on Commitment is similar irrespective if the business relationship is continuous or discontinuous in its character. The correspondence between all business relationships irrespective their character concerning continuity/discontinuity regarding the relation of the fundamental relationship elements of trust and commitment offers credibility to the business relationship perspective's explanatory power.

The next hypothesis concerns the dissimilarity between the groups concerning the strength and effect of the relationship element of Trust on Cooperation. Hypothesis 2 is offered

support as the strength of the effect of Trust on Commitment in the Discontinuous group (0.62; 5.79) is more than double that of the effect in the Continuous group (0.26; 3.53) of business relationship and significant on the same level. To expand on the finding, in discontinuous business relationship higher trust is engendering higher cooperation to a much higher extent than in continuous business relationships. The same dissimilarity between the groups can be found concerning the effect of the relationship element Commitment on Cooperation. The Continuous group (0.37; 5.20) displays half the strength in effect of Commitment on Cooperation as compared to the Discontinuous group (0.62; 5.46) of business relationships thus supporting Hypothesis 3. Clearly, higher commitment in a business relationship characterized by discontinuity leads to more cooperation efforts than high levels of commitment in a business relationship of continuous character.

In Hypothesis 4 the difference between the two groups of business relationship concerning the effect of the relationship element Trust on Adaptation was proposed. The result from the statistical modelling here displays the interesting finding that in the group of continuous relationship Trust has no significant effect on Adaptation (-0.03; -0.34). The level of trust in a business relationship characterized by continuity has thus no effect on the level of adaptations. On the other hand, in the other group of Discontinuous business relationships the effect of Trust on Adaptation is positive and significant (0.37; 2.90). In business relationship characterised by discontinuity can higher trust evidently be associated with higher adaptations while trust cannot be associated, at least directly, with adaptation in business relationships characterized by continuity. Turning to Hypothesis 5, concerning the dissimilarity between the groups on the effect of Commitment on Adaptation, the pattern found for the effect of Trust on Adaptation is in some sense inverted. Here, the findings show that the effect of Commitment on Adaptation is positive and significant for the Continuous group (0.21; 2.77) of business relationship while the effect is similar but not significant for the Discontinuous group (0.24; 1.87) of business relationships albeit very close to the commonly accepted 5%-level. The conclusion must thus be to accept Hypothesis 5, i.e. that there is a difference between the Continuous group of business relationship and the Discontinuous group, but also that there are some indications on the fact that the difference is only minor.

The last hypothesis concerning the dissimilarities between the groups of continuous and discontinuous business relationship of the effect of cooperation on adaptation is also supported by the results to some extent. In the group of Continuous business relationship the effect of Cooperation on Adaptation is positive and highly significant (0.54; 8.84). So is also the case for the results of the Discontinuous group, albeit the effect of Cooperation on

Adaptation is considerably stronger (0.89; 11.13). In conjunction with a higher significance of the results it is clear that the effect is similar concerning the positive relation between the relationship elements but dissimilar concerning the strength of the effect where the Discontinuous group of business relationships display the stronger effect. To summarize the results of the comparison between the Continuous group of business relationships and the Discontinuous group the notion that there are difference in the relation among the studied four central relationship components, i.e., trust, commitment, cooperation and adaptation. The empirical findings reveal that Trust appears to not relate directly to Adaptations in the Continuous relationships group while evidently do so in the Discontinuous group while the situation is the reversed concerning the effect of Commitment on Adaptation. Further, the observed effects among the relationship elements in the two groups indicate that for business relationships characterized by continuity the level of trust affect the level of commitment which in turn guide the level of cooperation and finally adaptation suggesting a causal chain stemming from trust and ending in adaptation. For business relationships characterized by discontinuity this suggested chain is broken in favour of more direct effects of trust on commitment, cooperation and adaptation whilst the effect of commitment on adaptation evident in the business relationship characterised by continuity is challenged.

## **Conclusion**

From the empirical findings, several interesting conclusions can be drawn. Findings have impacts not only on the study of the continuity and discontinuity of business relationships but also on the use of adaptation as a general concept in business network and relationship studies. A common conclusion is that the empirical facts verify the differences in the relationships between the firms involved in various industrial activities. Thus, the general statement, that business relationships characterised through continuity or discontinuity engenders different behaviour, holds. The facts further disclose that the relationship in these two groups of relationships contains not only differences but also similarities. The statistical measure divulges similarities for hypothesis 1, i.e., trust leads to commitment, which is also confirmed by a large number of studies in relationship and network studies. No matter whether the firms' businesses these two elements hold the firms together. This also confirms the theoretical views of the earlier researchers in project selling on trust and sleeping relationships during the period of discontinuity (see Hadjikhani, 1996, Cova and Salle, 2000). The statistical measures also indicate that the degrees of impact of these elements on the two types of relationship are similar.

Furthermore, the results disclose another interesting fact in the empirical study. While most industrial firms' relationship holds a high degree of cooperation and adaptation, e.g. project-selling firms have a deficiency in the effect of commitment on adaptation. Such a finding has several consequences in research on business relationships. It can be stated that the partners are acting separately when the decisions about technological complexity are to be decided. Buyers and sellers do not have cooperation on how they can integrate technological resources for areas like product development. Cooperation for unique and complex products can extend the relationships beyond the project's life and guarantees intensive cooperation in the next project and germane to a long-term relationship. Deficiency in the commitment-adaptation link may also have its origin in the fact that one partner in the relationship determines how the project is to be. Project buyers, for example, as Welch (2005) pinpoints, employ external units (consulting firms) and internal competencies to identify the specificities in the needs of buyers. Though, as discussed by Hadjikhani (1996) the only tie linking the actors in the period of discontinuity is trust. This conclusion is not the ultimate one; further research is necessary.

As the statistical measures manifest the value of trust in both types of relationship is the same. But the absence of adaptation will naturally make intermittently selling firms' relationships weaker than those of industrial firms' acting in component and equipment markets. Further comparative research on differences/similarities in the elements binding firms in these two types of relationships can not only aid researchers but also help managers as they can gain more knowledge and decide about how they can have several projects from the same buyer and reach continuity in the relationship.

The finding of low adaptation and the crucial aspect of discontinuity (in project selling) also has some managerial implications. For a manager acting in a project business, it is a big loss to see new competitors easily break their relationship during a period of discontinuity. Interdependency constructed on the residue of trust from earlier projects (Hadjikhani, 1996) is not sufficient to keep a buyer in the same relationship. With knowledge on the impact of the absence of adaptation, managers can undertake measures to secure the relationship longevity. Involving buyers in technological development and cooperation with buyers, which are deeply studied in industrial marketing studies (Håkansson and Walusewski, 2002; Cova and Ghauri, 2002; Håkansson, 1987) are as managerial tools to strengthen interdependency during the period of discontinuity (Hadjikhani, 1996). This will weaken the competitors' position and makes it difficult for them to break the relationship. The dimensions of uniqueness and complexity in project selling offer bases for cooperation, as buyers do not have access to such

capabilities. Buyers, for example, may not know that cooperation for adaptation can increase their competencies.

An essential conclusion concerns the conceptual views employed by researchers in business relationships. There is a large amount of research on the role and importance of adaptation in relationship theories (see for example, Hallén *et al.*, 1991). The view of diversity employed in this paper reveals a contrary result. It is true that the impact of adaptation for other industrial firms' relationships is verified. But there is no evidence to verify the outcomes of studies like those above when the relationship concerns project selling firms. Therefore, the general conclusion of the earlier studies, that adaptation is one of the basic elements of relationship continuity, can be criticised; meaning that the view of adaptation as a general concept in relationships can be questioned. Such a crucial conclusion evokes further research on the role of different elements in different types of businesses.

## References

- Anderson, E. & Weitz, B., (1992), "The Use of Pledge to Build and Sustain Commitment in Distribution Channels", *Journal of Marketing Research*, XXIX, February, pp. 18-34.
- Artto, K. & Wikström, K. (2005), "What is Project Business?", *International Journal of Project Management*, Vol. 23, No. 5, pp. 343-420.
- Axelsson, B. & Easton, G., (eds.) (1992), *Industrial Networks: A New View of Reality*, London: Routledge.
- Bentler, P.M. & Bonett, D.G. (1980), "Significance tests and goodness of fit in the analysis of covariance structures", *Psychological Bulletin*, 88, pp. 588-606.
- Bollen, K.A., (1989), *Structural Equations with Latent Variables*, New York: John Wiley & Sons.
- Bonaccorsi, A., Pammolli, F. & Tani, S., (1996), "The Changing Boundaries of System Companies", *International Business Review*, Vol. 5 No. 6, pp. 539-560.
- Brennan, R. & Turnbull, P.W., (1995), "Adaptations in Buyer-Seller Relationships", In: Turnbull, P., Yorke, D. and Naude, P. (eds.), *11<sup>th</sup> IMP Conference*, Manchester Federal School of Management, 7-9 September, pp. 172-203.
- Byrne, B.M. (2001), *Structural equations modeling with AMOS*, Lawrence Erlbaum Associates: Rahwah.
- Canning, L. & Hanmer-Lloyd, S., (2002), "Modelling the Adaptation Process in Interactive Business Relationships", *Journal of Business & Industrial Marketing*, Vol. 17 No. 7, pp. 615-636.
- Coughlan, P, Coughlan, D. & Lombard, F., (2003), "Managing collaborative relationships in a period of discontinuity", *International Journal of Operations & Production Management*, Vol. 23, No. 10, pp. 1246-1259

- Cova, B. & Ghauri, P., (1996), "Project Marketing. Between Mass Marketing and Networks", *The European Seminar on Project Marketing and System Selling* (Working Paper).
- Cova, B. & Salle, R., (2000), Rituals in Managing Extrabusiness Relationships in International Project Marketing: A Conceptual Framework, *International Business Review*, No. 9, pp. 669-685.
- Cova, B. & Salle, R., (2005), "Six Key Points to Merge Project Marketing into Project Management", *International Journal of Project Management*, No. 23, pp. 354-359.
- Cova, B., Ghauri, P. & Salle R., (2002), *Project Marketing: Beyond Competitive Bidding*. Chichester: Wiley & Sons.
- Easton and Araujo, 1999
- Everdingen, Y.V. & Wierenga, B. (2002), "Interfirm Adaptation Decisions, Role of Inter-firm and Intra-firm Variables", *European Management Journal*, 20(6), pp. 649-663.
- Fang, T., (2001), "Culture as a Driving Force for Interfirm Adaptation: A Chinese Case", *Industrial Marketing Management*, No. 30, pp. 51-63.
- Ford, D., (ed.) (1990), *Understanding Business Markets: Interaction, Relationships and Networks*, London: Academic Press.
- Ford, D., Gadde, L.-E., Håkansson, H., Lundgren, A., Snehota, I., Turnbull, P. & Wilson, D., (1988), *Managing Business Relationships*, Chichester: John Wiley & Sons.
- Forsgren, M., (1989), *Managing the Internationalization Process*, London: Routledge.
- Goodman, R.A., (1981), *Temporary Systems Professional Development Manpower Utilization, Task Effectiveness and Innovation*. New York: Praeger.
- Gundlach, G.T., Achrol, R.S. & Mentzer, J.T., (1995), "The Structure of Commitment in Exchange", *Journal of Marketing*, Vol. 59 No. 1, pp. 78-92.
- Hadjikhani, A. & Johanson, J., (1996), Facing Market Turbulence: Three Swedish Multinationals, *Journal of International Marketing*, Vol. 4 No. 4, pp. 53-73.
- Hadjikhani, A. & Thilenius, P., (2005), *Non-Business Actors in Business Networks*, London: Elsevier.
- Hadjikhani, A., (1996), "Project Marketing and the Management of Discontinuity", *International Business Review*, Vol. 5 No. 3, pp. 319-336.
- Håkansson and Johansson, 2001
- Håkansson, H. and Walusewski, A., (2002), *Managing Technological Development*, Routledge, London.
- Håkansson, H., (1982), *International marketing and purchasing of industrial goods: an interaction approach*. Chichester, England: John Wiley & Sons.
- Håkansson, H., (ed.) (1987), *Industrial Technological Development: A Network Approach*. London: Croom Helm.
- Hallén, L., Johanson, J. & Seyed-Mohamed, N., (1987), "Relationship Strength and Stability in International and Domestic Industrial Marketing", *Journal of Industrial Marketing and Purchasing*, Vol. 2 No. 3, pp. 22-37.

- Hallén, L., Johanson, J. & Seyed-Mohamed, N., (1991), "Interfirm Adaptation in Business Relationships", *Journal of Marketing*, Vol. 55, April, pp. 29-37.
- Hausman, A., (2001), "Variation in Relationship Strength and Its Impact on Performance and Satisfaction in Business Relationships", *Journal of Business and Industrial Marketing*, Vol. 16 No. 7, pp. 600-616.
- Hayduk, L.A. (1987), *Structural equation modeling with LISREL: Essentials and advances*, John Hopkins University Press: Baltimore.
- Hellström, M. & Wickström, K. (2005), "Project business concepts based on modularity – Improved maneuverability through unstable structures", *International Journal of Project Management*, Vol. 23, No. 5, pp. 343-420.
- Hunt, S.D., Chonko, L.B. & Wood, V.R., (1985), "Organizational commitment and marketing". *Journal of Marketing*, Vol. 49 No. 1, pp. 112-126.
- Lundin, R. & Steinhórsón, R., (2003), "Studying Organizations as Temporary", *Scandinavian Journal of Management*, Vol. 19 No. 2, pp. 233-250.
- Mohr, J. & Spekman, R., (1994), "Characteristics of Partnership Success: Partnership Attributes, Communication Behaviour, and Conflict Resolution Techniques", *Strategic Marketing Journal*, No. 15, pp. 135-152.
- Moorman, C., Deshpandé, R. & Zaltman, G., (1993), "Factors Affecting Trust in Market Research Relationships", *Journal of Marketing*, No. 57, pp. 81-101.
- Morgan, R.M. & Hunt, S.D., (1994), "The Commitment-Trust Theory of Relationship Marketing", *Journal of Marketing*, Vol. 58 No. 3, pp. 20-38.
- Nadler, D.A., Shaw, R.B. & Walton, A.E., (1995) *Discontinuous Change: Leading Organisational Transformation*, Jossey-Bass: San Fransisco.
- Reddy, S.K. & Czepiel, J.A. (1999), "Measuring and Modelling the Effects of Long-term Buyer-seller Relationships in Corporate Financial Services Markets", *Journal of Business Research*, Vol. 46, No. 3, pp. 235-44.
- Sandu, M., (2006) *Managing Project Business Development*, Swedish School of Economics and Business Administration, Vaasa, Finland.
- Segars, A.H. & Grover, V., (1993), "Re-examining perceived ease of use and usefulness: a confirmatory factor analysis", *MIS Quarterly*, Vol. 17, No. 4, pp. 517-527.
- Skaates, M. A., Tikkanen, H. & Alajoutsijärvi, K., (2002), "Social and Cultural Capital in Project Marketing Service Firms: Danish Architectural Firms on the German Market", *Scandinavian Journal of Management*, No. 18, pp. 589-609.
- Stock, G.N., Greis, N.P. and Kasarda, J.D. (2000), "Enterprise logistics and supply chain structure: the role of fit", *Journal of Operations Management*, Vol. 18, pp. 531-547.
- Turner, J.R. & Müller, R., (2003), "On the Nature of the Project as a Temporary Organization", *International Journal of Project Management*, Vol. 21 No. 1, pp. 1-8.

- Wathne, K.H. & Heide, J.B., (2000), "Opportunism in Interfirm Relationships: Forms, Outcomes, and Solutions", *Journal of Marketing*, Vol. 64 (October), pp. 36-51.
- Welch, C., (2005), "Multilateral Organisations and International Project Marketing". *International Business Review*, Vol. 14, pp. 289-305.
- Yilmaz, C., Sezen, B. & Kabadayi, E., (2004), "Supplier Fairness as a Mediating Factor in the Supplier Performance-Reseller Satisfaction Relationship", *Journal of Business Research*, No. 57, pp. 854-863.