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Industrial Long-Term Relationship**

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WORK IN PROGRESS - NOT TO BE QUOTED

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Abstract: Understanding the marketing implications of supplier–customer relationships requires more knowledge about commitment and its affect on relationship continuity. Although much research in industrial marketing link long-term relationships to the technological or product commitment, few attempts have been made to relate this connection to other dimensions of commitments. This paper will develop a multidimensional view on commitment in the industrial relationship continuity. Beside industrial commitment, the paper introduces and tests the impact of calculative and affective commitments on trust and long-term relationship. While both industrial and economic exchange theories interconnect the element of calculative commitment to short-term relationship, this paper examines the connection between calculative commitment and relationship continuity. The model is tested and analyzed empirically.

Introduction

There is an increasing recognition of relationship development and maintenance for long lasting industrial relationships (Sheth and Parvatiyar, 1994; Berry, 1995). A comprehensive amount of research in industrial relationship and network studies interconnects the relationship continuity to the technological and product commitments (Wind, 1970, Ford, 1978, Håkansson, 1982, Donaldson and Toole, 2000). Disregarding their analytical tools, industrial commitment is put forward as one vital factor that bounds the customer and supplier. This commitment is exposed as a sole construct expounded with technological, production or administrative inputs.

Contrary to this commitment pledge, this paper builds on the multidimensionality of commitment. While industrial relationship studies only place the stress on industrial commitment, this paper shows that commitment is composed of several components having a variety of impacts on business relationships. The study develops a commitment model to study the impact of commitment dimensions on the long-term relationship. Beside industrial

commitment, the paper introduces calculative and affective components as commitment dimensions. The commitment dimensions, and their influence on the constructs of trust and relationship continuity, are tested and analyzed empirically. The purpose is to extend our knowledge on relationship commitment and its connection with other constructs binding actors to each other. A deeper explanation of the content of commitment and the impact of each specific commitment on business relationship continuity can open a new research arena. Knowledge about factors beside the technological and product commitment will extend our analytical ability to improve our understanding on the firms' market behavior. It can unfold why, firms lacking technological interdependency still have long-term relationships. In testing the model, the paper has selected a special manner. The study follows Ping's (1994 and 1995) direction that studying phenomena through an extreme situation enables a picture to be formed of the role of latent variables. The method can clearly differentiate the values in different components of constructs closely related to each other. An extreme case may generate a high values/low effects, but it also exposes the validity of the testing model. The empirical case of foreign supplier firms' business relationships with Iranian customer firms is in some respects extreme but gives the opportunity of unfolding the business environment of international firms and provides divulgence in an inquiry for analogous research in other conditions.

For the purposes of examination, the constructs are extracted with the use of an extreme empirical case. No doubt, selection of this case can be questioned. But, inasmuch as the effort was to unfold different commitment dimensions, we realized a need for an extreme market condition sufficient to be able to extract the varieties in the construct values. The exposed two step statistical model clearly manifested the excessive differences, and unfolded the absence of technological interdependency. The method also endorsed manifestation of values in other commitment dimensions, and their connections to the constructs of trust and long-term relationship. With the absence of technological interdependency the next step in the statistical model, the study could verify the validity of the theoretical model. The results attained in the empirical part enabled the study to draw conclusions on the impacts of the other commitment constructs' relation to trust, mutuality and long-term relationship constructs.

Views on Relationship Commitment

Relationship commitment, as a basic element, has been under evaluation by a large number of researchers looking into long lasting relationships. By observation of the content of

relationship (Negandi 1975; Håkansson, 1982; Zaheer and Venkatraman, 1995), researchers have been studying different elements among the committed actors. Whereas some researchers have been examining the strength of relationships (Hausman, 2001; Patterson and Smith, 2001; Donaldson and Toole, 2000; Mohr and Nevin, 1990), and structural differences in the relationship strength, (Cravens and Piercy, 1995) others outline the constructs of trust and commitment in their general contexts (Hausman, 2001; Boyle et al., 1992; Mohr and Spekman, 1994; Morgan and Hunt, 1994). The latter characterize the business relationship including norms of bilateral governance, mutual trust and commitment, and orientation and shared goals (Dwyer et al., 1987; Gundlach and Murphy, 1993; Mac Nail, 1980). However, in the arena of long-term relationship, the main track exposes the constructs of commitment, trust with technological or industrial relationship adaptations. These constructs are introduced as the key variables for long-term relationship (Achrol, 1997; Cravens and Piercy, 1995). Resource exchange beholds factors like technical, technological cooperation and administration of interdependency. But the explanation is limited to the economic exchange and does not treat the factor as a base for interdependency. Håkansson (1982); Axelsson and Easton, (1992) and Håkansson (1987) deal strictly with interdependency and adaptation (Hallen, Johansson and Seyed-Mohammad, 1987) connected to factors like technology and product. In their constructs, commitment, mutuality and trust are woven together with product and technological exchange. Economic exchange is seen as a necessary appendix. Similar to the studies such as those of Jaros, et al. (1993) and Stump (1999), these studies in industrial marketing connect the economic exchange to opportunism.

In contrast to this trend, the research built on economic theories perceives exchange costs as the foundation of relationships. In this track, instead of behavioral theories, areas like transaction cost and agency (e.g., Barbey and Ouchi, 1986), costs in distribution channels relationships (e.g., Anderson and Coughlan, 1987; Heide and John, 1988; Klein et. al., 1990), customer relationships (e.g., Bowen and Jones, 1986; Oliva et.al., 1992), customer-supplier relationships' cost/benefit and loyalty (Lee and Cunningham, 2001), or in international relationships (Gomes and Casseres, 1987; Calof, 1993; Calof and Beamish, 1995), and portfolio relationships and relationship value (Krapfel et al.; 1989; Day 1977) economic views are the base for the relationship? In this context, affective commitment and interdependency are abandoned. The determinant constructs for relationship are the gains and costs in each of the alternative relationships. Firms obtain a high degree of mobility so that they can move to alternative choices. Costs in relationships are always compared with alternative gains and

costs from other relationships. Against the industrial relationship theories that coexist with relationship continuity, the studies in economic exchange theory imply that as far as the market always consists of alternative choices (lower costs of alternative choices), long-term relationship with large commitment or adaptation or high interdependencies will be absent.

According to Benito, et al., (2002) and Sharma and Patterson (2000), there are factors that negatively affect the cumulativeness of commitment and subsequently long-term relationships. Factors that result in pole partners switching pole partners to switch from one alternative to another are labeled as switch costs (Weiz and Andersson, 1992). Take down costs refer to the costs and revenue losses incurred by dismantling the existing relationship. As far as the value added in a relationship is less than the switch cost and gains from other alternatives, its partnership can be changed. There are further efforts that interconnect long-term relationship and transaction costs (e.g., Joshi and Stump, 1999), and relationship costs and shared values (Morgan and Hunt, 1994). They argue that relationship termination costs and termination of long-term relationship and interdependency attenuate opportunism (Gundlach et al., 1995, John, 1984; Hallen, Johansson and Seyed-Mohammad, 1991). In this perspective the centrality is given to commitment and opportunism. Following behavioral theory, the researchers study the switching costs. Studies in this track introduce calculative commitment in connection with switching cost and opportunism. Studies on commitment (Joshi and Stump, 1999; Jaros et al., 1993), switching costs and relationship commitment (Sharma and Patterson, 2000), and relationship strength (Donaldson and Toole, 2000; Kanter, 1994) construct views on multidimensionality in commitment. The above research unfolds theoretical constructions opposed to the view of one dimensionality in the factor of commitment. The forces driving researchers towards multidimensionality must apparently be contingent with the market realities, which they perceive to contain compositions much more complex than interdependency constructed on only technological or product commitments.

A Model for Commitment Dimensions

Commitment can be defined as the construct of activities that bound the firms to each other (see, for example, Salancik, 1977), and trust is the willingness of the actors to stay in a relationship (Morgan and Hunt, 1994). Drawing on this conceptualization, relationship commitment is built on mutuality in which the exchange partners believe in the benefit of relationship and warrant efforts to maintain it (Morgan and Hunt and Shelby, 1994), and consider the relationship important (Moorman et.al., 1993). Long-term relationship maintains

that commitment is a function of mutuality in the social and resource exchange relationship (Håkansson, 1987; Joshi and Stump, 1999; Wedin, 2001; Waluszkeski, 1900; Ford, 1990). In industrial marketing studies, partners' technological and product inputs binds the actor, and the interdependency interlocks them. According to Håkansson (1984) and Ford (1990), industrial commitment is the actors' product and technological investments and adaptations in, and for, relationships. Commitment brings interdependency, and the state of these sacrifices engineers the degree to which the links are long-lived (Lincoln, 1982). High industrial commitment delimits the actors' switch to market alternatives (Johanson et.al, 1987). Technological input and adaptations in focal and connected relationships, interlocks the actors to a degree that the switch to alternatives becomes costly. This commitment is restricted to only one single component (see Andersson and Weitz, 1992; Morgan and Hunt, 1994; Kumar et.al., 1995). No matter of partners' affective reflection (Kumar et.al., 1995), calculative or continuance measures (Sheer and Stern, 1992), the commitment view considers only one dimension. The one dimensional commitment view is been criticized by a number of researchers (Gilliland and Bello, 2002; Hartmann and Bambacas, 2000). They introduce commitment as a construct consisting of multi-components. They argue that the single component view is too simplistic and fails to measure different behavioral dimensions in the interdependent exchange relationship (Brown et al. 1995; Hartmann and Bambacas, 2000; Koslowsky et.al., 1990).

The crucial question is what drives the customers and suppliers to stay in a business relationship. More specifically, whether the interdependency is only composed of industrial commitment (technical, product and administrative inputs), or if there are other commitment constructs that affect the long-term relationship. While research in industrial marketing presents industrial commitment, studies like Sheer and Sterns (1992) introduce the view of calculative and affective commitment (Morgan and Hunt, 1994). To uncover the fundamental elements for long-term industrial relationship, we include affective and calculative commitments into the business relationship. Affective commitment is non-instrumental and relies on the satisfying counterpart in a relationship (Allan and Meyer, 1990; Samuelson and Sandvik, 1997; Zins, 2001; Jaros, et.al., 1993). Partners' actions rely on their attachment to each other. In contrast, calculative commitment is instrumental (Meyer and Allen, 1984), and customers and suppliers stay in a relationship because of the reasons of cost and profitability. A crucial question is whether the cost/profit has weight in relationship continuity. Although, as depicted in Figure 1, a business relationship is postulated to be composed of the three

commitment components of industrial, affective and calculative. As illustrated in the figure, these three commitments are linked to long-term relationship via trust. The links in between these constructs are explored in the following six propositions.

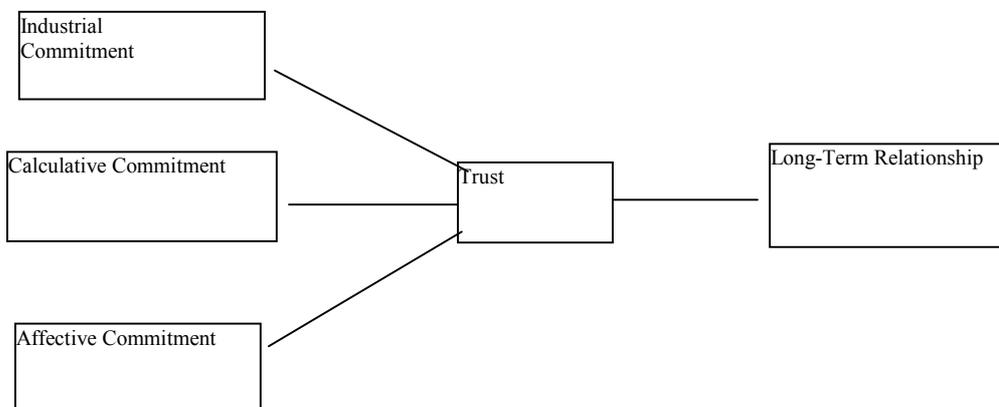


Figure 1: Commitment Dimensions and Long-term Relationship

Following this construction, the first proposition examines the multidimensionality of commitment. Linked to this is the next proposition which is formulated on connection between commitment and trust. Achrol (1991) posits that trust is a major determinant, and has been recognized as the main element affecting relationship commitment (Andersson and Weitz, 1992; Moorman et.al., 1993). Following, Morgan and Hunt (1994) state that in the relation between commitment and trust, commitment is the antecedent to trust. With the statement of mutuality in the relation between commitment and trust, the reverse order is that trust is the antecedent to commitment. In this thrive, it is the commitment that builds the trust. Without commitment, distrust is generated. Trust is perceived as the outcomes of the firms' commitment, i.e., trust follows and is the antecedent to commitment. This statement grounds the second postulation. The two hypotheses are:

Proposition 1: Long-term relationship is not only the antecedent to the firms' product and technological cooperation. Business commitment is also composed of components of industrial, affective and calculative components.

Proposition 2: Different types of commitments affect the trust, and that affects the continuity in the relationships.

Studies digging deeper the multi-dimensionality of commitment, introduce a variety of compositions. Allen and Meyer's exposition of commitment (1996) incorporates affective,

normative and continuance commitments into the construct of commitment. Some researchers like Gilliland and Bello (2002; See also Brown et al., 1995; Geyskens et al. 1996) define commitment as attitudinal behavior in which partners are attached and continue relationships. Gilliland and Bello (2002) for example, expose commitment by calculative and loyalty (normative) commitments. Commonly, this research defines commitment in term of behavioral and affective (attitude). Commitment is affective for the state of mind of one partner towards another, and is brought about by sharing similar values linking partnership (Morgan and Hunt, 1994). It relies on the enjoyment of a satisfying relationship. Partners can easily discuss the problematic issues. Affective commitment can be defined as the degrees to which business partners are emotionally bound to each other (Jermier, Koehler and Sincich, 1900). This refers to the feeling of attachment to the elaborated routine, clarity in the tasks and personal relationship between partners (Hartmann and Bambacas, 2000).

Industrial relationship studies abandon affective commitment as they deal with the construct of trust. In reverse, studies like Morgan and Hunt (1994) unfold the concept of commitment, and introduce affective commitment and trust as two distinct constructs. The division of these two can add more knowledge to the study of business relationship. Although, commitment construct is infused by the input on social exchanges that partners are attached to each other, and have a willingness to solve their problems and continue the relationship. The effect of affective commitment is that partners can become closer to each other. With the presumption that commitment is made up of several components, the next proposition examines the affective component and its impact on the relationship continuity. Affective commitment, as Becker (1960) pertains, are side bet investments permanenting areas like work friendship, specific skills and political skills that diminish the attractiveness of other alternatives.

Proposition 3: Even if the industrial commitment is low, other commitment types, like affective commitment, influence the buyer-seller long-term relationship.

The behavioral commitment refers to continuance or calculative commitment, and stems from a cognitive evaluation of the instrumental worth of a continued relationship (Wetzels, de Ruyter and Birgelen, 1998). According to this perspective, industrial commitment is instrumental, and low interdependency justifies short-term and calculative measures. Constructed on opportunistic behavior, continuance of relationship is defined by the lack of

alternatives or the high level of alternative costs (Zins, 2001). Studies on continuance and calculative commitment forge the economic dimension into the relationship content. They state that all gains and losses, pluses and minuses, or rewards and punishments in a relationship are added up (Morgan and Hunt, 1994). Calculative commitment is constructed on the cold calculation of costs and benefits from the investments and allocation of resources between business partners. Dissecting Williamson's transaction costs theory; some business relationship studies linked to opportunism, study the commitment with the exposition of economic benefit and cost of relationship (Stump, 1999; Anderson and Narus, 1990; Heide and John, 1992). These propositions are based on short-term calculations and abound long-term relationship. While some, like Stump (1999), follow the governance agency theory and alienate commitment from opportunism, others in the track like switching cost and relationship, infusing the economic exchange component into their commitment models (Benito, et.al., 2002). In the latter view, business commitment apart from affective and industrial commitment is composed of the economic dimension of exchange, calculative commitment. The proposition is simple, if a business relationship is not infused with economic rewards, it cannot continue.

While this perspective stresses the economic dimension in commitment, industrial marketing studies take an opposite standpoint. Industrial marketing studies state that research employing economic views abandon commitments for reasons like exchange of knowledge, adaptation and competencies that bind the partners to continue the relationship. Accordingly, while the calculative views is based on short-term interactions, and the industrial marketing perspective disregards the impact of economic transaction on relationship continuity, it can be worthwhile to weigh the relation between the calculative and long-term relationship. Thus, commitment in business relationship is also composed of calculative commitment apart from the industrial commitment. The perspective is simply based on the simple statement that, as long as the relationship is economically beneficial for both partners, there is no reason to change partnership. Further, mutuality in the economic gains affects trust and that influences the relationship continuity. The following two hypotheses relate to the role of calculative commitment in two constructs of trust and relationship continuity. Against the studies in industrial relationship and economic views on calculative commitment, the two following hypotheses are merited to examine the two fields of; a) the short-term behavior in the economic field for calculative commitment; b) relation between calculative commitment and long-term relationship.

Proposition 4: Commitment in the technical and product exchange is one of the commitment dimensions explaining trust and relationship continuity. Calculative commitment also has a positive impact on the trust and long-term relationship between the buyers and sellers.

Proposition 5: Firms' product and technical commitment are the basic components that highly bind the partners to continue the relationship. The lower the commitments in these industrial relationships; the higher the economic calculation of the commitment to keep the partnership alive for long time.

By definition, the notion of calculative commitment is consistent with exchange theory, according to which commitment is based on cold calculation and turnover in the relations (Jaros, et al., 1993). Members' partnership is based on the fact that they measure benefits and costs (see for example, Randall and O'Driscoll, 1997), and calculate the costs associated with discontinuing the relationship (Etzioni 1961). The opportunistic and short-term behavior of partners leaves no space for mutuality in the gains. Hence, the willingness of a partner is opportunistically short-term, and not trust based. The statement against this view is that mutuality in economic gains is determined in an interdependent relationship that stipulates trust. In this perspective, a relationship comprised of sole affective commitment is not a business relationship. Further, the absences of economic gains in industrial relationships are condemned to dissolution. But affective and calculative commitments together can produce mutuality and trust. Thus, a low industrial commitment together with high economic gains and affective commitment, will generate mutuality and relationship continuity. While studies in industrial marketing examine the mutuality in the context of industrial commitment, the next proposition reflects the mutuality under the condition of calculative and affective commitments. The proposition examines the mutuality and trust created by calculative and affective commitments.

Proposition 6: Despite a low industrial commitment, under conditions with high calculative and affective commitments, the induced mutuality positively affects trust and long-term relationship.

Methods

The empirical study contains information from personal interviews with 60 Iranian firms. Before initiating the interviews, some of the characteristics to be used in choosing the firms were defined. All firms selected to be interviewed were to be large, and had had business experience with foreign international firms. The number of employees in the firms selected range from 50 to 10000 with an average just below 1000 people. The Iranian firms were asked to select a very important (for them) international foreign firm, and answer a number of questions in a standardized survey. The suppliers included in the study have their origin in a number of countries. Germany, Italy, Great Britain and Spain are the most represented, but also Austria, India, South Korea, Canada, France, Japan, Malaysia, Switzerland, Czech Republic, China, Estonia, Finland, Romania and Turkey are represented. On average, the suppliers account for 54 percent of the supply need of the firms.

The survey used in the Iranian project has already been employed in another large project called IMP2 (see e.g. Blankenburg-Holm 1996, Havila 1996). This project started at the end of the 1980s and is still continuing. The aim is to investigate the network relationships between hundreds of firms in industrialized countries. In the Iranian project, after five preliminary interviews, the survey was slightly modified and the process of data collection eventually started in June 1998. The last version was finalized at the beginning of 1999. The questions were directed towards the individual relationships between Iranian firms and their foreign business partners. The average age of the relationships is 11 years, but the oldest relationship was initiated as early as 1956. The survey also contained questions regarding the relationships between political and business firms, which is a sensitive area.

The survey document consisted of more than 250 questions, and was first distributed to the managers, who then were interviewed personally. This ensured that questions were properly understood and that the information received from the interviewees was reliable. Personal interviews were necessary because of the amount of questions, and because many of them were different from those that the firms were used to being asked. As it required several hours to cover all the questions in the survey, the questions were split up and each firm was interviewed a number of times. The interviews mainly involved purchasing managers, as the questions examined purchasing behavior.

Operationalization

There are several concepts that have to be operationalized to test the proposed hypothesis. First there are the various aspects of commitment discussed above. Industrial commitment is measured by two statements concerning in which respect the firm is important to the supplier; *for the amount bought and as a partner in technological development? (answer given on a 5-grade scale ranging from No importance to Significantly increased)*. Following the earlier discussion, calculative commitment is indicated by a statement focusing the economic aspects of the relationship with the supplier: *Considering all costs and revenues associated with this relationship, how would you assess its profitability over the last five years for your own company? (answer given on a 5-grade scale ranging from No importance to Significantly increased)*. Affective commitment, which covers is measured by a two-item constructs using the statements; *We can criticize the supplier face-to-face when we consider it justified without jeopardizing the relationship; We have excellent personal relations on a social level with people from the supplier (answers given on a 5-grade scale ranging from No importance to Significantly increased)* In this study, trust is measured by using a three-item construct made up by the statements; *We feel we can trust this supplier completely; This supplier tries to exploit the advantage of our cooperation for his own sake (reversed); It is easy to agree about how to handle various issues that arise in this relationship (answers given on a 5-grade scale ranging from No importance to Significantly increased)*. Mutuality in the relationship is indicated by the statement; *Business with this supplier is usually based on mutual trust rather than legal agreements (answers given on a 5-grade scale ranging from No importance to Significantly increased)*. Finally, long-term relationship is measured through the statement; *This supplier is committed to a long-term relationship with us (answers given on a 5-grade scale ranging from No importance to Significantly increased)*.

Analysis

The analysis of the data material was done using LISREL, which is a statistical package specially developed for linear structural equation modeling. The reason for choosing LISREL lies mainly in the method's ability to estimate causal relations between latent variables, i.e. hard to observe variables (Jöreskog and Sörbom, 1993). Instead, the latent variables are measured using measurement models, or constructs, in which one or more indicators are used. The LISREL method also has the potential to test models where certain variables are mediators in a structural model. In the theoretical discussion, it is hypothesized that trust may

have such an effect on the firm's view on the relationship's duration. The possibility of using latent as well as mediating variables means that LISREL is well suited to our purposes.

The first step in a LISREL analysis is to run the observed indicators in a so-called measurement model in order to assess convergent validity. Convergent validity is assessed by how well a construct represents its indicators and is evaluated by tests for t-values, factor-loadings and R^2 -values between the construct and each indicator. This step in a LISREL analysis also involves a test for discriminant validity, which is a matter of ensuring that constructs are empirically separated from each other. Discriminant validity is achieved when no two constructs are measured by the same indicator. Concerning the present observed indicators, the statistical output revealed that the proposed components of industrial commitment; i.e. the volume of exchange and importance for technological development, did not converge into one construct. It was therefore decided to divide industrial commitment into Product commitment indicated by the amount of exchange and Technological commitment measured by the degree of technological development. The correlations among these and the other variables in the analysis are displayed in table 1 below.

Table X: Correlation among latent variables

Variable	Trust	Mutuality	Long-term	Technological	Product	Calculative
Mutuality	0.62 **					
Long-Term	0.39 *	0.17				
Technological Commitment	-0.02	0.17	0.01			
Product Commitment	-0.12	-0.10	0.19	0.15		
Calculative Commitment	0.59 **	0.17	0.09	0.25	-0.08	
Affective Commitment	0.82 **	0.26	0.47 *	0.01	0.63 **	0.14

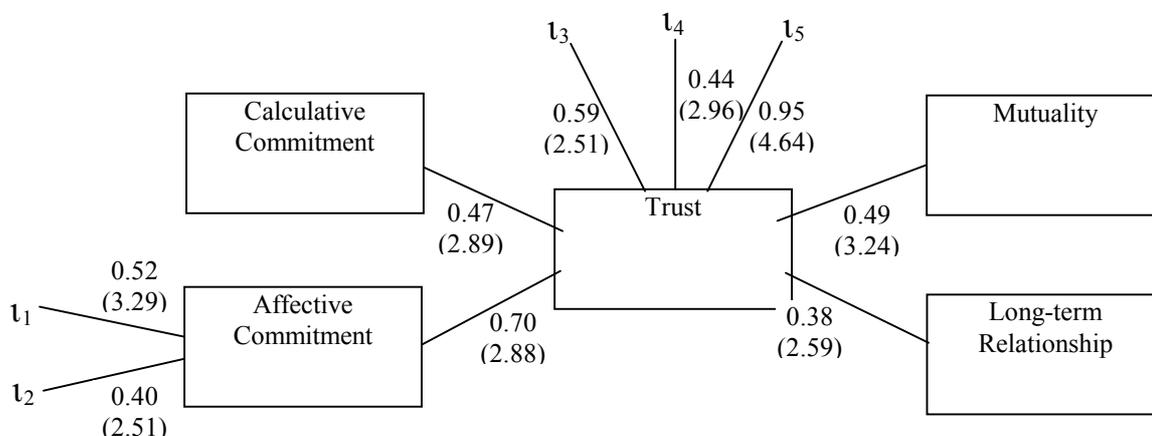
* $p < 0.05$, ** $p < 0.01$

The correlations among the variables reveal some interesting results. Firstly, the variables Trust and Mutuality as well as Long-term show significant inter-item correlations in line with the hypotheses. This is also the case for Calculative and Affective commitment and Trust. Technological and Product commitment, however, seems to have extremely low correlations with Trust suggesting that the possibility to incorporate them in a model as antecedents to Trust is very low. Of all correlations among Technological and Product commitment and the other variables, only one significant can be found, i.e. between Product and Affective commitment, which may be interpreted as an effect in line with the traditional view on trust and commitment. All in all, the main conclusion that can be drawn from analyzing the correlation matrix is that commitment can be divided into several components. Further, there

are some indications that the components of industrial commitment have a very weak impact on trust in this setting.

The first attempts to construct a model of commitment and trust employed all commitment variables as antecedents to trust. The output from this attempt amplified the impression that Product and Technological commitment, in this situation, have little explanatory value for Trust in the relationship. This is, however, partly in line with proposition 1 stating that business commitment is made up of industrial, calculative and affective components. It seems like the calculative and affective components of commitment in this setting have a much stronger impact on relationship trust. The fact that Calculative commitment has a stronger impact on the relationship's Trust than Product and Technological commitment is fully in line with proposition 5. It was therefore decided, based on the correlation matrix and first attempts to construct a model, to exclude Product and Technological commitment in the next attempt to form a model well representing the data. This proved to be promising approach and the resulting structural model is shown in Figure 2.

Figure 2: Final structural model



Note: Factor loadings with t-value in parentheses. Indicators of single-item constructs have been omitted

The final structural model shows significant relations between all latent variables. The chi-square is 23.46 with 18 degrees of freedom. The goodness-of-fit for the model is acceptable at 0.90 while the p-value is 0.09, which may be seen as unacceptable from a harsh statistical standpoint. The statistical output suggests, though, modifications in the form of setting the error covariances between two sets of indicators free, i.e. between the indicator of Mutuality and t₃ and between t₃ and t₅. These models were tested and both showed high overall

significance (chi-square=14.47; df=17; p=0.64; GFI=0.94 and chi-square=15.66; df=17; p=0.55; GFI=0.94 respectively) with minor changes in the strength and significance of the causal relations. As inclusions of error covariances in a structural model are always accompanied with the problems of interpreting the meaning of the implied relations, it was decided that the model without any error covariances was a sufficiently good representation of the data. This decision is supported by the fact that no changes in the interpretations of the causal relations could be inferred by the modifications tested.

Looking at the causal relations in the final model then it can be concluded that proposition 2, i.e. different types of commitment affect the trust and continuity in the relationships, is supported through the paths formed by the significant relations between Calculative commitment and Trust (0.47;2.89) and Affective commitment and Trust (0.70;2.88) and the also significant relation between Trust and Long-term Relationship (0.38;2.59). The same paths, in conjunction with the reported low impact of Product and Technological commitment on Trust and Long-term Relationship (see correlation matrix above), also provide support for proposition 3, stating that even if the industrial commitment is low, other types of commitments, like affective commitment, influence the buyer-seller long-term relationship. The propositions 4 and 5, concerning the effects of Calculative commitment on Trust, are verified in the model, especially since the variance of Trust, broadly constructed on three indicators, is given an explanation without the presence of the traditional antecedent of industrial commitment. Finally, proposition 6 relating to mutuality is supported, although not fully in the way stipulated. In the structural model, the construct Mutuality is antecedent to Trust through a significant relation (0.49;3.24) rather than a predecessor. The proposed positive coupling between Long-term relation and Mutuality can be verified neither by the structural model nor the correlation matrix, and must thus be rejected.

Concluding Remarks

Against the research trends in industrial marketing, the test of the model exposes the multidimensionality of the commitment. It discloses that the long-term relationship is not necessarily an outcome of the technological interdependencies. Product exchange, together with mutual economic gains in partnership, can generate trust and long-term interactions. The study does not examine the strength in interdependencies. No doubt, technological adaptation is directly correlated with the mutuality and relationship continuity. The purpose of the study was to gain a better understanding of the commitment concept in industrial marketing theory.

By unfolding the content of commitment, the key issue was to develop a theoretical view on the multidimensionality of commitment for the studying of commitment's impact on trust and relationship continuity. Opposed to those who explore the mutuality and relationship continuity construed by technological and product commitments, the study supplemented the content of commitment with the affective and calculative commitment. When the commitment in industrial activities is extensively elaborated in industrial marketing, the other two dimensions have attracted fewer researchers in relationship marketing. The reason for the absence of calculative commitment lay in the treatment of the concept as synonymous to economic exchange and opportunism in economic theories. Calculative commitment tag along as an appendage hastily coupled to the industrial exchange relationship. Furthermore, this study examines the affective commitment as a construct, while the prevailing research in industrial relationships incorporate it into the concept of trust.

Another interesting conclusion reflects the relation of the calculative and affective commitments with the two constructs of trust and mutuality. Against the earlier studies in relationship and economic theories, the empirical evidence surprisingly indicates that calculative commitment together with affective commitment can stipulate trust and subsequently mutuality. Although, with the absence of technological commitment, trust and mutuality can generate long-term relationships. The conclusion does not uphold the degree of strength in trust and mutuality. It endows calculative commitment the role of forming trust and mutuality which in turn generate relationship continuity. Further research in this context can add new knowledge if calculative commitment are therefore needed.

For examination, the constructs are extracted with the use of an extreme empirical case. No doubt selection of this case can be questioned. But, inasmuch as the effort was to unfold different commitment dimensions, we realized the need for an extreme market condition sufficient to be able to extract the varieties in the construct values. The exposed two step statistical model clearly manifested the excessive differences and unfolded the absence of technological interdependency. The method also endorsed manifestation of values in other commitment dimensions and their connections to the constructs of trust and long-term relationship. With the absence of technological interdependency in the next step of statistical model, the study could verify the validity of the theoretical model. The results attained in the empirical part enabled the study to draw conclusions on the impacts of the other commitment constructs' relation with trust, mutuality and long-term relationship constructs.

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