



A qualitative exploration of a consumer's value-based e-trust building process

A framework development

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Abstract

Purpose – The purpose of this paper is to develop a value-based framework for the consumer e-trust building process.

Design/methodology/approach – The data collection procedure consisted of two steps. The first was a brief questionnaire measuring potential informants' personal values. From this pool of potential informants, 30 were recruited for the interviews: five security- and five excitement-minded consumers from three fields of electronic commerce; electronic newspapers, electronic grocery shopping, and electronic healthcare services.

Findings – The findings of the study reveal two value-based external factors in e-trust building that consumers perceive as risks in e-commerce, and three value-based behavioral patterns in e-trust building that informants adopt to reduce perceived risks and build trust in e-commerce. Furthermore, findings of the current study suggest that e-trust building process is different based on individuals' personal values.

Research limitations/implications – This study takes into account only two consumers' personal values, security and excitement, and ignores others. However, it identifies the role of the consumers' personal values in e-trust building, and thus opens new perspectives for further e-trust research. The study also identifies different strategies that consumers can use to build trust in e-commerce.

Originality/value – This study opens new perspectives in e-trust research by exploring the role of consumers' personal values in e-trust building process. The study also provides new insights for other researchers to develop understanding on mechanisms that consumers use to build e-trust.

Keywords Risk management, Trust, Quality concepts

Paper type Research paper



Introduction

The expectation that e-commerce would quickly become a part of the consumer's everyday life has not been completely fulfilled in practice. One of the reasons for this failure is said to be the consumer trust, or rather the lack of it (Merrilees and Frye, 2003). As trust has been identified as an important issue from the time of the very first e-commerce studies (Ratnasingham, 1998), consumer e-trust (consumer trust in e-commerce) has been widely studied in both IS (Gefen *et al.*, 2003; McKnight *et al.*, 2002)

and consumer behavior research fields (Garbarino and Lee, 2003). Unfortunately, the concept of consumer e-trust has been quite narrowly treated in past research. For instance, the ways how consumers build trust have gained only little, if any, attention (Blomqvist, 1997; Grabner-Kräuter and Kaluscha, 2003). Also the role of consumer characteristics, such as personal values, age, gender, psychographics or personality, has not been considered from the viewpoint of consumer e-trust. Instead, most of the attention has been directed at describing the different elements of trust. Although it has been shown that consumers' personal values affect consumer behavior (Kahle and Kennedy, 1988) only a few studies have linked personal values with e-commerce (Jayawardhena, 2004; Schiffman *et al.*, 2003) and none have linked those with the concept of consumer e-trust. Our study opens an academic discussion in this under researched area by providing theoretical building blocks for conceptual elaboration.

Three goals are set for the paper. The first goal is to review the current literature relating to e-trust and consumer personal values. The second goal is to explore qualitatively how consumers with contrasting values build trust in three different e-services: electronic grocery shopping, electronic healthcare, and electronic newspapers. The third goal is to develop a framework for understanding consumers' value-based e-trust building process based on the dialogue between the conceptual understanding and empirical insights.

In the following section, we review the literature relating to consumer e-trust and consumers' personal values. The paper continues by presenting the methodological choices and describing the collection of data. The subsequent section introduces our findings concerning values and e-trust building. We conclude with the framework development, theoretical discussion, and managerial implications.

Defining consumer e-trust and personal values

The concept of trust has been heterogeneously defined in the fields of economics, social psychology, sociology, management, marketing and information science (Blomqvist, 1997; Garbarino and Lee, 2003). Garbarino and Lee (2003) argue that the definition of trust proposed by Mayer *et al.* (1995, p. 712) is the most widely-accepted. It runs as follows:

... the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party.

When trust is mentioned in this paper, we mean it in the sense defined by Mayer *et al.* (1995).

Many authors, especially in the fields of IS and marketing, have theorised consumer trust in e-commerce (Tan and Thoen, 2001; Lee and Turban, 2001; McKnight *et al.*, 2002; Tan and Sutherland, 2004). According to these theorisations, three major elements of consumer e-trust can be identified. These are institutional, interpersonal, and dispositional trust (Tan and Sutherland, 2004). Institutional trust refers to an individual's trust in institutions such as a society's laws, or, in the case of e-commerce, the internet itself. (McKnight *et al.*, 2002). More specifically, institutional trust means consumers' perceptions about the internet environment, such as safety and security (McKnight *et al.*, 2002), legal and technical protection (Tan and Sutherland, 2004) or some trusted third party like Visa or bank (Cheung and Lee, 2006). As a concrete

example, we can consider a consumer who would like to buy products via the internet, but perceives the security of the channel as weak and for that reason does not buy the product. This kind of situation manifests itself as a consumer institutional (dis)trust.

On the other hand, interpersonal trust means individual's trust in another specific party that one trusts (McKnight and Chervany, 2002). In a context of e-commerce, a manifestation of interpersonal trust is a consumer trusting in some specific e-vendor (Tan and Sutherland, 2004). For example, consumer can consider some e-vendor trustworthier than the other based on the e-vendor's brand (Ha, 2004) or the vendor's familiarity to consumer.

The concept of dispositional trust is based on the research in the field of psychology (Rotter, 1971). Dispositional trust means individual's ability to show trust in general, and is based on that individual's belief that other people are well-meaning and reliable. (Tan and Sutherland, 2004). Usually a disposition to trust is considered to be a personality-driven feature of an individual. Thus, individuals' personality determines their propensity to trust in general. Dispositional trust may be endogenous, or it may be developed as a result of life experience (McKnight and Chervany, 2002). Tan and Sutherland (2004) mention that an individual's upbringing and culture have an influence on dispositional trust. Dispositional trust is especially important in novel situations such as using electronic commerce (Gefen *et al.*, 2003).

Studies of consumer e-trust usually focus on describing different elements of e-trust instead of concentrating on issues such as the role of consumers' personal values in e-trust building. This paper focuses on this particular issue in order to stimulate and advance e-trust research. One definition of personal value states that value is:

... an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence (Rokeach, 1973, p. 5).

Previous research into the consumer's personal values argues that values strongly guide an individual's actions either consciously or unconsciously. There is also evidence that individuals' personal values have an important role in their behavior (Kahle and Kennedy, 1988). Moreover, some studies of e-commerce indicate that personal values have an influence on consumer behavior. For example, Jayawardhena (2004) found that personal values affected attitudes toward e-commerce. There is also some evidence that personal values influence consumer behavior in novel situations. For example, Daghfous *et al.* (1999) found that personal values have a significant effect on the adoption of new products. This result is similar to the idea that a disposition to trust is significant in novel situations, and serves as evidence that the consumers' personal values might have affect on consumer e-trust.

Method, data collection, and analytical approach

To gain understanding of the role of the consumer's values in building e-trust, a qualitative approach was deemed as an appropriate methodological choice. To maximize the likelihood that value influences on the consumer's e-trust building would emerge, informants with contrasting values (security and excitement) were sought for personal interviews. In consumer behavior literature, there are alternative ways of measuring consumer values. The two most prominent approaches are Kahle and Kennedy's (1988) and Schwartz's (1994). In this study, the value instrument is only

needed for screening purposes. Kahle and Kennedy's approach was applied as it is easier to use than Schwarz's and as it has been found reliable and successful in discriminating between consumers according to their value base (Schiffman *et al.*, 2003; Daghfous *et al.*, 1999). Kahle and Kennedy's value instrument reveals how important people consider the values of:

- self-respect;
- security;
- warm relationships with others;
- a sense of accomplishment;
- self-fulfillment;
- being well-respected;
- a sense of belonging;
- fun and enjoyment in life; and
- excitement (Kahle and Kennedy, 1988).

In this paper, consumers' e-trust building in three different fields of e-commerce is investigated; electronic newspapers, electronic grocery shopping, and electronic healthcare services. The selection was made, because we assumed that consumer's e-trust building might take on different meanings in different contexts of e-commerce. Furthermore, we wanted to explore whether different personal values in different contexts would affect the e-trust building behavior between consumers. The current literature supports our selection. For example, there is prior evidence that consumer trust has its own role in electronic grocery shopping (Morganosky and Cude, 2000). Because of its need for discretion, electronic healthcare services supported our selection. As many researchers have shown, privacy and security issues in e-commerce are important for consumers (Liebermann and Stashevsky, 2002; Miyazaki and Fernandez, 2001). It can be assumed that consumers who use electronic healthcare services value strict privacy and confidentiality. Finally, electronic newspapers were selected in our study because they are widely used by consumers.

The data collection procedure consisted of two steps. The first was a brief questionnaire measuring potential informants' values according to Kahle and Kennedy's (1988) approach. It was inserted into the web sites of a local newspaper and an electronic grocery shop. The questionnaire was also sent to the personnel mailing list of a local healthcare district. From this pool of potential informants, 30 were recruited for the interviews: five security- and five excitement-minded consumers from each of the three fields (electronic newspapers, the electronic grocery shop, and electronic health services). Security and excitement were regarded as opposite values (Schwartz, 1994) and the expectation was that they would manifest themselves in different ways in the consumers' e-trust building patterns.

In a context of electronic grocery shopping some problems appeared in recruiting the informants with suitable value background. Therefore, we decided to offer a gift-token worth of 20 euros for all the informants selected to the actual interviews. Eventually, we managed to get contact and recruit informants with suitable personal values. In other contexts incentives were not offered, because problems with the recruiting did not appear.

From 30 informants, 18 were women and 12 men. More specific demographic profile of the informants is presented in Table I.

All of the informants had experience in using the e-service that the interviews dealt with; for example, all of the informants in a context of electronic healthcare had used electronic health care services. Interviews were held in Finland and the informants were Finnish. Interviews concerning the electronic grocery shop were held in the metropolitan area of Helsinki, because the electronic grocery shop we collaborated with conducted business only in that specific area. Other interviews were held in western Finland (electronic newspapers) and in middle- and eastern Finland (electronic health care services). All of the informants were common consumers.

The second step comprised the interview itself. A semi-structured approach to interviewing was applied. This meant that, with every informant, certain themes related to the three elements of consumer e-trust were covered. The main advantage of theme interviews is that they are able to capture an informant's personal idiosyncratic experiences (ensuring rich description) while still retaining some degree of systematic control (Patton, 1990). The interviews were conducted after two test interviews (resulting in a few modifications to the procedure) in the summer of 2004. The interviews lasted from 30 to 90 minutes and were tape-recorded and fully transcribed.

The interview data were analyzed as follows: first, the transcripts were read through several times to form an overall picture of the issues that were related to e-trust building. Because consumers are not normally aware of how their values affect their memory functions, thinking activities, and behavior, and may give unrealistic accounts of the role of values in their lives when asked directly (Verplanken and Holland, 2002), it is necessary to reveal how different values manifest themselves in the consumer's e-trust-related verbal expressions and patterns of behavior with respect to electronic services.

The second step in the analytical process was to identify interpretively those trust building aspects of e-service consumption that were of different significance to security- and excitement-minded consumers. In identifying the key differences between these trust building aspects of e-service consumption, two main interpretive processes were used, iteration and contrasting (Thompson, 1997; Thompson and Troester, 2002). Iteration involves a continuous movement between individual transcripts and the emerging understanding of the entire set of textual data. Provisional understandings are formed, challenged, revised and further developed through an ongoing iterative process. Contrasting, on the other hand, comprises comparing different interviews to discover similarities and differences. In the present research, the interview data of security-minded informants was contrasted with the data of excitement-minded informants.

The result was that, through the iterative and contrastive interpretive processes, two main categories with two and three subcategories were identified from the

Table I.
Demographics of the
informants

	Women	Men	Age under 30	Age 30-50	Age over 50
e-newspapers	7	3	–	7	3
e-grocery	5	5	1	8	1
e-health	6	4	5	5	–
Total	18	12	6	20	4

interview data. In other words, these categories were developed on a data-driven basis, taking into account existing pronounced value-related differences in e-trust building (as interpreted by the authors). These categories will structure the report of the study findings that follows.

Findings

On the basis of the interviews with electronic newspaper consumers, electronic healthcare service consumers, and electronic grocery shoppers, two different main categories were identified which express the role of consumer values in e-trust building. These are:

- (1) external factors in e-trust building; and
- (2) behavioral patterns in e-trust building.

These categories break down into two and three subcategories, respectively. A key finding was that security- and excitement-minded informants revealed differences in these categories. We will also discuss why these two categories are important in terms of consumer e-trust building and report how external factors and behavioral patterns in e-trust building manifested themselves in three different contexts of e-commerce.

External factors in e-trust building

Two external factors were identified in our material. By “external factors in e-trust building” we mean factors that consumers cannot influence by their own behavior. In other words, some other agents, such as the e-vendor, technology or other users of the internet, represent these external factors. They can be considered as risks in e-commerce that informants encounter. Two different classes of external factor emerged from our interviews, threats on the internet and the price of products.

Generally, our findings indicate that security-minded informants perceived more risk regarding to e-commerce than excitement-minded. In terms of e-trust building, perceived risks have an important role, because the need for trust arises only in a risky situation. More specifically, risks generate a need for consumers to surpass the threshold of perceived risks in order to trust (Mayer *et al.*, 1995). Our findings indicate that excitement-minded consumers perceived less risk than security-minded. For that reason, we argue that the e-trust building process is different based on individuals’ personal values.

Threats on the internet. One threat on the internet that emerged from our interview material was the misuse of personal data by an unspecified or unknown agent. For example, some informants suspected that their credit card number was accessible to some hostile third party when a transaction between the consumer and the e-service provider occurred. Furthermore, informants felt insecure over the use of personal information such as their name or address. Based on our interviews, threats on the internet revealed value-based differences in e-trust building among informants. Security-minded informants were more concerned about their personal information that they gave via the internet than the excitement-minded. For example, one security-minded informant disliked the availability of her personal medical information on the internet, which can be considered as a manifestation of a threat on the internet:

Well, you always think whether your own medical information is on the net.. In the first place, it does not sound like a good thing at all ... you know? (Leena, 42, female).

Furthermore, some security-minded informants did not understand why some e-services demanded registration or why they should give their credit card information to e-vendors. These requirements generated suspicion that the service provider could use their information in some harmful way. Next, a quote from one security-minded informant illustrates the issue. The informant disliked the idea to give her credit card information to foreign companies, because she felt some unspecified concerns regarding to it. This kind of threat on the internet appeared more often among the security-minded informants than the excitement-minded:

Well ... I do not want to give my credit card information to foreign companies via the Internet ... that is never a good thing ... In my opinion, the best way would be charge by bill and then you can pay it later ... (Anja, 39, female).

In contrast, most of the excitement-minded informants were not as concerned on giving their personal information via the internet as security-minded. For example, one excitement-minded informant told us that he did not mind if his personal information was available on the internet. His thoughts concerning the threats on the internet are quite different compared to those of security-minded informants. He said that he does not actually care if someone is collecting his personal information, which is quite opposite to security-minded informants:

What do you think about service providers collecting users' information? (Researcher).

I do not know ... I do not actually care. I am not usually interested in whether someone knows, which services I use and things like that (Jaakko, 29, male).

Another excitement-minded informant told that he did not consider the risk of someone stealing his medical information as very high. His thoughts concerning the security of his medical information reveals the difference compared to the security-minded informants. This informant considers the electronic health care services as risky as traditional ones and is not as interested in those as the security-minded informants:

I see those services (electronic health care services) quite reliable ... I do not consider those privacy-issues as an important, because there is an equal risk that someone steal your medical information from the health center ... (Ville, 25, male).

Thus, our findings indicate that security- and excitement-minded informants experience threats on the internet differently. This finding can be explained by different personal values that affect the attitude toward security and privacy.

Price of products. Security-minded informants considered the price of products offered electronically high. In particular, the delivery fee was considered high. For that reason, they would rather buy products from traditional stores. Some security-minded also thought that the prices of products were higher than in traditional stores. The following quotation illustrates one informant's concerns about delivery fees:

Could you tell me some unpleasant features of the Internet? (Researcher).

Well, I do not like the delivery fees ... they might rise quite high if you compare them to the price of the product ... and there might also be some extra fees ... (Julia, 36, female).

Contrary, excitement-minded informants were not so interested in the prices of products. In some cases, informants could not even tell exactly how much some product that they had ordered via the internet costs: Consumer e-trust building process

OK, what if you compare the prices with traditional grocery shop? (Researcher).

I can't say that there are such ... such big differences ... I do not see it as very important if the difference is 10 cents ... Actually, I can't even say exactly how much, for example, a litre of milk costs ... I think it is between 70 cents and one euro ... (Seija, 38, female).

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The preceding quotation expresses the difference between security- and excitement-minded informants. The informant did not know how much a litre of milk cost and were not interested in the differences in prices between electronic and traditional grocery shops. This situation is quite opposite to the security-minded informants, who were worried about the delivery fees and prices in general. This finding suggests that there are differences between security- and excitement-minded informants in how they perceive the pricing of products.

Behavioral patterns in e-trust building

This subsection introduces three behavioral patterns related to e-trust building that emerged from the interviews. These concern friends' e-service usage, pretesting e-services, and ordering via the Internet. The behavioral nature of these three categories became evident in the concrete actions the informants took or did not take.

Mayer *et al.*'s (1995, p. 712) definition of trust stresses that someone is willing to be vulnerable to the actions of another party "based on the expectation that the other will perform a particular action important to the trustor ...". We argue that consumers use the above mentioned behavioral patterns in e-trust building to evaluate the trustworthiness of e-commerce and to form the expectation that the other will perform an action important for them.

Our findings indicate, that security-minded informants in particular adopted behavioral patterns as strategies to evaluate the trustworthiness of e-commerce. On the other hand, excitement-minded informants did not use these strategies to the same extent as the security-minded. Thus, it seems that security-minded informants wanted to evaluate the trustworthiness of e-commerce by using various e-trust building patterns to a larger extent than excitement-minded, which serves as an evidence about the effect of personal values in e-trust building.

Friends' e-service usage. One interesting difference between the security- and excitement-minded informants was the extent to which they knew about friends' e-service usage. The security-minded informants were quite well aware of the electronic services their friends used, which was not the case with the excitement-minded. For example, some security-minded informants told that they share links and exchange hints about the good websites they have used. The security-minded also shared articles they had found on the internet and participated in different discussion boards with their friends. The following quotation illustrates one aspect of the issue. An informant said that he often talks with his friends about discussion boards regards to health care. These discussions alleviate his fears concerning the information provided in discussion boards, which allows him to trust more in the information:

We have often discussed with my friends about using these discussion boards on medicine . . . you know? Where people can ask questions and somebody answers.. I have also used them . . . (Riku, 26, male).

Our findings indicate that the excitement-minded informants did not find their friends' e-service use as relevant as the security-minded. In contrast, they said that they are not well aware what kind of electronic services their friends used. Next quotation illustrates the issue from one informant's perspective:

I would like to know if you discuss these (medical) services with your friends or family or . . . ? (Researcher).

Well, I have heard something, but we do not discuss things like that very much . . . (Johanna, 32, female).

In general, our findings suggest that the security-minded were more interested in their friends' e-service usage than the excitement-minded, which could be interpreted as a manifestation of value-based difference in e-trust building. More specifically, the security-minded informants perceived more risks in e-commerce and used their friends' knowledge concerning the e-service usage to surpass risks and build e-trust to a greater extent than the excitement-minded.

Pretesting e-services. Another behavioral pattern in e-trust building, which revealed differences between the two value-groups, was pretesting e-services. Among the reasons for pretesting, the security-minded informants mentioned the need to see what the ordering process was like, or how the electronic service was functioning. One security-minded informant said that pretesting is very important for her, because in that case she can see how the e-service operates. This kind of behavior can be interpreted as an alleviation of risks and an evaluation of e-service's trustworthiness, that is, e-trust building.

How important is it to you that you can test these services before you really use them? (Researcher).

In my opinion, it is very important.. it is a good feature of an e-service if you can see how it operates . . . (Marja, 55, female).

In contrast, the excitement-minded informants did not consider pretesting e-services as useful as the security-minded. For instance, one excitement-minded informant told that she believed that the e-service was functioning properly, because it was in the internet. For that reason, she did not perceive a need to test it:

OK, do you normally test e-shops before you use them? You know, before the actual use? (Researcher).

Well, no . . . I believe they operate correctly if someone has put them on the net. (Seija, 38, female).

These examples about pretesting e-services reveal differences in value-based attitudes in e-trust building among the security- and excitement-minded informants. Especially, the security-minded used pretesting to build e-trust while the excitement-minded were not so interested in it.

Ordering via the internet. Differences between the security- and excitement-minded informants were identified in ordering products via the internet too. Our findings

indicate that ordering products electronically was not as usual among the security-minded as among the excitement-minded informants:

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building process

OK ... have you ever ordered something from the Internet? (Researcher).

No ... no I have not ... well, I have made reservations on the web-site of some computer shops ... but then I have picked them up from a traditional store (Riku, 26, male).

The preceding quotation illustrates one security-minded informant's thoughts about ordering products via the internet. He has reserved some products via the internet but has always picked them up from a traditional store. His behavior could be interpreted as a manifestation of reducing risks associated with e-commerce by buying the products only from a traditional store.

While the security-minded informants considered ordering via the internet somewhat risky, the excitement-minded informants had more positive attitudes toward ordering products electronically. The excitement-minded informants had ordered products such as CDs, DVDs, digital cameras and clothes. The following quotation serves as an example about one excitement-minded informant's thoughts:

Have you ordered or paid for something via the internet? (Researcher).

Yes, I have ordered ... some records and DVDs and so on ... and clothes too ... (Veijo, 24, male).

Our findings reflect the difference in informants' personal values and its effect on e-trust building. It could be argued that the excitement-minded informants' propensity to trust in e-services was higher in general, because they seemed to have the courage to order products via the internet. Contrary, the security-minded informants disliked the idea of ordering products via the internet. One interesting finding was that the security-minded informants did not have any clear explanation for why they did not want to order products from e-stores. One possible explanation is their value-based view of the trustworthiness of e-services in general.

Value contrasts in e-trust building in three different context of e-commerce

In this subsection, we discuss the differences between the security- and excitement-minded informants' e-trust building in connection with different e-services. According to our interpretations, differences caused by informants' personal values were found in the contexts of electronic healthcare and electronic grocery shopping. In contrast, no differences could be interpreted to exist between the value-groups in the context of electronic newspapers. This finding may be explained by the nature of the different e-services. Electronic healthcare and electronic grocery shopping are services that require transactions and interaction between the consumer and service provider, while electronic newspapers are usually free of charge. Furthermore, newspapers are typically considered trustworthy and reliable institutions; this may explain why the differences between the security- and excitement-minded informants were not found. On the other hand, electronic healthcare and grocery shopping are sensitive e-services, because they are usually used when consumer's body is in an unbalanced condition, needing energy (in the form of food) or medical attention.

Our findings reveal that, out of five e-trust building-value linkages, two were found in the case of both electronic healthcare and electronic grocery shopping (Table II).

Three of the linkages emerge either in electronic healthcare or electronic grocery shopping.

It is interesting that some linkages were not found in the context of electronic healthcare or electronic grocery shopping at all. As regards to the external factors in e-trust building, threats on the internet were found both in electronic healthcare and electronic grocery shopping. On the other hand, the price of products emerged as significant only in electronic grocery shopping. One explanation for this might be that electronic grocery shopping includes different fees like delivery charges. Among the security-minded informants, the prices of the products offered by electronic grocery shops were also perceived to be higher than the prices in traditional stores. In the case of electronic healthcare services, some of the services that informants had used were free of charge, which might explain why informants did not consider the prices of products important. Furthermore, it could be assumed that it would be more difficult to compare the price of electronic healthcare services with traditional services than was the case with grocery shopping. That could also partly explain why the price of products was emphasized in the case of electronic grocery shopping.

As regards to the behavioral patterns in e-trust building, informants used the pretesting of e-services only in the context of electronic grocery shopping. The reason for this could be that trust in the electronic healthcare service has to be very high before interviewees begin to use it. Thus, pretesting how electronic healthcare services function would not be enough to convince informants about their trustworthiness. On the other hand, pretesting electronic grocery shop could be a relevant strategy for informants to build trust, because the service's functionality would tell something about the service provider and its trustworthiness. There were also other linkages that did not appear in all contexts. Ordering via the internet did not appear in the context of electronic grocery shopping. This could be explained on the basis of the informants' experience in ordering products. Almost all the informants had ordered some products from an electronic grocery shop, and perhaps as a result they did not consider ordering via the Internet as risky as the users with less experience in using e-services.

Our findings indicate that the nature of e-service affects informants' adoption of different e-trust building patterns and also the role of external factors in e-trust building. On that basis, we suggest that the context of e-service has a role in consumer e-trust building. Our argument is supported by the fact that informants did not adopt any e-trust building patterns to reduce risks and evaluate trustworthiness when accessing electronic newspapers. No external factors emerged in the context of

Table II.
Trust-value linkage in the
consumption of different
electronic services

	Electronic healthcare	Electronic grocery shopping	Electronic newspapers
<i>External factors in e-trust building</i>			
Threats on the internet	X	X	–
Price of products	–	X	–
<i>Behavioral patterns in e-trust building</i>			
Friends' e-service usage	X	X	–
Pretesting e-services	–	X	–
Ordering via the internet	X	–	–

electronic newspapers either, which indicates that informants did not consider the use of electronic newspapers to be as risky as the use of electronic healthcare services or electronic grocery shopping. On other words, there is no need for consumers to build trust in electronic newspapers, because it is not perceived as involving high risk. The e-trust building-value linkage in the consumption of different electronic services is founded on the security-minded informants' adoption of different e-trust building patterns and on their perception of external factors in e-trust building (differing from that of the excitement-minded informants).

Theoretical implications: towards a framework for consumers' value-based e-trust building process

Figure 1 shows a framework for understanding consumers' value-based e-trust building process. It is based on the integration of the existing literature with our empirical findings, and consists of five components:

- (1) perceived risks as antecedents of e-trust;
- (2) e-trust building patterns as mechanisms to build e-trust;
- (3) personal values as determinants of dispositional trust;
- (4) the role of consumer characteristics as moderators in e-trust building; and
- (5) the consumer e-trust as a context-specific phenomenon.

Mayer *et al.*'s (1995) definition of trust includes the notion that a party is willing to be vulnerable to the actions of another party. In other words, this notion means that someone is willing to place him/herself in a risky situation, where some negative consequences could occur. Following this, the component "perceived risks as antecedents of e-trust" is included in our model. Furthermore, Mayer *et al.*'s (1995) definition stresses that someone is willing to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor. In our model, the component "e-trust building patterns as mechanisms to build e-trust" handles how consumers form that expectation.

The last three components of our model are based on the integration of existing literature and our findings. The third component, "personal values as determinants of dispositional trust" is included in the model, because our findings indicate that personal values partially determine the level of risk consumers perceive and therefore, the disposition to trust. The last two components of our model are included, because consumer characteristics are seen to affect the level of perceived risks. Thus, they can affect the overall e-trust building process. Furthermore, our findings suggest that the context of e-commerce has influence on the amount of perceived risks and the usage of behavioral pattern in e-trust building. For that reason, "the consumer e-trust as a context-specific phenomenon" is included in our model. Next, all five components are discussed in details.

Perceived risks as antecedents of e-trust

Consumer perceived risks are seen to be a requisite to trust. According to Mayer *et al.* (1995) a need for trust arises only in a risky situation. Mayer *et al.* (1995) argue that when consumer trust develops and exceeds the perception of risk, then consumer is willing to take part in a risky relationship. More specifically, if a consumer perceives

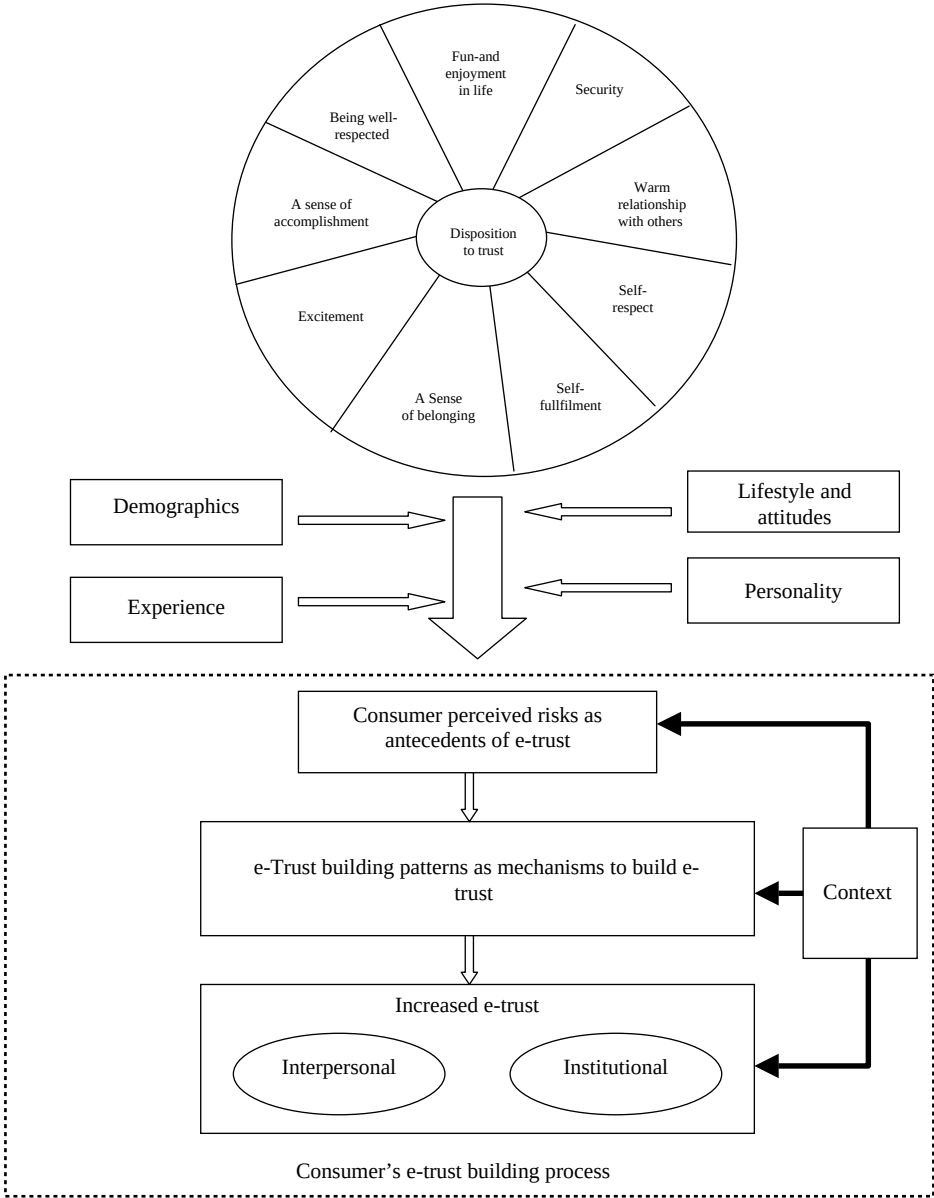


Figure 1.
A framework for
understanding consumers'
value-based e-trust
building process

risks, then a need to evaluate the trustworthiness of the object might appear if consumer is willing to surpass the threshold of perceived risks. This links the concepts of perceived risks and consumer e-trust building together. Thus, the concept of perceived risks has to be included in a model that relates to the trust issues, as the e-trust building process in a case of the current paper.

The external factors in e-trust building we found in our empirical research have similarities with the literature on consumer perceived risks. For example, consumers perceive financial risk if they are not convinced that the price of the product is suitable and fear that they may lose money by purchasing it (Ho and Ng, 1994). Thus, the concept of financial risk is similar to our finding that the price of products caused concerns to the security-minded informants. Threats on the internet can be identified in the literature on consumer perceived risks too. For instance, So and Sculli (2002) found that consumers are concerned about their security and privacy in e-commerce. This relates to our findings that indicate worries over threats on the internet among the security-minded informants. Thus, based on our findings and the existing literature, it could be argued that consumers' with different personal values build e-trust differently, because the amount and nature of perceived risks are different. We also argue that the perceived risks force consumers to evaluate the trustworthiness of e-commerce, that is, to build trust in it.

e-Trust building patterns as mechanisms to build e-trust

By evaluating the trustworthiness of e-commerce a consumer can form an expectation that the other party will perform an action that consumer want. Based on this expectation consumers can decide whether to trust or distrust. Therefore, we argue that in order to evaluate the trustworthiness, consumers use different e-trust building patterns.

Our findings revealed three e-trust building patterns:

- (1) friends' e-service usage;
- (2) pretesting e-services; and
- (3) ordering via the internet.

Our interpretation is that informants adopted these e-trust building patterns as strategies to evaluate the trustworthiness of e-commerce and to overcome the threshold of perceived risks. The current literature concerning consumers' risk reduction strategies offers support to our argument. For example, Mick and Fournier (1998) found that consumers adopt different strategies to cope with the technology. One of the strategies, pretesting, appears in our study. Furthermore, friends' e-service usage is similar to the results of earlier studies on reducing consumer risk (Mitchell and Boustani, 1994; Roselius, 1971). Also the third e-trust building pattern we found, ordering via the internet, can be identified from the literature. It is related to the abandonment strategy identified by Mick and Fournier (1998). Abandonment means that consumers decline or discontinue the use of the technology (Mick and Fournier, 1998). The concept of abandonment is similar to our finding that the security-minded informants declined the use of e-services.

Based on our findings we argue that, besides using different strategies to reduce perceived risks, consumers use these strategies to evaluate the trustworthiness e-commerce and the result of these evaluations would be increased/decreased interpersonal or institutional trust. For example, friends' e-service usage and pretesting e-services could be considered as the evaluation of the trustworthiness of the e-vendor. More specifically, consumers build interpersonal trust by asking advices from their friends or by pretesting the e-service before the actual usage. As mentioned earlier, interpersonal trust reflects consumer trust in some specific third party, in a context of e-commerce, the e-vendor (Tan and Sutherland, 2004).

In the case of ordering via the internet, the link between it and the concept of e-trust is fuzzy. However, we suggest that consumers use ordering via the internet to build both interpersonal and institutional trust. The reason for this is that the strategy could be interpreted as being used in evaluating the trustworthiness of either the e-vendor or the technology. If consumer perceives too many risks associated with the e-vendor, it could lead to declining to purchase. This kind of situation can be considered as a manifestation of interpersonal trust. On the other hand, the consumer may perceive too many risks associated with technology that places the strategy in the institutional element of trust.

Our findings indicate that differences in the usage of e-trust building patterns emerged between the security- and excitement-minded informants. It seems that the excitement-minded consumers do not adopt as many strategies to reduce risks and build e-trust as the security-minded. Based on that, we argue that the e-trust building process varies according to the consumer's personal values.

Personal values as determinants of dispositional trust

In addition to the institutional and interpersonal trust, the concept of e-trust includes dispositional trust (Tan and Sutherland, 2004). Unlike the others, the dispositional element of trust did not manifest itself directly in our empirical study. This could be explained as a result of the psychological and endogenous nature of dispositional trust (McKnight and Chervany, 2002). Therefore, it could be assumed that a disposition to trust is present before any risk perceptions and it should be separated from the other elements of e-trust and located among consumer characteristics.

When contrasting the concept of dispositional trust with the concept of personal values, it seems that they have something in common. For example, our findings indicate that the security-minded informants perceived risks related to e-commerce stronger than the excitement-minded and thus, have a weaker disposition to trust. This leads to an interesting question: what is the connection between the personal values and dispositional trust? The concept of dispositional trust stresses that the disposition to trust determines an individual's propensity to trust in general. On the other hand, our findings indicate that consumer personal values determine, at least to some extent, the level of perceived risk, and thereby also the level of dispositional trust. So, what is the role of personal values in dispositional trust? Literature suggests that, for instance, personality affects consumers' disposition to trust (Tan and Sutherland, 2004). According to our findings, also personal values could be argued to affect the dispositional trust. This generates a question how the overall disposition to trust is formed and what different factors affect it. In any case, on the basis of our results it seems that the excitement-minded consumers have a stronger disposition to trust than the security-minded ones, and that makes the e-trust building process different in these two groups.

The role of consumer characteristics as moderators in e-trust building

Earlier research suggests several other consumer characteristics that affect risk perception. Firstly, Liebermann and Stashevsky (2002) argue that demographics (age, sex, marital status) have a significant influence on consumer risk perception in e-commerce. For example, older consumers are seen to perceive more risks than the younger ones (Grable and Joo, 1999). Therefore, it could be assumed that the e-trust

building process is different between older and younger consumers. Older people might use more strategies to evaluate the trustworthiness of e-commerce in order to form the expectation whether the other party is trustworthy or untrustworthy, because they simply perceive more risks in e-commerce than the younger ones. Secondly, the experience in using e-commerce (Miyazaki and Fernandez, 2001) is seen to affect the level of risk that the consumer perceives in e-commerce. Thirdly, the literature on consumer research suggests different factors (such as lifestyle or personality) that might have an effect on the consumer's risk perception (Loudon and Della Bitta, 1988). For that reason, we argue that different consumers perceive risks differently; a factor that also has an influence on their e-trust building.

Consumer e-trust as a context-specific phenomenon

According to our findings, the context where e-commerce occurs might have an influence on consumer risk perception and the use of e-trust building patterns. Our findings indicate that different e-trust building patterns and external factors were identified in the contexts of electronic grocery shopping and electronic healthcare. In contrast, neither e-trust building patterns nor external factors emerged in the context of electronic newspapers. On the basis of this finding, it could be argued that consumers see some e-services as more risky than others and use e-trust building patterns differently based on the context. This again leads to the conclusion that the consumer e-trust building process is different depending on the context where the process occurs.

Conclusions and limitations

The main purpose of our study was to explore how consumers with contrasting values build trust in e-commerce. According to our findings, the excitement- and security-minded consumers perceived different levels of risk (excitement-minded less and security-minded more). Also the use of e-trust building patterns as a method to build e-trust was different between the excitement- and the security-minded. Our findings suggest that the excitement-minded consumers are not as interested in building e-trust as the security-minded as they simply do not perceive the need to evaluate the trustworthiness of e-commerce as much as the latter. Thus, current study suggests that, at least to some extent, consumer personal values affect the e-trust building process.

The major contribution of our paper was the development of a framework that links the concepts of consumer values, consumer perceived risks, e-trust building patterns and consumer e-trust. Compared to other models and conceptualizations (Lee and Turban, 2001; McKnight *et al.*, 2002; Tan and Sutherland, 2004), our framework takes the consumer into account as an active trust builder by bringing up different methods that consumers can use to build e-trust. According to few exhaustive literature reviews concerning trust issues (Blomqvist, 1997; Grabner-Kräuter and Kaluscha, 2003), there exist only few, if any, studies that deal with mechanisms that consumers use to build trust. As a first step in exploring this issue, our study treated the link between e-trust building patterns and the concept of trust. A further contribution is the introduction of consumer characteristics (values) to the trust literature.

Current study has also some limitations. Firstly, our framework is quite simplified and does not take into account, for example, the negative outcomes of using e-trust building patterns (evaluations about the trustworthiness of the e-commerce can be negative and trust might decrease). Secondly, current study concentrated only on

two values and excluded others. Thirdly, current study concentrated only on consumer e-trust, thus the e-vendor's side is missing. Logically, also e-vendors can form trust, although the e-vendor's side of the issue is not broadly discussed in this paper. However, the current paper offers ways of approaching the issue by providing theoretical building blocks for further research.

Implications for further research

In order to elaborate and validate our model, both qualitative and quantitative research is needed. Owing to the exploratory nature of the current study, only few mechanisms that consumers used to build e-trust are described. Therefore, qualitative research could be conducted to find more mechanisms in order to expand current understanding about consumers' e-trust building process. For example, literature concerning consumers' risk-reduction strategies could provide a starting-point to conduct further research concerning consumers' e-trust building. More specifically, literature concerning consumer risk-reduction strategies offers many different strategies that consumers might use not only to reduce risks but also to build e-trust too. For that reason, qualitative research could be useful to investigate whether those strategies are also suitable for consumers' e-trust building.

Quantitative research is needed to validate our model. Quantitative methods offer a possibility to test and verify whether consumers use different mechanisms to build trust in e-commerce. For instance, do consumers use pretesting to evaluate the trustworthiness of an e-vendor or do consumers ask their friends' advices regarding to some e-vendor or technology in order to build interpersonal or institutional trust. Furthermore, our study treated only two consumer personal values. By quantitative means the other personal values and their impact on consumers' e-trust building process, and especially to dispositional trust could be approached. Quantitative methods could also be used to study the role of different consumer characteristics in e-trust building process. For example, quantitative methods enable to study how consumers' demographics, experience in using e-commerce or personality affect the e-trust building process.

Managerial implications

Trust is an important issue in every relationship between consumers and companies. In a case of e-commerce, trust is even more emphasized due to the newness of the channel and the lack of face-to-face interaction between consumer and e-vendor. This paper provides some insights into the mechanisms that consumers use to build trust in e-commerce and how consumer personal values affect it. Although our model is concentrated in consumer, also e-vendors can benefit by learning how consumers build trust. More specifically, e-vendors can, for instance, satisfy consumers' need to evaluate the trustworthiness of their service by offering tools for consumers to evaluate the trustworthiness of the service. As a concrete example, e-vendors can provide consumers possibilities to test their service before purchasing and registration, offer possibilities for consumers to discuss with each other regarding the e-vendor and products or services it offers, or provide links in some objective, third party reviews concerning their services. This kind of behavior might highlight e-vendor's integrity and benevolence and make a deeper relationship with consumer possible, but also make consumer more loyal to e-vendor when the trust is established.

By recognizing the consumers' e-trust building process, e-vendors can gain some other benefits too. For example, e-vendors can identify their customers' "trust-profiles" by gathering information about their customers' characteristics like demographics, values, personality, and lifestyle. Our model argues that consumer characteristics partly determine how consumers build trust in e-commerce. Based on consumer characteristics, e-vendors can segment their customers and recognize how important trust is for different segments. When this information is available for e-vendors, they can decide how many and what kind of trust-increasing features they add in their service. As a concrete example, we can consider a service that is aimed for the excitement-minded consumers. As discussed earlier, we argue that the excitement-minded consumers were not as interested in trust-issues than security-minded. Because of that, the excitement-minded consumers do not need so many trust-related features in the service than it would be in a case of service aimed for the security-minded. This means, e-vendors can concentrate more on other value-adding features in their service when trust-related issues does not need so much attention.

References

- Blomqvist, K. (1997), "The many faces of trust", *Scandinavian Journal of Management*, Vol. 13 No. 3, pp. 271-86.
- Cheung, C.M.K. and Lee, M.K.O. (2006), "Understanding consumer trust in internet shopping: a multidisciplinary approach", *Journal of the American Society for Information Science and Technology*, Vol. 57 No. 4, pp. 479-92.
- Daghfous, N., Petrof, J.V. and Pons, F. (1999), "Values and adoption of innovations: a cross-cultural study", *Journal of Consumer Marketing*, Vol. 16 No. 4, pp. 314-31.
- Garbarino, E. and Lee, O.F. (2003), "Dynamic pricing in internet retail: effects on consumer trust", *Psychology & Marketing*, Vol. 20 No. 6, pp. 495-513.
- Gefen, D., Karahanna, E. and Straub, D.W. (2003), "Trust and TAM in online shopping: an integrated model", *MIS Quarterly*, Vol. 27 No. 1, pp. 51-90.
- Grable, J.E. and Joo, S. (1999), "Factors related to risk tolerance: a further examination", *Consumer Interests Annual*, Vol. 45, pp. 53-8.
- Grabner-Kräuter, S. and Kaluscha, E.A. (2003), "Empirical research in on-line trust: a review and critical assessment", *International Journal of Human-Computer Studies*, Vol. 58, pp. 783-812.
- Ha, H. (2004), "Factors influencing consumer perceptions of brand trust online", *Journal of Product & Brand Management*, Vol. 13 No. 5, pp. 329-42.
- Ho, S.S.M. and Ng, V.T.F. (1994), "Customers' risk perception of electronic payment systems", *International Journal of Bank Marketing*, Vol. 12 No. 8, pp. 26-38.
- Jayawardhena, C. (2004), "Personal values' influence on e-shopping attitude and behaviour", *Internet Research*, Vol. 14 No. 2, pp. 127-38.
- Kahle, L.R. and Kennedy, P. (1988), "Using the list of values (LOV) to understanding the consumers", *The Journal of Services Marketing*, Vol. 2 No. 4, pp. 49-56.
- Lee, M.K.O. and Turban, E. (2001), "A trust model for consumer internet shopping", *International Journal of Electronic Commerce*, Vol. 6 No. 1, pp. 75-91.
- Liebermann, Y. and Stashevsky, S. (2002), "Perceived risks as barriers to internet and e-commerce usage", *Qualitative Market Research*, Vol. 5 No. 4, pp. 291-300.

- Loudon, D.L. and Della Bitta, A. (1988), *Consumer Behaviour: Concepts and Applications*, McGraw-Hill Companies Inc., Singapore.
- McKnight, H.D. and Chervany, N.L. (2002), "What trust means in e-commerce customer relationships: an interdisciplinary conceptual typology", *International Journal of Electronic Commerce*, Vol. 6 No. 2, pp. 35-59.
- McKnight, H.D., Choudhury, V. and Kacmar, C. (2002), "Developing and validating trust measures for e-commerce: an integrative typology", *Information Systems Research*, Vol. 13 No. 3, pp. 334-59.
- Mayer, R.C., Davis, J.H. and Schoorman, F.D. (1995), "An integrative model of organizational trust", *Academy of Management Review*, Vol. 20, pp. 709-34.
- Merrilees, B. and Frye, M-L. (2003), "E-trust: the influence of perceived interactivity on e-retailing users", *Marketing Intelligence & Planning*, Vol. 21 No. 2, pp. 123-8.
- Mick, D.G. and Fournier, S. (1998), "Paradoxes of technology: consumer cognizance, emotions, and coping strategies", *Journal of Consumer Research*, Vol. 25, pp. 123-43.
- Mitchell, V-W. and Boustani, P. (1994), "Risk perception and reduction in the purchase of consumer services", *European Journal of Marketing*, Vol. 28 No. 1, pp. 56-71.
- Miyazaki, A. and Fernandez, A. (2001), "Consumer perceptions of privacy and security risks for online shopping", *The Journal of Consumer Affairs*, Vol. 35 No. 1, pp. 27-44.
- Morganosky, M.A. and Cude, B.J. (2000), "Consumer response to online grocery shopping", *International Journal of Retail & Distribution Management*, Vol. 28 No. 1, pp. 17-26.
- Patton, M.Q. (1990), *Qualitative Evaluations and Research Methods*, Sage, Newbury Park, CA.
- Ratnasingham, P. (1998), "The importance of trust in electronic commerce", *Internet Research*, Vol. 8 No. 4, pp. 313-21.
- Rokeach, M. (1973), *The Nature of Human Values and Value Systems*, The Free Press, New York, NY.
- Roselius, T. (1971), "Consumer rankings of risk reduction methods", *Journal of Marketing*, Vol. 35 No. 1, pp. 56-61.
- Rotter, J.B. (1971), "Generalized expectancies for interpersonal trust", *American Psychologist*, Vol. 26, pp. 443-52.
- Schiffman, L.G., Sherman, E. and Long, M.M. (2003), "Toward a better understanding of the interplay of personal values and the internet", *Psychology & Marketing*, Vol. 20 No. 2, pp. 169-86.
- Schwartz, S.H. (1994), "Beyond individualism/collectivism. New cultural dimensions of values", in Kim, U., Triandis, H.C., Kagitcibasi, C., Choi, S.C. and Yoon, G. (Eds), *Individualism and Collectivism. Theory, Method and Applications*, Sage, Thousand Oaks, CA, pp. 85-119.
- So, M.W.C. and Sculli, D. (2002), "The role of trust, quality, value and risk in conducting e-business", *Industrial Management & Data Systems*, Vol. 102 No. 9, pp. 503-12.
- Tan, F.B. and Sutherland, P. (2004), "Online consumer trust: a multi-dimensional model", *Journal of Electronic Commerce in Organizations*, Vol. 2 No. 3, pp. 40-58.
- Tan, Y.-H. and Thoen, W. (2001), "Toward a generic model of trust for electronic commerce", *International Journal of Electronic Commerce*, Vol. 5 No. 2, pp. 61-74.
- Thompson, C.J. (1997), "Interpreting consumers: a hermeneutical framework for deriving marketing insights from the texts of consumers' consumption stories", *Journal of Marketing Research*, Vol. 34, pp. 438-55.

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- Thompson, C.J. and Troester, M. (2002), "Consumer value systems in the age of postmodern fragmentation: the case of the natural health microculture", *Journal of Consumer Research*, Vol. 28, pp. 550-71.
- Verplanken, B. and Holland, R.W. (2002), "Motivated decision making: effects of activation and self-centrality of values on choices and behavior", *Journal of Personality and Social Psychology*, Vol. 82 No. 3, pp. 434-47.

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