The study is informed by two theories - network externalities and the diffusion of innovation.

This study highlights the reasons for the lack of interest in developing mobile banking. The adoption of mobile banking in developing nations is slow. Despite this, the research on mobile banking and innovation in mobile banking is rich. However, the focus of these studies is on the adoption of mobile banking and innovation in mobile banking. This study seeks to address a gap in the literature by examining the effect of network externalities on the perception of innovation. The study addresses the possible moderating effects of technology anxiety and determines the importance of the mobile banking context.

BACKGROUND

Innovation in mobile banking, particularly mobile banking, is the focus of this study. The study seeks to examine the effect of network externalities on the perception of innovation. The study also examines the possible moderating effects of technology anxiety and determines the importance of the mobile banking context.

ABSTRACT

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the perceived characteristics of an innovation are important determinants of the rate of adoption of an innovation. A meta-analysis by Tomatzky and Klein (1982) suggests that among the five innovation characteristics established by Rogers (1995), relative advantage, complexity and compatibility have the most consistent significant relationship with intention to use across a broad range of innovations. Therefore, this research focuses on these three innovation characteristics:

**Perceived relative advantage** is the degree to which an innovation is perceived as being better than the idea it supersedes (Rogers, 1995).

**Perceived complexity** is the perception of the extent to which an innovation is relatively difficult to understand and use (Rogers, 1995).

**Perceived compatibility** is the degree to which an innovation is perceived to be consistent with the existing values, past experiences and needs of the potential adopters (Rogers, 1995).

While there is much evidence that innovation characteristics influence the adoption of new technology (e.g. Agarwal and Prasad, 1997; Van Slyke et al., 2007), a gap exists in our understanding of whether network externalities act as an antecedent of consumer perceptions of innovation characteristics, and whether these innovation characteristics mediate the effect of NE on the intention to adopt new technology.

**CONCEPTUAL FRAMEWORK**

In this study, we propose that network externalities are significant antecedents of three dimensions of innovation characteristics. Specifically, the purpose of the hypothesized model is to empirically examine the direct relationship between the perceived number of users and perceived availability of complementary service. It also examines the impact of perceived availability of complementary service on three dimensions of innovation characteristics (relative advantage, complexity and compatibility).

Based on theoretical rationale of previous studies (e.g. Shurmer, 1993; Smallwood & Conlisk, 1979), we expect that a positive perception of the availability of complementary services will lead to positive attitudes about its relative advantage and compatibility; in turn, this favourable perception will increase their adoption intent. Further, the perception that there are more complementary services available will negatively influence belief regarding the complexity of mobile banking, and consequently affect the intention to use mobile banking.

Technology anxiety is defined as the feelings of apprehension that one experiences when using technology (Compau and Huff, 1999). Igbaria and Iivari (1995) argue that individuals who experience high level of technology anxiety are likely to behave more rigidly, and hence may have lower intention to use mobile banking compared to those with lower technology anxiety. As mobile banking is new and explicitly a payment-related technology, technology anxiety may play a moderating role that dilutes the influence of NE and consumers’ perceptions of innovation characteristics on their intent to use.
RESULTS

The survey, the findings were statistically significant to reduce non-response bias.

RESEARCH METHOD

"Insert Figure 4 about here."

Between NEP and the intention to adopt mobile banking.

Figure 1 depicts the theoretical model that incorporates the moderating role of technology.
role between perceived availability of complementary service and intention to use mobile banking. Finally, the moderating effect of technology anxiety on the postulated relationships specified was analyzed using multi-group analysis. Contrary to our expectation, technology anxiety did not moderate any of the relationships specified in the structural model.

DISCUSSION AND IMPLICATIONS

This study provides a preliminary theoretical framework drawn from economics and marketing to examine the observed variations in the influence of NE in mobile banking. The investigation of the relationship between the antecedents and consequences in the hypothesized model, together with an understanding of how strong these relationships are, fills a knowledge gap regarding the adoption intent of mobile banking in Malaysia.

The results revealed that the perceived number of users had a significant positive impact on the perceived availability of complementary services. Further, the findings add to the existing literature by proposing the importance of NE as an essential antecedent of innovation characteristics which influences the adoption of an innovation. Bank marketers should account for the impact of NE in their marketing strategies.

Among the three dimensions of innovation characteristics, perceived compatibility seems to exert the strongest impact on the intention to use mobile banking, and perceived relative advantage has the least impact on intention to use mobile banking. These findings suggest that instead of communicating the advantages of mobile banking service, banks should communicate the compatibility of mobile banking with current lifestyles, values, and past banking experiences.

Contrary to past research which suggest the importance of technology anxiety in the adoption of new technological products, this study did not find any significant relationship between technology anxiety and NE, perceived innovation characteristics and intention to use mobile banking. This result is likely to be due to our research context, mobile banking, which is probably not considered to be highly technological in nature. Future research would need to examine this relationship using other different contexts to understand the role of technology anxiety within this theoretical model. In addition, extending the theoretical model to other contexts will enhance its generalizability.

REFERENCES


FIGURE

Direct NE(+)  
Perceived Number of Users

Indirect NE(+)  
Perceived Availability of Complementary Service

Innovation Characteristics
  Perceived Relative Advantage (+)
  Perceived Complexity (-)
  Perceived Compatibility (+)

Intention to use mobile banking

Technology Anxiety

Fig. 1. The hypothesized model