

CONSUMERS' E-TRANSACTION BEHAVIOUR ADOPTION: AN EXPLORATORY STUDY

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ABSTRACT

This study draws upon the Theory of Planned Behaviour and technology innovativeness literature in determining impact of consumers' personal attitudes, social influence, perceived behavioural control and technology innovativeness on consumers' intention to adopt electronic transaction behaviour, in particular, retail travel service purchases via Internet. Preliminary findings reveal that respondents generally have positive attitudes towards carrying out online travel transaction behaviour and have the necessary control over potential transaction of online travel services. Technology innovativeness also reveals a significant impact on their intention adoption. Social influence however, does not affect consumers' acceptance of Internet transaction behaviour, hence supporting previous research.

KEYWORDS: *Theory of planned behaviour, technology innovativeness, consumer, electronic transactions, travel services*

INTRODUCTION

This study extends the theory of planned behaviour (TPB) by investigating consumers' adoption of electronic (E) – transaction behaviour, in particular, travel related service purchases via the Internet. An understanding of the TPB factors could provide a valid basis for explaining and predicting consumers' intention towards adopting electronic transaction behaviour within an e-business context, (Netemeyer, et al, 1993, Choi and Getsfield, 2002, Pavlou, 2002). However, prior studies argue that additional variables could further enhance the model's predictive utility and hence significantly improve its predictive power (Conner and Armitage, 1998; Norman, Conner and Bell, 1999). As such, there is also a need to study internet transaction behaviour in order to determine how well existing theory can be applied to e-commerce, where it needs modification and where new concepts need to be developed (Cowles and Kiecker, 2000; Phau and Poon, 2000). In this research context, technology innovativeness is added to the TPB model in further enhancing its predictive power.

Conceptual Development

Many findings from prior research are incorporated into the proposed model. Each of these constructs and their relevant sub-constructs is explored below.

Behavioural intention is the cognitive representation of a person's readiness to perform a given behaviour, and it is considered to be an immediate antecedent of actual behaviour. The intention is based on attitude toward the behaviour, subjective norms and perceived behavioural control, with each predictor weighted for its importance in relation to the behaviour and population of interest (Ajzen, 1991). In the current context, intention is broadly described as the consumers' propensity to adopt Internet technology in relation to online travel purchase transactions within a B2C e-commerce

consumer oriented market. This is supported by evidence from research on both adoption of innovation (Midgeley and Downing, 1993) and TRA (Shepperd et al, 1998) that show intention as being predictive of actual behaviour.

Most studies concerned with the prediction of behaviour from attitudinal variables were conducted within the framework of the theory of planned behaviour or TPB (Ajzen, 1985, 1991) and to a lesser extent, its predecessor, the theory of reasoned action or TRA (Fishbein and Ajzen, 1975). According to TPB, people act in accordance with their intentions and intentions are influenced by (a) – their attitudes towards the intended behaviour, (b) – relevant subjective norms, and (c) – their perceptions of behavioural control. By and large, most studies support the theory (e.g. Ajzen, 1985, 1991; Taylor and Todd, 1995a, 1995b; Mathieson, 1991; Pavlou, 2000, 2002, 2004; Kashima & Kashima, 2001; Choi & Gestfield, 2003; Chai and Pavlou, 2002; Keen et al, 2004).

Attitude towards behaviour is defined as an overall evaluation of the likely outcomes of behaviour (Ajzen, 1991). In this study, attitude towards behaviour is posited to serve as an overall evaluation of the likely adoption of technology with respect to online transaction activities. Favourable attitudes towards Internet technology are expected to ease online transactions and reduce any barriers to the adoption of e-commerce (Javempaa and Tractinsky, 1999; Pavlou, 2002; Keen et al, 2004).

Subjective norms refer to people's perception of what important others think that they ought to do with regards to intentions to perform a particular action (Fishbein and Ajzen, 1976). Research shows support for the role of subjective norms on behavioural intentions (Chiason and Lovato (2001; Morris and Venkatesh, 2000). Taylor and Todd (1995a) decompose subjective norms into two aspects - societal and social norms. Societal norms refer to adherence to the larger, societal fashions (global circle of influence) where as social norms reflect adherence to opinions from family, friends, and peers (local circle of influence). In this study, social norms are posited as having a direct influence on consumers' intention to adopt online transaction behaviour. This is because this group normally acts as a strong reference point to individuals, increasing compliance and the desire to be accepted as one of the group members. In our context, such influences are likely to be stronger than the more diffuse, and less direct and personal, societal norms.

Perceived behavioural control (PBC) is general construct dealing, self-evidently, with consumer perceptions of whether a behavioural act is within their control. PBC reflects beliefs regarding access to resources and opportunities required to facilitate behaviour (Ajzen, 1991). Research supports for the role of perceived behavioural control on behavioural intentions. A positive relationship between control and intentions is found by Taylor and Todd (1995b), who examine users in a computer resource centre, and by Pavlou (2002) and Choi and Getsfield (2003), in e-commerce behaviour. Thus, in the context of online transactions, PBC is argued to have an effect on purchase intentions and behaviour.

Innovativeness is arguably, one of the most researched concepts in consumer behaviour (Robertson, 1971; Hirschman, 1980a; Midgeley and Downing, 1978, 1993; Rogers, 1983, 1995; Steenkamp et al, 1999). Innovativeness is defined (Parasuraman, 2000) as a tendency to be a technology pioneer and thought leader whereas Rogers (1995) defines innovativeness in terms of the degree to which a person is relatively earlier in adopting an innovation than other members of his or her social systems. In this study, innovativeness refers to consumers' predisposition to adopt online transaction behaviour earlier than the rest of his/her social systems. Individuals high in technology

innovativeness have stronger intrinsic motivation to use new technologies and enjoy the stimulation of trying new technologies compared with less innovative individuals. Innovative individuals would not be greatly concerned about whether a new technology is easy to use and may still intend to try them despite the possible difficulties (Li, 2004; Dabholkar and Bagozzi, 2002; Argwala and Prasad, 1998)). Hence, in this study, we hypothesise that technology innovativeness affect consumers' intention to engage in Internet transaction behaviour.

METHODOLOGY

A non-random quota sampling of adult consumers comprising graduate office workers within several participating work organizations in the capital city of Malaysia was conducted. Data was collected over a three month period using an offline self-administered survey questionnaire. A structured survey questionnaire instrument was developed in collecting the necessary data. It consists of five (5) distinct sections containing relevant questions in achieving the study's research objectives. Personal attitude towards intended behaviour measurement was adapted and modified using Taylor and Todd (1995b), Ajzen and Fishbein (1980), Ajzen (1985, 1991) and Davis (1989). A 7 point semantic differential scale was developed based on a four item instrument using endpoints such as dislike-like, bad-good, harmful-beneficial and unpleasant-pleasant. Three items for measuring social influences was adapted from Karahanna et al (1999) and Ajzen (2002). Three Perceived Behavioural Control items was developed based on Taylor and Todd (1995, b) and nine Technology Innovativeness measures were developed using Goldsmith and Hofacker (1991), and Parasuraman (2000) items. Four items in measuring Behavioural Intention were adapted from Venkatesh and Davis (2000) and Ajzen (1991). All items were reworded and a 7 point Likert scale was used for most items in capturing information on consumers' behavioural intention to adopt Internet transaction behaviour.

PRELIMINARY FINDINGS

From the total 400 distributed self-administered survey questionnaires, 304 responses were returned with a 76% response rate. However, only 243 (a net response rate of 61%) usable feedback were finally generated for further data analysis. Several preliminary findings were made. In terms of the demographic descriptive statistics, the sample consisted of a similar proportion of male (53%) and female (47%) respondents. All respondents were Internet users with 51% of the sample using it for non-work purposes on a daily basis.

Cronbach's Reliability coefficient value was conducted in measuring the internal consistency of each constructs, and the generally agreed upon lower limit for the Cronbach's alpha coefficient value was set at 0.70 (Hair, Anderson, Tatham and Black, 2002). Most of the investigated constructs exhibited coefficient alpha values greater than 0.70, suggesting a reliability exceeding the common acceptable level (Nunnally and Bernstein, 1994; Hair et al, 2006) for explanatory research.

An exploratory factor analysis (EFA) was performed in identifying factor structure and ascertaining distinctiveness of the identified constructs. EFA was initially deployed on using the principal component method with VARIMAX orthogonal rotation. As per Hair et al's (2006) recommendations, factor loadings greater than .50 were considered acceptable in the study. Two items with loadings less than .50 were deleted and a new

factor solution was derived. The cumulative percentage of variance of the factors was 75.4%, with Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy of .872, which was higher than the recommended minimum value of .60 (Tabachnick and Fidell, 2001). The Bartlett Test of Sphericity was 4040.250 ($p=0.000$), and the Cronbach's alpha value of the total scale was .91. The results confirmed the existence of five factors with a minimal 0.60 loadings on each factor and have no cross-loadings above 0.30 on other factors (Nunally, 1970; Tabachnick and Fidell, 2001), indicating good discriminate validity.

A hierarchical multiple regression analysis was further employed as a means of determining factors that influence intentions to undertake Internet purchase transaction activities. The initial application of TPB variables indicated that personal attitude was the most important predictor in travel purchase transactions ($R=.543$). Entry of the personal attitude into Step 1 accounted for a significant amount of variance in intentions, $R^2=.30$, $F(1, 241) = 100.37$, $p<.001$. In Step 2, entry of social influences however did not have a significant additional variance over behavioural intentions after controlling personal attitudes, with $R^2=.30$, $F(1,240) = 51.76$, $p>.001$. In Step 3, the predictor variable had a slight incremental variance over intention at $R^2=.34$, $F(1, 239) = 100.37$, $p<.001$. Perceived behavioural control had an influence over consumers' intention to carry out online travel transaction activity ($R=.585$). In Step 4, technology innovativeness however, revealed a significant increment of variance in intentions, that is, $R^2\text{change} = .10$, $F(4,238) = 47.12$, $p<.001$. The addition of technology innovativeness into the TPB model has increased its predictive power to $R=.665$. These results hence revealed support for the stated hypotheses in this study.

CONCLUSION

Based on the above analyses, it can be revealed that most of the results supported the stated hypotheses in this exploratory study. Significant implications for theoretical knowledge and industry practice could also be observed from the said findings. In terms of validating TPB, there is, amongst others, still an adequate robustness of such a model in explaining consumers' e-behaviour upon undertaking online travel transactions. Further to that, the findings could also provide useful information for business strategies designed towards encouraging changed behaviour within the online consumption buying context. Marketers for example, could target strategies in changing consumers' personal attitudes, as well as provision of resources (e.g. improved technological infrastructures) that could facilitate consumers' perceived behavioural control with regards to their e-transaction behaviour.

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