CHAPTER 1: INTRODUCTION AND MOTIVATION OF THE STUDY

Information technology is impacting every aspect of our lives. Academic arena is no different. Information and Communication Technology (ICT) is increasingly being used by academicians and students alike to facilitate academic efficiency and effectiveness. It becomes important to understand how, why and to what extent individuals use digital gadgets and ICT in their academic pursuits. Each time users are exposed to a new technology they develop some belief / perception regarding system use such as ease of use, self-efficacy, etc. and conduct their behavior accordingly. Though this phenomenon has been studied via various initial adoption mechanisms in technology acceptance literature, eventual success of a new technology relies upon both its first time adoption (initial use) and subsequent usage behavior (continuance) by the users. In spite of its importance, very few attempts have been made to study continued usage phenomenon. A content analysis, from 2005-2012, of top four information technology journals (Management Information System Quarterly, Information System Research, Journal of Management Information System and Management Science) revealed that though more than hundred studies have been published on initial adoption in these four journals, only two articles have studied continued use behavior in detail. The two studies (Kim and Malhotra 2005, Kim 2009) have generated some useful predictions about continued use by examining important predictors of integrative framework of technology use by integrating these three post-adoption mechanisms with initial adoption theoretical framework, for example, technology acceptance model (Kim and Malhotra 2005) and theory of planned behavior (Kim 2009).

Literature suggests that continued usage behavior by an individual depends on four pillars: (a) initial adoption decision i.e. the impact of current belief evaluation on current use
behavior; (b) sequential belief updating mechanisms i.e. impact of current belief evaluations on subsequent belief evaluations (Bhattacherjee 2001); (c) Feedback mechanisms i.e. the impact of current use behavior on subsequent belief evaluations (Bajaj and Nidumolu 1998); and (d) Habit i.e. the impact of current use behavior on subsequent use behavior (Venkatesh et al. 2000). Additionally, consumer traits were found to have a significant influence on individuals’ adoption decision (Dadholkar and Bagozzi, 2002, Agarwal, 2000).

Based on technology use preference, two types of individuals exist: ‘digital natives’ and ‘digital immigrants’ (Prensky, 2001). Digital immigrants (DIs) are referred as the individuals born before the existence of digital technology. On the other hand, digital natives (DNs) are born between 1977 and 1996 and considered to have exposed to these digital technologies in their very early stage of life, even before teenage. Though DIs are also the users of digital devices or ICT, they started using these digital devices and technologies during their adult lives. While DNs, with access to digital technologies usually engrossed themselves in a networked world, and able to learn and use digital technology in better manner than their counterpart DIs. According to a recent Pew Research Report (2011), major aspects of current generation young people’s lives like communication, friendships, and daily routine like reading, gaming, entertainment are being fulfilled through digital devices. Though many DIs have adept themselves into an expert users of digital technology, still their objective to use technology differs from that of DNs i.e. the way DNs perceive the use and also DIs application of a new technology could be different from that of DNs. (Vodanovich, 2010).

This study identifies following five gaps in literature that need immediate attention from researchers: (a) While studying initial adoption phenomena researchers have often chosen a favored model (TAM/TPB/DTPB), it ignores the contributions of other models; (b) There is
very limited research studying continued usage phenomena; (c) Of the available two studies, only one study has used primary data; (d) While using primary data, previous study has utilized a two-wave panel model, where the relationships found significant/insignificant could be a matter of chance; (e) Despite the researchers consensus about the critical role of moderators in adoption studies, there is a scarcity of study examining the moderating role of individual difference variables on continued usage behavior. Taking these considerations together, this study endeavors to relook into the mechanisms that influence continued usage. Like earlier studies, this study also contends that continued usage of a new information technology by individuals is influenced by three post-adoption mechanisms; but the impact of these mechanisms is different for DNs and DI. Additionally, this study has utilized three-wave panel model using primary data. Thus, this study would enhance the credibility of relationships purposed in the research.

The objectives of the study are: (1) To develop a comprehensive model of initial adoption – To achieve this objective study conceptualized and tested extended the decomposed theory of planned behavior model by adding several relationships important for initial adoption; (2) To develop and validate a model of continued usage model – once the nomological validity of the initial model has been assessed. This study built a three-wave continued usage model after integrating the post-adoption mechanism into initial adoption model; and (3) To assess the impact of digital natives / digital immigrant phenomenon on continued use behavior – finally, a multigroup analysis was conducted to identify the difference between the two groups (DNs / DI) for continued usage behavior.

As the scholarly community has called attention to young people in an increasingly digital world, comparisons with others like digital adults and non-digital people, young and old, are becoming inevitable. The framework proposed in this study is expected to give practitioners
useful insights into how to deploy a new technology into their organizations. Findings of this study imply the presence of a mental script that is strengthened over time with repeated performance. Without such mental scripts leading to sustained use, even a simple task would require considerable cognitive effort otherwise that could be directed to other important tasks. Thus, to enhance organizational productivity, it is important for managers to help their workers develop a habit of using desirable technology features. This study also suggests that explicit directives from upper-level managers could also influence workers to use a new information system. In addition, to make workers pay attention to the drawbacks of the current routine, the benefit of innovative use, vis-à-vis the current use, needs to be made apparent to them through training and education.

The organization of this dissertation work is as follows: Chapter 2 presents a review of the foundational literature and theories on adoption models and post-adoption mechanisms; Chapter 3 elaborates the gaps that exist in the literature; Chapter 4 describes the model framework and hypothesis development; Chapter 5 describes the proposed research methodology and Chapter 6 details about the data analysis procedure of the collected data. Chapter 7 offers the findings of the hypothesis testing. Chapter 8 is the final section in which a discussion related to findings is documented.