

## Taiwanese Consumers' Internet Decision-Making Styles: The Role of Perceptions of the Internet

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**ABSTRACT:** The purpose of this study is to explore the relationship between online consumers' perceptions and decision-making styles regarding the Internet. Four perceptions and six decision-making styles were administered. Data were gathered from 454 consumers with online shopping experience in Taiwan. It was found that, of the four perceptions of Tool, Technology, Toy and Tour, consumers are more inclined to view the Internet as a 'Tool' or as 'Technology.' The results indicate that consumers who hold the 'Tool' perception of the Internet are positively correlated to the Perfectionism consciousness decision-making style, but negatively relate to Brand consciousness, Novel-fashion consciousness and Brand-loyalty consciousness. Consumers with 'Toy' perceptions tend to show relatively less preference for the Perfectionism consciousness style, but more for content, such as Brand consciousness, Novel-fashion consciousness, Confused by overchoice, and Brand-loyalty consciousness. No significant correlation was observed between the 'Technology' and 'Tour' perceptions and the six Internet decision-making styles.

**Keywords:** Internet Perceptions; Consumers' Decision-Making Styles; Taiwan

**JEL Classifications:** M31

### 1. INTRODUCTION

According to a survey report published by the Taiwanese government indicated that 80.7% of households with Internet access and 70.9% of population with Internet access in Taiwan in 2010 (Research, Development and Evaluation Commission, 2010). It also reveals that Taiwan's Internet users above 12 years old have surpassed 14.46 million people and 63.93% of Internet users have engaged in online shopping. And, the population and market value of online shopping in Taiwan are expected to grow gradually over the next decade.

The Internet as a commercial medium is rapidly diffusing, with shopping becoming its fastest growing use (Weeks et al., 2008; Hoffman and Novak, 1996). However, the shopping decision-making process of online consumers is a complex phenomenon. Researchers are devoted to exploring factors that influence consumers' Internet shopping purchase behavior. Prior studies have suggested that individuals' perceptions of the Internet may shape their attitudes regarding it, as well as their online

behaviors (Peng et al., 2006; Tsai, 2004, 2007). Therefore, the purpose of this study is to explore the relationships between consumers' internet perceptions and their Internet decision-making.

## **2. THE DEFINITION OF INTERNET PERCEPTIONS AND DECISION-MAKING STYLES**

### *2.1. Internet perceptions*

Consumers perceive the Internet in different ways. Tsai (2004) undertook interviews to investigate adolescent students' perceptions of the Internet and found 4-T categories (Technology, Tool, Toy and Tour) for describing their perceptions. According to Tsai (2007), individuals in the 'Technology' category are inclined to view the Internet as a technical product that makes our life more advanced, while individuals in the 'Tool' category tend to view it as a functional instrument that facilitates information acquisition, communication and trade. Moreover, individuals in the 'Toy' category are inclined to perceive it as supplying pleasure, especially for online games, whereas individuals in the 'Tour' category tend to perceive it as providing a tour or as a form of navigation.

### *2.2. Decision-making styles*

The issue of individuality in consumer behavior when choosing between alternative products is gradually coming to be seen as central to the consumer (Lysonski et al., 1996; Shim, 1998; Smith and Sivakumar, 2004; Sporles and Sproles, 2005). This line of research argues that all consumers seem to engage in shopping with certain fundamental decision-making modes or styles. This phenomenon is referred to as the 'consumer decision-making style'.

Consumer decision-making style can be defined as "a mental orientation characterizing a consumer's approach to making choices" (Sproles and Kendall, 1986). Sproles and Kendall (1986) view this construct as "basic consumer personality", analogous to the concept of personality in psychology. They developed a more parsimonious version of the earlier original instrument using 40 items, and then employed factor analysis with varimax rotation to identify eight mental characteristics of consumer decision making: (1) Perfectionism or high-quality consciousness; (2) Brand consciousness; (3) Novelty-fashion consciousness; (4) Recreational, hedonistic shopping consciousness; (5) Price and "Value for money" shopping consciousness; (6) Impulsiveness; (7) Confusion over choice of brands, stores and consumer information; and (8) Habitual, brand loyal orientation towards consumption. On the basis of Sproles and Kendall's study (1986), the consumer style inventory (CSI) was further employed to measure online consumers' decision-making styles, and was then modified. Six styles were identified, including Perfectionism consciousness, Brand consciousness, Novel-fashion consciousness, Confused by overchoice, Brand-loyalty consciousness and Impulsiveness (Yang and Wu, 2007). Internet shoppers with Perfectionism consciousness desire to choose the best overall quality when they purchase the product, while Internet shoppers with Brand consciousness prefer to choose the best brand when they consider the alternatives. Moreover, online consumers with Novel-fashion consciousness tend to buy fashionable and novel goods, while consumers Confused by overchoice are inclined to avoid too much information about products when buying. Furthermore, Internet shoppers with Brand-loyal consciousness tend to choose their favorite brand, while shoppers with Impulsiveness are inclined to ignore their buying plan before purchasing.

### **3. METHOD**

#### *3.1. Participants*

The participants in this study were 454 consumers with different online shopping experiences. They came from various demographic areas of Taiwan and consisted of 236 females and 218 males. Their average age was 29.07 years, and their educational level was just above college. All participants were asked to complete two questionnaires; one explored their perceptions of the Internet, while the other investigated their decision-making styles on the Internet.

#### *3.2. Instruments*

This study employed the Perceptions of the Internet survey (PIS), developed by Peng et al. (2006). There are two parts to the PIS. In the first part, the participants were required to express their agreement or disagreement with their perceptions of four possible roles that the Internet plays on a six-point Likert scale (1=strongly disagree, 6=strongly agree). The four roles were 'Internet as technology,' 'Internet as tool,' 'Internet as toy' and 'Internet as tour' (Tsai, 2004). Based on the four roles, four items were designed in this part, including (1) "For me, the Internet is perceived as a technology." (2) "For me, the Internet is perceived as a tool." (3) "For me, the Internet is perceived as a toy." (4) "For me, the Internet is perceived as a tour." In the second part of the PIS, the participants were asked to fill out a number (between 1 and 100) that matched the perceived roles that the Internet plays. They were required to allocate a total of 100 points to the four roles to illustrate their extent of agreement with each Internet-themed role. For example, a subject might place the number 20 in Internet as technology, 20 as tool, 30 as toy and 30 as tour, adding up to 100 to represent their perceptions of the Internet.

To investigate participants' decision-making styles when using the Internet, the Internet Consumer Styles Inventory (ICSI), developed by Yang and Wu (2007), was administered. The ICSI contains 30 items altogether, with 2-6 items in each of the six scales, including Perfectionism consciousness, Brand consciousness, Novel-fashion, Confused, Brand-loyalty consciousness and Impulsiveness. Each item was presented with bipolar agree/disagree statements in a 5-point Likert mode. The reliability of each scale was high and acceptable (with Cronbach's Alpha coefficients ranging from 0.83-0.92) (Nunnally, 1978).

### **4. RESULTS**

#### *4.1. Participants' scores on the PIS*

Participants' responses on the PIS are summarized in Table 1. In the first part of the PIS, participants, on average, attained relatively higher scores on the two items: 'Internet as tool' (5.53) and 'Internet as technology' (5.34). These results indicate that online consumers are more orientated to perceive the Internet as a tool and a form of technology. Similarly, the participants allocated much higher values to 'Tool' (38.78) and 'Technology' (31.96) among the four categories in the second part of the PIS. Consequently, the results derived from the PIS show that the online consumers perceive the Internet as a 'Tool' or 'Technology'. These findings are consistent with the findings of previous studies investigating high school students' (Tsai, 2007) and university students' (Peng et al. 2006) perceptions of the Internet.

**Table 1. Participants' Responses on the PIS**

	Mean	SD
Part One (6-Point Likert Scale)		
Technology	5.34	0.70
Tool	5.53	0.63
Toy	4.06	0.91
Tour	4.28	0.81
Part Two (1-100 Scale)		
Technology	31.96	14.51
Tool	38.78	13.65
Toy	12.53	11.45
Tour	16.73	9.23

Table 2 illustrates the inter-correlation matrix among perception scores measured on the two parts of the PIS. Each role corresponding to its counterpart (e.g., Technology-Technology) between the two parts of the PIS reached significant levels of 0.01; therefore it appears that these two scales are coherent in measuring participants' perceptions of the Internet. The results provide evidence of the internal consistency of the measurements. However, the 1-100 scale can comparatively distinguish between participants in a more detailed way than can the six-point Likert scale. Thus, participants' responses on the second part of the PIS were applied for further analysis of participants' perceptions of the Internet.

**Table 2. Correlations between Responses on the Two Parts of the PIS**

1-100 Scale	Technology	Tool	Toy	Tour
6-Point Likert Scale				
Technology	0.25**	0.04	-0.11**	-0.18**
Tool	-0.13*	0.29**	-0.06	-0.14**
Toy	-0.14**	-0.15**	0.43**	0.05
Tour	-0.13*	-0.17**	-0.09*	0.32**

\* $p < 0.05$ , \*\* $p < 0.01$

#### 4.2. Relationship between perceptions and consumers' Internet decision-making styles

Table 3 represents correlation analyses between participants' internet perceptions and their Internet decision-making style. Participants with stronger 'Tool' perceptions tended to exhibit the Perfectionism consciousness decision-making style. These participants, however, tended to display relatively less preference toward the decision-making styles of Brand consciousness, Novel-fashion consciousness and Brand-loyalty consciousness. However, the participants with 'Toy' perceptions

tended to show relatively less preference for the 'Perfectionism consciousness' style, but more for content, such as Brand consciousness, Novel-fashion consciousness, Confused by overchoice, and Brand-loyalty consciousness. Finally, there were no significant relationships between the participants holding 'Technology' and 'Tour' perceptions and the six decision-making styles.

**Table 3. Correlations between Perceptions of the Internet and Online Shoppers' Decision-Making Style**

	Technology (1-100 Scale)	Tool (1-100 Scale)	Toy (1-100 Scale)	Tour (1-100 Scale)
Perfectionism Consciousness	0.03	0.23**	-0.14**	-0.08
Brand Consciousness	0.04	-0.14**	0.13*	0.02
Novel-fashion Consciousness	0.06	-0.17**	0.14**	0.01
Confused by Overchoice	-0.06	-0.10	0.21**	-0.01
Brand-Loyalty Consciousness	-0.02	-0.13*	0.32**	-0.04
Impulsiveness	-0.02	-0.02	0.05	0.01

\*p < 0.05, \*\*p < 0.01

## 5. DISCUSSION AND CONCLUSIONS

Previous studies have suggested that when using the Internet, users may perceive it differently, and that these perceptions may in turn affect their online behavior (Coffin and MacIntyre, 1999, Tsai, 2004; Tsai and Lin, 2004). The results in this study show that the online consumers studied scored relatively highly for the 'Tool' and 'Technology' perceptions. These consumers regard the Internet as a technological tool for searching for useful information. This finding is consistent with our general intuition. Consumers are often likely to access the Internet to search for purchasing information in the pre-purchase stage, such as product functions and price comparison. Therefore, the above result merits greater attention from marketers. Marketers should strive to provide more product information on the Internet (e.g., on websites and blogs) that might increase the opportunity of being considered viable alternatives by consumers.

In addition, the results also indicate that consumers' 'Tool' perception is positively related to the Perfectionism consciousness decision-making style, while being negatively correlated to Brand consciousness and Brand-loyalty consciousness. Internet shoppers who view the Internet as a 'Tool' tend to collect product information on the Internet to allow them to buy the best overall quality, but they are not likely to focus on any special brand in particular. Moreover, consumers' 'Toy' perception is highly correlated to Brand-loyalty consciousness. Consumers in the 'Toy' category perceive the Internet as a source of pleasure, especially for online games. Online gamers, in general, usually pay fees to play online games according to game playing time. Game providers provide much stimulation (e.g., creative game content, sales promotion) to increase the gamers' duration of their game playing

time since the 'time' is the major source of profit for game firms. Thus gamers show high loyalty to specific games. This tendency might transfer to online buying behavior. Once they have favorite brands they will buy repeatedly and stick with them, in line with their attitude toward online games.

The results of this study provide evidence that shoppers' buying decision-making behavior on the Internet is related to their Internet perceptions. This can facilitate marketers and researchers to further clarify the antecedents of consumers' Internet buying behavior. However, the relationship between perceptions of the Internet and Internet consumers' decision-making styles were investigated using a sample of Taiwanese consumers in this study. Previous studies related to consumer decision-making have suggested that differences in decision-making styles can be observed across various countries (Hafstrom et al., 1992; Lysonski et al., 1995). The cross-cultural issues of the relationship between PIS and ICSI should therefore be considered in the future research.

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