

## Chapter 60

# The Effect of Privacy Concerns on the Purchasing Behavior Among Malaysian Smartphone Users

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### ABSTRACT

*The rise of e-commerce and m-commerce has brought the attention to the privacy concerns among mobile buyers, and studies showed that it is an important factor that affects attitude and intention to buy products or services through smartphones. The objective of this paper is to investigate the issue of privacy concerns on the attitude and purchasing intention among Malaysian smartphone users. This was performed by investigating the relationships between privacy concerns and attitude towards purchase, as well as between the privacy concerns and the intention to purchase using smartphone apps. The paper provides significant insights on the issue of privacy concerns in the usage of smartphones which can help developers such as Google and Apple to improve their apps stores to provide better protection for users' privacy and security in Malaysia.*

### INTRODUCTION

As more consumers embrace the rise of the Internet era, the online privacy concerns remain a top priority for every smartphone user (DMA, 2015). Many companies find it difficult to ensure privacy and security on their apps for their users to use and engage in a successful transaction, especially where cybercrimes are fast increasing. Privacy concerns naturally become an important issue as e-commerce

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makes it ascent into an important business aspect of most organizations. This is due to the fact that marketers are collecting more information on customers who are buying online to study not only their characteristics, but also their purchase preferences and behaviors. This concerns has proven to have negative consequences for the adoption of e-commerce (Sheehan and Hoy, 1999; Cho et al, 2009). In Malaysia alone, it was reported that it has 35% of smartphone penetration, resulting to more than 10 million smartphone users. McCann even predicted that smartphone penetration in Malaysia will rise to 60% by 2015. The statistics also reveals that Malaysia holds a 66% of Internet users from the population, with 60% internet penetration and 140% mobile penetration, with 47% of Malaysia own more than one mobile phone (MCMC, 2014, Euromonitor, 2014). The number of smartphone users showed a drastic increase as compared to 2011 and 2012 where the numbers of users for those years were only 14% and 12% respectively. Moreover, 64.6% of Malaysian users intend to change their hand phones to smart-phones in the near future. Of the current smartphone users, 50.9% of them have installed 10 to 30 apps in their smartphone (MCMC, 2013). In other survey findings, The Wall Street Journal examined 101 popular smartphone apps and found out that, 56 apps transmitted the phone's unique identifiers to other companies without users' awareness, while about 47 apps transmitted the device's location to outsiders (Thurm & Kane, 2010; Angwin & Valentino Devries, 2011). Furthermore, the study revealed that both Apple iOS and Google Android mobile operating systems regularly record and transmit location data without the consent of phone owners. These findings represent a concerns, especially when MCMC state that most Malaysian smartphone users opt for "jailbreak" smartphones that allow the downloading of apps that have not been approved by app stores as these apps may impose security and data integrity risks. The increase number of smartphone users will only lead to increasing privacy risks (Al-Hadadi & Al Shidhani, 2013; De Cristofaro, 2011).

In addition to these alarming statistics, the lack of academic research on the influence of privacy concerns on consumers' intention to purchase smartphone apps still represent a significant gap, especially when including other influential factors that affect the decision to purchase apps such as the stimulus of social influences and one's own perceived ability to perform the behavior. Although there are significant number of theories and research on the effect of privacy concerns on purchase intention in the general concepts on information systems and e-commerce (Dai et al., 2014), there is little evidence if the results of those research still hold true in the mobile technology context (Lai & Lai, 2014).

On this regard, the objective of this paper it twofold. The first objective is to investigate the issue of privacy concerns on the purchase intention. More precisely, the aim is to give further insights on the issue of privacy concerns in the usage of smartphone apps stores which can help developers such as Google and Apple to improve their apps stores to provide better protection for users' privacy and security in Malaysia. Secondly, the paper aims to provide a better understanding on the role of privacy concerns and perception towards the purchase or usage behavior among Malaysian smartphone users. This is done by investigating the mediating effect of the attitude towards purchase using mobile apps. The findings of this research may provide better insights and guidelines for agencies to create more comprehensive awareness campaign among Malaysians on the importance of maintaining their privacy and cautiousness when purchasing or downloading apps from smartphone app stores. The remainder of this paper is as follows: The following sections provide a literature review. Then, the theoretical development of the research and the hypotheses are provided. Next, results of the research are presented and discussed. Finally, the paper concludes by discussing the findings and presents some recommendation for future research.

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