ABSTRACT

Technological innovation and its effective use are central to the growth and development of any country's economy. The first industrial revolution (1760-1840) used steam to power industrial machines. The second industrial revolution (1870-1940) ushered in a new era of consumer mobility and communication technologies such as railways and telegraph. The third industrial revolution (20th century) was a paradigm shift from analog to digital electronics and the development of modern computing (i.e., Personal computers) and digital communication technologies (i.e., World wide web, Emails, etc). The current industrial revolution is driven by the advancement of the internet of things, quantum computing, artificial intelligence, and fintech innovations. Mobile payment technologies are a crucial component of fintech innovations as they help to conduct financial transactions in a secured manner and provide improved financial inclusion to society. Financial inclusion reduces the cost of implementing various government policies and increasing social welfare.

Our study aims to offer a better understanding of the perception of why users in India adopt mobile payments and further help in the formulation of better policies for its implementation. There are three objectives for the study. First, to identify the possible explanatory factors which could influence the intention to adopt mobile payment. Second, propose a causal model which should be able to offer the maximum variance in the intention to adopt mobile payment. Finally, test the effect of government policy on the antecedents.

An exhaustive literature review has conducted the antecedents for explaining the intention to adopt mobile payment. The literature review uses a narrative approach to identify the popular models and factors while the meta-analytic approach helps to quantify their overall effect. Another utility of meta-analysis is to support the framing of the hypothesis. Performance

expectancy, effort expectancy, facilitating conditions, social influence, price value, hedonic motivation, habit, perceived security, task characteristics, technology characteristics, task technology fit, and government policy are the explanatory variables identified which were found to have an influence on behavioural intention. For the second objective, we propose a model using the factors identified in the literature review and gap analysis. The inclusion of government policy is a unique contribution to the adoption literature of consumer technology products as there is no literature available for its effective use. Few studies have used single-item measures for government policy which is not an adequate and reliable measure. This model is evaluated using structural equation modelling and necessary condition analysis. The use of necessary condition analysis is used to establish the "must-have" factors which can influence intention to adopt or its continued use. Necessary condition analysis helps to augment the research findings from structural equation modelling which can only identify the "should have" factors. Moderator analysis is conducted to assess the effect of government policy on the proposed model.

The results identify effort expectancy, performance expectancy, facilitating conditions, habit, task characteristics, perceived security, and government policy to have an overall significant effect on the intention to use mobile payments. The interaction effect of government policy and task technology fit is also deemed significant. The inclusion of government policy offers a new perspective of how the adoption of general-purpose technology can benefit from favourable policy initiatives.