

The Consumer's Perceived Risk When Buying a Home: The Role of Subjective Knowledge, Perceived Benefits of Information Search and Information Search Behavior

RESEARCH PAPER

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Abstract

Having knowledge of various aspects of the consumer's buying process can help companies significantly when developing strategies to increase their market share, while relying on two mechanisms: enhancing customer satisfaction and/or reducing the customer's perceived risk. This study aims to develop and empirically test a conceptual model of consumers' perceived risk for a prefabricated house purchase. The study has two specific objectives: (a) to determine the influence of prior subjective knowledge on an individual's risk perception, and (b) to test the mediating effect of the perceived benefits of information search between perceived risk and information search behavior. According to the empirical findings, prior subjective knowledge and perceived benefits of information search are significantly and directly related to perceived risk. Information search behavior is only indirectly influenced by perceived risk through perceived benefits of information search. In addition to the empirical research, implications are set out for several stakeholders: manufacturers and sellers of prefabricated houses, and companies producing strategically important products.

Keywords: perceived risk, buying behavior, strategic purchase, consumer decision-making

JEL classification: M30, M31

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1 Introduction¹

Firms need to be attuned to their relevant stakeholders in order to respond to the rapidly changing market. One of these stakeholders is the consumer. The most influential field of consumer research is the area of consumer behavior, especially consumer decision-making (Simonson et al., 2001; Bettman, Luce and Payne, 1998). Investigating decisions that can change the lives of consumers, termed “strategic decisions,” such as the purchase of a car or a house, can make a vital contribution to consumer behavior literature (Wells, 1993). According to Erasmus, Boshoff and Rousseau (2001), an exploratory approach to understanding specific decision-making circumstances, such as buying one’s first home, provides new research opportunities.

Focusing on home buying as an example of a strategic purchase, a consumer might perceive buying a house as risky, especially compared to buying convenience goods. The consumer is unfamiliar with the probabilities of all possible consequences of such a purchase, and these consequences can also be negative. A core construct in the decision-making process is named “perceived risk” and is defined as a consumer’s subjective assessment of the risk associated with each of the possible choice alternatives (Conchar et al., 2004: 431). Conchar et al. (2004) note that potential losses are a major concern for consumers in their decision making. Therefore, it is essential to address consumers’ fears about the risks arising from the selection and/or use of a particular product.

According to Jacoby, Johar and Morrin (1998), perceived risk is one of the internal factors which influence information processing, attitudes and choice. Knowledge about risk provides foundations for strategies on how to reduce risk – the decision maker reduces risk by intensively searching for information or by becoming loyal to a certain brand, product or store. One stream of literature focuses on information search behavior to reduce perceived risk. Hence, the role of perceived risk in strategic purchases calls for the attention of researchers.

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(Bauer, 1967; Chaudhuri, 2001; Cunningham, Gerlach and Harper, 2005; Mitchell, 1999). Perceived risk has been identified as an influential factor in the earlier phases of the buying process (Dowling and Staelin, 1994; Cunningham, Gerlach and Harper, 2005). Consumers first perceive risk when they recognize a need. If the risk is too high, they use risk reduction strategies in the information search and evaluation of alternatives.

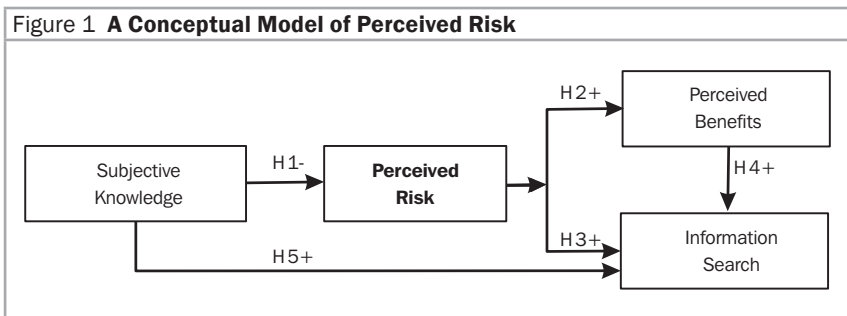
Perceived risk is in some characteristics very similar to constructs such as uncertainty, confidence, involvement, and attitude (Mitchell, 1999). Consequently, a clear distinction among them is required, as well as thorough insight into the nomological net – which represents the possible antecedents and consequences of perceived risk. The existing literature provides a variety of factors. Some of the antecedents are: uncertainty, knowledge, experience, involvement, intangibility, perceived sacrifice, and income (Dholakia, 2001; Dowling and Staelin, 1994; Grewal, Mehta and Kardes, 2004; Laroche, Bergeron and Goutaland, 2003; Mitchell, 1999; Siegrist, Gutscher and Earle, 2005; Srinivasan and Ratchford, 1991). Several researchers revealed the importance of knowledge and experience in influencing perceived risk (Dowling and Staelin, 1994; Havlena and DeSarbo, 1991). Compared to antecedents, fewer consequences have been identified. In a number of empirical and theoretical papers, information search behavior is positively influenced by perceived risk (Chaudhuri, 1998; Cho and Lee, 2006; Dholakia, 2001; Sundaram and Taylor, 1998). Another important concept, influenced by perceived risk, is perceived benefits of information search. When faced with uncertainty in a purchase situation, a consumer searches for information to reduce perceived risk, because he/she expects certain benefits from implementing this strategy, such as a higher level of satisfaction.

Two main areas of interest – consumer decision-making and perceived risk – have common grounds in strategic decision-making. The term “strategic decision-making” refers to the process of decision making when buying strategically important goods. The assumption is that this process involves perceived risk. The following characteristics define the strategic importance of a purchase (Gronhaug, Kleppe and Haukedal, 1987): high involvement

in the process, the long-term commitment of resources, and a truncated budget available for other goods and services. Strategic purchases imply several important decisions, including (1) decisions with regard to allocation of the household budget, (2) the categorization of alternatives, and (3) decision making within the defined product category. A house purchase is one example of such a purchase decision. Therefore, the empirical analysis in this research deals with the decision to buy a prefabricated house.

3 Conceptual Framework

A conceptual model of perceived risk in the case of buying a prefabricated house is proposed in Figure 1. This model relies on perceived risk as the key concept, forming a nomological net with one antecedent and two consequences. The antecedent and consequences were selected based on the existing literature and an exploratory qualitative study conducted prior to the quantitative phase. The relationships between the variables suggested in the model are the following: prior subjective knowledge influences perceived risk (Laroche, Bergeron and Goutaland, 2003; Srinivasan and Ratchford, 1991) and perceived risk affects an individual's perceived benefits of information search and information search behavior (Beatty and Smith, 1987; Dowling and Staelin, 1994; Moore and Lehmann, 1980; Srinivasan and Ratchford, 1991).



The central construct in the model, *perceived risk*, is important for understanding consumer behavior and decision making, especially

in buying processes concerning expensive, complex goods with high involvement (Dowling and Staelin, 1994; Oglethorpe and Monroe, 1994; Srinivasan and Ratchford, 1991). The level of risk depends on the inherent characteristics of the product/category, the individual's characteristics and external effects (Aqueveque, 2006; Conchar et al., 2004). In the existing literature, two components of risk, namely uncertainty and consequences, have been extended with several different risk dimensions such as financial, psychological, social, and physical risk. In this study, perceived risk is a consumer's subjective assessment of the risk associated with each of the possible choice alternatives for a given decision goal (Conchar et al., 2004: 431).

Prior subjective knowledge is identified as a potential antecedent. Several studies show that prior subjective knowledge influences the level of the consumer's perceived risk (Laroche, Bergeron and Goutaland, 2003; Pratt, 1998; Srinivasan and Ratchford, 1991). This construct has been identified as the consumer's prior perception of prefabricated-house-related information kept in the memory.

Dowling and Staelin (1994) propose that people in uncomfortable situations strive to reduce their negative feelings by applying different problem-solving techniques. One of the most cited and explored risk reduction strategies is *information search behavior*. It is believed that the influence of an increased level of perceived risk on information search behavior is reflected in additional information searching. Information search behavior is defined as the level of attention, perception and effort aimed at acquiring external information about the purchase of a house.

According to a cost-benefit analysis the user will make an effort to search for information as long as the *perceived benefits of information search* exceed the perceived costs. Dowling and Staelin (1994) and Srinivasan and Ratchford (1991) conclude that perceived benefits significantly influence risk reduction strategies, such as the search for information. Perceived benefits of information search are the benefits of using a specific risk reduction strategy of searching for information.

The existing literature offers conflicting results on how prior subjective knowledge influences risk. Namely, the majority of studies suggest that prior subjective knowledge reduces the consumer's perceived risk (Srinivasan and Ratchford, 1991; Zhong, 2003; Laroche, Bergeron and Goutaland, 2003). On the other hand, some authors have found an unexpected positive link between the two constructs (Pratt, 1998; Srinivasan, 1987). We hypothesize that the more prior subjective knowledge consumers have, the less risk they perceive:

H1: The level of prior subjective knowledge negatively influences the level of perceived risk.

The second hypothesis refers to the path between perceived risk and perceived benefits of information search. Several authors have confirmed a positive influence of perceived risk on perceived benefits of information search (Srinivasan and Ratchford, 1991; Sundaram and Taylor, 1998). The more uncertainty grows, the greater the benefits of a risk reduction strategy, such as searching for information, the consumer perceives. Hence, the second hypothesis is:

H2: The level of perceived risk positively influences the perceived benefits of information search.

The relationship between perceived risk and information search behavior as one of the risk reduction strategies has been studied extensively in the literature, and the findings range from positive/negative to a non-linear relationship (Gemünden, 1985). However, several recent studies have confirmed a positive relationship: the greater the perceived risk, the more a consumer tries to reduce this risk by implementing different strategies, including information search (Sundaram and Taylor, 1998; Dholakia, 2001; Murray, 1991; Dowling and Staelin, 1994; Cho and Lee, 2006). Therefore, the third hypothesis states:

H3: The level of perceived risk positively influences the information search behavior.

Information search models are usually based on the cost-benefit perspective, which says that consumers invest effort in the search for information as long as the perceived benefits of information search exceed the perceived costs (Srinivasan and Ratchford, 1991). Therefore, the more benefits consumers perceive, the more they search for information (Srinivasan and Ratchford, 1991; Sundaram and Taylor, 1998):

H4: The perceived benefits of information search positively influence the information search behavior.

This study also focuses on the relationship between prior subjective knowledge and information search behavior. The literature pertaining to knowledge and information search behavior has been inconsistent. Some studies have found a negative relationship, while others have confirmed a positive relationship, an inverted U-shaped relationship or no relationship at all (Raju, Lonial and Mangold, 1995). The underlying reasons could include differences in operationalization of the constructs, selected products, and respondents. Raju, Lonial and Mangold (1995) have empirically tested the hypothesis that this relationship depends on the type of knowledge considered (objective, subjective). Their explanation is that the greater the prior subjective knowledge, the greater the individual's confidence, and this confidence in turn encourages consumers to search for more information. Most studies on durables (more specifically, cars) point to a positive association (Kiel and Layton, 1981; Srinivasan and Ratchford, 1991; Sambandam and Lord, 1995), and home purchase is to some extent similar to a car purchase. Both product categories require high involvement of the consumer (Gronhaug, Kleppe and Haukedal, 1987), offer variety in price and quality, and are perceived as complex (Brucks, Zeithaml and Naylor, 2000; Gibler and Nelson, 2003). The rationale behind the positive impact is that the higher the level of consumers' prior subjective knowledge, the more information search they undertake because of their greater capacity to learn and integrate new information more easily. Such consumers structure the purchase problem in richer, more complex ways, and see a need for more search (Srinivasan and Ratchford, 1991). Therefore, we hypothesize:

chosen, although it has certain disadvantages, such as a potentially poor recollection of the past purchase. Compared to conducting a survey among respondents during their buying process, the chosen procedure enables gathering data more efficiently, since the researcher can rely on an existing list of home buyers. Compared to hypothetical buyers, recent home buyers are able to provide more authentic answers based on their direct experience with the purchasing process.

As mentioned, the sample selected in our quantitative study included only house owners and the population was limited to consumers who had actually completed the buying process. Altogether, 320 questionnaires with cover letters and return envelopes were sent out. The response rate was 54.7 percent, which yielded 175 usable questionnaires. If the addressees did not return their questionnaire in two weeks, a follow-up letter was sent to their addresses – according to Dillman (1991) this technique increases the response rate. Among the respondents, one was randomly chosen and given an award of €209.

For each construct (prior subjective knowledge, perceived risk, information search behavior, and perceived benefits of information search), a seven-point Likert-type scale, ranging from 1 (strongly agree) to 7 (strongly disagree), was developed. The construct measures were derived from the findings of the qualitative study and the existing literature, but carefully adapted to the specific context of purchasing a prefabricated house. The instrument was pretested in a preliminary pilot study. The prior subjective knowledge construct was assessed using a five-item scale developed by Flynn and Goldsmith (1999). To capture perceived risk, items previously tested by Stone and Gronhaug (1993), Macintosh (2002), and Grewal, Gotlieb and Marmorstein (1994) were used, tackling the perception of several risk dimensions: social, financial, psychological, technical, and delivery risk. Items for information search behavior as well as the perceived benefits of information search were derived from Chaudhuri's (2000) and Srinivasan and Ratchford's (1991) scales.

Table 1 Construct Reliability and Item Estimates: Results of Confirmatory Factor Analysis			
Construct	Loadings	CR	AVE
Prior subjective knowledge (1-strongly agree to 7-strongly disagree)		0.78	0.54
Already at the very beginning of choosing a suitable house I knew pretty much about prefabricated houses.	0.69		
I didn't feel knowledgeable enough about prefabricated houses.	0.79		
When it came to prefabricated houses, I really didn't know a lot.	0.72		
Perceived risk (1-strongly agree to 7-strongly disagree)		0.80	0.49
Overall, the thought of buying a prefabricated house caused me to be concerned about experiencing some kind of loss.	0.62		
Buying a new prefabricated house involved a great deal of uncertainty.	0.76		
Considering the investment involved, buying a prefabricated house was quite risky.	0.73		
The thought of buying a prefabricated house gave me a feeling of fear and anxiety.	0.68		
Information search (1-strongly agree to 7-strongly disagree)		0.67	0.51
I searched a lot for information about prefabricated houses.	0.62		
Visiting different sellers/manufacturers helped me to find the best price.	0.84		
Perceived benefits of information search (1-strongly agree to 7-strongly disagree)		0.66	0.49
I found it beneficial to examine several already built prefabricated houses.	0.60		
It is worth visiting many sellers/manufacturers of prefabricated houses.	0.79		
$\chi^2=61.12$, d.f.=38; GFI=0.94; NFI=0.90; CFI=0.96; RMSEA=0.06			

The chi-square test and fit indices indicated that the measurement model had a good fit ($\chi^2=61.12$, d.f.=38; GFI=0.94; NFI=0.90; CFI=0.96; RMSEA=0.06). All the factor loadings and error variances were statistically significant (at $p < 0.05$), which confirms the convergent validity of the selected indicators. The construct reliability was measured by composite reliability (CR) and average variance extracted (AVE), as suggested in the measurement literature (Fornell and Larcker, 1981). As seen in Table 1, half of the values were just slightly below and half of the values were above the recommended cut-off value (CR > 0.7; AVE > 0.5). Discriminant validity was checked by constraining the covariance in any set of two constructs (Anderson and Gerbing, 1988) and then performing a chi-square difference test on the values obtained for the constrained and unconstrained models.

Since the unconstrained models had significantly lower chi-square values, it can be concluded that the measures exhibit acceptable discriminant validity.

Once the convergent validity, construct reliability, and discriminant validity were established, the structural model was evaluated in order to test the hypothesized relationships. The chi-square test and fit indices indicated a satisfactory fit ($\chi^2=59.53$, d.f.=39; GFI=0.94; NFI=0.90; CFI=0.96; RMSEA=0.06). The values of the completely standardized estimation of each path are presented in Table 2. The effect of the level of prior subjective knowledge on the level of perceived risk was negative and statistically significant ($\gamma = -0.22$; $p < 0.05$), therefore H1 was supported by the data. The level of perceived risk was found to influence perceived benefits of information search ($\gamma = 0.24$; $p < 0.05$), showing a positive impact, as hypothesized in H2. However, the level of perceived risk did not have a significant impact on information search behavior. Therefore, H3 was not supported. Perceived benefits of information search had a significant positive effect on information search behavior, providing support to H4. Finally, the level of prior subjective knowledge was found to positively influence information search behavior – H5 was supported by the data.

Table 2 Hypothesis Testing and Results

	Antecedent	Criterion variable	Standardized regression coefficient (t-value)	Hypothesis
H1-	Subjective knowledge	Perceived risk	-0.22* (-2.27)	Supported
H2+	Perceived risk	Perceived benefits	0.24* (2.23)	Supported
H3+	Perceived risk	Information search	0.12 (1.27)	Not supported
H4+	Perceived benefits	Information search	0.74* (4.67)	Supported
H5+	Subjective knowledge	Information search	0.24* (2.63)	Supported

Note: * Significant at $p \leq 0.05$ if $|t| \geq 1.96$.

6 Conclusion and Suggestions for Future Research

Having knowledge of various aspects of the consumer’s buying process can help companies significantly when developing strategies to increase their market share, while relying on two mechanisms: enhancing customer

satisfaction and reducing the customer's perceived risk. This study tackles the issue of risk perception in a strategic household purchase of a home. The main proposition is that perceived risk operates as a mediator between the antecedent (prior subjective knowledge) and consequential factors (perceived benefits of information search and information search behavior).

The findings of this study suggest that perceived risk is influenced by consumers' prior subjective knowledge: the more the consumers believe they have appropriate knowledge of prefabricated houses, the less risk they perceive. These findings are in line with the majority of previous empirical studies (Srinivasan and Ratchford, 1991; Zhong, 2003; Laroche, Bergeron and Goutaland, 2003). Further, perceived risk tends to increase the perceived benefits of the search for information on the specific topic, consistent with other studies (Srinivasan and Ratchford, 1991; Sundaram and Taylor, 1998); however, it does not significantly affect information search behavior itself. There is only an indirect effect of perceived risk on information search behavior through perceived benefits of information search. In his meta-analysis, Gemünden (1985) points out contradictory results in the literature on perceived risk and information search. He lists several plausible explanations of these results, such as: information search is only one among several risk-reducing instruments, perceived risk remains below the critical threshold of risk tolerance, or consumers do not search for information intensively because they do not trust the sources of information.

The more benefits consumers perceive when looking for information about prefabricated houses, the more effort they are willing to invest in this search. The greater the prior subjective knowledge regarding a prefabricated house purchase, the more extensive the information search. Srinivasan and Ratchford (1991) interpret this relationship in the following way: consumers with greater prior subjective knowledge systematically gather information about companies and compare the attributes as well as the prices of different providers. Similarly, Alba and Hutchinson (1987) state that experts may have a greater capacity for or interest in learning new information and thus be more likely to conduct an extensive search. An

information about the perception of different risk dimensions, such as financial and psychological risk, as was done in this study, enables both manufacturers and researchers to put together a consumer's perceived risk profile and adjust the seller's activities to it. The deeper the knowledge of a consumer's risk perception, the easier it is to propose personalized marketing activities. For example, a group of potential buyers who perceive the financial aspect of their purchase as the most worrisome (perceived financial risk) would be targeted differently compared to a group expressing social concerns of their purchase (perceived social risk). As the qualitative study and the existing literature (Gibler and Nelson, 2003) show, a house is a product in which the consumer usually invests considerable effort; it is also characterized by a preconceived idea of the desired characteristics (e.g., specific layout, size) – this offers further support for the need to establish individualized relationships with customers.

The implications of this study apply not only to manufacturers and sellers of prefabricated houses, but also to companies whose products in general are strategically important for consumers. According to the existing literature (Bazerman, 2001; Gronhaug, Kleppe and Haukedal, 1987) and the findings of this study (qualitative), such a buying process requires a high level of involvement. In addition, the financial aspect of the purchase and the consciously directed effort to search for information about the product are noteworthy. It is possible to discern the importance of consumers accumulating knowledge and experience since companies can play an active role in assisting them in their strategic choices. Consumer satisfaction can be increased and long-term relationships established.

Several limitations of this study should be mentioned. Prepurchase perceived risk is best measured during the buying process and for this reason there is probably some bias in the data gathered after the purchase process was completed. Next, the focus on a relatively small population and a specific product limits the possibility to generalize these conclusions beyond the strategic purchase decisions. Our study employs a qualitative as well as a quantitative approach, and both place certain limitations on the generalization of the results. A significant limitation of the qualitative

method is the relatively small sample, but this is counterbalanced by the in-depth information obtained on the buying process. On the other hand, the survey method applied in the second step of the empirical research does not provide as much in-depth information as the qualitative method, but it provides data to test the hypotheses.

This study provides tracks for further research directions. One is to test this model in other strategically important decision-making contexts, such as buying a second-hand (used) home, financial investment, or car purchase. Future studies might also consider refining the measurement instruments of the selected constructs. One venue is to consider treating perceived risk as an index with formative indicators, as suggested by Mitchell (1999). Measuring information search behavior could also be refined by tapping into two conceptually distinct types of information search behavior: ongoing search and prepurchase search (Beatty and Smith, 1987). Another venue is to examine other potentially relevant explanatory variables of perceived risk, such as an individual's situational and enduring involvement in the purchasing process.

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