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Article Title Page

The influence of purchase-related risk perceptions on relationship commitment

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Structured Abstract:

Purpose

Perceived risk is an intrinsic element of all organizational decision-making and business relationships. It is closely interconnected with relationship commitment and strongly affects the buying decisions. Therefore, the organizations that best understand the risks perceived by their customers and hold the means that allow the customers to accommodate these risks, possess a significant competitive edge.

Design



This research surveys 165 companies on purchase-related risk perceptions and tests the effects of three risk dimensions on relations commitment, and the effectiveness of procedural control on managing these risks. Moderation effect of buying situation is also tested. Structural equation modelling is used to test the conceptual model on data from Finnish companies.

Findings

The participants in organizational buying experience three types of risks, product performance, personal psychological, and personal financial risks. Higher product performance and personal financial risks are found to decrease the customer's commitment to the supplier, whilst higher psychological risks have a positive effect on relationship commitment. Procedural control is confirmed as an effective application in managing risks in organizational buying process. Buying situation significantly affects the model.

Originality

The present study shows that purchase-related risk perception is a multidimensional construct which consist of both organizational and individual level aspects. We also provide new insights into the effectiveness of procedural control on mitigating organizational risk perceptions in different buying situations.

Keywords: organizational buying, relationship commitment, perceived risk, procedural control

Article Classification: Research paper

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Running Heads:

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The participants in organizational buying experience three types of risks, product performance, personal psychological, and personal financial risks. Higher product performance and personal financial risks are found to decrease the customer's commitment to the supplier, whilst higher psychological risks have a positive effect on relationship commitment. Procedural control is confirmed as an effective application in managing risks in organizational buying process. Buying situation significantly affects the model.

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1. Introduction

The area of risk and risk perceptions in an organizational context has been studied by a number of researchers (e.g. Brown et al., 2011; Bunn, 1994; Gao et al., 2012; Liu et al., 2008; López-González et al., 2013; Mitchell, 1998). Purchase-related risks have been studied for example by Dowling and Staelin (1994), Ellis et al. (2010), Munnukka and Järvi (2008), Zsidisin (2003), and Webster and Keller (2004). For example Dowling and Staelin define risk as ‘a buyer’s perception of the uncertainty and adverse consequences of buying a product/service’.

Uncertainty and anticipation of loss resulting from the buying process is found to exist in all purchase situations to varying degrees (Zsidisin, 2003). In prior studies, in the organizational context, perceived risk is mainly treated as a unidimensional construct or including only product performance and financial dimensions. In contrast, in a consumer marketing context perceived risk is conceptualized as comprising social, psychological and physical dimensions too (e.g. Stone and Grønhaug, 1993; Hornibrook et al., 2005; Mieres et al., 2006). However, the knowledge of the individual-level risk perceptions is relevant also in the organizational context as the individuals of buying groups have influence on the buying processes and their outcomes. Moreover, the information of perceived risks is relevant for buyer and supplier organizations as the risk perceptions influence the decision-making, value perceptions, satisfaction, and customer relationships. This invites the question of whether these same individual-level risk perceptions are relevant in the organizational buying context and how they influence decision-making.

Regardless of the evident importance of understanding the formation of purchase-related risk perceptions in organizational context recent research is scarce.

According to Ronchetto et al. (1989) an organizational buying system (i.e. a buying centre) consists of a group of individuals from various functional areas and different levels of the organizational hierarchy who are in social interaction with and influence each other. Notable research has been done on individual-level influence in organizations. Wilson (1995) has studied dyadic buyer-seller interaction at organizational and individual levels, Anderson (2008) individual-level influence on group functionality, and Ronchetto et al. (1989) the informal and formal influence of individual members of the buying organization on other members and on direct buying decisions. Furthermore, for example Johnson et al. (2008), Moore (1998), Skarmeas and Robson (2008), and Mukherjee and Nath (2007) show that customers' commitment to continue a relationship is an antecedent of risk. Agarwal and Teas (2004), Chen et al. (2005), and Snoj et al. (2004) state that perceived risk directly affects the customers' purchase-related value perceptions and satisfaction. However, little is known of how individual-level risk perceptions affect organizational buying processes and in turn how those risk perceptions are associated with an organization's relationship commitment, that is, the intention to continue the relationship.

Another focal issue of purchase-related risks is risk management. According to Munnukka and Järvi (2008) and Bunn (1994) established procedures and routines act as inbuilt processes of risk management in the context of organizational behaviour. The relevance of predefined procedures and routines is also discussed in organizational theory literature through the concepts of high

reliability organizations (HRO) and an organization's state of mindfulness, which is understood as an organization's capability to discover and manage unexpected events. For example Weick et al. (1999) define specific organizational processes that provide organizations' with capabilities to discover and manage these unexpected and potentially harmful events. In the organizational buying context, prior studies offer diverging propositions on the use of these processes and routines. On the one hand, the studies of Laios and Moschuris (2001) and Woodside et al. (1999) indicate that these processes are used especially in frequent, less complicated and less critical buying situations. Another stream of research represented by Munnukka and Järvi (2008) and Kumar and Seth (1998), aligns with the organizational theory literature, suggesting that these routines and procedures are needed in critical buying situations, especially where buyers and sellers do not have the benefit of strong and resilient customer relationships. Despite the obvious importance of procedural control mechanisms for organizational buying behaviour, there is a lack of in-depth understanding on how these mechanisms affect the purchase-related risk perceptions in organizations.

To conclude, this research contributes to the current literature in three aspects. First we show that organizational risk perception is a multidimensional construct consisting of similar dimensions to those found in the consumer buying context (performance, psychological, financial, time-loss, and physical risk). This study also adds knowledge of how these risk dimensions affect the customer organization's commitment to continue the buyer-seller relationship. Finally, this study illustrates how procedural control mechanisms act as an application of risk management by impacting on each risk dimension.

1.1. Perceived risks in organizational purchasing

As uncertainty is an integral part of most organizational processes, so are procedural control (that is, formalization) mechanisms common in organizations (Munnukka and Järvi, 2008). These mechanisms are meant to counter risks and help organizations manage occurrences during various decision-making processes (i.e. buying decisions). Perceived risks are especially relevant in the event of complex and new purchases where risks can arise from many sources and affect the buying decisions and the customer relationship (see Kumar and Seth, 1998). The research findings of Wang et al. (2004) highlight this by showing that different types of risks exist (exogenous, induced, and self-induced risks) in buying processes which affect the buying behaviour in different ways. Hornibrook et al. (2005) and Mieres et al. (2006) also support this view that perceived risk must be treated as a multidimensional construct. Thus, the instrument proposed by Stone and Grønhaug (1993) is congruent with this view, allowing the measurement of various types of risks related to buying behaviour. It identifies five risk dimensions: performance risk, psychological risk, financial risk, time-loss risk, and physical risk. Although this instrument was originally constructed for consumer marketing context, it is also applicable for organizational buying context, given that buyer-seller interaction is conceptualized as dyadic interaction at both the organizational and individual levels (Håkansson, 1982; Wilson, 1995).

Prior studies also point to existence of an individual-level influence on group decisions (e.g. Anderson, 2008; Bougheas et al., 2013; Groyberg et al. 2011; Sutter, 2009). Thus, individual

members of a buying organization have varying degrees of influence on the other members and on buying decisions (e.g. Chun et al., 2011). Therefore, we argue that individual and organizational aspects are incorporated in an industrial buying context, and similar individual-level psychological risk aspects found in the consumer buying context are also relevant to industrial buying decisions.

According to Mitchell and Greatedorex (1990) and Stone and Grønhaug (1993), performance risk concerns the ability of a product to perform as anticipated (e.g. relating uncertainty towards the technical quality of the product or its suitability to the customers' systems). Psychological risk relates to negative effects on self-image and image perceived by colleagues as a consequence of participation in the buying process and decisions made at the time (e.g. a risk that the participant's line manager will be dissatisfied with the buying process or its outcomes; or that the participant's decisions during the buying process will have negative effects on social relations). Financial risk captures the potential for negative financial outcomes for a company or an individual participating in the decision-making process (e.g. the purchase creates extra cost for the company; or the cost effectiveness of the department is reduced due to the buying process). Time-loss risk relates to anticipation that the adoption and use of the product will consume time that could be spent more productively on other tasks (e.g. too much time is spent on contacting and providing information to the supplier; or not enough time is allotted for repairing faults during the buying process). Physical risk refers to physical harm that may occur owing to decisions made during the buying process (Aqueveque, 2006). However, this latter risk dimension is not considered relevant to the present study, as buying process outcomes do not cause direct physical risks to buying centre personnel.

1.2. Procedural control mechanisms in organizational purchasing

Bunn (1994) and Woodside and Sherrell (1980) have found that procedural control underlies all organizational buying behaviour, a finding justified on account of organizational buying being mostly conducted according to predefined procedures. Munnukka and Järvi (2008) show that business organizations apply procedural control mechanisms more intensively in higher risk buying situations. Furthermore, they show that companies differ in terms of how tolerate purchase-related risks, which is reflected into their buying organizations and buying processes. Although pre-defined procedures are mostly employed to manage risks related to organizational buying, the recent literature provides little empirical evidence on how they influence the risks facing buying organizations or against what types of risks these procedures are most effective. In this study, procedural control is defined according to Bunn (1994) who states that it is the extent to which a buying organization relies on policies, procedures, or informal rules of thumb in buying decision-making.

The research of Bunn (1994) shows that procedural control mechanisms are correlated with the length of the buying process, the importance of the purchase, and are employed most frequently in simple and routine buying situations. Similarly, Laios and Moschuris (2001) and Woodside et al. (1999) suggest that procedural control mechanisms are applied mostly in low-importance purchases, and are less relevant in unique purchases. Kirkhaug (2010) shows a positive causal relationship with the extent to which an organization's employees were exposed to rules and the procedures and with their level of perceived risks. Sabiote et al. (2012) suggest that in buying

situations where the buyer and seller do not enjoy a strong customer relationship, tighter control procedures are imposed in order to lower the perceived risks. Also the findings of Kumar and Seth (1998) support that higher perceived risk with uncertain relational situations lead to tighter controlling procedures. That is, procedural control is used more often in buying situations where the customer is less committed to the relationship with the supplier. Therefore, we posit that psychological, financial, performance and time-loss risks perceived by the customer organization are negatively associated with the customer organization's use of procedural control. The relationships are expected to differ between buying situations.

H1: Psychological risk associates negatively with the use of procedural control in the buying decision-making process.

H2: Financial risk associates negatively with the use of procedural control in the buying decision-making process.

H3: Performance risk associates negatively with the use of procedural control in the buying decision-making process.

H4: Time-loss risk associates negatively with the use of procedural control in the buying decision-making process.

H5: Buying situation has a moderating effect on the links between the use of procedural control and the dimensions of purchase-related risk perceptions.

1.3. Effect of perceived risk on relationship commitment

Brown et al. (2011) highlight the importance of the buyer-seller relationship in managing risk perceptions. Cullen et al. (2000) further note that risk has an important role in organizational buying where purchases are often complex, the outcome is uncertain, and a high degree of perceived uncertainty is involved, owing to the need for long term commitment to the supplier. Therefore, commitment affects business partners' behavioural intentions towards the relationship (e.g. Lohtia et al., 2005; Skarmeas and Robson, 2008), and thus, also their purchase decisions. In defining relationship commitment, we follow the suggestions of Morgan and Hunt (1994) and Moorman et al. (1992), viewing relationship commitment as the commitment of business partners and their enduring desire to maintain a valued relationship. Although commitment is often considered as a multidimensional phenomenon (Brown, 1996; Wong and Sohal, 2002), in the present study we conceptualize it as a unidimensional construct which is connected to perceived risk, trust, loyalty, and satisfaction (see Morgan and Hunt, 1994).

In commitment-trust theory, perceived risk or uncertainty is positioned as succeeding trust, where it is negatively influenced by trust (Humphrey and Schmitz, 1998; Morgan and Hunt, 1994). An empirical study by Johnson et al. (2008) further shows that, commitment has a positive influence on customer satisfaction and so diminishes risk perceptions. A number of studies in other fields of marketing, especially in the context of customer value show that the perceived risk construct affects customers' value perceptions and has a negative relationship with perceived benefits and satisfaction (Agarwal and Teas, 2004; Che et al., 2005; Snoj et al., 2004; Sweeney et al., 1991). Therefore, as perceived risk arises from the uncertainty and anticipation of loss deriving from outcomes of the buying process (Dowling and Staelin, 1994) it diminishes perceived benefits of the relationship, satisfaction, and the customers' commitment towards the

relationship (Mukherjee and Nath, 2007). Therefore, we suggest that perceived risk is an antecedent of relationship commitment. The four dimensions of perceived risk are negatively associated with relationship commitment and are moderated by the buying situation in question.

H6: Psychological risk associates negatively with relationship commitment in the buying decision-making process.

H7: Financial risk associates negatively with relationship commitment in the buying decision-making process.

H8: Performance risk associates negatively with relationship commitment in the buying decision-making process.

H9: Time-loss risk associates negatively with relationship commitment in the buying decision-making process.

H10: Buying situation has a moderating effect on the links between the dimensions of purchase-related risk perceptions and relationship commitment.

2. Research Methodology

2.1. Research design

The objective of the study is to explore the effects of these risk perceptions on the continuance commitment of the customer relationship, specific to the buying situation, and how those perceived risks could be managed by the use of procedural control. The focus is on examining organizational risks in the context of new and modified rebuy situations perceived by the

members of buying organizations. The research model, based on prior studies, is shown in Figure 1.

The data were collected from 165 Finnish businesses with a structured interview method. The non-probability convenience sampling method was applied for selecting the sample organizations on the basis of whether they had recently been in significant new or modified re-buy situations. The companies with only straight re-buy, routine buying and other less significant buying situations were excluded, as their ability to provide new information on the research topic was thought likely to be limited. The interviewees were those who had participated in the planning and execution phases of the buying process in the organizations. Researchers trusted the selected companies to provide the best informants. The interviews involved a structured interview form partly being completed by an interviewer and partly by the interviewee. In addition, notes were made during the interviews, questions were posed more directly and misunderstandings were corrected as required. The interviews lasted between 20 and 30 minutes. The selected organizations were not limited to any specific industry or by organization size. The measurement model was first pretested by explorative factor analysis (EFA), and the validity of the measurement was then confirmed by confirmatory factor analysis (CFA) and the structural model was tested by AMOS.

Figure 1 about here

2.2. Operationalization

The structured interview form was designed to measure four dimensions of risk, continuance commitment and procedural control. The measures were based on the instrument proposed by Stone and Grønhaug (1993). Forms of perceived risk were measured by 20 items and procedural control by nine items, both on five-point Likert scales. The questionnaire was screened and pretested with two industry experts to ensure the validity and accuracy of the questions. The description of the research instrument is presented in the appendix.

2.3. Data collection

The empirical study was carried out among Finnish business organizations in 2010. The non-probability convenience technique with some instructions was applied in selecting sample organizations (Malhotra and Birks, 2003, 363-364). The data were collected by a structured interview method with companies from various industries (Table 1): manufacturing (20.0%), construction (5.4%), private services (35.2%), public services (15.2%), wholesale and retail trade (21.2%) and other, for example, primary production (3.0%). The companies represented in the study also varied in size: 67.9 % had 50 personnel or fewer; 19.4%, 51–500 personnel; and 12.7%, over 500 personnel.

Table 1 about here

Bunn (1993) proposes a classification of six buying situation categories: casual, routine low priority, simple modified re-buy, complex modified re-buy, judgemental new task, and strategic new task. Mitchell (1998) finds that the classification of buying situations by newness,

importance, and complexity characteristics to be an accurate measure of the perceived risks found in the context of organizational buying. As the main focus of this study is on studying risks, it focused only on buying situations where the perception of risk could be expected to be important, that is, simple modified re-buy (19.9%), complex modified re-buy (21.3%), judgemental new task (22%), and strategic new task (36.6%), as presented in Table 2. Most of the respondents (77 %) evaluated the purchase as important or very important.

Table 2 also presents the status of the respondents classified by buying situation, and their roles in the buying process classified by status group. The respondents were mostly from either middle management (16.3 %) or top management (47.5%). Top management was especially well represented in the complex modified re-buy (27%) and strategic new buy (39%) situations. Further categorizations of respondents were employees (14.9%) and supervisors 12.8%. Respondents were mostly decision-makers (49 %) and influencers (22 %), but buyers (10 %), users (9%) and initiators (8 %) were also represented. Top management were mostly in decision-making roles (72%) and middle management in decision-maker (43%) and influencer (36%) roles.

Table 2 about here

3. Empirical Findings

3.1. Validity of the measurement model

Following the suggestions of Gerbin and Anderson (1988), the reliability, unidimensionality, convergent validity, and discriminant validity of the scales were examined. EFA was applied as a preliminary analysis technique for scale construction, and Cronbach's alpha was applied to test the reliability of the factor constructs (Gerbin and Anderson, 1988). The EFA helped identify five factor constructs: relationship commitment (RC), performance risk (PERFR), personal financial risk (FINANCR), personal psychological risk (PSYCHR), and procedural control (PC). Factors RC, PERFR, and PC consist of four items each, however, the factors FINANCR and PSYCHR contain only two items. As these items load well on the assigned factors and show a sufficient level of convergent and discriminant validity (as shown in tables 3 and 4) they are not likely to cause problems for the model identification. Cronbach's alphas range from 0.71 to 0.89, demonstrating acceptable reliability (Nunnally, 1978). Only three risk constructs were formed because time-loss risk was not identified in the EFA (see Figure 1). Prior studies suggested procedural control as a method of managing the risks related to the buying process. Therefore, PC is anticipated to be negatively associated with the constructs of perceived risk. To assess the unidimensionality of the constructed scales more explicitly a CFA was applied (Gerbin and Anderson, 1988). A CFA using AMOS 18 was conducted to check the validity of the measurement model.

Measures with an adequate convergent validity should contain less than 50% error variance (Ping, 2004); in other words the average variance extracted (AVE) of each construct should be above 0.5. As factor items load sufficiently on their associated constructs and the AVEs range between 0.59 and 0.71 (Table 4), the constructs demonstrate acceptable convergent validity. Discriminant validity of the constructs is assessed through correlation coefficients between the

constructs with a cut-off criterion of 0.7 (Ping, 2004). As another measure of discriminant validity, the square roots of the AVEs were assessed. In accordance with Chin (1998), the square root of the AVE of each construct is well above the correlation of any other constructs in the model. As the correlations between the constructs in Table 4 are well below the cut-off criterion of 0.7 and the square roots of the AVEs of the constructs clearly exceed the correlation coefficients, the constructs are assessed to be distinctive, thereby suggesting discriminant validity. A Harman's single factor test was applied to examine the common method bias (CMB) in the data (Podsakoff et al., 2003). According to this procedure, the number of factors extracted in the EFA is constrained to one, and the unrotated solution is examined. If this one general factor explains most of the variance in the model, CMB is an issue. The result of the test shows an unrotated single factor solution which explains 16.5 per cent of the variance in the model, ruling out any likelihood of CMB.

Table 3 about here

Table 4 about here

3.2. Testing structural model fit

After the measurement model was confirmed, the structural model was tested using AMOS 18. The structural model shows a good fit to the data ($\chi^2=143.11$, IFI=0.97, TLI=0.96, CFI=0.97, RMSEA=0.05; in Table 5). As the χ^2 test is sensitive to sample size and to the violation of the multivariate normality assumption, Bollen and Long (1993) have suggested that several

goodness-of-fit indices should be assessed simultaneously when evaluating model fit.

Consequently, IFI, TLI, CFI, and RMSEA indices were examined. The values of IFI, TLI, and CFI were between 0.96 and 0.97 indicating a good fit relative to the baseline model (Jöreskog and Sörbom, 1993). In addition, RMSEA 0.05 was found to indicate a good fit of the overall model, as it is below the cut-off criterion of 0.05 (Browne and Cudeck, 1993).

RC was significantly influenced by the three dimensions of perceived risk: PERFR β -coefficient -0.23**, PSYCHR β -coefficient 0.19*, and FINANCR β -coefficient -0.28**. The relationships were negative in PERFR and FINANCR, as hypothesized. However, psychological risk was found to have a positive influence on continuance commitment, contradicting the relationship hypothesized. Therefore, hypotheses H5 and H7 are supported and H6 is left unsupported. Based on prior studies, procedural control (PC) was treated as a method of managing risks associated with the buying process. Therefore, the hypotheses anticipated a negative relationship between procedural control and perceived risk factors. The results in Table 5 suggest that procedural control influences the risk perceptions associated with the buying process significantly, as anticipated. PC had the strongest effect on the constructs of perceived PERFR (β -0.41***) and FINANCR (β -0.28**). Moreover, the psychological risk construct was significantly affected by procedural control practices (β -0.27**). Therefore, hypotheses H1, H2, and H3 were supported.

The moderation effect of buying situation was also tested. The influence of buying situation on the proposed model was assessed by with path-by-path analysis. Buying situations were classified into two groups, rebuy and new task. Buying situation was found to have a significant effect on the relationships between procedural control and psychological risk, as well as,

performance risk and relationship commitment. In the both cases, the relationships were stronger in new task situations than rebuy situations. In a rebuy situation procedural control had no effect on the respondents' perceptions of psychological risks (β -0.09) while in a new buy situation the effect was significantly stronger (β -0.313). Similarly performance risk had no significant effect on relationship commitment in a rebuy situation but in a new buy situation the effect was rather strong and negative (β -0.276). The results show that in new task situations procedural control effectively lessens the perceptions of all three risk aspects which negatively affect relationship commitment. However, in rebuy situations procedural control decreases only the perceptions of performance and financial risks and only financial risk decreases the respondents' intentions to continue the relationship. Thus hypotheses H5 and H10 were partly supported.

Table 5 about here

4. Discussion

The objectives of this paper were to examine, first, whether organizational risk perception is a multidimensional construct consisting of similar dimensions to those found in the consumer buying context; second, how these risk dimensions affect the customer organization's commitment to continue the buyer-seller relationship; third, whether procedural control is an effective method of managing perceived risks. Ten hypotheses were constructed based on prior studies and were tested by CFA and structural equation modelling in order to meet the objectives.

4.1. Conclusions and theoretical implications

Constructing and testing the measurement model provided a three-dimensional construct of the perceived risks associated with organizational buying. Product performance, personal psychological and financial risk dimensions were identified in the present data. These dimensions are in line with the research instrument proposed by Stone and Grønhaug (1993). However, two risk dimensions presented in the original risk construct were omitted from the present measurement model. Physical risk was excluded as it was considered inapplicable to the present research context, and time-loss risk was not identified from the data. The findings of Hornibrook et al. (2005), Mieres et al. (2006), and Wang et al. (2004) about the complex and multi-dimensional structure of the risk construct was visible in this study. Our findings also show support about the need to assess purchase-related risks at both organizational and personal levels confirmed as indicated by Anderson (2008), Bougheas et al. (2013), Chun et al. (2011), Håkansson (1982). Thus, the research instrument constructed for consumer marketing context by Stone and Grønhaug (1993) is also applicable to organizational buying context. Both psychological and financial risks were identified as personal risks, whereas product performance risk was clearly an organizational risk.

The results support for hypotheses one, two, and three. Hypothesis four was left unsupported as time-loss risk was not identified in our data. In line with the suggestions of Kumar and Seth (1998), Munnukka and Järvi (2008), and Sabiote et al. (2012), a negative relationship was found between procedural control and perceived risks. The relationship was confirmed as unidirectional as no statistically significant opposite relationship was detected.

Ruyter et al. (2001) state, that the relationship between perceived risk and commitment is complicated. Whereas, the findings of, for example, Johnson et al. (2008) suggest that perceived risk is negatively associated with commitment, Moore (1998) and Ruyter et al. (2001), on the other hand, propose that the same negative relationship also runs in the other direction. However, the present study was interested in studying the influence of risk perceptions on relationship commitment. The results of testing the structural model support the notation of Ruyter et al. (2001) that the relationship is complex. Support was also obtained for the proposition that perceived risk is an antecedent of relationship commitment as indicated by for example Johnson et al. (2008), Mukherjee and Nath (2007), Moore (1998), and Morgan and Hunt (1994). Whilst performance risk and personal financial risk were negatively associated with relationship commitment, the relationship between personal psychological risk and commitment was unexpectedly positive. Therefore, only hypotheses six and eight were supported. One explanation for the mixed results may be that psychological risks are related to emotional aspects that cannot be objectively assessed or expressed to other members of the buying group, whereas financial and product performance risks are more objective risks, thus having different patterns of influence. Consequently, respondents seem to react to higher psychological risk by deepening commitment to the supplier, whilst the response to increased product performance or financial risks is the opposite.

Finally, this study explored how buying situation moderates the links between procedural control and purchase-related risks as well as purchase risks and relationship commitment, which were suggested by for example Kumar and Seth (1998), Laios and Moschuris (2001), Munnukka and

Järvi (2008), and Sabiote et al. (2012). As new task situations are more often subject of higher purchase risks than rebuy situations, it was anticipated that the paths in the research model would be stronger in new task situations (H5 and H10). The evidence provided partial support on these hypotheses. Procedural control was found to be significantly more effective in lowering psychological risk perceptions in the case of new task situations than rebuy situations. Performance risk was also shown to more strongly inflict the respondents' intentions to continue the relationship in new task situations than rebuy situations. The results further suggest that in new task situations product performance, financial, and psychological risks have significant influence in relationship commitment intentions. In rebuy situations financial risk is the key source of risk and reason for discontinue the current relationship.

4.2. Practical implications

The findings of the present study show that individuals in buying organizations perceive both personal level and organizational level risks, and of the two, the greater emphasis is placed on the personal variety. The personal dimensions of risks were identified as personal financial and personal psychological risks. Product's performance risk was identified as organizational risk. Further analyses showed that all these risk dimensions have influence on the buying organization's commitment to the buyer-supplier relationship. However, the impact of these risks on relations commitment differs between buying situations. In rebuy situations financial risks are the main source of disruptions in the relationship. While in new task situations product performance and financial risks have equally strong negative effects on the relationship. The respondents' perceptions on psychological risks seem to urge them to commit more closely with

the supplier. For suppliers, this result highlights the importance of taking into account both the individual and organizational risk perceptions during the sales process. By providing the customers with the means of accommodating individual and organizational level risk perceptions, the supplier effectively enhances the customers' commitment to the relationship (positive outcome of the selling process). Especially, emphasis should be laid on the risks related to the product performance and the process outcomes through which the accomplishments of the individual members of the buying organization are evaluated.

Finally, the effectiveness of procedural control mechanisms for managing the purchase-related risks was analysed. The results showed that by creating pre-defined procedures for buying processes the organization is able to manage all dimensions of purchase-related risks. Moreover, procedural control was found to affect the specific risk dimensions with varying magnitudes between different buying situations. The most effectively procedural control lowers performance risks, but, also personal level psychological and financial risks can be effectively managed with pre-defined procedures. This evidence urges buying organizations, especially in high risk buying situations, to create standardized buying and decision making procedures, and to make provisions for possible problems occurring during the process.

4.3. Limitations and future research

The first limitation of this study relates to the measurement model constructed. The model differed from the original model proposed by Stone and Grønhaug (1993) as the time-loss risk construct was not identified and only one sub-construct of procedural control was identified. This

discrepancy might be caused by the operationalization of the research instrument, or it might be caused by the fact that only one person from each organization was interviewed. If more individuals from the same organizations had been interviewed, the constructed measurement model may have been different. As the relationship between perceived risks and the RC constructs has been found to be complex in prior studies, something confirmed in the present study, information may have been dismissed because these various relationship options were not studied. Next limitation relates to self-generated validity. According to for example by Chandon et al. (2005) and Feldman and Lynch (1988) all studies that contain self-reported data are subject of self-generated validity. The evidence suggests that in survey studies the measurement scales may affect the results relating to respondents' behavioural intentions. These intentions may not be in their active memory until they are asked about them. Therefore, also in the present study there is a possibility that self-reporting data concerning the interviewees' future intentions affected by self-generated validity. The final limitations concern the sample characteristics and the non-probability sampling method, which together increase the chance for sampling error. The final sample includes responses from organizations that vary significantly in size, organizational structure, and the line of business. As the data includes responses from only 165 business organizations there is a chance that the results may not be in all respects representative of all organizational types or lines of businesses. This should be considered in applying the results to specific lines of businesses or organizational types. The convenience sampling method is also considered a limitation as it may not be able of producing a fully representative sample of Finnish business organizations, thus providing the danger of additional sample bias.

Further studies are needed to test alternative models which would measure the impact of relationship length, organizational structure, and organizational culture on the present model. As risk constructs were found to exhibit complex and often multifaceted relationships with commitment and procedural control constructs, more in-depth research should be undertaken to reveal the nature of these relationships. Another interesting theme for future research would be to study more thoroughly how individuals in organizations distinguish between personal and organizational risks, and whether organizational and personal risks have different relationships with commitment or procedural control.

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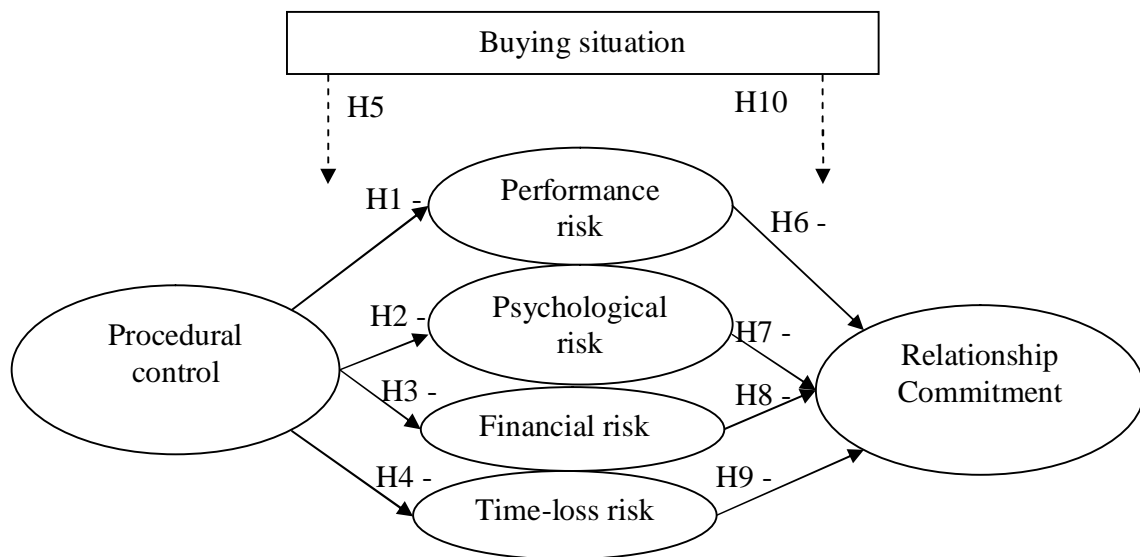


Figure 1. Research model

Table 1. Line of business

Line of business	% (n)
Manufacturing	20.0 (33)
Construction	5.4 (9)
Private services	35.2 (58)
Public services	15.2 (25)
Wholesale and retail trade	21.2 (35)
Other	3.0 (5)
Total, % (n)	100 (165)

Table 2. Buying situations

Buying situations	Total % (n)	<i>Status of interviewee</i>				
		Employee	Supervisor	Middle management	Top management	Other
Simple modified rebuy	17.0 (28)	5	2	9	10	2
Complex modified rebuy	18.2 (30)	4	2	3	18	3
Judgemental new task	18.8 (31)	6	8	3	13	1
Strategic new task	31.5 (52)	6	6	8	26	6
Missing	14.5 (24)					
Total, % (n)	100.0% (165)	14.9 %	12.8%	16.3%	47.5%	8.5%
Role of interviewee						
Initiator	7.9 (13)	2	1	1	8	1
Decision-maker	49.1 (81)	4	3	12	53	9
Influencer	22.4 (37)	9	8	10	9	1
Buyer	9.7 (16)	3	4	2	4	3
Gatekeeper	1.2 (2)	1	0	1	0	0
User	8.5 (14)	7	4	1	0	2
Other	1.2 (2)	0	1	1	0	0
Total, % (n)	100.0 (165)	15.8 %	12.7%	17%	44.8%	9.7%

Table 3. CFA for testing the measurement model

<i>Factor constructs and items</i>	<i>Component loading</i>	<i>Cronbach's alpha</i>
Factor 1. Relationship commitment (RC)		0.89
RC1. Intention to use same vendor in future	0.82	
RC2. Intention to also consider other potential vendors in future purchases	0.72	
RC3. Intention to continue as a client of the current vendor due to mutual high confidence present in the relationship	0.90	
RC4. Intention to continue as a client of the current vendor due to our satisfaction of the buying process outcome.	0.86	
Factor 2. Performance risk (PerfR)		0.89
PR1. Uncertainty about the technical quality of the product	0.72	
PR2. Uncertainty about the compatibility and functionality in our system	0.87	
PR3. Uncertainty about the ability of the product's key functions to function reliably	0.89	
PR4. Uncertainty about the ability of the product to provide benefits promised by the vendor	0.79	
Factor 3. Personal financial risk (FinancR)		0.85
PFR 1. Risk that my participation and decisions in the buying process endangered my job	0.90	
PFR 2. Risk that my participation and decisions in the buying process endangered rise in my salary	0.84	
Factor 5. Personal psychological risk (PsychR)		0.80
PPR1. Risk that my participation and decisions would have a negative effect on the relationships with my colleagues	0.73	
PPR2. Risk that my participation and decisions would have a negative effect on my reputation in our organization	0.89	
Factor 4. Procedural control (PC)		0.71
PC1. Normal procedures assigned for purchase processes were not applicable in the current purchase.	0.54	
PC2. We were not given clear instructions for carrying out the purchase process.	0.85	
PC3. No clear procedures were assigned for solving problems.	0.61	
PC4. Our company has no existing pre-determined procedure applicable for carrying out this purchase.	0.74	

Table 4. Discriminant validity

Correlations, AVEs, and square roots of the AVEs (in bold)						
Model	AVE	1	2	3	4	5
1. RC	0.702	0.838	-0.240	0.147	-0.290	0.119
2. PerfR	0.586		0.766	0.111	0.113	-0.408
3. PsychR	0.683			0.826	0.075	-0.271
4. FinancR	0.709				0.842	-0.278
5. PC	0.633					0.796

Table 5. Standardized estimates of path coefficients for measuring the structural model and moderation analysis.

Relationship	Estimate	CR	Moderation effect of use experience of the product		
			Rebuy	New task	Path-by-path sig.
PerfR à RC	-0.23**	-2.57	-.075	-.276	p<0.05
PsychR à RC	0.22*	1.98	.141	.255	No
FinancR à RC	-0.33**	-2.85	-.587	-.250	No
PC à PerfR	-0.41***	-4.19	-.395	-.397	No
PC à PsycR	-0.26**	-2.64	-.087	-.313	p<0.05
PC à FinancR	-0.29**	-2.66	-.368	-.312	No

Chi-square (98) = 140.78; IFI = 0.97; TLI = 0.96; CFI = 0.97; RMSEA = 0.05

Note: *** significant at the 0.001 level; ** significant at the 0.01 level; * significant at the 0.05 level.