

BARRIER TO ONLINE BOOKINGS: LACK OF TRUST IN ONLINE SKILLS

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Abstract

Unfamiliar vendors as well as insecure transactions and personal information have been presented to be the most important reasons why consumers do not choose to buy products from the Internet. However, with reliable companies operating online and offline, secure transactions in addition to guaranteed information privacy, other barriers exist. Approximately 2500 customers of a passenger cruise company answered a Web survey, which was used to test hypotheses based on media richness theory, revealed that one major barrier could also be lack of trust in customer's own online skills.

Keywords: electronic commerce, travel industry, barriers to online booking, trust

1. INTRODUCTION

Consumers' trust in online vendors has been extensively discussed in the electronic commerce research area. The discussion has focused mainly on the security of transactions, privacy of the customers' personal information and general trust in the vendor of whom the customer has not any prior experience. Many consider the lack of trust to be the main reason for the consumers' slow acceptance of online commerce (e.g. Belanger et al. 2002, Gefen 2000, Grabner-Kraeuter 2002). What if the vendor is a familiar click-and-brick company, operating both online and offline, which uses secure payment systems and guarantees the privacy of information? Are there any barriers left for online purchases then?

Trust is not the single reason why only approximately one percent of the total incomes in the retailing sector come from electronic transactions (OECD 2001). The mass of Internet users has been growing enormously for several years, but still the electronic commerce is not filling the expectations of the late 1990's. The objective of this paper is to contribute on this troublesome issue, which the academia and professionals have been pondering on for a long time.

With a click-and-brick company, we can discover the essence of the problem with media choice theories that have been generally used to understand the media choices of managers and co-workers in an organizational context. The theory applied in this paper is media richness theory that was used to generate hypotheses tested with a Web survey for actual customers of a Finnish passenger cruise company. The mostly quantitative data collected in 10 days consists of 2479 individual responses.

Before presenting the media richness theory and hypotheses, the concept of trust is defined based on previous studies. Then research background is described and Web survey method is discussed. In section 3.1 instruments used in this study are introduced as well as methods of analysis. Subsequently the data set and results are presented and in the following section results are discussed. The theoretical and practical implications are considered in the conclusions.

2. THEORY AND RESEARCH HYPOTHESES

In e-commerce research, the word "trust" is typically used in the context of trust in the vendor, security of payments and privacy of customer's personal information (Gefen et al. 2003, Jarvenpaa et al. 1999). Trust can be thought of as a strategy to reduce complexity in uncertain situations increasing the perceived certainty concerning the vendor's possible behaviour. Customer trusts that the vendor will not behave opportunistically to exploit consumers and thus trust encourages customers into online shopping. (Gefen et al. 2003, Grabner-Kraeuter 2002)

Grabner-Kraeuter (2002) defines two uncertainty types: system-dependent and transaction-specific uncertainty. The system-dependent uncertainty in the e-commerce context could be caused by technological problems or unclear or non-existent legal norms. Reasons for the transaction-specific uncertainty could be an asymmetric distribution of information between the transaction partners materializing in decisions of economic actors.

In this study, the vendor is an established and trustworthy company that has for a long time transported Finns over the Gulf of Bothnia. The payment options included bill, credit card and a secure Internet banking payment, which is an extension to an Internet banking system (used by approximately every fourth Finnish adult for bill payments (Karjaluo et al. 2002)). In addition, the customers were assured that their personal information would not be used in any unauthorized way. Therefore, the system-dependent uncertainty issues were not essential.

Transaction-specific uncertainty could be caused by an asymmetric distribution of information between vendor and customer. Since the cost of a travel product is usually considerably high in relation to customer's income (Öörni 2002), he or she has to have trust in product information, stability and cheapness of prices and the medium from where information is obtained.

In organisation science, media choice theories have been used to explain the communication media choices of management and co-workers. The choice of consumers between different booking channels is analogous to the media choice in organisational context. Media richness theory, an established media choice theory, has been chosen to bring a new perspective to this relatively fragmented research area of electronic commerce from the position of consumers.

The research problem is: What kind of barriers there are for online purchases or bookings from the perspective of consumers in a reliable click-and-brick company, which uses secure payment systems and guarantees information privacy? An answer to the research problem is sought by comparing the customers who made their previous booking in a travel agency, ticketing agency, or telephone (hereafter *traditional bookers*) and the customers who made their previous booking with the interactive online booking system (hereafter *online bookers*). The research hypotheses are based on media richness theory and its basic assumptions presented here.

Media richness theory (Daft & Lengel 1986) argues that different media can be placed on a continuum of rich and lean communication, based on four properties: the ability to transmit multiple cues, immediacy of feedback, use of natural language, and personal focus of the medium. The richest media on this continuum is face-to-face, followed by telephone, personal letters and memos, impersonal written documents, and numeric documents. In this case, travel agency and ticketing agency are the richest media customers may choose, followed by telephone, as presented in the upper part of figure 1. The interactive online booking system cannot convey or interpret multiple cues, it is not very personal and language used is not very natural, but feedback from the system can be very speedy. Therefore, the Web booking system can be classified as a relatively lean medium after telephone.

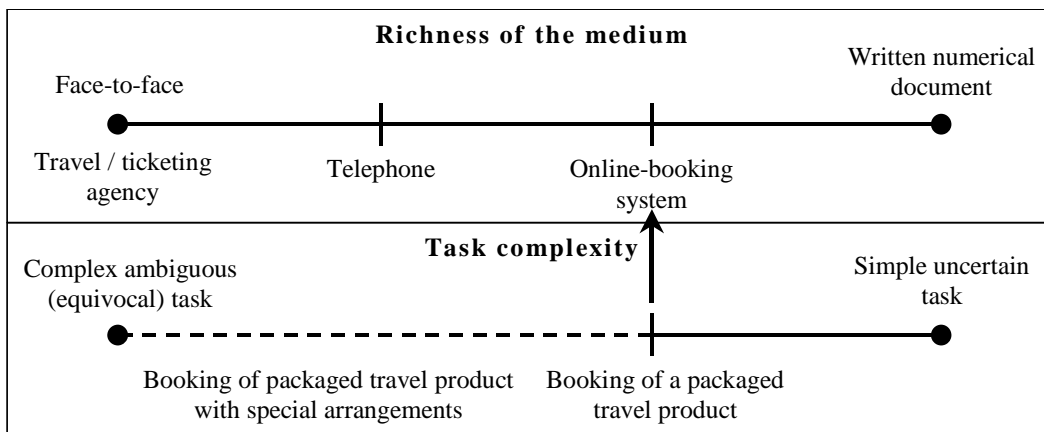


Figure 1. Media and task fit according to media richness theory.

The theory places also tasks on a continuum, ambiguous (equivocal) tasks on one end and uncertain tasks on the other (see the lower part of figure 1). An ambiguous task requires clarification and verbal discussion, for example in a new situation when concepts may have different or multiple meanings for communicating parties. Uncertainty is defined as lack of information, consequently when more information is received the task becomes clearer e.g. the uncertainty reduces. Daft & Lengel (1986) refer to a laboratory experiment in which subjects asked simple yes-no questions, and after each answer, the reduction of uncertainty could be calculated. In order to complete efficiently an ambiguous (equivocal) task an information rich

medium is suitable. Respectively, for an uncertain task the most fitting medium is an information lean one. Information is more efficiently presented in a written form than verbally.

The booking of a travel product could be described as a simple and uncertain task, since a travel product is an information intensive product. The more information about a product is available, the simpler it is to make a reservation. Therefore customers who have chosen online channel should perceive the booking task simple enough to be able to obtain all required information from the Internet, and traditional bookers require more clarification to the booking task they perceive to be ambiguous. For a simple travel product the most efficient booking channel should be the Internet and a traditional channel should be the most efficient one for an ambiguous task.

Hypothesis 1 (H1): Customers who perceived the booking to be less ambiguous made their booking online.

H2: All customers considered that their booking task was efficient regardless of the booking channel.

Generally, a product that has many features or components is described as complex and ambiguous, such as a digital camera or a computer (Jahng et al. 2001). Last-minute offerings, single-leg flights, and routine tours have been described as simple and low uncertainty travel products (Anckar & Walden 2001, Werthner & Klein 1999). Lindsley et al. (1995) describe low uncertainty tasks having few separate parts to be performed and their cause-and-effect relationships well understood.

The less components or special arrangements are included in the booking, the simpler the reservation task is. With packaged tours, travel products have become simpler to sell to inexperienced customers, but on the other hand, products have become more inflexible. Nevertheless, the price of the package is significantly lower than the price of a corresponding tour aggregated of components. The simpler the product is, the simpler the buying or booking task is. This assumption should be true with online bookers. However, when a travel product consists of for example transport, accommodation, leisure services and meals, the more ambiguous and complex the product is. Therefore, the bookings including more special arrangements should be perceived to be more ambiguous and booked from traditional channels.

H3: Customers who had less special arrangements made their booking online.

Typically, the range of products is extremely wide in the travel industry. Finding the most suitable product from hundreds of different ones is difficult that encourages customers to use travel agencies. The task becomes even more complex and ambiguous when special arrangements are attached to the basic product. If a booker considers the travel product ambiguous, and the booking task requiring discussion, therefore he/she chooses a traditional channel.

H4: During a booking task, traditional bookers are more willing to discuss with a customer service person than online bookers.

3. RESEARCH DESIGN

The empirical evidence was collected with a survey. The sample was based on the customers of a large passenger cruise company that sells its products online. The customers have four purchasing channel choices: travel agency, company-owned ticketing agency, telephone and company's interactive online booking system (since the products are in this case cruises or journeys, the word "booking" is more appropriate and it will be used hereafter). The online booking system is real-time and the payment methods include a secure Internet banking solution or credit card or bill, which are the same as in bookings made through traditional channels.

In order to get an extensive data set, the quantitative survey was chosen as the research method. As the target population included both customers that had some online shopping experience or those that had not, the data was chosen to be collected with a Web survey. This setting omits the people who have not adopted Internet technology, since they are not of interest for this study. Reaching the subjects through other channels or with mail or telephone survey would have been difficult, since only 4% of the total bookings of the company are made online. The questionnaire was based on a literature review of related studies and media richness theory. It was pretested first with actual clients in a ticketing agency and secondly on the Web with 13 academic colleagues.

Comparing to the postal mail or telephone surveys, a Web survey is a more rapid and a cheaper way to collect a great amount of data. In addition, the data coding is easy and reliable as with any computer-supported data collection method. The disadvantages are for example biased sample or results and counting the response rate. (e.g. Humphrey 2000, Zhang 1999)

Ensuring the validity of the respondents is not easy with Web surveys because of the anonymity of the respondents. To reach the target population and valid subjects, the Web survey was placed on company's homepage and only visitors, who had made a reservation with the company during the previous three months, were requested to answer the questionnaire. It was apparent that not every customer visiting the company's Web site had any online shopping experience, so the risk of very biased sample was minimal. An effort was made to eliminate multiple responses from the same respondent with 1) no-reward policy (e.g. O'Neil & Penrod 2001), 2) a cookie that was saved in the respondent's computer under his own username (and so impeded answering more than once) and 3) a careful screening of responses to find exactly similar responses.

3.1 Measures

The questionnaire used was based on a literature review of media richness theory. The standardised and pretested measures (Dennis & Kinney 1998, Karahanna & Limayem 2000) were not applicable without modifications, since most of them have been used in organisational settings, and the questions were mostly work related. The open-ended answers of the pilot study, and the company's previous Web surveys were used in design process as well as the expertise of three colleagues in (Web) surveys and electronic commerce.

A question group was designed for each theoretical hypothesis. All questions concerning the respondent's personal opinions had a five-point Likert scale (1= Strongly agree, 2= Agree, 3= Neither agree or disagree, 4= Disagree, 5= Strongly disagree; "I don't know" alternative was also available). The dependent variable was the booking channel used in the previous booking (online or traditional: telephone, travel or company's ticketing agency). The independent variables were:

Ambiguity (H1): The respondents were asked if they perceived the booking task as simple, the concepts used during the reservation were clear, and no misunderstandings had occurred.

Efficiency (H2): The reservation task performance was checked; the respondents indicated if the task was quick and the outcome (booked cruise) correct (as the respondent expected it would be).

Special arrangements (H3): The most common special arrangements included in the cruise products were documented. The respondents were asked if their previous reservation contained any special cabin arrangements, car, hotel, connections to other transports, or other special arrangements.

Desire for discussion (H4): The respondents were asked if they wanted to discuss the booking with the customer service.

In addition, some background and demographical questions were included in the questionnaire. The subject indicated the number of times they had made online purchases, travel bookings in general and with the online booking system of the co-operating company (scale: none, once, 2-5 times, 6-10 times, at least 10 times).

3.2 Analysis methods

All the data analysis was done with the SPSS 10.1 for Windows. Basic frequency tests with the categorical data revealed that normal distribution assumption was not satisfied. The Spearman correlation coefficient test applicable for ordinal data was used in hypothesis testing. Confidence level used was 99%. Cronbach alpha was used to measure the reliability of the ambiguity construct; the value was 0.7740, which is above the commonly used 0.7 limit. The qualitative data from open-ended answers were categorized with the QSR NVivo 1.3.

4. ANALYSIS AND RESULTS

The data was collected in ten days between February 1st and 11th 2002. The total number of responses was 2511, from which 2479 were unique and valid. The respondents were compared demographically to the respondents of two previous Web surveys (from January 2000 and November 2001, 920 and 2875 responses respectively), which collected data about the average visitor of the company's Web site and development suggestions for the Internet pages. In all three Web surveys, 58.5% of the respondents were women; the majority of subjects were between 18 and 45 years of age. The majority of respondents lived in the greater Helsinki area and Western Finland where the departure ports are situated. In these respects, this survey's data seems to correspond with the other surveys' data.

Quite a high percentage, 92% of the respondents used the Internet daily or almost daily. In 2000 (OECD 2001), 54% of Finnish people used the Internet and as a Web survey cannot reach the non-users, the high percentage is understandable in this respect. Over half of the respondents (51.5%) had made the previous booking over telephone and approximately one in four had visited a travel or ticketing agency. Merely 23.2% of all respondents had made the previous booking online.

The Spearman correlation coefficients are presented in table 3. The correlation values are positive or negative indicating direct or indirect relationship to the (online) bookers who had made their previous booking via travel or ticketing agency or telephone.

Table 1. Correlation coefficients and descriptives of the independent variables

	n	Correlation		Scale	Mean	Std.dev.
Ambiguity	2421	-0.120	***	3-15	4.53	2.016
Quick booking	2435	0.106	***	1-5	1.58	0.859
Correct outcome	2440	0.003		1-5	1.56	0.959
Special arrangements	2479	0.163	***	0-4	0.29	0.542
Desire for discussion	2410	-0.511	***	1-5	2.22	1.221

Hypothesis 1 (H1): Customers who perceived the booking to be less ambiguous made their booking online.

Contrary to expectations, the traditional bookers considered their previous booking to be simple, involving no misunderstandings, and the used concepts clear. The online bookers perceived

their previous booking to be more ambiguous. This can be seen in the negative and statistically significant correlation value. Therefore, H1 cannot be supported.

H2: All customers considered that their booking task was efficient regardless of the booking channel.

In the questionnaire, there were two efficiency-items: first, was the booking process quick and secondly, was the outcome (booked cruise) as the respondent expected it to be. Approximately 90% of the respondents perceived their previous booking to be quick, although the online bookers were slightly less satisfied (correlation being 0.106). In addition, 89% of the respondents considered the outcome correct in both groups. Therefore, H2 can be supported only partly.

H3: Customers who had less special arrangements made their booking online.

The traditional bookers did have more special arrangements in their booking than the online bookers, the correlation value is positive, hence H3 supported. Complex bookings are therefore not ambiguous, but more probably highly uncertain.

H4: During a booking task, traditional bookers are more willing to discuss with a customer service person than online bookers.

The traditional bookers did want to discuss more with a customer service person than the online bookers, as can be seen from the high negative correlation value, thus H4 supported. Although traditional bookers did not consider booking ambiguous that required verbal clarification, as the media richness theory argued. The online shopping experience could be one reason for conversation preference.

Table 2. Percentages of the respondents who preferred conversation with the customer service during a booking categorised by online shopping experience

	n	r	Prefer conversation				
			0	1	2-5	6-10	10 +
Online shopping experience	2419	0.201	92,7%	84,0%	70,3%	66,8%	59,0%
Online travel bookings experience	2412	0.259	90,5%	76,4%	64,9%	48,7%	41,2%
Company's online booking system experience	2421	0.455	87,7%	60,5%	41,7%	16,7%	41,2%

n = Total number of cases; r = Spearman correlation with previous booking channel;
0,1,2-5,6-10,10+ = times used the online booking system(, for ex. the subject has used system more than 10 times)

The online shopping experience was included in the questionnaire as a background question to discover its possible impact on the channel choice. Table 2 presents these results: all tested experience categories correlated with previous booking channel. The relationship between the conversation preference -variable and the online shopping and booking experience of the respondents is also presented in the table. As can be seen from the percentages of respondents categorized by increasing experience, the more experience the subjects had gained, the smaller portion preferred conversation with the customer service during a booking task. In addition, the more similar experience they gained, the smaller portion of respondents desired discussion.

Other reasons why the traditional bookers valued discussion with the customer service more, can be found in the open-ended answers. Many bookers required extra information that could be obtained in their opinion easier from the customer service person than the company's Web pages. In addition, the respondents perceived that bookings with many special arrangements were so complicated that the correctness and the inexpensiveness of the booking would have

been questionable if it was booked online. Nevertheless, the respondents were mainly accustomed and satisfied with the excellent service of the traditional channels.

The price of the booking was mentioned often in the open-ended answers. The traditional bookers were very concerned about finding the cheapest booking alternative online by themselves, and therefore needed assistance from the customer service. On the other hand, many respondents felt the reservation was cheaper online. They were referring to an experiment of the company, where its loyal customers received an incentive of €5 to the online booking. The online bookings rose up from 200 to 2000 daily bookings for a week, and the relative share of the online bookings increased from less than 2% to over 4% in those months. This small incentive encouraged people to experiment on the online booking system, more than any other marketing effort. Nevertheless, the most important feature of the online booking system was its easiness and quickness in the open-ended answers. Both traditional and online bookers stated that online booking is “quick, easy and handy.”

5. DISCUSSION

Although trust in the security of the online system was mentioned in the open-ended answers only a few times, other issues concerned the respondents. Repeatedly the respondents mentioned preferring traditional verbal booking since then they could be sure of purchasing the cheapest cruise available, obtaining all the information they wanted and that booking would include all the desired components. These anxieties are quite justifiable, since the cost of the travel is usually significant in proportion to one's income, and the customer him/herself makes the online purchase, but a traditional one is completed by an expert (customer service person or travel agent in this case). These reasons are also trust related, although from a different viewpoint usually not discussed in e-commerce literature.

The central barriers for transference to electronic commerce, such as distrust of inexpensiveness and correctness of the online purchase compared to traditional one or obtaining the desired product (related) information, can be considered as transaction-specific uncertainty problems (Grabner-Kraeuter 2002). These barriers may be caused by distrust of the online booking system itself, or in the person's own skills with the system. Skills and comfort with a system improve by gaining more experience (King & Xia 1997). Novak et al. (2000) found out that as people gain more experience and skills in Internet use and perceive to be in control of their online actions, they tend to use the Internet for task-oriented activities such as work or purchases.

In this study, the less online shopping experience respondents had gained, the more they valued conversation with customer service during a booking. These inexperienced respondents who preferred the verbal booking believed they could acquire a cheaper and more correct cruise from the traditional channels. The skills and comfort with the online booking system of the experienced users had improved and they made the reservation online. Prior system experience had the most significant impact on choosing online booking, but also prior online shopping and booking experience correlated with previous booking channel.

However, the reason for conversation preference most probably was that the respondents did not trust their own skills with the system. The respondents preferring verbal booking perceived the online booking to be easy and quick and they did not have much neither online shopping or booking experience. The prices of travel products vary considerably and new “special offers” are published at least weekly. Finding the best price is difficult in any case. The travel products are complex products whenever they include more components as traditional bookers had. In addition, the information seeking from the Internet can be very time-consuming if the information is not organized according to the logic of customers. It is easier to continue booking with the traditional channels where friendly and trustworthy experts deliver excellent service.

Experience cannot be gained without using the system, and therefore the barriers should be overcome by making online purchases extremely attractive. For ensuring the customers about the inexpensiveness of the online purchase, the online booking system should be customized to present cheapest search results first and offering simple one-click bookings for special offers advertised in local newspapers. In order to help customer to aggregate all the components he or she wishes to include in the booking, the user interface must be easy to use. Additionally, the system can be programmed to remind the customers of every possible component that might be wanted and advice to contact the traditional channels if certain alternatives cannot be booked online. The entire product related information could be easily presented to the booker with hyperlinks, since the Internet is the optimal medium for information sharing.

6. CONCLUSIONS

The idea of media richness theory was not supported. The online bookers considered the task more ambiguous than the bookers using traditional, richer channels and according to the theory performing efficiently ambiguous tasks requires a rich medium. For uncertain tasks, lean medium should be more suitable, but people who had more special arrangements and therefore uncertain bookings used rich media. Although this result conflicts with the basic assumptions of the media richness theory, this might indicate that Internet makes even simple tasks more complex. El-Shinnawy & Markus (1992) found also that media richness theory might not be applied to new media without modifications.

The most important barriers for customers in online purchasing and booking from a trustworthy company were valuing conversation and having special arrangements, which made the booking task too complicated. Although the traditional trust issues did not apply to this setting, other kinds of trust issues were found to be behind these barriers. Distrust of inexpensiveness and correctness of the online purchase compared to traditional one or obtaining the desired product (related) information were mentioned to be the most important reasons for preferring traditional verbal booking. In order to attract traditional bookers to use online booking they have to gain more experience of online shopping and the Web shop have to be made easy to as use as possible and present well organised information.

There are some limitations in this study. The problems of using a Web survey for gathering data are already discussed in Research design –paragraph. The data set is also only from one industry and limited geographical area. Further studies are needed to examine do these results apply also in other industries and areas. Some other factors that may have an effect on choosing the purchasing medium could also be studied in the future. These include prior shopping experience on the medium and the perceived usefulness and ease-of-use of the online booking system (Gefen et al. 2003, Järveläinen 2003). This study has however been successful to reveal some new issues that have an effect on the channel choices of consumers.

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