

THE IMPACT OF COGNITIVE RISK ON CONSUMER TRANSACTION TYPES

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Abstract

The purpose of the study is to invest consumer's difference and perceived risk. Likewise, the risks are on both sides of traditional and internet transactions arising. Making the difference then compared these messages available to consumers and allow the transaction to go between the two decisions in difference comparison.

The subjects in the present study were 457 consumers from eight major occupations in Taiwan. The All users of traditional and internet transactions by students, housekeepers, works, soldiers, teachers, public services, retired people, the other jobs, will fill in the 457 consumers' valid questionnaire data, use SPSS20 tools to do all kinds of data analysis, the major findings: (1) Traditional and Internet transactions have significant differences in financial risks; (2) They also have significant differences in benefit-risk; (3) They have significant differences in psychological risk; (4) They have significant differences in physical risk.

Keywords: traditional transactions, internet transactions, perceived risk

Introduction

In the past three decades, mankind has been carrying out traditional market transactions for thousands of years. However, due to the rapid development of computer technology and the ever-changing internet technology, the convenience and rapidity of modern transactions have been greatly improved, and human consumption behavior has been changed. The model has become more diversified, so the traditional market shopping behavior is no longer the only way for people; over the past decade, the rapid increase in Internet transactions, its extensive and convenient consumption patterns have changed our spending habits, so both traditional and Internet trading behavior are indispensable in our lives.

The purpose of this study is to explore the differences between consumers' perceptions of traditional and internet transaction and perceived risks, and the risks arising from both traditional and internet transactions (e.g. financial, efficient, psychological, social, timely, and physical). Doing a comparative comparison; then providing these messages to consumers, allowing consumers to make decisions between these two transactions as a reference for future business transactions.

Literature Discussion and Problem Hypothesis

Traditional Transaction

According to Cassady (1967), the earliest transactions took place during the Babylonian period. At that time, auction transactions were held on a regular basis each year. The auction product was a woman. The person who wanted to buy that was auctioned and conditionally auctioned to the buyer. Turban (1997) has gradually changed its market into Qianyi in the future. It can be seen that auction transactions have existed for a long time and gradually spread to modern times; auction is a long-established economic transaction system that can be divided into the following four categories. Klein (1997) stated (1) Co-ordination - Auctions are gradually being used as a coordination mechanism to achieve price balance. (2) Allocation - The allocation of resources can be efficiently promoted through low-price auctions. (3) Price determining -The bidding price determines the price of the product. (4) Highly visible distribution mechanism - Another purpose of the auction is to attract the public's attention.

The traditional transaction system is a mechanism in which buyers and sellers auction the "commodity" through the market, so that consumers can participate in bidding to determine the market economy system of commodity prices and resource allocation, as shown in Table 1.

Table 1 Definition of traditional transactions

| | |
|--|---------------------------|
| Under the exact rules and regulations of the transaction, the auction involves the participation of market consumers in bidding for competitive goods to determine the market system for the allocation of prices and resources. | McAfee & mcmillan (1987) |
| The auction is a process in which the parties to the transaction follow a specific principle and compete for the outcry and execute the transaction. | Klein & O'Keefe (1997) |
| In principle, an auction transaction is a system of price fixing and resource allocation to rare resources under uncertain circumstances. | Cramton (1998) |
| The auction transaction is a method of resource allocation for price competition for specific commodities in the market. | Bierman & Fernandez(1998) |
| The auction is a formalization of the trading process. The so-called transaction process means that the parties to the transaction make bids and realize transactions under the jurisdiction of the special mechanism. | Kumar &Feldman(1999) |

Internet Transaction

The essence of Internet transaction in auctions remains the same. Its main purpose is divided into two ways as the following: reducing search costs and reducing coordination costs. Lee (1996)

mentioned those reasons were reducing the costs, such as (1) Reducing search costs –Internet auction transactions, buyers and sellers are free from time and money restrictions, you can search for relevant instant messages for auctions anywhere and anytime.(2) Reducing coordination costs -- Another benefit for Internet auction transactions is that they can gather buyers and sellers promptly to negotiate and coordinate through the Internet and do real-time coordination of transaction, instead of spending time and costs face to face like traditional auctions. The characteristics of e-markets are divided according to the numbers of buyers and sellers, among which the following are related to Internet auction transactions: (1) B2C and C2C (2) Reverse auction is C2B auction (3) B2B transaction Auctions (Van Heck & Vervest, 1998).Nowadays, the so-called racquet is the “Internet auction transaction”. It can also be called a virtual electronic market, as shown in Table 2.

Table 2 Definition of Internet Trading

| | |
|---|-----------------------|
| Through the virtual space of the website to trade transactions between the buyer and the seller, the seller takes the initiative to provide Internet auctions for the goods, and the buyer searches for the goods on the Internet to bid for the goods. | Heck & Ribbers(1997) |
| An internet auction transaction is a transaction mode that uses web pages to convey goods or services and sells products or services through a competitive bidding process. | Reck(1997) |
| An internet auction transaction is defined as a web page that can display information about an item or service and sells the item or service to the highest bidder through a competitive bidding process. | Beam & Segev(1998) |
| The trading marks and detailed information required for Internet auctions are all completed electronically. | Klein & o'Keefe(1999) |
| Rely on Internet services and Internet protocols in the virtual market to run auction transactions. | Mollenberg(2004) |

Definition of Cognitive Risk

The cognitive risk is mainly due to consumers’ feeling uncertain factors or unfavorable results in the process of consumption Cox and Rich (1964). Cunningham (1967) mentioned that multiplying above two factors can be used to measure cognitive risk. Jacoby and Kaplan (1971) proposed five facets, and then Roselius (1972) proposed time risk, and then there were six aspects of cognitive risk: 1. Social 2. Physical3. Psychological 4. Financial 5. Effective and 6. Time. Peter and Tarpey (1975) understanding the cognitive risk will help consumers to reduce the risk and provide more protection when considering which purchase mode to adopt, as shown in Table 3.

Table 3 Definition of Cognitive Risk

| Tiller | Cognitive risk facet | Scholar and year |
|-------------------------|--|---|
| traditional transaction | Physical, Time, Psychological, Convenience, Effective, Functional, Financial, Security, Social | Cox(1964), Woodside(1968), Jacoby& Kaplan(1971), Roselius (1972),Kaplan, Azybill, Jacoby(1974), Peter & Tarpe (1975), Korgaokar (1982), Robertson et al. (1984), Murray & Shlacter(1990),Sweeney, Soutar & Johnson (1999), Bansal & Voyer(2000) |
| internet transaction | Time, Privacy, Store, Internet, Security, Remote, shopping, Brand, Financial, Physical, Social, Psychological, Effective | Hofacker (1998), Tan(1999), Mooney(2000), Bhatnagar et al.(2000), Lim(2003), Doolin et al.(2005) |

The resource made by researcher’s organization

Definition of Consumers’ Behavior

The concept of consumers’ behavior covers sociology, psychology, economics, and marketing, etc., and will continue to evolve with time and space, as shown in Table 4.

Table 4 Definition of Consumers’ Behavior by Foreign Scholars

| | |
|--|---------------------------------|
| Consumption is a purchase activity that is not for the purpose of resale. | Nicosia(1966) |
| The narrow definition of consumers’ behavior is to obtain and to use economic goods and services. The broad definition is the purchase activity of non-profit organizations, industrial organizations, and middlemen, in addition to the narrow sense of consumers’ purchases. | Engel, Kollat & Blackwell(1973) |
| Consumers’ behavior is the decision-making process and action for people to evaluate, obtain, and use economic goods or services. | Demby (1974) |
| Consumers’ behavior refers to the decision of purchase, that is, the cash or check exchange required for goods or services. | Pratt(1974) |
| The consumer and the purchaser are not necessarily the same person. The consumer may be more than one person, and the purchaser may be the representative of the implementation of | Alderson(1975) |

| | |
|--|----------------------------------|
| the purchase activity. | |
| Consumers' behavior is the act of an individual who directly seeks to obtain and use economic goods and services, including the decision-making process that initiates and determines these behaviors. | Engel · Kollat & Blackwell(1982) |
| Consumers' behavior is the result of an act, process, and experience gained by individuals, groups, and organizations in the acquisition and use of various products, services, and other resources. | Zaltman & Wallendorf (1983) |
| Consumers' behavior is mainly to study the customer's purchase and consumption at the same time, internal thinking and reflection. | Howard (1989) |
| Consumers' behavior refers to the relevant decision-making behavior when people purchase and use products or services. | Walters & Bergiel (1989) |
| In the process of their life exchange, people interact dynamically with the results of cognition, behavior and environment. | Peter & Olson(1990) |
| It is believed that consumers' behavior is the behavior that consumers demand, purchase, use, evaluate and dispose of products and services in order to meet their needs. | Schiffman & Kanuk (1994) |
| In order to meet consumers' needs and desires, the inner, emotional and physical activities. | Wilkie (1994) |
| Explore how individuals, groups and organizations choose, buy, use and dispose of goods, services, ideas or experiences when meeting their needs and desires. | Kotler (2000) |
| Study the process of consumers' use to select, acquire, use, and dispose of products, services, experiences, or ideas to meet their needs, and the impact of this process on consumers and society. | Hawkins, Best & Coney(2001) |

References: This study organizes

Research Methods

This study focuses on the analysis of the differences between traditional transaction and internet transaction in the consumers' behavior model and the behavior of transactional behaviors for

cognitive risk. This study uses Cox's (1964) statements that mentioned six aspects of cognitive risk, such as (1) performance risk, (2) time risk, (3) social risk, (4) psychological risk, (5) physical risk, and (6) financial risk and consumers' behavior. For the purpose of making a differential analysis, the research framework is shown in Figure 1.

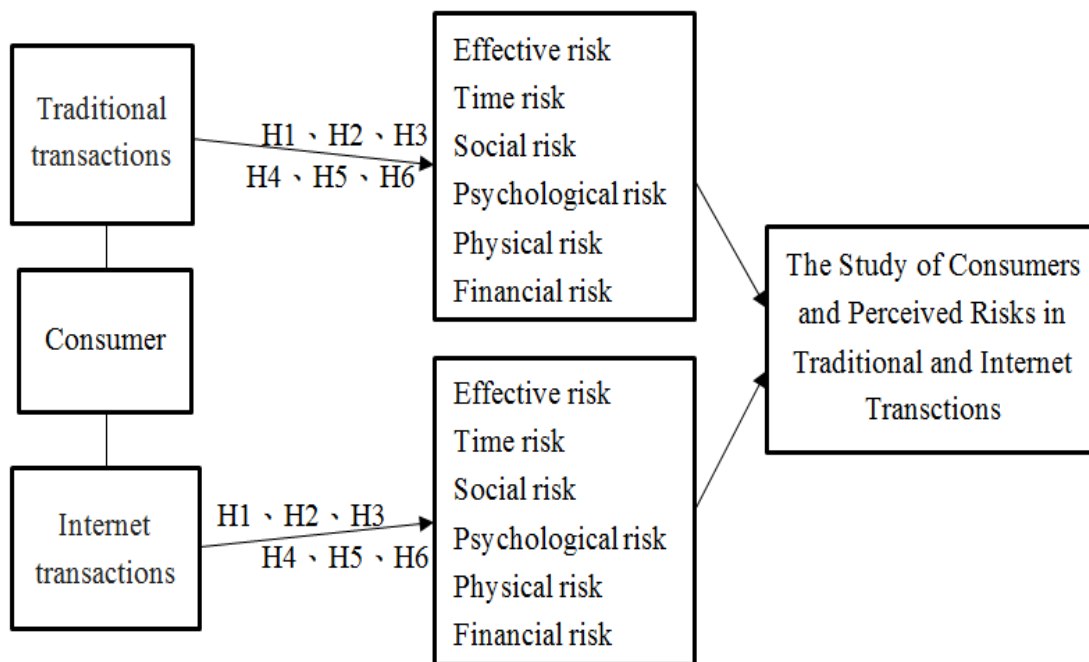


Figure 1. Research framework

In this chapter, based on the data obtained from 545 questionnaires recovered from quantitative questionnaires of research hypotheses, (SPSS-20) packaged software is used to make narrative statistics, and a narrative statistical analysis and letter of the sample formulas and basic data of questionnaires are used. Degree analysis, independent sample t verification to verify the hypothesis is established or not, in order to achieve the purpose of this study.

In order to ensure the correctness of the sample questionnaire, the general steps must be carefully made. Consumers who have used traditional or Internet transactions are the main pilot tests. The test population is generally about 10-30. After the test, the questions generated by the questionnaire must be reviewed and revised by the researcher. We think that we have solved the problem completely. A total of 545 questionnaires were collected in this study, of which 457 were valid questionnaires and 88 were invalid questionnaires.

Data Analysis

As shown in the table below, the number of shoppers using traditional and Internet transactions is 332, accounting for 72.6% of consumers; and 125.7% of consumers using Internet transactions, as shown in Table 5.

Table 5 Narrative Statistics of Trading Methods

| Personal basic information | Number | Percentage |
|----------------------------|--------|------------|
| Transaction Type | | |
| Traditional transaction | 332 | 72.6 |
| Internet transaction | 125 | 27.4 |

This section first analyzes the reliability of the questions in the questionnaire to determine whether the results of the questionnaire design have credibility or stability, so as to understand whether the content of the questionnaire is suitable for the purpose of the design of this study; Cronbach (1951) believed that the reliability of α system greater than 0.7 is acceptable; however, if it is lower than 0.6, as shown in Table 6 should be rejected.

Table 6 Reliability Analysis

| Purchasing factors | Questionnaire title Cronbach's α value | | |
|--------------------|---|----------------------|------|
| | Traditional transaction | Internet transaction | |
| Financial risk | 1~6 | .727 | .716 |
| Effective risk | 7~13 | .745 | .798 |
| Psychological risk | 14~19 | .810 | .813 |
| Socaa risk | 20~25 | .704 | .706 |
| Time risk | 26~32 | .786 | .824 |
| Physical risk | 33~37 | .836 | .853 |

The scales of Cronbach's α in the scales of the study all reached 0.70 or more. According to the above table 6, the questionnaire of this study showed good reliability. In terms of psychological risk, the traditional transaction α system was 0.669 less than 0.70. After adjusting and deleting the traditional and Internet trading question number 18, the traditional transaction was 0.810 and the Internet transaction was 0.813. In terms of social risk, the traditional transaction α system was 0.468. The Internet transaction was 0.456 and both were less than 0.70. After adjusting and

deleting the traditional and Internet trading question number 23, the traditional transaction is 0.704 and the Internet transaction is 0.706.

According to Table 7, the financial risk p-value has a significant level of .000; the average of which is the maximum 3.34 for Internet trading and 3.10 for traditional transactions. The significant level for effectiveness risk is p.000; the largest average value is Internet trading 3.59 and minimum value 3.08 for traditional trading; the level of psychological risk p.001 has a significant level, with the average number being 3.91 maximum for Internet trading and minimum 3.67 for traditional transactions; the social risk p is .627, with the highest average for Internet trading 3.03, the minimum is 3.00 for traditional trading ; the time risk p is .145, where the maximum average is 3.29 for online trading, and 3.19 for traditional trading; the time risk has a significant value for p.000, among which the average maximum is 3.67 for Internet trading and 3.39 for traditional trading.

Table 7 Transaction Cognitive Riskt Verification

| Average | | | | |
|--------------------|-------------------------|----------------------|---------|---------|
| Purchasing factors | Traditional transaction | Internet transaction | t value | p value |
| Financial risk | 3.10 | 3.34 | -3.895 | .000* |
| Effective risk | 3.08 | 3.59 | -8.407 | .000* |
| Psychological risk | 3.67 | 3.91 | -3.456 | .001* |
| Socaaal risk | 3.00 | 3.03 | -.486 | .627 |
| Time risk | 3.19 | 3.29 | -1.460 | .145 |
| Physical risk | 3.39 | 3.67 | -3.711 | .000* |

Total = 457 *p value < .05

Conclusion

This study focuses on the differences between consumers' preferences and perceived risk in traditional and Internet transactions, and provides the results of the study to consumers, allowing consumers to make decisions between these two transactions and can later do the same reference to commercial transactions.

H1: Consumers have significant differences in the financial risk perception of the Internet and traditional transactions - Yes

H2: Consumers have significant differences in the effective risk perception of the Internet and traditional transactions - Yes

H3: Consumers have significant differences in psychological risk perceptions of Internet and traditional transactions - Yes

H4: Consumers have difference in social risk perception of the Internet and traditional transactions - No

H5: Consumers have difference in time risk perceptions of the Internet and traditional transactions - No

H6: Consumers have significant differences in the perception of physical risks in Internet and traditional transactions - Yes

According to the research data and research verification results of the previous section, the following four conclusions can be summarized:

- (1) Traditional and Internet transactions have significant differences in financial risks; the reason for this is when trading Internet, the results of financial losses will be higher than traditional transactions, so the risk is also high.
- (2) Traditional and Internet transactions have significant differences in benefit-risk; the reason for this is when trading online, the chances of buying copyright-free counterfeits and counterfeits are higher than traditional deals, so the risk is high.
- (3) Traditional and Internet transactions have significant differences in psychological risk; the reason for this is in Internet transactions, personal information is liable to be leaked, misused or resold, and its probability is higher than that of traditional transactions, so the risk is high.
- (4) Traditional and Internet transactions have significant differences in physical risk; the reason for this is when trading Internet, some of the products purchased will have a higher chance of being infringed than traditional ECO, so the risk is high.

Based on the findings of this study in the research process, follow-up researchers can be provided for further exploration and orientation. They are briefly described as follows:

1. Participate in the decision-making mode of consumers' behavior or the consumer's willingness to buy, and modern people pay attention to the factors such as the security and privacy of the transaction will be used as a reference for more in-depth study of the design.
2. Do a regression analysis and go deeper to explore the problem according to the six dimensions of cognitive risk and other related aspects (such as pre-purchase assessment, data index, etc.)
3. Conduct complete and rich data collection from qualitative researches to further study how the research objects understand the differences between consumers' perceived risks in traditional and Internet transactions, so as to make up for the fact that this study is limited by time and only a small amount of case studies was performed.

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