

## **Experiential knowledge in international business relationships**

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### **Abstract**

Experiential knowledge plays an important role in internationalisation process models (Luostarinen, 1970, 1979, Johanson and Vahlne, 1977) and is central in these models explaining the internationalisation process of the firm. The market-specific knowledge can be gained through experience in the market (Johanson and Vahlne, 1977).

Previous research has identified the importance of knowledge acquisition for internationalising firms and classified the types of such knowledge needed for developing international market activities (Luostarinen, 1979, 1980, Johanson and Vahlne, 1977). However, what are the factors determining experiential knowledge, is not explained in previous studies (Luostarinen, 1979, 1989). Learning process is human, emotional and cognitive process. The Helsinki Model is based on behavioural theory of firm, it concerns firm level behaviour, and it focuses on management's behaviour within the firm (Luostarinen, 1979, 1989). Accordingly, experiential knowledge is tied with the firm's decision-making process. The Uppsala Model identified both market-specific knowledge and general knowledge. The main idea in Uppsala Model is that most business knowledge is tacit, thus it is difficult to translate. (Johanson and Vahlne, 1977, 1990).

However empirical research (Håkansson, 1982, Turnbull and Valla, 1986; Hallen et al., 1987) has shown that experiential knowledge develops in relationships through interaction in which the parties build mutual trust and knowledge (Ford, 1979). Instead of focusing on examining the single firm operating internationally, separated from environment by a distinct boundary, we can focus on exchange level, using relationships as a unit analysis. Thus, knowledge is based on experience from current business interactions between two actors and in these interactions social capital is developed. It is trust-based connections between people and networks. This research is based on network approach, using Uppsala Model as the main reference, because network approach has been extended from it and it uses similar aspects like "commitment, knowledge, current activities" as are used in network approach, but which are taken into consideration as multilateral rather than unilateral as in the original model.

The aim of this research was to find out factors explaining experiential business knowledge and to build a model describing the role of social capital in international business relationships and its influence on experiential knowledge. The research analysed social capital in international business relationships between suppliers and buyers. Theory suggests that social capital will have a positive effect on experiential knowledge. Social capital framework is conceptualised on three dimensions: structural, relational and cognitive dimensions.

With the help of a LISREL-program, using structural equation modelling technique, eight hypotheses were tested on a sample of 280 Finnish exporting firms. After empirical tests, the hypothesized structural equation model was developed further

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producing rival model, and finally a comparison between the hypothesized and the developed rival model was carried out. Based on this rival model, the new theoretical model was developed, which identified factors influencing experiential business knowledge.

This research support earlier research that social capital in international business relationships is an important factor that influences experiential business knowledge. The research didn't find support for causal relationship between experiential institutional knowledge and social capital. The result is line with the proposition set out in this research, i.e. that actors involved in international activities are those who accumulate important experiential knowledge.

This paper reports the results of structural and relational dimension and final model.

## **Introduction**

The phenomena in the field of International Business <sup>2</sup> are seen as relational processes, and due to an increasing interest in international business relationships and networks, they cannot be ignored by International Business (IB) scholars. The dominant paradigms of IB are based on extension and cross-border management paradigms (Toyne et al, 1998). The focus of these paradigms is an examining single firms operating internationally or globally. The unit of analysis is a firm, separated from the environment by a distinct boundary. In contrast to the top management view, we can focus on the middle management by using relationships as an unit of analysis in which everyday interactions take place.

The aim of the paper is to present a model of international business relationships by drawing on social capital and network theories. In order to meet the aims set above first a model is built describing the role of social capital from an individual firm's view. Social capital is dependent upon, and shaped by, the overall business relationships within which it is produced. Thus, the concept of social capital is adopted. The main broad proposition is that social capital has a positive effect on experiential knowledge. After building the model the hypotheses were tested empirically and the model was confirmed.

## **Experiential knowledge in internationalisation theories**

The Uppsala Model (Johanson and Wiedersheim-Paul, 1975, Johanson and Vahlne, 1977) has been extended also to network setting. The original Uppsala Model has been developed (Johanson and Vahlne 1990) into a dynamic model in which distinction between state and change aspects of internationalisation is made.

The basic assumption in internationalisation process of a firm according to Johanson and Wiedersheim-Paul (1975) is that lack of knowledge and resources are the most important obstacles to internationalisation. These obstacles can be reduced through incremental decision-making and learning about foreign markets. The most important factor influencing an internationalisation process of a firm is existence of psychic distance. They (ibid.) refer to kind of attitude that firm have towards foreign countries.

Johanson and Vahlne (1977) described how they understand the concept of knowledge. They spoke about objective knowledge, which can be taught, and about experiential knowledge, which can only be learned through personal experience. Thus the way that the knowledge is acquired is important. According to Johanson and Vahlne (1977) "experience can never be transmitted, it produces a change- frequently a subtle change- in individuals and cannot be separated from them." They also pointed

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<sup>2</sup> International Business=IB

out "Much of the experience of businessmen is frequently so closely associated with a particular set of circumstances that a large part of a man's most valuable services may be available only under these circumstances". Moreover they stated that experiential knowledge is market specific and concerns about characteristics of a specific national market - its business climate, cultural patterns, structure of the market system, and most importantly the individual customer firms and their personnel. Experiential knowledge is more difficult to obtain. There is direct relation to market knowledge and commitment and market knowledge can be considered as a resource. (Ibid.) The knowledge is further discussed in the later work of Johanson and Vahlne, (1990) by stating: " A critical assumption is that market knowledge, including perceptions of the market opportunities and problems, is acquired primarily through experience from current business activities in the market." As one can perceive from above experiential knowledge plays an important role in internationalisation process of a firm as it reduces the psychic distance between countries.

The relationships and networks can be understood through experience from interaction inside, and especially, if there is a cultural distance between the actors. Thus, in relation to the internationalisation process model it can be assumed that market (i.e. network) knowledge is based on experience from current business activities or current business interaction.

#### **Networks and Social capital**

According to Nahapiet and Ghoshal (1998) the social capital concept can be used to explain where the sharing knowledge stems from. The Social capital framework is conceptualised as three dimensions: the structural, relational and cognitive dimensions. (Granovetter 1992; Nahapiet and Ghoshal 1998; Putman 1995) The structural dimension is an overall pattern of connections between actors. Relational dimension is the history of interactions of people who constitute the network.

Trust constitutes one of the main pillars of social capital. Social capital depends on trust (Cohen and Prusak). Trust is based on personal experience. So trust is closely related to tacitness, which can be gained only by experience. As trust takes time to develop there are reasons to believe that a long-term relationship includes trust. As a consequence of long-term relationships, the actors have had time to learn from each other.

#### **Latent concepts of experiential knowledge**

Previous research indicates that knowledge (Johanson et al, 1977, 1990) is an important factor in international business. As in the previous chapter was pointed the current business activities play an important role in internationalisation process. The activities are thus main source of knowledge. " A number of empirical studies have demonstrated that a firm is able to acquire relevant international knowledge from its network" (Holm, et al. 1996; Chetty and Eriksson, 1998). Forsgren (2002) moreover emphasized the role of people in gaining of market knowledge. "People involved in foreign operations are holders of market knowledge and are the ones that experience commitments to other actors in the markets. Whereas Nonaka (1994) raised the contextuality in the scheme: "Tacit knowledge is deeply rooted in action, commitment and involvement in a specific context."

Previous studies (Seppola, 2002) proposed that social capital increases experiential knowledge. Here for analytical reasons experiential knowledge is divided into two interrelated, partly overlapping, but importantly different dimensions. Accordingly we use experiential business knowledge and experiential institutional knowledge.

There is fragmented discussion what we actually mean by knowledge. The concept is defined by Eriksson, Johanson, Majkgård, and Sharma (1997) as follows: "Foreign business knowledge, we mean experiential knowledge of clients, the market, and competitors." Foreign institutional knowledge" refers to experiential knowledge of government, institutional framework, rules, norms, and values." In sum, for latent variables of experiential knowledge foreign business and institutional knowledge are used.

### **Latent variables of macro position, trust and commitment**

Business relationships are important source for obtaining knowledge as it is spread uneven in networks. A basic attribute of exchange relationships is that they are established and developed over time, and so this process can be viewed as an investment process (Håkansson, 1982B, 1992). Thus, network positions are the result of investments in exchange relationships (Johanson and Mattsson (1985, 1992). Johanson and Mattsson (1988) used micro- and macro positions as subordinate variables and described the latter as follows:

Macro positions are characterized by:

1) The identity of the other firms with which the firm has direct relationships and indirect relationships in the network 2) the role of the firm in the network and 3) the importance of the firm in the network and 4) the strength of the relationships with other firms.

Trust is defined (Hunt, and Morgan, 1994) as existing when one party has confidence in an exchange partner's reliability and integrity. Precursors of trust and commitment are mentioned. Shared values and a major precursor of trust is communication. According to the commitment-trust theory (ibid.), those relationships that characterized by relationship commitment and trust engender cooperation, acquiescence, a reduced tendency to leave the network, belief that conflict is functional, and reduced uncertainty. (ibid.)

Trust is related to risk, the greater the risk is, the higher the confidence threshold required to engage in trusting action. The social aspects of trust are defined in terms of social property and implications of the absence of trust. "Trust is a reflection of interwoven personal relationships that develop incrementally over time. Trust is a characteristic of relationships. Ineffective firm interactions and a lack of cooperation are outcomes of lack of trust". (Inkpen and Currall, 1998)

Kirsimarja Blomqvist (1997) defined trust "Actors' expectation of the other party's competence and goodwill." Both capability and goodwill are expected to exist for developing trust. Competence may relate to technical capabilities, skills and know-how. Goodwill is moral responsibility and positive intentions toward the other (Blomqvist, 1997, 2002). Also shared values promote synergistic social behaviour and an organization-specific investments (Jones and George, 1998 in Blomqvist, 1997)

The concept of commitment is also dealt broadly in social exchange (Cook and Emerson 1978). The definition according Morgan and Hunt (1994) covers aspects dealt with relationship marketing and exchanges. As the focus of this research is in business relationships the definition is adopted according to them: "Commitment to the relationship is defined as an enduring desire to maintain a valued relationship." They (ibid.) believed that "valued relationship" exists when it is considered important.

Cook and Emerson (1978 in Hunt and Morgan, 1994) have characterized commitment as a central concept that distinguishing social from economic exchange. According several research (ibid. 1994, Achrol, 1991) have posited, that trust is a major determinant of relationship commitment. Commitment in turn may be

perceived by the adaptation in relationships. Interaction-exchange processes and adaptation processes constitute the dynamic aspect of relationships (Johanson J and Mattsson L-G, 1987). Single exchanges are integral parts of a process in which the parties gradually build up a mutual trust in each other. A social exchange process is a slow process that involves social, business and information exchange. (ibid) Mutuality is mirror the trust. This may be demonstrated as capabilities in interaction such as seller's adaptation concerning product or price on an informal basis. (Ford, Håkansson and Johanson, 1986) According to Das, Teng and Bing-Sheng (1998) inter-firm adaptation is a sign of commitment enhancing trust. Almost similar aspect was emphasized (Blomqvist, 2002) by stating that competence has connection to trust and it is actor's perceived ability to perform something.

"If the partners have a mutual understanding concerning how to coordinate their exchange activities, they are prepared to invest in the relationships and to extend cooperation by including other activities as well. (Blankenburg, Holm, Eriksson and Johanson, 1996)

Blomqvist (2002) defined trust as active and passive components. Active components are behaviour and goodwill. To the former the information and communication is acknowledged the most commonly sources of trust (ibid.) Communication and information sharing are important attributes in which the trust can be perceived. (Zucker, 1986)

Zucker (1986) pointed out that existence of trust is when actors have shared goals and visions. According to Luhmann (1979, 1990) proactive, open and communication means existence of trust. Anderson and Narus (1990) proposed that there is positive relationships between communication and cooperation and also cooperation and trust and functionality of conflict. So communication positively affects cooperation and cooperation positively affects trust and functionality of conflict; trust positively affect firm satisfaction with exchange relationships (ibid).

They also expressed that trust positively affect firm satisfaction with exchange relationships. Also the concept of commitment is another dimension to be used as precursor of 'successful cooperation'. In order to make conclusion of the discussion above the latent variables are chosen. For structural and relational dimensions following latent variables are proposed: for structural dimension macro position is equivalent concept and for relational dimension, concept of trust, and commitment will be used.

### **Hypotheses**

Causal relationships between explaining and explained variables need to be established. Based on the discussion above and the following hypotheses are set:

**Hypothesis 1a:** In international business relationships, macro position has a positive effect on experiential business knowledge.

**Hypothesis 1b:** In international business relationships, macro position has a positive effect on experiential institutional knowledge.

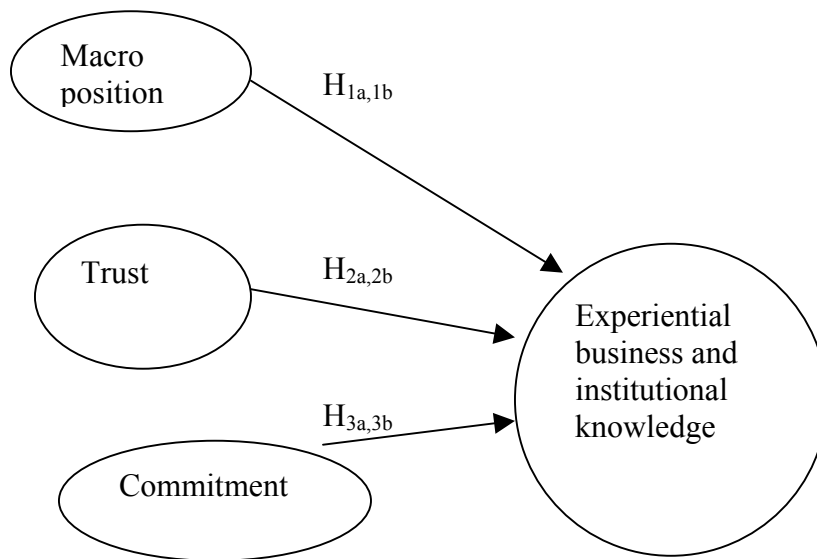
**Hypothesis 2a:** In international business relationships, trust increases experiential business knowledge.

**Hypothesis 2b:** In international business relationships trust increases experiential institutional knowledge.

**Hypothesis 3a:** In international business relationships, relationship commitment has a positive effect on experiential business knowledge.

**Hypothesis 3b:** In international business relationships, commitment has a positive effect on experiential institutional knowledge.

Figure 1: Alternative Hypotheses



### Variables in the model

The basic idea is that certain variables cannot be observed directly. These variables are called latent variables  $\xi_1$ ,  $\xi_2$ , and  $\xi_3$ ; and  $\eta_1$  and  $\eta_2$ . The former are explaining factors and the two latter ones are explained factors.

The unobserved variables are referred to as latent factors (common factors). While latent variables cannot be observed directly, information about them can be obtained indirectly by noting their effects on observed variables. Figure 3 illustrates factor model, which is called, the model of hypothesized structural equation model. Circles represent latent variables and observed variables are represented by squares. A straight arrow pointing from a latent variable to an observed variable indicates the causal effect of the latent variable on the observed variable. The circles on the left correspond to the latent variables macro position  $\xi_1$ , trust  $\xi_2$ , and commitment  $\xi_3$ , which are the dimensions of social capital. *Structural dimension of social capital reflects* the amount of connections that each actor has. *Relational dimension of trust* reflects the soft aspects of business relationships. It is indicator of quality of business relationships. *Relational dimension of commitment* reflects also the soft aspects of business relationships, it the concept that distinguishing social exchange from economic exchange.

Experiential knowledge have two aspects: business knowledge  $\eta_1$  and institutional knowledge  $\eta_2$  (Sharma, et al, 1997) Foreign business knowledge means market knowledge experiential knowledge of clients, the market, and competitors and foreign institutional knowledge refers to experiential knowledge of government, institutional framework, rules, norms, and values. The individual measurement items for the study's dependent and independent variables are listed in Figure 2. Statement-style items were used to measure each construct on five-point Likert-scales.

Figure 2: Measurement model/Keys

Construct /Key	latent variables	observed variables
<b>Macro position/macro</b>	$\xi_1$	
Q12 supplier connections		X <sub>1</sub>
Q13 customer connections		X <sub>2</sub>
Q14 competitor connections		X <sub>3</sub>
<b>Trust /trust</b>	$\xi_2$	
Q17 shared values		X <sub>6</sub>
Q18 information sharing	X <sub>7</sub>	
Q19 goodwill		X <sub>8</sub>
Q20 risk inherence		X <sub>9</sub>
Q21 partnership competence	X <sub>10</sub>	
<b>Commitment/commit</b>	$\xi_3$	
Q22 product, technological adaptation	X <sub>11</sub>	
Q23 considering important		X <sub>12</sub>
Q24 investment in relationships	X <sub>13</sub>	
<b>Experiential Business knowledge/business</b>	$\eta_1$	
Q29 knowledge about clients		Y <sub>1</sub>
Q30 knowledge about markets		Y <sub>2</sub>
Q31 knowledge about competitors		Y <sub>3</sub>
<b>Experiential Institutional knowledge/institu</b>	$\eta_2$	
Q32 Institutionalknowledge		Y <sub>4</sub>
Q33 knowledge about values		Y <sub>5</sub>
Q34 knowledge about rules and norms	Y <sub>6</sub>	

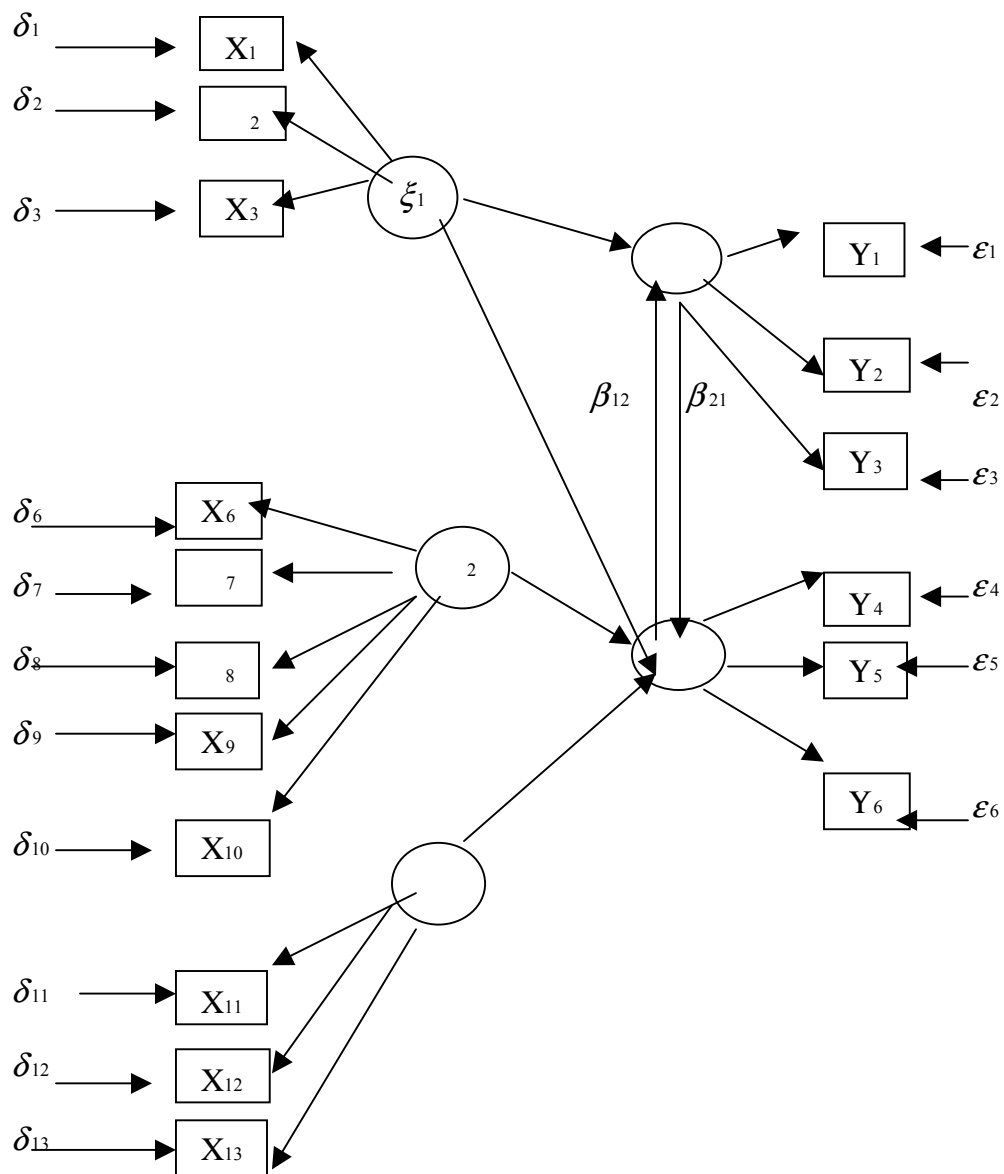
### Data and method

With the help of a LISREL-program, using structural equation modeling technique, social capital is analysed in international business relationships between suppliers and buyers. This paper reports the final model that is developed and generated from the original model. The overall fit indexes appeared satisfactory, but not all of parameters significant. Therefore the most obvious ways to improve the fit of the model is to eliminate the parameters that are not significant (Long, 1986). Here the final (rival model) is reported, which is based on structural and relational dimensions. The hypothesized structural model was built and the four hypotheses were tested on a sample consisting of 280 Finnish exporting firms of various sizes. After empirical tests, a final (rival) model B, is presented.

### Sample desing

On total 3973, survey questionnaires were sent out; 280 questionnaires were returned and thus a response rate was approximately 7%. All Finnish industrial sectors are included in this study. Moreover, the firms represent all sizes and except only very small firms those employing 1- 4 were excluded. Data was cross-sectional. The validity of the model is based on Chi-Square.

Figure 3: A Hypothesized structural equation model





Structural equations:

$$\eta_1 = \beta_{12} \eta_2 + \gamma_{11} \xi_1 + \gamma_{12} \xi_2 + \gamma_{13} \xi_3 + \zeta_1$$

$$\eta_2 = \beta_{21} \eta_1 + \gamma_{21} \xi_1 + \gamma_{22} \xi_2 + \gamma_{23} \xi_3 + \zeta_2$$

Measurement Models :

$$X_1 = \lambda_{11} \xi_1 + \delta_1$$

$$X_2 = \lambda_{21} \xi_1 + \delta_2$$

$$X_3 = \lambda_{31} \xi_1 + \delta_3$$

$$X_6 = \lambda_{62} \xi_2 + \delta_6$$

$$X_7 = \lambda_{72} \xi_2 + \delta_7$$

$$X_8 = \lambda_{82} \xi_2 + \delta_8$$

$$X_9 = \lambda_{92} \xi_2 + \delta_9$$

$$X_{10} = \lambda_{102} \xi_2 + \delta_{10}$$

$$X_{11} = \lambda_{113} \xi_3 + \delta_{11}$$

$$X_{12} = \lambda_{123} \xi_3 + \delta_{12}$$

$$X_{13} = \lambda_{133} \xi_3 + \delta_{13}$$

$$Y_1 = \lambda_{11} \eta_1 + \varepsilon_1$$

$$Y_2 = \lambda_{21} \eta_1 + \varepsilon_2$$

$$Y_3 = \lambda_{31} \eta_1 + \varepsilon_3$$

$$Y_4 = \lambda_{42} \eta_2 + \varepsilon_4$$

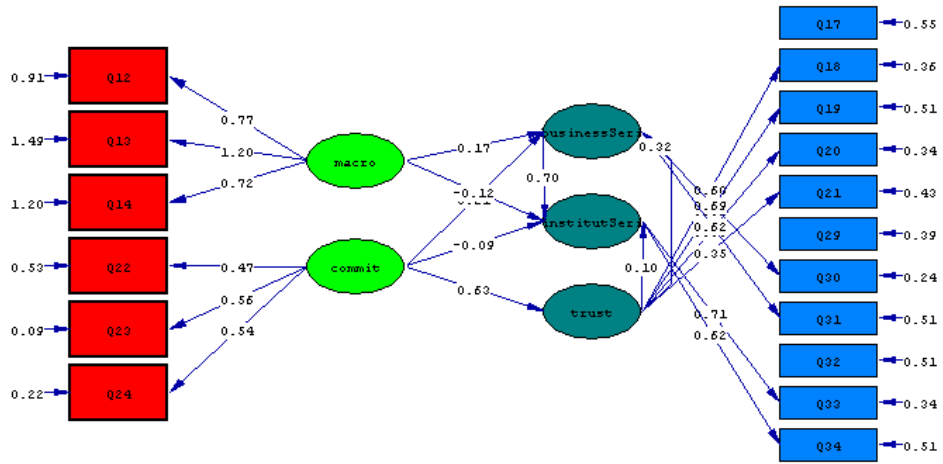
$$Y_5 = \lambda_{52} \eta_2 + \varepsilon_5$$

$$Y_6 = \lambda_{62} \eta_2 + \varepsilon_6$$

After the first round , on the basis of estimates and fit indexes, a new model with three explaining factors and two explained factors has been designed. The latent variable of cognition has been omitted from a rival model. The poor constructs were also omitted, since as was demonstrated earlier, a minimum three constructs is needed in order to measure one latent variable.

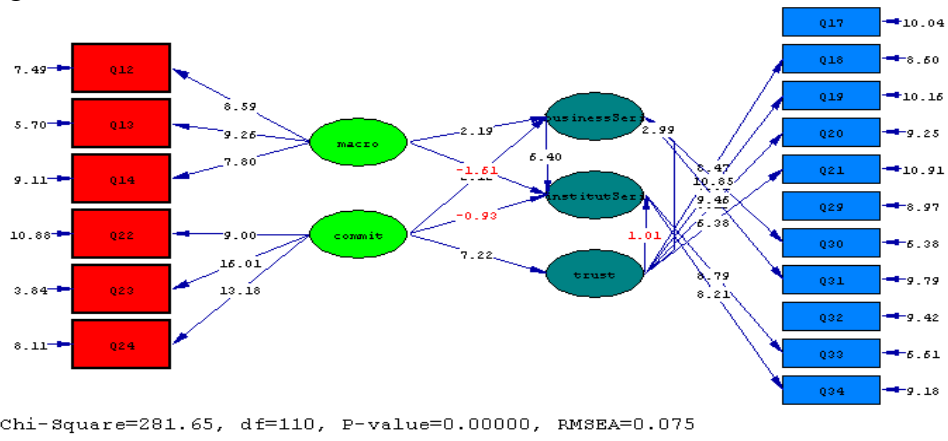
The results of the second round are presented in figures and below.

Figure 4: Rival Model.  
Estimates:



Chi-Square=281.65, df=110, P-value=0.00000, RMSEA=0.075

Figure 5: Model B, The Rival Model: t-values



**TABLE 1 LISREL Estimates Maximum Likelihood R<sup>2</sup>**

Macro position/macro $\xi_1$	
Q12 supplier connections	0.39
Q13 customer connections	0.49
Q14 competitor connections	0.30
Trust /trust $\xi_2$	
Q17 shared values	0.36
Q18 information sharing	0.51
Q19 goodwill	0.35
Q20 risk inherence	0.45
Q21 partnership competence	0.23
Commitment/commit $\xi_3$	
Q22 product, technological adaptation	0.29
Q23 considering important	0.79
Q24 investment in relationships	0.56
Experiential market knowledge $\eta_1$	
Q29 knowledge about clients	0.51
Q30 knowledge about markets	0.67
Q31 knowledge competitors	0.43
Experiential institutional knowledge $\eta_2$	
Q32 Institutional knowledge l	0.40
Q33 knowledge about values	0.60
Q34 knowledge rules norms	0.43

As the table 1 above demonstrates, the study has succeeded in operationalisation, since the estimates exceed 0.30 (with exception of Q21) as earlier was defined requirements for a good construct. In social science researchers are not able estimate the human behaviour with 100% certainty.

Figure 6: Measurement Equations of the Model B

	Error variance
Q12=0,77 $\xi_1$	0,91
Q13=1,20 $\xi_1$	1,49
Q14=0,72 $\xi_1$	1,20
Q17=0,56 $\xi_2$	0,55
Q18=0,60 $\xi_2$	0,36
Q19=0,52 $\xi_2$	0,51
Q20=0,53 $\xi_2$	0,34
Q21=0,35 $\xi_2$	0,43

Q22=0,47 $\xi_3$	0,53
Q23=0,56 $\xi_3$	0,09
Q24=0,54 $\xi_3$	0,22
Q29=0,64 $\eta_1$	0,39
Q30=0,69 $\eta_1$	0,24
Q31=0,62 $\eta_1$	0,51
Q32=0,59 $\eta_2$	0,51
Q33=0,71 $\eta_2$	0,34
Q34=0,62 $\eta_2$	0,51

Figure 7: The Rival Model, t-Values

<b>Experiential knowledge</b>	<b>Latent Variable</b>	<b>t-values</b>
Business knowledge	Macro position	<b>2.19</b>
Business knowledge	Trust	<b>2.99</b>
Business knowledge	Commitment	<b>2.12</b>
Institutional knowledge	Business knowledge	<b>6.40</b>
Institutional knowledge	Macro position	-1.61
Institutional knowledge	Trust	1.01
Institutional knowledge	Commitment	-0.93
<b>Trust</b>	<b>Commitment</b>	<b>7.22</b>

In figure 7, t-values, that are printed in bold show when data has supported the alternative hypotheses. In case of relationships between institutional knowledge macro position (-1.61), trust (1.01) and commitment (-0.93). However, unexpected results were received. However there is strong relationships between commitment and trust (7.22).

As we can see the estimates are statistically significant ( $\geq 2$ ) in relations between latent variables business knowledge and macro position, trust and commitment. This means that experiential business knowledge is dependent on macro position, trust and commitment between actors. The most dominant factor influencing experiential business knowledge is trust between actors.

However influence between institutional knowledge macro position, trust and commitment is not supported by the data. There is strong opposite influence between

the institutional knowledge and macro position, as it was suggested. This means that when there is an increase in macro position (number of connections with suppliers, customers and competitors) there is a decrease in institutional knowledge. The case of commitment is somewhat similar, however the influence is smaller, but still negative. The next set of latent variables are tested: The first alternative hypothesis dealt with macro positions and two dimensions of knowledge.

The data supported in the beginning of this study set proposition that social capital increases experiential knowledge.

The next set of hypothesis examined the extent to which the three factors influence on two dimensions of knowledge. As appendices show the following hypotheses are supported, specifically business knowledge is positively influenced by macro position and is positively influenced by trust and commitment. So hypothesis 1a, 2a, 3a and are confirmed and based on this confirmation the rival model is:

#### **Model B: Equation for the Rival Model**

$$\begin{aligned} \eta_1 &= 0.17 \xi_1 + 0.32 \xi_2 + 0.21 \xi_3 & \text{error variance } 0.75 \\ \eta_2 &= -0.12 \xi_1 + 0.10 \xi_2 - 0.089 \xi_3 & \text{error variance } 0.50 \end{aligned}$$

Data supported three hypotheses out of original eight. The following alternative hypotheses were accepted 1a, 2a, and 3a.

The first two hypotheses deal with macro position and experiential business and institutional knowledge:

**Hypothesis 1a:** In international business relationships, macro position has a positive effect on experiential business knowledge.

**Hypothesis 1b:** In international business relationships macro position has a positive effect on experiential institutional knowledge.

The first hypotheses 1a concerning the link between macro position and experiential business knowledge, is significant,  $\gamma_{11}=0.17$ , which means that  $H_0$  was rejected<sup>3</sup>. In addition to t-value is 2.19 which means that there is a strong support in terms of significance and size effects found in the data. Alternative hypothesis 1a is thus accepted.

The second hypothesis 1b, which concerns the link between macro position and institutional knowledge, is not significant. Moreover,  $\gamma_{21}=-0.12$  is negative, and t-value is -1.61, which indicates that there is a negative effect between the latent concepts based on size effects and significance. The null hypothesis,  $H_0$  cannot be rejected.

The next set of hypotheses examine the extent to which trust influences the two dimensions of knowledge.

**Hypothesis 2a:** In international business relationships, trust increases experiential market knowledge. The result is significant,  $\gamma_{12}=0.32$ . Moreover t-value between trust and experiential market knowledge is 2.99, which indicates that the data supports in terms of size effects and significance the hypotheses strongly, accordingly  $H_0$  was rejected.

**Hypothesis 2 b:** In international business relationships trust increases experiential institutional knowledge. The result is not significant,  $\gamma_{22}=0.10$ . t-value is 1.01, there is not found support from the data, thus null hypotheses cannot be rejected.

Furthermore the another latent variable of commitment is used for relational dimension.

**Hypothesis 3a:** In international business relationships, relationship commitment has a positive effect on experiential business knowledge. Here again the result is

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<sup>3</sup> p value  $\leq 0.05$

significant,  $\gamma_{13}=0.21$ , and t-value 2.12, which indicates that there is strong support for this hypothesis, thus this hypothesis, 3a, is accepted and accordingly  $H_0$  rejected.

**Hypothesis 3 b:** In international business relationships, commitment increases experiential institutional knowledge. The result is not significant,  $\gamma_{23}=-0.089$  and t-value  $-0.93$  indicates that there is not support found from data for this hypothesis. The null hypothesis,  $H_0$ , cannot be rejected.

In summary, the empirical analyses provide enough support for the theoretical reasoning of this study (chapter 2).

Main result is all following dimensions (Model B) of social capital (macro position, trust, commitment) influence positively on experiential business knowledge, but not on institutional knowledge. As trust takes time to develop for this reason macro position is important factor influencing on experiential business knowledge. Commitment is also very important in business relationships as the data supported. Commitment have found according to many studies very important factor in relation to knowledge.

Most importantly data supported that social capital increases experiential business knowledge. Social capital develops in long-term business relationships; it is cumulative, interactive, social process.



Figure 8: Assessment of the Goodness of Validity

Index Abbreviation	Name of test	Good model <sup>4</sup>	Model B
RMSEA	Root Mean Square Error Approximation	<0.06	0.075
NFI	Normed Fit Index	>0.90	0.88
NNFI	Non-Normed Fit Index		0.90
CFI	Comparative Fit index	>0.95	0.92
RMR	Root Mean Square Residual	Small (depends the size of variables)	<b>0.056</b>
SRMR	Standardised RMR	<0.08	0.062
GFI	Goodness of Fit Index	>0.90	0.89
IFI	Incremental Fit Index	>0.90	<b>0.92</b>
RFI	Relative Fit Index		<b>0,85</b>

The hypothesized model was estimated with the help of LISREL 8.5 program (Jöreskog Sörbom, 1993, Jöreskog et al. 2001, Jöreskog et al. 1996-2001, Toit and Toit, 2001) and by using a structural equation modeling technique. The overall fit measures suggest that the hypothesized model provides a good fit for the data. The chi-square-degrees of freedom ratio ( $\chi^2 / d.f = 2.58$ ) showed good results. Chi-Squares/df were improved in model B. The other overall measures: NNFI, CFI, RMR, SRMR and GFI also meet the requirements suggested in relevant literature (Metsämuuronen 2002, Leskinen 1987). The overall fit measures suggest that Model B provides a good fit for the data. The overall measures (RMR = 0.056; IFI 0.92; RFI=0.85; RMSEA 0.075) also meets the requirements suggested in relevant literature (e.g., Metsämuuronen, 2003, Leskinen, 1987) All central indexes are

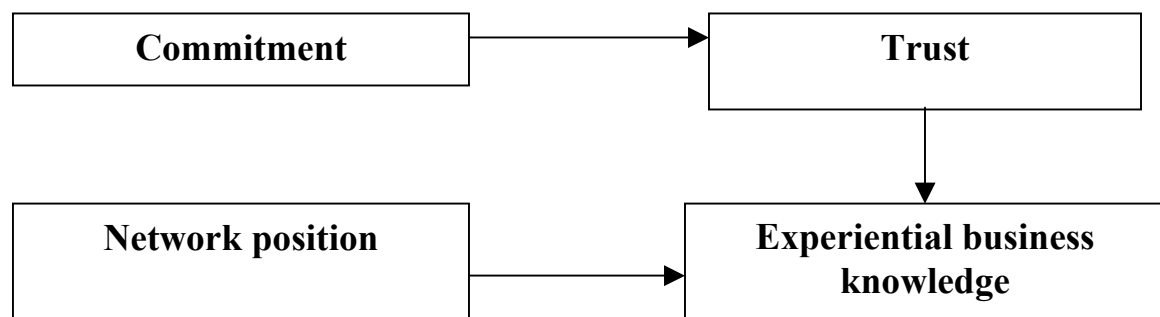
<sup>4</sup> (Metsämuuronen 2003) p. 564

supposed to lie between 0 and 1 (RFI, IFI and CFI)(Bollen,1989 a,b and Bentler, 1980). So they do.

### Results:

Most importantly the study was able to establish a positive relationship between two dimensions of social capital namely: structural dimension (macro position) relational dimension of trust and commitment and experiential business knowledge. Trust plays an important role in international business relationships. Both theoretical and empirical evidence was found for structural dimension as macro position and experiential business knowledge. Moreover, the relational dimension of trust and commitment were also proved to be significant in the relationship between the latent relationship of trust and commitment and experiential business knowledge. The correlation between these latent variables, commitment and trust, proved also strong: 7.22. As theory suggested, trust is a mirror of commitment. The correlation between experiential business and institutional knowledge is also strong 6.40 as simultaneous effect exists between the two types of knowledge.

Figure 9: Relational Dimension of Social Capital in Business Relationships



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