

Chapter XXI

Employing the Content Validity Approach for Improving the Content of the Broadband Adoption Survey Instrument

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ABSTRACT

Studies on broadband adoption are just beginning to emerge and are exploratory in nature. Progress has been made to develop conceptual models to understand the adoption of broadband from the consumer perspective. However, in order to test the conceptual model of broadband adoption, a reliable survey instrument is yet to be developed and validated. Therefore, the overall aim of this research is to validate content of the broadband adoption survey instrument from the household consumer's perspective. The objectives of this chapter are: first, to ensure that the identified constructs and their respective items adequately cover relevant dimensions of factors that affect consumers in the domain of broadband adoption; second, to determine whether the identified constructs and their respective items adequately cover relevant dimensions; and third, to conduct a pre- and pilot test on the resulting survey instruments in order to obtain feedback leading to improvements in the final questionnaire. The initial items for each construct were identified from both the technology adoption literature and exploratory studies on broadband adoption. Validation of the identified items was then performed employing a variation of a quantitative approach to content validity. The findings obtained from the content validation are then presented and subsequently discussed. Finally, emphasizing the limitations of content validation concludes the chapter.

INTRODUCTION

The widespread availability and diffusion of broadband are considered to be measures of international competitiveness and national economic growth (Oh, Ahn, & Kim, 2003; Sawyer, Allen, & Heejin, 2003). Furthermore broadband is also regarded as an important means for accelerating the growth and deployment of emerging electronic services including e-commerce, e-government, and e-health (Office of the e-Envoy, 2001). In order to appreciate the socio-economic benefits that broadband offers, governments of many countries including the United Kingdom (UK) have established ambitious targets for the deployment and diffusion of broadband services to the consumers and end users (BAG, 2003; Computer Science and Telecommunications Board, 2002; National Broadband Task Force, 2001; Office of Technology Policy, 2002; Office of the E-Envoy, 2001).

The nationwide efforts from the UK government and competition among the Internet service providers (ISPs) have made broadband access widely available at affordable prices (Choudrie & Lee, 2004). However, consumer demand has not increased in line with expectations (Crabtree, 2003; OECD, 2001). This suggests that the current growth and diffusion of broadband are 'demand constrained' and not 'supply constrained' (Crabtree, 2003; Haring, Rohlf, & Shooshan, 2002). The issue of demand constraints has encouraged researchers with a motivation to investigate the following questions:

- Why are consumers slow to adopt broadband?
- What is the usage of broadband for the household users?
- What is the impact of broadband usage on household users?
- How can broadband demand be accelerated?

Therefore, currently, research towards investigating the diffusion of broadband including the adoption, usage, and impacts from the perspective of the household consumer is imperative.

Studies on adoption and diffusion of broadband are just beginning to emerge (Oh et al., 2003; Stanton, 2004) and are exploratory in nature (Choudrie & Dwivedi, 2004ab). Progress has been made in developing conceptual models to understand consumers' adoption (Dwivedi & Choudrie, 2004) and diffusion (Choudrie & Dwivedi, 2004c) of broadband. However, in order to test the conceptual model of broadband diffusion, a reliable survey instrument has yet to be developed and validated. Validating the data collection instrument is a critical step before testing the conceptual model. This is because the rigor of findings and interpretations of positivist, quantitative research is based on solid validation of the instruments that are used to gather the data (Boudreau et al., 2001; Straub, Boudreau, & Gefen, 2004).

Therefore, the overall aim of this research is to validate content of the broadband adoption survey instrument from the household consumer's perspective. This will be achieved utilizing the approach of content validity and pre- and pilot test on a survey instrument for broadband diffusion research. Specifically, this chapter aims to achieve the following two objectives: first, to determine whether the identified constructs and their respective items adequately cover relevant dimensions of the factors affecting consumers in the domain of broadband adoption; and second, to conduct a pre-test and pilot test on the resulting survey instruments in order to determine if the questions are understandable to the participants and to obtain feedback for future improvements.

By achieving the set objectives, the contributions of this research are to provide a reliable measure to the academic and practitioner communities who hold a particular interest in the study and management of broadband diffusion from the household consumer perspective. The survey instrument developed in this chapter is expected to provide assistance to practitioners from the telecommunications industry who are interested in determining how to improve their current strategies for increasing consumer base. This can also help policymakers in minimizing the digital divide by understanding the reasons of non-adoption and accelerating the diffusion

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