

CHAPTER3 HYPOTHESES DEVELOPMENT AND MEASUREMENT DEVELOPMENT

3.1 Introduction

This chapter discusses a number of empirically testable hypotheses from the research models developed in Chapter 2. These hypotheses describe the relationships between each of the antecedent to initial trust, and the antecedents of propensity to trust and between initial trusts to intention to purchase online as illustrated in **Figure 2.1** in Chapter 2. This chapter also describes the development and operationalisation of each of the construct contained within the survey instrument.

3.2 Hypothesis development

3.2.1 Perceived trusting belief on Internet vendors and initial trust in Internet shopping

Research confirmed that consumer decisions to purchase online involve not only perception of the technology (McKnight *et al.*, 2002a), but also trusting beliefs about the Internet vendors (Friedman *et al.*, 2000). Integrity, ability and benevolence are the three trusting beliefs seen as antecedents to overall trust (Gefen, 2002). In other words, trusting beliefs reflect the Internet shoppers' perceptions of Internet vendors' ability, benevolence and integrity. In this study, perceived trusting belief refers to the Internet shoppers' perceptions of trustworthiness on Internet vendors. Researches show trusting intention *i.e.* initial trust in Internet shopping is strongly influenced by an

Internet shoppers' trusting belief (McKnight *et al.*, 2002; McKnight and Chervany, 2001-2002; Stewart, 2003). Therefore:

H₁: There is a positive relationship between perceived trusting belief on Internet vendors and initial trust in Internet shopping.

The proposed perceived trusting belief on Internet vendors is modelled as a reflective second order factors, which is composed of three sub-constructs *i.e.*, integrity, competence, benevolence. Hence, the three attributes, perceived integrity, perceived competency, and perceived benevolence are used to evaluate the perceived trusting belief on Internet vendors. In the current context, perceived integrity is refers to the Internet shoppers' perception that the Internet vendor will be honest and comply with an acceptable set of principles. Perceived competency relates to the perception of ability in an Internet vendor in providing the goods and services in a proper and convenient way. Finally, perceived benevolence is perception of Internet shopper believes that the Internet vendor which is trusted wants to do good thing compares to just increase his/her profit (McKnight *et al.*, 2002b). Based on the discussion above:

H_{1a}: There is a positive relationship between perceived integrity of Internet vendors and initial trust in Internet shopping.

H_{1b}: There is a positive relationship between perceived competence of Internet vendors and initial trust in Internet shopping.

H_{1c}: There is a positive relationship between perceived benevolence of Internet vendors and initial trust in Internet shopping.

3.2.2 Perceived technical competency on Internet vendors and initial trust in Internet shopping

Internet shoppers are interacting with both Internet vendor and technology in Internet shopping. Thus, Internet shopper has high perceived risk on both characteristic of Internet vendor and in the overall Internet environment. Pavlou, (2003) and Koufaris and Hampton-Sosa, (2004), stated that online trust can reduce perceived risk associated with security and privacy issue during transaction process. Lee and Turban (2001) posited that antecedents influenced initial trust in Internet shopping include trustworthiness of the Internet as a shopping medium and infrastructural (contextual) factors (*i.e.*, third party certification, security). Gefen and Straub (2002) has highlighted that the potential of B2C (Wang *et al.*, 1998) can only be materised if Internal vendors are able to demonstrate competency in technology so to make Internet shoppers feel comfortable and secure transacting over the Internet with unfamiliar Internet vendors. Thus:

H₂: There is a positive relationship between perceived technical competency on Internet vendors and initial trust in Internet shopping.

Perceived security control and perceived privacy control are the two important elements in perceived technical competency on Internet vendors. Warrington *et al.*, (2000) argued that perceived security control could increase Internet shoppers'

online initial trust by raising security level, or by decreasing perceived environmental risks. Whereas, Internet shoppers may disclose their private information when recognized reliability and credibility of a web site, *i.e.*, high perceived privacy control (Culnan and Armstrong,1999) that reduced Internet shoppers' concern of privacy and assist to build initial trust. Study from Smith *et al.*, (1999) and Udo, (2001), confirmed that security control and privacy control are the two important antecedents of initial trust as Internet vendors are expected to adhere with those mechanisms in order to form certain behaviour. Following that, the study posits:

H_{2a}: There is a positive relationship between perceived security control and initial trust in Internet shopping.

H_{2b}: There is a positive relationship between perceived privacy control and initial trust in Internet shopping.

The results from Principal Component Analysis (refers section 4.9) revealed that Perceived Technical Competency on Internet vendors is a unidimensional construct rather than two dimensions as what proposed in the conceptual framework. As a result of that, the two sub-constructs, namely perceived security control and perceived privacy control were merged and subsequently referred as Perceived Technical Competency on Internet vendors for data analysis. Therefore, hypotheses H_{2a} and H_{2b} were excluded from data analysis.

3.2.3 Perceived organizational compliance and initial trust in Internet shopping

Internet shopping environment have produced a new spectrum of unregulated trading platform to both Internet shoppers and Internet vendors. According to Lewicki and Bunker, (1995) third party recognition and legal framework are the two important contextual factors influence the formation of online initial trust. Therefore, in this study, perceived organisational compliance refers to the perception of Internet shoppers on the assurance of the trustworthiness of Internet vendors by third party recognition and legal framework. Thus:

H₃: There is a positive relationship between perceived organisational compliance and initial trust in Internet shopping.

Third party recognition is refers to the assurance of the trustworthiness of Internet vendors by a third party recognition bodies, whereas legal framework refers to the law and code of practice established to protect Internet shoppers during the online transactions (Cheung and Lee, 2001). According to Hoffman *et al.*, (1999), and Lee and Turban, (2001), online transaction security can be improved by context specific parameter, such as third party trust certification, *i.e.*, TRUSTe or Verisign and public key encryption infrastructure with a purpose to reduce the perceived risk from uncertainty of outcome of an Internet based transaction. Furthermore, McKnight and Chervany, (2002) argued that the success of Internet based transaction is conducted by favourable conditions that in place, in which refers to the legal, regulatory, business and technical environment perceived to support success. Therefore:

H_{3a}: There is a positive relationship between third party recognition and initial trust in Internet shopping.

H_{3b}: There is a positive relationship between legal framework and initial trust in Internet shopping.

3.2.4 Trusting culture and Propensity to trust

Cultural plays an important part in the disposition to trust, as some cultures may more trust in general and therefore hold a higher disposition to trust (Hofstede, 1980). Hofstede (1984) defined culture as the collective programming of the mind which distinguishes the members of one group from another. Culture is group into two broad categories, namely, individualistic and collectivistic cultures. These two groups of cultures think differently, and therefore behaviour differently, the most important in relation to work on trust, make judgment differently (Han & Shavitt, 1994). A study from Triandis (1989) found that in general western countries were primarily individualistic, whereas East Asian countries tended to be more collectivist. Result of his study shows that culture has an impact on the individual's disposition to trust, where collectivist cultures hold a lower disposition to trust, whereas individualistic cultures hold a higher disposition to trust. Thus:

H₄: There is a positive relationship between the strength of a trusting cultural environment and propensity to trust.

3.2.5 Personal experience and Propensity to trust

Internet shopping experience is a mixture of effort, lifestyle compatibility, fun and playfulness (Liu *et al.*, 2001; Ratchford, Talukdar & Lee, 2001). Effort is primarily a mental activity as Internet shoppers sit in front of a computer and work on the keyboard instead of traveling to multiple shopping sites. Moreover, Swaminathan *et al.*, (1999) highlighted that ease of use from the TAM model is the main component in Internet shopping coupled with time required in searching for a product and the availability of the desired product. According to Vellido *et al.*, (2000), lifestyle compatibility refers to consumers' lifestyle and shopping habits. The shopping tool must be easy to use and the availability of a support help line is important in generating a positive Internet shopping experience. In addition, playfulness and fun take into account the Internet shoppers' overall satisfaction with personal experience in Internet shopping (Goldsmith *et al.*, 2001).

Hofstede (1980) highlighted that people who have a positive experience with the Internet tend to be more trusting of Internet transactions. However, a study from Bhatnagar *et al.*, (2000), suggested that experience is negatively affected by shopping sites that are cumbersome to navigate, inability to locate in-stock products are examples of occurrences that diminish the personal experience in Internet shopping. Following that, the study suggested that:

H₅: There is a positive relationship between the personal experience in Internet usage and propensity to trust.

3.2.6 Propensity to trust and Initial trust in Internet shopping

Trust propensity is a stable, within party factor that affects the likelihood that a party will trust another party. Trust propensity will increase or decrease the tendency of initial trust in the Internet shoppers. Therefore, propensity to trust has a direct impact on the formation of initial trust (Mayer *et al.*, 1995). According to Hofstede (1980), the propensity to trust of the individual influences the impact of the trust antecedent. The trust propensity is dependent on one cultural background, personality type and developmental experience. Internet shoppers with a high propensity to trust perceive the online risk to be less and therefore have more trust in online transactions (Ba, 2001; Mukherjee and Nath, 2007). Thus:

H₆: There is a positive relationship between propensity to trust and initial trust in Internet shopping.

3.2.7 Initial trust in Internet Shopping and Intention to purchase online

Purchase intention is defined as the situation which an Internet shopper is willing and intends to become involved in online transaction. Initial trust creates positive attitudes and behaviour control toward transactions with Internet vendors, reducing perceived risks and uncertainty and providing expectation for a satisfactory outcome, thus positively influencing consumer behavioural intention to transaction (Pavlou, 2003). Intention to purchase online is the anticipated result of the overall intention of initial trust. In the context of Internet shopping, this intention to purchase behaviour

depends on the Internet shoppers holding an overall intention to trust the particular Internet vendor (Tan and Paul, 2004). Therefore:

H₇: There is a positive relationship between initial trust in Internet shopping and intention to purchase online.

Figure 3.1 depicts the conceptual model and the proposed hypotheses.

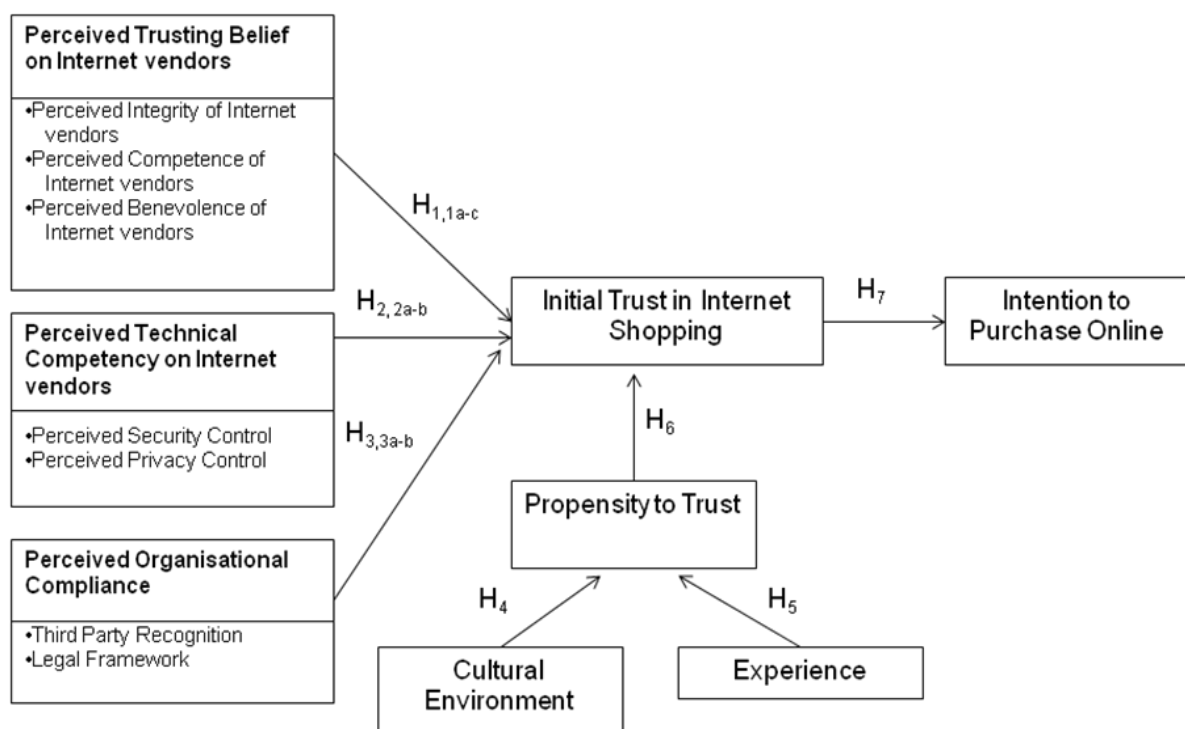


Figure 3.1: Conceptual model and the proposed hypotheses

3.3 Definition and measurement of constructs

Items of constructs are adopted from the previous studies by Cheung & Lee (2001), Moorman *et al.*, (1993), McKnight *et al.*, (2002a), Chow & Holden (1997), and Chen & Barnes (2007). Definition of constructs, measurement items and sources of measurement items for each construct is summarised in **Table 3.1**.

Table 3.1: Definition and measurement of constructs

Constructs	Definition	Items of Measurement	Sources
Perceived Trusting Belief on Internet vendors			
Perceived Integrity of Internet vendors	The degree to which Internet shoppers perceived the Internet vendors are honest.	1)Will not charge more for Internet shopping 2)Honesty of Internet vendors 3)Sincerity of Internet vendors	Cheung & Lee, 2001 Moorman <i>et al.</i> , 1993
Perceived Competency of Internet vendors	The degree to which Internet shoppers perceived the Internet vendors are competence.	1)Ability to handle sales transaction on the Internet 2)Expertise and availability of resource 3)Knowledge to mangle online business	Cheung & Lee, 2001
Perceived Benevolence of Internet vendors	The degree to which Internet shoppers perceived the Internet vendors are caring and interested in Internet shoppers' interest.	1)Act in Internet shoppers' interest 2)Do the best to assist Internet shoppers 3)Concern in Internet shoppers' interest	McKnight <i>et al.</i> , 2002a
Perceived Technical Competency on Internet vendors			
Perceived security control	The degree to which Internet shoppers perceived the Internet vendors are capable to fulfil security requirements.	1)Implementation of security measure 2)Protect Internet shoppers' information 3)Security of electronic payment system	Cheung & Lee, 2001
Perceived privacy control	The degree to which Internet shoppers perceived the Internet vendors are capable to protect consumers' personal information from unauthorised use or disclosure.	1)Interest in consumers' privacy 2)Not divulge consumer's personal data 3)Consumers fell secure about privacy control	Cheung & Lee, 2001

Table 3.1: Definition and measurement of constructs (Continue)

Constructs	Definition	Items of Measurement	Sources
Perceived organisational Compliance			
Third party recognition	The degree to which Internet shoppers perceived the third party recognition is trustworthiness.	1)Availability of reputable third party certification 2)Performance of third party recognition bodies 3)Adequacy of current third party recognition bodies	Cheung & Lee, 2001
Legal framework	The degree to which Internet shoppers perceived the laws and code of practice are able to protect Internet shoppers' interest.	1)Adequacy of current code of conduct 2)Adequacy of current laws 3)Adequacy of current legal framework	Cheung & Lee, 2001
Propensity to trust	The likelihood that the Internet shoppers will trust the Internet vendors.	1)Tendency to trust a person 2)Tendency to trust is high 3)Trust people even through little knowledge 4) Trusting is easy	Cheung & Lee, 2001
Cultural environment	The degree to which Internet vendors perceived of the type of culture environment that exists.	1)People in community trust each other 2)Living in a high trust society 3)Trustworthy of friends	Cheung & Lee, 2001
Experience	The degree to which Internet shoppers' total impression about the Internet vendors resulting from his/her exposure to a combination of virtual marketing tools that under the Internet vendors' direct control.	1)Using Internet has been a good experience 2)Positive experience in using Internet 3)Good experience in using Internet	Cheung & Lee, 2001

Table 3.1: Definition and measurement of constructs (Continue)

Constructs	Definition	Items of Measurement	Sources
Initial trust in Internet shopping	The degree to which Internet shoppers collectively assesses Internet vendor will potential transaction as expected, irrespective of their ability to fully monitor the Internet vendor.	1) Trustworthy and honest of web-sites 2) Information quality from Internet shopping 3) Dependability of infrastructure 4) Security of personal privacy 5) Reliability on promise keeping from Internet vendors 6) Internet shopping is trouble making	Chen & Barnes, 2007 Chow & Holden, 1997
Intention to Purchase Online	Situation when an Internet shopper is willing and intends to become involved in online transactions.	1) Make transaction online in near future 2) Intention to use web-site 3) Predictability in using web-site	Chen & Barnes, 2007

3.4 Chapter Summary

This chapter articulated the development of the hypotheses to be tested. The generic conceptual model developed in Chapter 2 was used to develop a series of hypotheses. The development and operationalisation of each of the construct contained within the survey instrument also described in the second part of this chapter. The following chapter discusses research methods and pre-analysis data screening.