

# Chapter 17

## The Moderating Effects of Gender on E-Commerce Systems Adoption Factors

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### ABSTRACT

*The purpose of this article was to investigate the moderating effects of gender on e-commerce systems adoption factors among university lecturers in Ghana. In order to achieve this purpose, the unified theory of acceptance and use of technology (UTAUT) was used as the theoretical lens for the study. Eight hypotheses were developed and tested. Data analysis was performed with a structural equation modeling (SEM) technique using SmartPLS Application. Using a survey of 223 respondents, the study showed that factors such as performance expectancy, effort expectancy, and facilitating conditions positively and significantly influenced Ghanaian lecturers' behavioral intention and ultimately the actual use of e-commerce systems. As for the moderating effects of gender, this study discovered that gender insignificantly moderated the effects of performance expectancy, effort expectancy and social influence on behavioral intention.*

### 1. INTRODUCTION

In recent times, e-commerce has revolutionized the conduct of business to a large extent. Electronic commerce (EC) has substantial potential to foster the growth of businesses being it small or medium-sized enterprises (SMEs) in developed and developing countries (Wang et al., 2016; Chen, 2012; Kauffman et al., 2010; Choshin & Ghaffari, 2017; Yang et al., 2015). It comes as no surprise that the e-commerce systems adoption research has seen much attention in recent times (Ueasangkomsate, 2015; Thorleuchter & Van den Poel, 2012; Kim & Peterson, 2017; Oliveira et al., 2017; Wang et al., 2016; Hallikainen &

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Laukkanen, 2018; Kaur & Khanam Quareshi, 2015; Hwang & Lee, 2012; Capece et al., 2012; Rahayu & Day, 2016). For a successful e-commerce systems implementation, e-commerce researchers and practitioners must have an in-depth of online customer behavior. Even though there are research endeavors to explain e-commerce system adoption and online consumer behavior (Chiliya et al., 2011; Govindaraju et al., 2015; Kartiwi & MacGregor, 2008; Triandini et al., 2017), one of the main questions is how to understand the influences of social normative and affective factors on electronic customer relationship management. Lian & Yen (2014) also recently called for research to investigate the moderating effects of gender in e-commerce systems adoption. Arguably, among the many characteristics that impact the use of e-commerce, one that has received relatively little attention is gender. Extant evidence suggests that men and women differ in their beliefs regarding the use of information technology-related innovations, including ecommerce (Zhou & Wang, 2010; Wang, Wu & Wang 2009; Van Slyke et al., 2010). However, less is known about how gender moderates the impact of various beliefs on behavioral intentions.

Despite this great attention by the researchers, studies on the moderating effects of gender on e-commerce systems adoption is still far behind (Hasan, 2010; Saeed et al., 2003a, 2003b; Lian & Yen, 2014). This raises the question as to what are the precise factors that influence gender in their adoption of e-commerce. The answer is important as it is widely known that the e-commerce can revolutionize the conduct of business globally and play an important role in economic development. E-commerce make a significant contribution not only in terms of its technological and managerial benefits but also in terms of development and opportunities it provides (Yeh et al., 2014). This study fills this knowledge gap by investigating the factors responsible for gender differences in the adoption factors of e-commerce adoption.

It cannot be denied that there have been studies conducted regarding e-commerce adoption by organizations/businesses, however most of these focus on developed countries (Williams, Dwivedi, Lal, & Schwarz, 2009; Daniel & Grimshaw, 2002). Studies that focus on e-commerce in developing countries are rarely found. As commonly known, there is a difference between developing countries and developed countries. These differences are not only from an economic standpoint, but they also concern political, environmental and social as well as cultural factors. Therefore, research findings obtained from developed countries cannot be applied directly to developing countries.

The potential tendency for e-commerce to foster the growth of businesses in developing countries calls for further research to better enhance the understanding of e-commerce adoption in the context of developing economies. Motivated from these gaps, this study aims to investigate the moderating effects of gender on e-commerce adoption factors in Ghana.

The organization of this paper is as follows: Section 2 presents the theoretical foundations and literature; Section 3 presents the research model and hypotheses; Section 4 outlines the research methodology and analysis; Section 5 presents the discussion of the findings, and Section 6 presents limitations of the study and suggestions for future research. Section 7 concludes the study.

## **2. THEORETICAL FOUNDATION AND LITERATURE**

### **2.1. The Unified Theory of Acceptance and Use of Technology (UTAUT)**

The unified theory of acceptance and use of technology (UTAUT) is over a decade old and has been used extensively in information systems (IS) and other fields. UTAUT was originally devised in order to explain the factors that affect the acceptance and use of ICT by employees. Nevertheless, in numerous

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