Exploring Personality Trait and Purchase Intention- the Mediator of Legal and Ethical Responsibilities of Third-Party Payment

Han-Mei Kao, Department of Business Administration, National Chin-Yi University of Technology, Taiwan

ABSTRACT

According to the Nielsen Media Survey conducted in the second quarter of 2014, Taiwan's existing active online shopping population totals 5.34 million. Due to the flourishing network cash flow development, third-party payment has gradually received attention. Taiwan's financial and non-financial institutions have actively attempted to keep up with international third-party payment cash flow and logistics, making third-party payment an important part of online transactions in Taiwan. The research findings show that online shoppers with different personality traits tend to have different ideas about third-party payment institutions’ expression of legal and ethical responsibilities and produce different impacts on purchase intention. Online shoppers with diverse personality traits also vary in terms of the situation of the impact of mediating impacts expressed through third-party payment institutions’ legal and ethical responsibilities on purchase intention. Therefore, this study recommends third-party payment institutions to conduct consumer personality trait surveys and analyses. The results shall serve as a reference for taking different strategies in future third-party payment promotions, targeting consumers’ personality traits.

Keyword: Personality Trait, Legal and Ethical Responsibilities, Third-Party Payment, Purchase Intention

INTRODUCTION

According to a survey of the National Development Council, Taiwan (R.O.C.), 78% of the people aged above 12 in Taiwan have Internet use experience. VISA’s 2012 survey shows 93% of the Y-generation respondents in Taiwan said they had online shopping experience. The Nielsen Media Survey conducted in the second quarter of 2014 shows Taiwan's active online shopping population to be 5.34 million. The Internet has quickly spread to the world, which has boosted the e-commerce growth. However, in virtual transactions, a time gap exists between payment and confirmation of goods. The third-party payment mechanism coincidentally plays the role of an “intermediate platform” of fairness, openness, and performance trust during transaction processes, which enhances the reliability of online transactions and service convenience as well as promoting the development of online transactions.

Third-Party Payment (TTP) was derived from the World Economic Forum in Davos, Switzerland. The term was first proposed by President Ma of Alibaba Group. This payment system has undergone development in countries around the world for many years. Europe, the United States, China, Japan, and other countries have even set up laws to manage the system targeting the services and providers. In Taiwan, the third-party payment body can be divided into non-financial institutions and financial institutions. Non-financial institutions’ third-party payment can be divided into two types: The first type is made up of service providers providing cash flow services, such as Suntech, Neweb, etc.; the other type
is made up of online shopping platforms, such as Yahoo, Pchome, etc., and financial institutions including Bank of Taiwan, CTBC Bank, etc. These businesses have assumed certain corporate response prior to managing third-party payment services. However, the impact of their third-party payment role in online transactions on consumers is worth exploring. Therefore, this study hopes to achieve the following objectives:

1. Explore the impact of online consumers’ different personality traits on third-party payment institutions’ expression of legal and ethical responsibilities.
2. Explore the impact of third-party payment institutions’ expression of legal and ethical responsibilities on online consumers.
3. Explore if the mediating effect of third-party payment institutions’ expression of legal and ethical responsibilities produce an impact on the purchase intention of online consumers with different personality traits.
4. Recommendations are expected to be proposed to third-party payment institutions based on the research results.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Third-Party Payment

With the development of e-commerce and the increasingly popularized online shopping market, third-party payment has gradually been given the meaning of “performance trust” and has become part of e-commerce. The third-party payment system is a cash flow platform provided by a third-party institution who possesses considerable assets and credibility. The institution may be a financial service provider, or an information company. Through its own competency and information technology, the payer’s transacting bank account or credit card are linked. When a payment instruction is made, it first intervene the payment process and then transfers the price to the custody. When the conditions are fulfilled, the payment will be made to the payee (Tsai Tsung-Ling, 2009). From the perspective of the main body, third-party payment service providers are non-bank institutions that provide IoT based online (IoT) and offline (telephone and mobile) payment channels that complete currency payments, money clearing, query statistics, and other functions from the Internet user end to the network business end; from the content perspective, third-party payment services refer to an independent third-party institutions with considerable strength and credibility guarantee, which achieves the transfer of funds and online payment settlements by providing a portal that links to the bank’s payment settlement system and channel services; from the object perspective, a third-party platform provider establish links between a business and a bank through communication, computer, and information technology, it is a support tool and functional carrier for the transfers of funds from the consumer to a financial institution or a business, settlement arrangements, and other transactions (Chen Chin-Lei, 2007).

Taiwan’s third-party payment institution types are divided into three types. First, third-party payment service providers of service providers only a payment service platform only for the two sides that have closed a deal. The payment mode is to connect the buyer to the buyer’s transacting bank through the payment system provided by the service provider. After the bank receives payment instructions from the buyer, the transacted price will be paid to the trust account designated by the third-party payment service provider. After certain conditions have been met, the third-party payment service provider then wires the said transacted price to the account of the seller, such as Suntech, Neweb, etc. The second type of third-party payment service platform involves the provision of an e-commerce shopping platform.
When consumers shop through this platform, the third-party service provider plays the role of a third-party payment e-commerce platform that offers performance bonds, such as Yahoo, Pc Home, etc. The third type is a bank of third-party payment service which freely establishes an online shopping store platform. The bank uses its own third-party payment system to link to the online store platform, cooperates with other online store platforms to provide financial payment instruments and fund transfer services, forms an alliance with an online store platform that has not yet acquired third-party payment services, or assists personal sellers or small stores that have not yet joined a store platform to set up a new online store platform.

**The Conception of Personality Trait and CSR**

Personality is a unique mode of personal feelings and behavior (Phares & Chaplin, 1997). A disposable personal in life, how to think, feel, act and react (Magnusson, 1989). Personality traits is stable in a person's life, and is an important component factors (Costa & McCrae, 1992). Big Five Personalities is derived from trait theory. It is widely used in measuring personality traits, cross-cultural examination (Costa, Terracciano & McCrae, 2001). Most of researches support this model (Goldberg, 1990; Hofstee, De Raad, & Goldberg, 1992; Katigbak, Church, & Akamine, 1996; Somer & Goldberg, 1999; Digman & Shmelyov, 1996). Different personality traits present different external representations. Agreeableness individuals would be cooperative (Barrick & Mount, 1991; Digman, 1990; Kichuk &Wiesner, 1997; Neuman & Wright, 1999), trust in others, and competent in building friendship (Digman& Inouye, 1986); conscientiousness individuals are described as responsible, persistent, and cautious (Barrick &Mount, 1991; Digman, 1990; Neurnan&Wright, 1999; Thoms et al., 1996); extraversion individuals have a social disposition, actively to converse with others, and strongly to participate in team work (Barrick et al., 1998; Barrick & Mount, 1991; Costa & McCare, 1992; Digman, 1990); neuroticism individuals are strongly associated with agitation, fearfulness, depression, anxiety, nervousness, and hurtfulness (Costa & McCrae, 1985); openness is described as the individuals being imaginative, curious, having a variety of interests, and dealing with everything without prejudice (Barrick &Mount, 1991; Costa & McCare, 1985). This study adopts the five factors of personality trait.

CSR means a business targets not only fulfill the economic and legal obligations, but also should be concerned about the environment and society (McGuire, 1963). In addition, CSR should treat stakeholders by assuming ethical or social responsibility (Hopkins, 1998). Any act or activities which can generate benefits to the society should not be limited to the company's interests and legal requirements (Mc Williams & Siegel, 2001). Carroll (1996) demonstrated the Four-Part CSR Model including philanthropic responsibilities which business are expected to be responsibility for, ethical responsibilities which business are asked for, legal responsibilities which business have to pay attention for and economic responsibilities which business have to do for. Legal and ethical responsibilities are the general public’s basic requirements for honest and impartial business management. Thus, this study consider CSR be divided into legal responsibility and ethical responsibility.

Customer could be influenced by personal values, beliefs, perception and experiences. It has been proposed that individual personality traits influence ethical decision making (Ferrell, & Gresham, 1985 ; Hunt, & Vitell, 1986 ; Marks, & Mayo, 1991). Thus, the following hypotheses are proposed:

**H1:** Customer's personality traits may positively impact legal and ethical responsibilities.

**H1a:** Customer's agreeable trait may positively impact legal and ethical responsibilities.

**H1b:** Customer's conscientious trait may positively impact legal and ethical responsibilities.

**H1c:** Customer's extraversion may positively impact legal and ethical responsibilities.
**H1d:** Customer’s neurotic trait may negatively impact legal and ethical responsibilities.

**H1e:** Customer’s openness may positively impact legal and ethical responsibilities.

**The Conception of Personality Trait and Purchase Intention**

Purchase intention refers to the probability, likelihood, and willingness of a consumer purchasing a product, or it may be the consumer’s plan to buy a product (Dodds, Monroe, & Grewal, 1991). Purchase intention is constituted by purchase tendency (Assael, 1992). Purchase intention may be used to predict the production of a purchase behavior (Morwitz & Schmittlein, 1992). Purchase intention can be measured from five indicators: 1. Loyalty: refers to the consumer’s performance and behavior toward a product, including repurchases and encouraging others to purchase the product; 2. Switch: refers to the consumer who reduces choosing a product but chooses its opponent’s product instead; 3. Pay more: even if the price of a product increases, the consumer still chooses the product; 4. External response: refers to the consumer who is dissatisfied with a product or service reports it to an external unit other than the business itself; internal response: refers to the consumer who is dissatisfied with a product or service reports to the company staff (Zeithaml, Berry, & Parasuraman, 1996). Purchase intention can also be measured from five dimensions: absolutely purchased, possibly purchased, uncertain about purchase, possibly not purchased, and absolutely not purchase (Schiffman & Kanuk, 2000). Purchase intention is based on customer loyalty, included are repurchase intention, intention to purchase more products in the future, and intention to recommend to others (Sirohi, McLaughlin, & Wittink, 1998).

The consumer’s personality positively affects the consumer’s consumption choices or online shopping related behaviors. (Punj & Stewart, 1983; Bosnjak, Galesic, & Tuten, 2007; Chen, 2011). Personality factors such as imaginative, reliable, charming, and so on affect the consumer’s evaluation (Khare, Khare and Singh, 2010). Thus, the following hypotheses are proposed:

**H2:** Customer’s personality traits may positively impact purchase intention.

**H2a:** Customer’s agreeable trait may positively impact purchase intention.

**H2b:** Customer’s conscientious trait may positively impact purchase intention.

**H2c:** Customer’s extraversion may positively impact purchase intention.

**H2d:** Customer’s neurotic trait may negatively impact purchase intention.

**H2e:** Customer’s openness may positively impact purchase intention.

Consumer’s show greater preference and recognition for businesses that take the initiative to assume social responsibility and are willing to pay more to purchase products (Creyer & Ross, 1997). In addition, businesses that implement social responsibilities tend to attract consumers’ attention, which in turn affect their product consumption intention (Sen, & Bhattacharya, 2001). The social responsibilities of businesses positively affect consumers’ purchase intention (Klein, 2004). According to relevant studies, consumers’ personality traits affect purchase behavior, and a businesses assuming social responsibilities affect consumers’ purchase intention. In that case, does a business’s social responsibility play a mediating role affecting purchase intention in the third-party payment environment where consumers engage in online shopping? Thus, the following hypotheses are proposed:

**H3:** CSR is the mediator between personality trait and purchase intention.
METHODOLOGY

Research Framework and Sample

This study explores that legal and ethical responsibilities of Third-Party payment mediate between customer’s personality traits and purchase intention. After the questionnaire preliminary test and factor analysis, personality trait embraces agreeableness, conscientiousness, neuroticism and openness. CSR includes legal responsibility and ethical responsibility. Purchase intention involves loyalty and intention possibility. Research frame of this study is shown as figure 1. Since third-party pavement is a method targeting loan performance bonds in online shopping, the questionnaires were randomly distributed through the Internet. Then, snowball sampling was adopted, a total of 833 questionnaires issued and 31 invalid questionnaires deleted, accounting for the effective rate of 96%.

![Figure 1: Conception of Framework](image)

Reliability and Validity Analysis

This study uses Cronbach’s α to measure data consistency. Cronbach’s α values of agreeable trait is 0.9, conscientious trait is 0.86, neurotic trait is 0.83, and openness is 0.89. Cronbach’s α values of legal and ethical responsibilities is 0.91. Cronbach’s α values of purchase intention is 0.89. The various dimensions of Cronbach's α values are higher than 0.80, indicating that the questionnaires in this study have good reliability.

This study uses convergent validity and discriminant validity to inspect questionnaire validity (Anderson & Gerbing, 1988). The evaluation criteria of convergent validity adopts of the proposed combination of composite reliability, CR, is greater than 0.6 by Bagozzi and Yi (1988). In this study, CR value of agreeable trait is 0.90, conscientious trait is 0.87, neurotic trait is 0.85, and openness is 0.90. CR value of legal and ethical responsibilities is 0.96. CR value of purchase intention is 0.89. All CR values are greater than 0.6 to express each variable has with good convergent validity. Capron (1999) is taken as the criteria for assessing discriminant validity, when the absolute value of the coefficient of roots and other value AVE is greater than the dimensions of the correlation coefficient, which is to support the existence of discriminant validity. The findings show that personality traits, legal and ethical responsibilities, and purchase intention of the AVE values are greater than the correlation coefficient, such as the absolute value of other factors of Table 1. Therefore, this mode has considerable discriminant validity after the test for the overall mode fit. In this model, GFI = 0.93, AGFI = 0.91, CFI = 0.97, and these values are all greater than 0.90. The above indicators show that the mode has a good degree of adaptation.
Table 1: Validity Analysis of Each Variable

<table>
<thead>
<tr>
<th>Variable</th>
<th>Agreeable trait</th>
<th>Conscientious trait</th>
<th>Neurotic trait</th>
<th>Openness</th>
<th>Legal and ethical responsibilities</th>
<th>Purchase intention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agreeable trait</td>
<td>0.74 (0.86)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conscientious trait</td>
<td>0.74</td>
<td>0.77 (0.88)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neurotic trait</td>
<td>0.10</td>
<td>0.09</td>
<td>0.58 (0.76)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Openness</td>
<td>0.49</td>
<td>0.48</td>
<td>0.09</td>
<td>0.63 (0.80)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legal and ethical responsibilities</td>
<td>0.32</td>
<td>0.28</td>
<td>0.11</td>
<td>0.25</td>
<td>0.91 (0.95)</td>
<td>0.73 (0.85)</td>
</tr>
<tr>
<td>Purchase intention</td>
<td>0.13</td>
<td>0.10</td>
<td>0.04</td>
<td>0.14</td>
<td>0.52</td>
<td></td>
</tr>
</tbody>
</table>

Note 1: Diagonal digital is the value of AVE and brackets digital is the values of AVE roots.

Hypothesis Testing

This study examines the relationship between personality traits, legal and ethical responsibilities and purchase intention. The findings show that agreeable trait, neurotic trait and openness have a significant positively impact on legal and ethical responsibilities. Openness and legal and ethical responsibilities have a significant positively impact on purchase intention, which coincide with the research hypotheses. These hypotheses show as Table 2.

Table 2: Hypothesis Testing Results of All Variable

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Variable relation</th>
<th>T-value</th>
<th>Support to Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a</td>
<td>Agreeable trait to Legal and ethical responsibilities</td>
<td>3.85***</td>
<td>Yes</td>
</tr>
<tr>
<td>H1b</td>
<td>Conscientious trait to Legal and ethical responsibilities</td>
<td>1.02</td>
<td>No</td>
</tr>
<tr>
<td>H1c</td>
<td>Neurotic trait to Legal and ethical responsibilities</td>
<td>4.22***</td>
<td>Yes</td>
</tr>
<tr>
<td>H1d</td>
<td>Openness to Legal and ethical responsibilities</td>
<td>3.46***</td>
<td>Yes</td>
</tr>
<tr>
<td>H2a</td>
<td>Agreeable trait to Purchase intention</td>
<td>0.33</td>
<td>No</td>
</tr>
<tr>
<td>H2b</td>
<td>Conscientious trait to Purchase intention</td>
<td>-2.29*</td>
<td>Yes</td>
</tr>
<tr>
<td>H2c</td>
<td>Neurotic trait to Purchase intention</td>
<td>-0.99</td>
<td>No</td>
</tr>
<tr>
<td>H2d</td>
<td>Openness to Purchase intention</td>
<td>2.05*</td>
<td>Yes</td>
</tr>
<tr>
<td>H3</td>
<td>Legal and ethical responsibilities to Purchase intention</td>
<td>16.41***</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Note: * means p < 0.05, ** means p < 0.01, *** means p < 0.001.

The Mediating Role of legal and ethical responsibilities of Third-Party Payment

The Sobel Test was used to examine if the mediating effect held true. According to the suggestion of Preacher and Hayes (2004), the path coefficient and estimation standard error were used for computing. At α = 0.05 and when the Z value exceeds the absolute value of 1.96, it means the mediating effect is significant. If the direct result and indirect result show significance, it has partial mediating effects; if the direct results are insignificant and the indirect results are significant, it has a total mediating effect.

The results find after Sobel test that agreeable trait and neurotic traits produce mediating effects on purchase intention through legal and ethical responsibilities. In addition, the direct effects are not significant, the direct effects are significant, and the z-value of greater than 1.96, indicating the legal and ethical responsibilities completely mediate agreeable traits, neurotic trait, and purchase intention. Moreover, the direct and indirect effects are significant, and the z-value exceeds 1.96, indicating the legal
and ethical responsibilities partially mediate openness and purchase intention. There show as Figure 2. Z-value, direct effect, indirect effect and mediate effect show as Table 3.

Figure 2: Relationship between personality traits, legal and ethical responsibilities and purchase intention

Table 3: Mediate Effect of legal and ethical responsibilities

<table>
<thead>
<tr>
<th>Variable relationship</th>
<th>Z-value</th>
<th>Indirect effect</th>
<th>Direct effect</th>
<th>Mediating effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agreeable trait and legal and ethical responsibilities</td>
<td>3.75</td>
<td>0.25</td>
<td>0.02</td>
<td>Completely mediating effect</td>
</tr>
<tr>
<td>Conscientious trait and legal and ethical responsibilities</td>
<td>1.03</td>
<td>0.036</td>
<td>-0.17*</td>
<td>No mediating effect</td>
</tr>
<tr>
<td>Neurotic trait and legal and ethical responsibilities</td>
<td>4.91</td>
<td>0.12</td>
<td>-0.03</td>
<td>Completely mediating effect</td>
</tr>
<tr>
<td>Openness and legal and ethical responsibilities</td>
<td>3.36</td>
<td>0.13</td>
<td>0.10*</td>
<td>Partially mediating effect</td>
</tr>
</tbody>
</table>

CONCLUSION AND DISCUSSION

In the collected sample, 51.6% were female and 48.4% were male; the participants under the age bracket of below 30 years old account for about 82.3%; 76.9% graduated from college. 24% of the respondents used online shopping once every two to three months; secondly, 23% of the respondents used online shopping once every six months. The low online shopping ratio is possibly due to Taiwan’s small area, concentrated stores, and short transportation time. However, specialty products accessible locally, cross-country specialty products, products with price differences, and so on can only be purchased through the Internet, the online shopping ratio should improve. 36.9% of the respondents that use third-party payment one to three times during online transactions comprise the majority, followed by respondents that never used third-party payment, accounting for 31.4%. The below $500 amount for
purchases made through third-party payment takes up about 54%, indicating the ratio of third-party payment for online transactions remains low in Taiwan. However, the respondents that use ATM to pay during online shopping account for 26.9% and those that use a credit card to pay account for 26.4%, both payment modes adding up to over 50%, indicating third-party payment in Taiwan still has great room for improvement. Therefore, it is recommended that third party payment institutions and banks operate using university students as potential future customers. Targeting online shoppers with university student identity, third-party payment through ATM or stored-value payment free of handling charges, repurchase discounts, or free cash bonus points enable consumers to gradually become accustomed to the third-party payment mode. With the prevalence of convenience stores in Taiwan, the National Development Council released the most common online shopping methods in 2014. Among them, “convenience store goods claim and payment” takes up 27.8%, and “convenience store payment” takes up 24.7%, the ratio of using claiming goods or paying in a convenience store exceeding 50%. Hence, it is suggested that third-party payment institutions from strategic alliances with convenience stores. When online shoppers use third-party payment and claim goods in a convenience store, the convenience store may offer them discounts for merchandise purchased from the store or give them new trial products, thereby promoting third-party payment and convenience store business at the same time.

Empirical results show that online shoppers with personality traits of friendliness, neuroticism, and openness have a significantly positive correlation with third-party institutions’ expression of legal and ethical responsibility; online consumers with the personality trait of stringency show no significant impact on third-party payment institutions’ expression of legal and ethical responsibility, indicating consumers with different personality traits hold differed views on institutions that express legal and ethical responsibility. Online consumers with the personality traits of friendliness and neuroticism do not significantly affect purchase intention, but online consumers’ with the personality trait of neuroticism have a negative relationship with purchase intention, while online consumers’ with the personality trait of stringency have a significantly negative impact on purchase intention; online consumers with the personality trait of openness have a significantly positive impact on purchase intention, indicating consumer with different personality traits have different impacts on purchase intention. In addition, the mediating result analysis shows that legal and ethical responses completely mediate agreeable trait and neurotic trait and purchase intention and partially mediate openness to experience and purchase intention, indicating the legal and ethical responsibly of third-party payment institutions produce differed mediating effects on the purchase intention of consumers with different personality traits. Therefore, it is recommended that third-party payment institutions request consumers to fill out a personality trait questionnaire when consumers engage in online shopping. The results of the personality trait questionnaire analysis shall serve as a reference for promoting third-party payment and different strategies adopted targeting consumers’ personality traits. The legal and ethical responsibilities of third-party payment institutions also have a significantly positive impact on online consumers’ purchase intention, indicating the importance of third-party payment institutions’ image of “compliance with legal and ethical responsibility”. It is suggested that third-party payment institutions abide by the legal and ethical image and incorporate transaction security in order to enhance consumers’ trust toward third-party payment.

Furthermore, follow-up studies may target the risk assessment of third-party payment institutions, transparency of information disclosed to consumers, and other mediating results. The third-party payment and other modes of e-payment may also be compared in terms of attractiveness to consumers, and research on consumers’ perceived trust towards performance bond transactions may be carried out.
REFERENCES


