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態度的中介作用和感知風險對行動銀行意向調節作用：

科技接受模型的延伸

The Mediating Effect of Attitude and Moderating Role of

Perceived Risk on Mobile Banking Intention:

An Extension of Technology Acceptance Model

尤皮沈

Uok Piseth

指導教授：袁淑芳 博士

Advisor: Shu-Fang Yuan, Ph.D.

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The Mediating Effect of Attitude and Moderating Role of Perceived Risk on Mobile Banking Intention: An Extension of Technology Acceptance Model

研 究 生：尤皮流 - Uok Piseth

經考試合格特此證明

口試委員：吳文雄
李鴻基
李東昇

指導教授：李鴻基

系主任(所長)：蔡國忠

口試日期：中華民國 111 年 06 月 24 日

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準碩士推薦函

本校企業管理學系管理科學碩士班研究生尤皮沈君在本系修業2年，已經完成本系碩士班規定之修業課程及論文研究之訓練。

1、在修業課程方面：尤皮沈君已修滿36學分，其中必修科目：研究方法、管理科学等科目，成績及格(請查閱碩士班歷年成績)。

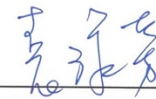
2、在論文研究方面：尤皮沈君在學期間已完成下列論文：

(1) 碩士論文：態度的中介作用和感知風險對手機銀行意向的調節作用: 技術接受模型的延伸

(2) 學術期刊：2022年 第十屆管理與決策學術暨實務研討會

本人認為尤皮沈君已完成南華大學企業管理學系管理科學碩士班之碩士養成教育，符合訓練水準，並具備本校碩士學位考試之申請資格，特向碩士資格審查小組推薦其初稿，名稱：態度的中介作用和感知風險對手機銀行意向的調節作用: 技術接受模型的延伸，以參加碩士論文口試。

指導教授：



中華民國111年 6 月 24 日

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This is a great honor to introduce the report on the study of “The Mediating Effect of Attitude and Moderating Role of Perceived Risk on Mobile Banking Intention: An Extension of Technology Acceptance Model” as a part of department of Business Administration, Nanhua university. This report was disclosed by engaged with guidance and with comment from the advisor and committees.

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論文題目：態度的中介作用和感知風險對行動銀行意向調節作用：科技接受模型的延伸

研究生：尤皮沈

指導教師：袁淑芳 博士

論文摘要內容

隨著行動銀行服務的使用愈見普及，越來越多的人藉由行動設備的效率性來處理支付和儲蓄的事務。基此高效率的特性，預期行動銀行的長期影響是使客戶獲得對金融工具的較大控制權，並提高其對其銀行賬戶較高的決策權。檢視過去研究，許多研究已對行動銀行使用者進行分析，試圖了解客戶對行動銀行的使用意圖，然而該領域仍存在許多未被探討的部份，為了填補這些空白，本研究旨在通過感知有用性、感知易用性、態度、感知風險和行為意圖等五個主要結構來調查影響行動銀行服務採用率的因素。透過科技接受模型（TAM）的應用，分析使用者之感知有用性、感知易用性、態度和使用意圖之關係，並納入感知風險對態度和使用意圖關係的調和作用，以確認影響使用意圖的主要因素。本研究取樣柬埔寨之行動銀行使用者，共獲取有效樣本 306 份，藉由獨立樣本 t 檢驗、ANOVA 分析和迴歸分析進行數據分析。結果表明，TAM 之間各構面是正相關的。此外，態度對感知易用性、感知風險與行為意向的關係具部分中介作用，而感知風險對行為意向與態度的關係具負向

調節作用。本研究的結果可為專業銀行在服務行動銀行客戶提供基本的管理理念及有價值的信息，也可為學者開展未來的研究提供參考。

關鍵詞：行動銀行、感知易用性、感知有用性、態度、感知風險、行為意圖



Title of Thesis: The Mediating Effect of Attitude and Moderating Role of Perceived Risk on Mobile Banking Intention: An Extension of Technology Acceptance Model

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Name of Student: Uok Piseth

Advisor: Shu-Fang Yuan, Ph.D.

ABSTRACT

By easing of use of mobile banking service, more and more people seek to be more convenient when processing their payment and saving through mobile devices. The intended long-term impact of the solution is for citizen to gain greater control over available financial instruments and improve their decision-making power as it relates to bank accounts. In this meanwhile, many researchers conducted the study of mobile banking experience to understand more about user's intention. By the way, there are some gaps of those studies. To fill in those gaps, this study is developed to investigate factors affecting the adoption rate of mobile banking services, through five main constructs such as perceived usefulness, perceived ease of use, attitude, perceived risk, and behavioral intention. The primary concept determines principle of the Technology Acceptance Model (TAM) which effect customer intention that integrate with perceived usefulness, perceived ease of use, attitude, and intention to use. Second, this study examines concern over perceived risk in which integrate relevant to the Technology Acceptance Model. There are 306 samples which located in Cambodia were used to proceed data analysis by conducting t-test, ANOVA, and regression analysis. The results show that

constructs among TAM are positively related to each other. Moreover, attitude played a partially mediate effect on relationship of perceived ease of use, perceived risk with behavioral intention, while perceived risk negatively moderated the relationship of attitude and behavioral intention. The result may offer the basic managerial concept for professional banking service providers with useful information as well as scholar in developing future research.

Keywords: Mobile Banking, Perceived Ease of Use, Perceived Usefulness, Attitude, Perceived Risk, Behavioral Intention



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CHAPTER ONE

INTRODUCTION

In this chapter, researcher will present research background and motivation, research objectives, research contribution, scope of research, and research construct and procedure are conducted.

1.1. Research Background and Motivation

The transformation of technology has enormously brought positive effects to the human life-being of all nations, ranging from education, health, manufacturing, finance, engineering and many more sectors. Though the impacts can be varying according to the demographic and political differences, we still can see the improvement and development have been made during the past three decades.

One of the prominent factors that contributing to these changes is the digitization concept. Widely known as the way of transforming all unnecessary, inefficient, and time-consuming process by using technology, digitization has revolutionized the business performance to another level. People nowadays they will never know a world without unlimited digital access. Their socialization is qualitatively different to that of previous generations, most people tend to follow the internet as the power took the global stage. Especially, people in the new generation that never known it before. The people in the new generation, pretty much on everything they want to book through their phones. In developing nations, customers use mobile application that can improve the knowledge of people because they can access Internet from everywhere. The mobile device is attracting comparable interest today, just as new technologies

have in the past sparked enthusiasm and buzz as the new tech innovation that will cure all of our educational woes. The difference with this new technology is that the mobile device is becoming an integral component of today's students' everyday activities and way of life. Decision support, diagnosis, medical books, interactive encyclopedias, document organizing software, and journal readers are all examples of applications. These apps could give diagnostic imaging practitioners fresh perspectives, or they could be used for reference, learning, consultation, and contact with others.

In a modern age of Information and communication system, the uses of smart phone are significantly increased. But mobile application is becoming facilitate people and upgrading themselves into a modern world of technology. The mobile application is extensively used because to its vast functioning, which contains, along with several other things, dialing, messaging, surfing, interacting, networking site communication, multimedia, video, and entertainment. A large number of mobile applications, for instance, are pre-configured in devices, while others can be downloaded and installed through the network. This huge market of operating systems is served by an increasing number of mobile application developers, publishers, and vendors. As a consequence, it is evident that there's still a significant gap between the needs of clients and the formal financial service providers that has yet to be bridged. The gap addressed by digital finance is included in this worry, since they feel that digital solutions will have the greatest positive effect on financial accessibility.

Moving toward Cambodia, its economy has sustained 7% of average growth rate between 1998 and 2018, that making it become one of the world's fastest-growing economies. With gradually easing, growth

still strong, subjected to have reached 7.1% in 2019, after the better-than-expected growth rate of 7.5% in 2018 by World Bank annual report (2020). This growth has encouraged people to use modern financial methods in order to manage their cashflow accurately and safely. Instantly building digital financial capabilities helps clients increase their ability to transact in relation to their needs. By learning how to use an account on their own, customers become more confident and better aware of the benefits of their account, such as the ease of transacting anywhere, anytime, which will encourage them to use their account more. The intended long-term impact of the solution is for citizen to gain greater control over available financial instruments and improve their decision-making power as it relates to bank accounts. They and general finance to improve the financial resilience of low-income in Cambodia. Banks are regarded as strong business entities that have taken part in the network system, providing useful options for customers who choose for accessing mobile banking (Muñoz-Leiva, Sánchez-Fernández, & Luque-Martnez, 2014). Like other organizations, this one has turned internet and mobile applications into the most efficient methods for delivering banking products and services to customers. By easing of use of mobile banking service, more and more people seek to be more convenient when processing their payment and saving through mobile devices. Transform the internet and mobile technologies or apps into one of the most efficient conduits for delivering financial products and services to customers, as do many other banking service providers. As a result, the banking industry is becoming more competitive, and clients are becoming more demanding. (Shaikh & Karjaluto, 2015).

In this meanwhile, users can access their accounts from everywhere and at anytime via online banking and mobile applications provided by financial institutions. This ease of use has a distinct edge over traditional banking.

Despite this, it's worth noting that the large amount of clients using online banking hasn't been growth as much as anticipated. Many clients are hesitant to utilize such devices because to issues such as a short of diversification between banks, a lack of faith in personal treatment systems, or an insufficient security (Muñoz-Leiva et al., 2012). Zhou, Lu, and Wang (2010), cleared mobile banking as the conducting of technology devices including smartphones and personal digital assistants to access the banking network by connecting a wireless application protocol (WAP). By the way, Luo, Li, Zhang, and Shim (2010) disclose it as an innovative technology platform to access banking through a network through which customers interact with banks via mobile devices.

Regarding researchers exploring mobile banking applications Moreover, given current and diverse modifications of the Davis et al., (1989) Technology Acceptance Model (TAM), few studies had also identified the factors that significantly affect the acceptance among those mobile applications from a general perspective, combining many fundamentals based on theories of trust, risk, and social image (e.g. Liébana Cabanillas, 2012; Liébana-Cabanillas, Sánchez-Fernández, & Muñoz-Leiva, 2014a, 2014b) or social affect or perceived risk (Bashir & Madhavaiah, 2015; Sellitto, 2015; Slade, Dwivedi, Piercy, & Williams, 2015). The TAM is regarded as the most powerful, influential, and significant model in inventive accepting attitudes (Davis et al., 1989; Pavlou, 2003), and thus researcher approach this conceptual framework to be the foundation for the present aims of the study.

1.2. Research Objectives

Following above discussion, the purpose of report is to determine customer's intension and their behavior towards the new technology. Therefore,

the use of the firm's marketing mixed is also attract more intention of new customer. The research will synthesize with perceived benefit as well as Davis (1989) technology acceptance model (TAM) extension to present a theoretical model to understand customers' intentions to adopt mobile banking applications. According to the study gap and motivation, this study conducts the following main research objectives and questions as below mentioned:

1. To identify the important of motivating and influencing model for consumer's Behavioral Intention in using the mobile banking.
2. To investigate the relationship among Perceived Risk, Perceived Usefulness, Perceived Ease of Use, Attitude, and Behavioral Intention.
3. To identify the role of Perceived Risk and its effect on interrelationship among Attitude and Behavioral Intention as a moderator.

In addition, since the growth of mobile banking was introduced in Cambodia, there has been no clear identification of which means of communications that proves to be the most attractiveness and willingness to adopt the usage of this platform, which is why this is curious to be known and researched about. Based on research objectives illustrated, research's questions are presented as follow:

1. What are the key elements determining consumer's Intention to the use of mobile banking apps?
2. the key important factors motivating customer to use of mobile banking?

3. Are there significant relationships among Perceived Risk, Perceived Usefulness, Perceived Ease of Use, Attitude, and Behavioral Intention?

1.3. Research Contribution

This study mainly provides benefit and contributes to academic research for the future. The primary concept determines principle of the Technology Acceptance Model (TAM) in which effect customer intention that integrate with perceived usefulness, perceived ease of use, attitude, and intention to use. Second, this study examines concern over perceived risk in which integrate relevant to the Technology Acceptance Model to create a comprehensive model for generating and investigating the adoption of mobile banking. This research is expected not only gives some literature discussion for scholars but also offers the basic managerial concept for professional banking service providers with useful information in designing and forming applicable strategies that can be implemented to build customer loyalty, maintain strong customer relationship, and present key tools to increase mobile banking adoption rate.

Therefore, the study is expected to contribute the most to banking sector, particularly to the management level as they will be the one whom make significant decision in the firm.

1.4. Subject and Research Scope

The purpose of this study is to investigate and analyze the important elements that influence customer intent to use a modern technology so called mobile banking and the model was created by combining perceived risk through a well-published technology acceptance theory, namely the Technology Acceptance Model (TAM) to identify customer attitude of using

the mobile apps. This study is one of the first to seek to analyze mobile banking adoption by combining the TAM with perceived risk. The study's findings are intended providing clearer understanding of what way psychology characteristics like trust encounter with one another to resume mobile banking acceptability. From a practical standpoint, this research can assist technology developers, policymakers, and coworker for offering higher-quality products and services, by creating interventions to increase mobile-banking acceptability, and achieving market competitive advantages.

This research is planned to target the mobile banking user in Phnom Penh city where there is a high rate of users among other cities in Cambodia. This will be the extension study of the TAM theory with t perceived risk on mobile banking users. In this study, literature reviews conducted to build up the hypotheses and research model. Meanwhile, the data were collected by using questionnaires to test hypotheses and model, and figure out the results and conclusions.

1.5. Research Procedure and Structure

This study first describes background and motivation, objectives, research scope, and procedure and structure. In addition, literature reviews had been conducted to obtain more comprehensive theoretical background and discussion on constructs: perceived risk, perceived ease of use, perceived usefulness, attitude, behavioral intention by using quantitative research which conduct questionnaires survey. Second, conceptual model and hypotheses are developed to figure out relationship within each construct hypotheses based on previous literature reviews mentioned. After hypotheses developed, research methods in will be developed, meanwhile, research questionnaires are designed and delivered to target respondents in Cambodia who use mobile banking as

their advanced financial method. After that data will be collected online questionnaires survey via Google platform, and some with direct social media and official email address. Then, collected data will interpret and analyze on computer software to determine hypotheses and constructs conducted in the study. Finally, summary hypotheses, conclusion, discussion, suggestion, limitation a managerial implication were presented at the last part of the study. The following study procedure is illustrated in Figure 1-1:

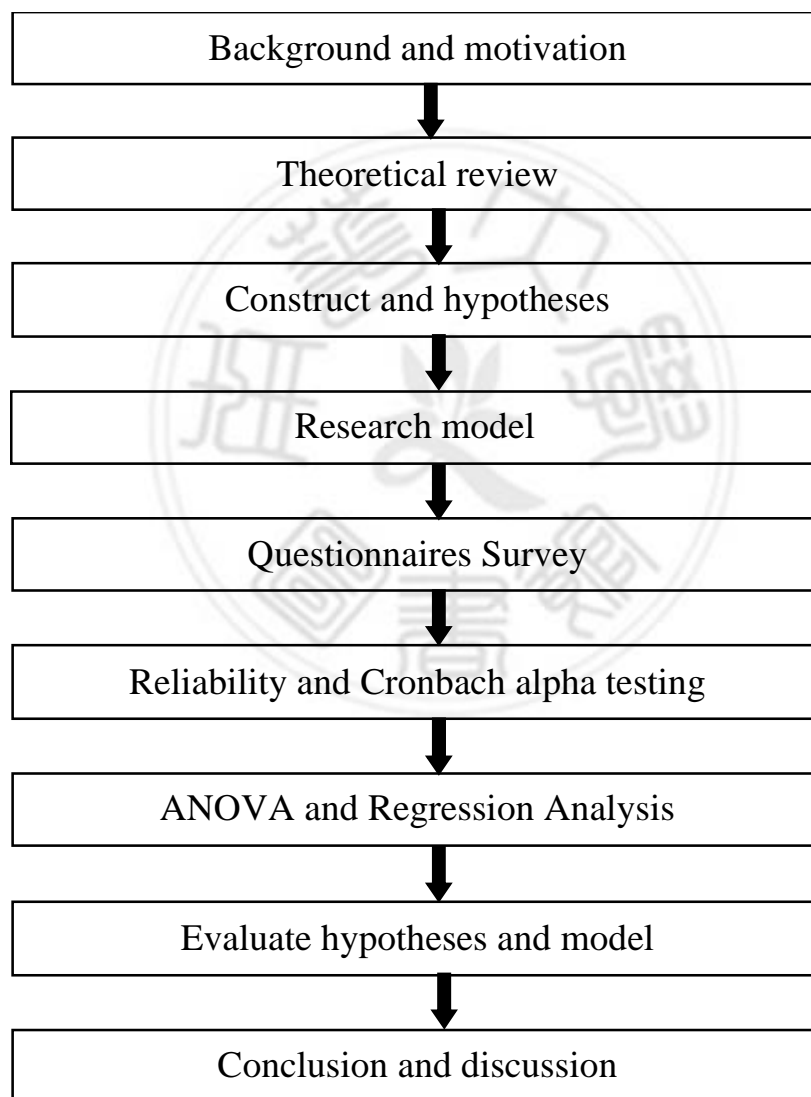


Figure 1-1 Research Procedure

Source: Original Study

This study is divided into five chapters: Chapter one is an initial idea which describe overall research background and motivation, research objectives, research contribution, subject and research scope, and research procedure and structure.

Chapter two literalize the previous studies related to the research, literature reviews, definition of the key constructs including perceived risk, perceived ease of use, perceived usefulness, attitude towards the use, and customer behavior intention. Literature relationship will be examined and develop hypotheses for further process.

Chapter three describes overall hypotheses, research model which suggest general relationship within construct. The construct measurement items, research design and methodology, sampling technique, data collection process and analyze discussed hypotheses.

Chapter four indicates the results of research including data collection, measurement, key statistics indicators, questionnaire items and each construct verification, hypotheses testing such as, 1) relationship between constructs perceived ease of use, attitude, perceived usefulness, and intention to use, 2) relationship among perceived usefulness, attitude, and intention, 3) mediating effect of attitude on relationship of perceived ease of use and perceived usefulness with behavioral intention, and 4) moderating effects of perceived risk on the relationship of attitude and behavioral intention.

Chapter five presents conclusion and discussion of this study. Hypotheses result will be summarized in this chapter. Research contribution, managerial implication, limitation, and suggestion for future academic study are indicated. At the end of the study, lists of references and appendix are then presented on the final page.



CHAPTER TWO

LITERATURE REVIEW

This chapter indicates conducted theories, concepts and other information essentially contribute to the further study of this topic. The ultimate purpose of this chapter is to equip reader with resourceful insight into the topic and provide a vivid background to help pave the way for discovery. The researcher will undertake a complete literature review of each aspect in this chapter. At the final of this chapter, the correlation among each construct and study hypotheses will be proposed.

2.1. Technology Acceptance Model (TAM)

Davis et al. (1989) established the technology acceptance model to describe the acceptability of information technology for various jobs. This is a modern informative system theory in which described the usage of technology acceptance. Within this concept, it implicates that the user's intention to choose a software solution, which is considered by the user's views of the system, conveys the user's adoption of the system. Hew, Lee, Ooi, and Wei (2015) stated in which simple-to-use application will entice customers to utilize them; in addition, The significantly positive relationship between exercise expectancy and simplicity of use had also been proven; after all, the consumer's impression of the usefulness of the applications would be directly influenced by their usability. There were two perspectives (perceived usefulness and perceived ease of use) were identified as potential component of technological acceptance (Davis et al. 1989). TAM was occupied important empirical assistance in determining consumer acceptability of several kinds of technology, including technology-based services. (Zhu & Chan, 2014), smart applications (Joo & Sang, 2013) and the new media (Workman, 2014).

TAM has also garnered significant empirical support to explicate and forecast technology uptake that can be used in a variety of scenarios. (Dabholkar, 1996; Dabholkar and Bagozzi, 2002 and Yan et al., 2016). Rahimi et al. (2018) determined three ICT diverse applications, known as telemedicine, electronic patient files, and mobile apps for TAM, using a comprehensive bibliography research approach. The analysis of literature also included some papers which investigated the effect of behavioral elements as a moderator in relationship to other factors which including mobile banking.

2.1.1. Perceived Ease of Use

Perceived ease of use has been defined as level which a consumer believes because they think nothing will be potential to utilize the system, with effort defined as both cognitive and emotional exertion, and the way of convenience it is for adopting the system (Davis et al. 1989, p.320).

Richa Priya et al. (2018) stated that the details of services, customers may find it easier to adopt mobile banking if they are provided with perks and suitable guide material. Furthermore, a user-friendly design that includes a visible interface, appropriate information and background, ease of platforms, unambiguous instructions, symbols, and comprehensible error messages is required to persuade banking clients to consider embracing mobile banking technology (Richa Priya, et al. 2018). It has been verified in many studies about the association among perceived ease of use and attitudes regarding to the new technologies (Akturan and Tezcan, 2012; Lin, 2011). Interestingly, several research found empirical support for the possible effect of perceived ease of use on users of mobile banking adoption (Hanafizadeh et al. 2014; Mohammadi, 2015). According to several surveys, the ease with which new technology may be used is one of the most significant factor influencing mobile banking

acceptance (Malaquias & Hwang, 2019). It is logical to conclude that the more convenient new technology is to use, the higher the rate of adoption.

2.1.2. Perceived Usefulness

A statement conducted by Davis et al. (1989), a construct of perceived usefulness had been clarified as “the level of individual hopes that conducting the system will improve the job effectiveness”. Perceived usefulness was useful to a wide spread of information technology regard to the originality of the TAM to gauge innovation for employment, life, and study. (Liu & Li, 2011). According to the findings on information technologies adaptation, "if a system does not facilitate personal user in performing their works effectively, it is not taken favorably" (Richa Priya, et al. 2018). Since its distinct advantages compared to past financial services, mobile banking has been acknowledged as among the most efficient transactional techniques (Mortimer et al. 2015). Tingting Zhang et al. (2018) claimed that by using mobile banking, customers benefit from faster transaction speeds, 24-hour personalized service, avoidance of waiting times, convenience, greater information transparency, and no location restrictions.

2.1.3. Attitude

The attitude of a user toward using a technology is a significant factor in evaluating the technology's acceptability. Attitude, based on Fishbein and Ajzen (1975), determined as a multi-dimensional construct with three elements: cognitive (experience, beliefs, and perspectives), affective or psychological (desires, emotions, and subjective assessments), and contextual performance or emphasizing behavior (willing to access, admiring to access and responding to rejection). Particularly for mobile-banking industry, Users' attitudes may shift

as a result of beliefs about service delivered, service portfolio, difficulty or effortlessness, relative advantage or adequacy, related risk, reliability and privacy, personalization and visualized appearance (Charles k. Ayo et al. 2016). The formation of attitude is depending on characteristic beliefs and how people apprehend the significant of those criteria before adopting any system (Adesina and Ayo, 2010).

2.1.4. Behavioral Intention

In regards, behavioral intention means the level of intensification of an individual to adopt activity or behavior (Fishbein and Ajzen, 1975). Many other dimensions of variables such as trust, price, expected performance, expected effort, perceived risk, and social influence were used by many prestigious researchers to assess the behavioral intention to introduce new technologies (Lee et al. 2004; Amoroso and Magnier-Watanabe, 2012; Schierz et al. 2010; Yang et al. 2012).

According to Suki (2011), behavioral intention identified as the use of measuring the probability that the people will intention to use the things. Riskinanto, Kelana and Hilmawan (2017) have defined an intention of consumer's to perform a specific behavior. In this research, we modify behavioral intention refer to the wish of people about they begin to take as one of their behavior with mobile-banking.

2.2. Extension Factor of the TAM: Perceived Risk

According to Gupta and Kim (2010), perceived risk is "a user's impression of the unpredictability and unpleasant repercussions of performing transactions with a provider". Perceived risk is a broad phenomenon originating from different characteristics in which it indicate the risk level related to the

implementation of a specific invention, product, or any assistants (Aldás et al. 2011; Featherman & Pavlou, 2003).

In addition, a factor considering as an important aspects in the mobile banking transaction environment which is largely driven by associated with the financial concerns, is perceived risk (Slade, Dwivedi, Piercy, & Williams, 2015). Lin et al. (2008) stated perceived risk as influence of risk on customer decision making. Users perceive possible losses would be initiated by the uncertainties of mobile-payment (Yang et al., 2015). Therefore, Chopdar (2018) identified perceived risk as type of obstacle or interruption in decision making which would affect people to use application. By the way, perceived risk suggested as the main indicator of mobile banking usage.

Table 2-1 Previous Studies of TAM Extension

Variables	TAM	Sample size	Researchers
Perceived effectiveness Social influence Online experience Cognitive image Affective image	Perceived ease of use Perceived usefulness	500 undergraduates/ graduated students (survey)	Xia, M., et al. (2018)

Table 2-1 Previous Studies of TAM Extension (Continued)

Variables	TAM	Sample size	Researchers
Attitude Brand loyalty Brand association Perceived quality Brand image Information quality System quality Service quality Intention to purchase	Perceived ease of use Perceived usefulness	786 online surveys	Ting, C. (2018)
Service quality • Website attribute • Reliability • Responsiveness • Fulfilment • Efficacy • Privacy Internet banking users • International services Payment services	Perceived ease of use Perceived usefulness Behavioral intention	450 internet banking users (survey)	George, A. (2018)
Age Gender IT experience Compatibility Security & privacy risk	Perceived ease of use Perceived usefulness	Interview with 212 residential customers	Giovanis, A. N., et al. (2012)

Table 2-1 Previous Studies of TAM Extension (Continued)

Variables	TAM	Sample size	Researchers
Trust Perceived risk Internet self-efficacy Internet usage efficacy Subjective norm Government support Bank initiative Triability Image Attitude Behavioral intentions to use	Perceived ease of use Perceived usefulness	300 internet banking users (survey)	Marakarkandy, B., et al. (2016)
Perceived ease of use Perceived usefulness Attitude Intention to use Social Image Perceived trust Perceived Risk	Perceived ease of use Perceived usefulness	103 online interviews	Liébana-Cabanillas, F., Muñoz-Leiva, F., Sánchez-Fernández, J. & Viedma-del J., et al. (2016)
Subjective norms Attitudes Behavioral intentions Security Trust Level of awareness on IB Demographic	Perceived ease of use Perceived usefulness	384 clients who visiting the bank (survey)	Devi. J. T., et al. (2012)

Source: Original Study

2.3. Hypotheses Development

2.3.1. Interrelationship among Technology Acceptance Model

2.3.1.1. Relationship of Perceived Ease of Use towards Attitude

Early literature in diverse contexts has revealed a relative effect between perceived ease of use and attitude (Chau & Lai, 2003; Hernández, 2010). This relation was discovered that the conducted concept had a beneficial influence on people's attitudes regarding mobile application, social media, networks, games (Park, Baek, Ohm, & Chang, 2014).

Research studied by Jahangir and Begum (2008) explored that there was a considerable corelationship in accordance to perceived ease of use and attitude. Previous research of Riskinanto et al. (2017) suggested that perceived ease of use has significantly effect to attitude. Research conducted by Kanchanataneet al. (2014) found that in E-marketing perspective, perceived ease of use has such considerable consequence on user attitude. Therefore, Jahangir and Begum, (2008) found that attitude and perceived ease of use in the area of electronic banking had significant correlations with each other. Another research by Revyathi & Tselios (2019), perceived ease of use influenced user attitude regarding to the using of mobile system in a positive way. Based on above, the study will propose hypothesis as:

Hypothesis H1: Perceived ease of use and attitude have a positive relationship.

2.3.1.2. Relationship of Perceived Ease of Use and Perceived Usefulness

For this study, the level of which a user believes that participation in mobile banking will benefit their transaction was introduced as perceived usefulness. Several research, including Morosan (2012), Kim (2008), Ferrin et al. (2008), Kim, Lee et al. (2008), Ayeh (2013), and Agag and El-Masry (2016),

give significant academic supporting a significant relation by perceived ease of use and usefulness. Consequently, by conducting in mobile banking would be more beneficial if the system is simply to apply. Other studies were discovered that ease of use has a positive influence on usefulness in the electronic banking sector (Muñoz-Leiva et al. 2012; Liébana-Cabanillas, Muñoz-Leiva, & Rejón-Guardia, 2013). So, hypothesis will be proposed:

Hypothesis H2: Perceived ease of use and perceived usefulness have a positive relationship.

2.3.1.3. Relationship of Perceived Usefulness and Attitude

According to Riskinanto et al. (2017) research verified that there is a positive relationship among perceived usefulness and attitude. Consumers will reap benefits such as time savings, money saved, and effort saved if they are aware of mobile banking and recognize that it is convenient to use or investigate. (Zhou, 2018). The past research conducted by Wu and Wang (2005) also confirmed the perceived usefulness had positive impact on attitude in the study of E-Marketing. Past researched, (Joo and Sang, 2013; Persico, Manca, and Pozzi, 2014) also affirmed that perceived usefulness was associated positively on attitude. Therefore, Ayeh, Au, and Law (2013) illustrated that there is positively associated among both perceived usefulness and attitude. Past study by Agag and El-Masry (2016) also determined that perceived usefulness and attitude have a significant relation. Therefore, Workman (2014) tested show that perceived usefulness and attitude have a considerable impact on one another. Hence, this study will propose hypothesis:

Hypothesis H3: Perceived usefulness is positive relation with attitude.

2.3.1.4. Relationship of Perceived Ease of Use and Behavioral Intention

Previous literature by Dwivedi et al. (2008), perceived ease of use was one of the control variables that has a substantial effect of individual behavioral intention in utilizing information technology. Once individuals are able to take on board of the importance of mobile banking and recognize that it was simply to use or explore, they will save time, money, and effort (Zhou, 2018). The past research had described perceived ease of use and intention to use had practical association. Yoon (2016) explains how perceived ease of use PEU has a major impact on perceived usefulness. Sheikshoaei and Oloumi (2011) looked at the impact of PEU toward preference of the using mobile service and perceived ease of use considered as a major provision of behavioral intention. According to Carter and Belanger (2004), research of the selection of an online tax system discovered that perceived ease of use had a major impact on technology use. Based on the founding of Autry et al. (2010), perceived ease of use and intention had a substantial association with each other due to the industry's technological volatility. Based on these literatures, we proposed hypothesis as: Hypothesis H4: Perceived ease of use and behavioral intention have a positive relationship.

2.3.1.5. Relationship of Perceived Usefulness and Behavioral Intention

Related studies associated to direct influence by perceived usefulness on technologies accession offer different results. Previous research claimed an important and positive association between this variable and intention to use (Pham & Ho, 2015), but others did not (Li, Liu, & Heikkilä, 2014). For that circumstance, researcher believes even more essential in opposing this theory given that accessing to mobile banking application has always been viewed as an innovative inside traditional payment, and thus the effectiveness it provides

to users will be tightly tied to its acceptance. The study by Riskinanto et al. (2017) affirmed perceived usefulness is a variable that has a positively effect on intention in the context of electronic banking. Ashraf et al. (2016) claimed that perceived usefulness also had an affect on purchasing behavioral intention on a website in the study of e-commers. Based on Suki, (2011) tested perceived usefulness as significant and as an important factor influencing behavior and intention. Therefore, the proposed hypothesis is:

Hypothesis H5: Perceived usefulness and behavioral intention have a positive relationship.

2.3.1.6. Relationship of Attitude and Behavioral Intention

Davis (1989) discovered that attitude has an associated effect on behavioral intention. Towards this study, attitude plays an essential impact in behavior intention in recognizing new technologies (Davis, 1989). According to Kim et al. (2013) also found significant relationship and intention in social commerce. Kim et al. (2017) proved that attitude and behavioral intention had a positive association in the context of Smart Home Service. Levitt et al. (2019) observed that attitude persists in the cognition, precedes and modifies response. As a result, it should attempt detecting intention. Moreover, Cao and Mokhtarian (2005) stated as attitude factor account for many variations in behavioural intentions. On the other hand, Agag and Masry (2016) found in the study on Internet hotel reservations that the environment had a particular effect on the user's intention. Elkaseh et al. (2016) found that attitudes and behavioral intentions have a positively relationship in the field of social networks. For the supporting to Muñoz-Leiva et al. (2016) showed that attitude to use technology is strongly affect on behavioral intention. So far, the below hypothesis would be proposed as:

Hypothesis H6: Attitude and behavioral intention have a positive relationship.

2.3.1.7. The Mediating Effect of Attitude on relationship of Perceived Ease of Use and Behavioral Intention

According to studies by Ayeh, Au, and Law (2013), people who are normally opposed to using customer created media of a tour planning may change their minds if they realize it is simple to do so in that environment. Jahangir and Begum (2008) found that users' perceptions of the system are that it is highly simplicity of use or that it is no trouble to grasp, learn, or operate, and, perceived ease of use and user intention have an instant association with customer attitude. Also, Suki (2011) indicated that a customer's willingness to access mobile app was identified by their view of how easy it is to communicate with others via the internet. Because of the foregoing, the mediating effect of attitude on the relationship of perceived ease of use and mobile banking behavioral intention will be explored in this study. Hence, the hypothesis implied as follow:

Hypothesis H7: Attitude mediates the relationship of perceived ease of use and behavioral intention.

2.3.1.8. The Mediating Effect of Attitude on relationship of Perceived Usefulness and Behavioral Intention

Previous research implemented by Kanchanatane et al. (2014) discovered that the willingness to operate a system is determined by personal pleasure and perception. According to previous study, customer is willing to utilize new technology when service is deemed to be extremely valuable. When a customer is satisfied with a new technology, they want to learn more about it. When a user has never used the internet to book a accommodation room, Agag and Masry (2016) suggest that their attitude toward the internet will lead to an

intention to book room online even if the user has not yet developed an internet buying habit. According to Khalifa and Liu (2007), when an internet buying habit has not yet been established, a user's positive mood may not be as crucial as their desire to order. Consequently, this study developed a hypothesis as: Hypothesis H8: Attitude mediates the relationship of perceived usefulness and behavioral intention.

2.3.2. Extension of the TAM: The Moderating Effect of Perceived Risk Toward the Using of Mobile Banking on the relationship of Attitude and Behavioral Intention

Due to the threat of expansion, risk is a critical concern in mobile services, notably in the banking industry (Hanafizadeh et al., 2012). Individuals are growing increasingly accustomed to evaluating the risks associated with internet transactions (mobile banking). We contend that individuals who reflect social technological activities to be lower risk or even more trustworthy are more prone to experiment with connecting for transactions. The results studied by Ha and Stoel (2009), and Posey, Lowry, Roberts, and Ellis (2010) provide strong evidence as confidence boosts online self-expression whereas personalized-risk optimism diminishes it. Internet users can estimate the risk connected with the payments system if they have a comprehensive understanding of it. To understand the risk components of using mobile banking, a certain amount of knowledge must be acquired. Personalized risk-taking effort is supposed to be decided in advance at the interpersonal basis (Wang, Xiao, & Raghav Rao, 2015). According to one study, perceived risk appears to be a detrimental affective on attitude (Zimmer et al., 2010). We modify those users feel that security features lower technology's risk, hence perceived risk is negatively associated to attitude that in turn make it less user-friendly and therefore less useful, and that they take control of the technology

to the consumer. According to Coursaris et al., (2003), mobile banking is associated with a high level of risk since customers may face issues such as phone theft and loss. When the risk of failure is low, satisfaction and uptake of innovative services increases (Lovelock et al., 2001; Mohd Thas Thaker et al., 2019). Furthermore, Yousafzai et al. (2010), Chavali and Kumar (2018) discovered that perceived risk, which was categorized as social risk, financial risk, privacy risk, time risk, security risk, and performance risk, had a negative impact on attitudes in utilizing mobile banking. In light of prior research, the proposed hypothesis had corrected in order to determine the moderating effects of perceived risk on the impact of a positive attitude toward mobile banking on behavior intention to use. Another study by Shaikh et al. (2018), perceived risk is strongly linked to the desire to use mobile banking. Otherwise, the below hypothesis was stated as:

Hypothesis H9: Perceived risk moderates the relationship of attitude toward mobile banking and behavioral intention

CHAPTER THREE

RESEARCH METHODOLOGY

In this chapter, researcher first describes research model of this study, then construct measurement and hypotheses are presented. Research design, sampling methods, questionnaires design, data collection methods, data analysis procedure are also disclosed in the chapter.

3.1. Research Structure

As mentioned previous hypotheses development, this study conducts a research model as the following figure.

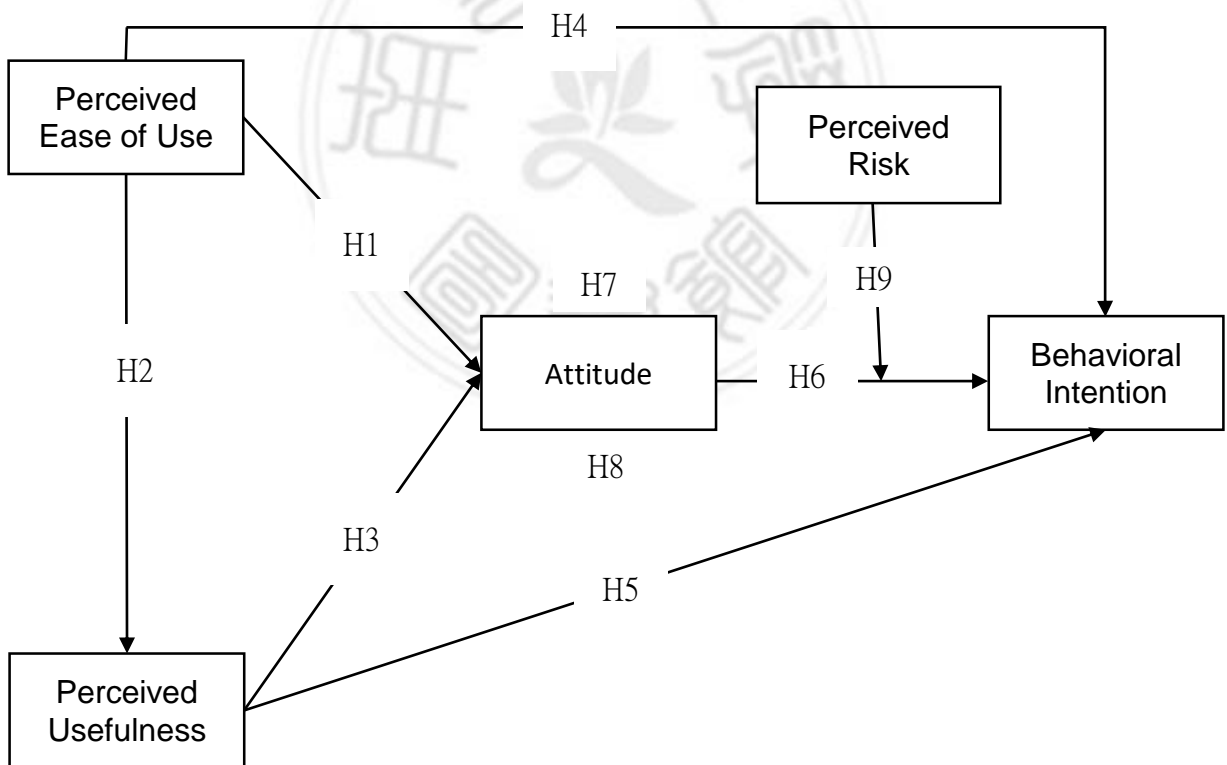


Figure 3-1 Research Structure

Source: Original Study

3.2. Summary of Research Hypotheses

According to above literature reviews and hypotheses development in chapter two, the following research hypotheses were developed for further study in this research:

Hypothesis H1: Perceived ease of use and attitude have a positive relationship.

Hypothesis H2: Perceived ease of use and perceived usefulness have a positive relationship

Hypothesis H3: Perceived usefulness and attitude have a positive relationship.

Hypothesis H4: Perceived ease of use and behavioral intention have a positive relationship.

Hypothesis H5: Perceived usefulness and behavioral intention have a positive relationship.

Hypothesis H6: Attitude and behavioral intention have a positive relationship.

Hypothesis H7: Attitude mediates the relationship of perceived ease of use and behavioral intention.

Hypothesis H8: Attitude mediates the relationship of perceived usefulness and behavioral intention.

Hypothesis H9: Perceived risk moderates the relationship of attitude toward mobile banking and behavioral intention.

3.3. Research Design

This study adopted quantitative research as well as survey questionnaire as a research design in which evaluated seven variables, one independent variable, five variables are dependent, and one variable as moderator. The variable are perceived ease of use (PEU), perceived usefulness (PUN), attitude (ATT), behavioral intention (BIN), and perceived risk (PER). The major objective of research is to explore perceived ease of use and usefulness influence attitudes towards the use of mobile banking application services, and discovering relationship between attitudes towards use and the behavioral intention to use them. This study is designed regard as a systematic effect in which specific research methods and processes are connected together and in order to obtain a trustworthy and legitimate quantity of evidence for empirically grounded analyses and conclusions. For purpose of this study, we will collect the data by involving a survey. We will use online-questionnaires.

3.4. Sampling and Data Collection Method

The questionnaires have multiple choices or broad open-short question for people who are using or have even used the mobile banking of any respective banks in Cambodia by surveying on Google Form, and the link will send to respondents through social network, as such Facebook, Gmail., etc. All respondents are selected based on a convenient sampling method (also known as sampling, random sampling, or opportunity sampling), which is kind of randomly sampling method that is drawn from the easily accessible population. Before submitting the survey questionnaires, the target people are asked to confirm whether they are currently using mobile banking or not, as we only focus on users. Sekaran (2016) recommended that the larger sample size can be conducted more accurate data results. The normal sample size is between 31 to 500 (Mathwick et al. 2006). The questionnaires were collected from two

different languages (Khmer and English) in Phnom Penh city, Cambodia. Three hundred and fifteen (315) respondents were requested to complete in the questionnaire, depended on their experiences of using mobile banking and suppose to use mobile banking in the future when the return is 306 were able to proceed data analysis.

Moreover, the purpose of selecting people who are already mobile banking users is to analyze the factors that most influence their attitudes towards the use and continued use of mobile banking. According to Asad Yaqub, the International Finance Corporation (IFC) representative in Cambodia, his institution sees a huge opportunity in the growth of mobile banking in Cambodia and has given notice modern technology as overtaking classical banking systems because it allows people conquer challenges in obtaining financial services. (Khmer Times, 2021).

3.5. Questionnaire Design

This study obtains 36 survey questionnaires to measure the behavioral intention of people who have experience with mobile banking or people who are willing and committing to use mobile banking. The demographic part will ask respondent for age, gender, age, occupation, education level and frequency of using internet to measure the behavior of the consumer's intention on e-payment. Lastly, the questionnaire items listed below are subject to change, especially when we get feedback from the quality of research.

In the current study, it uses the five-point scale called Likert-scale designed as the following criteria:

- (1) subjects to Strongly disagree
- (2) subjects to Disagree
- (3) subjects to Neutral

(4) subjects to Agree

(5) subjects to Strongly agree

3.6. Translation of Questionnaire

All the items of questionnaire constructed in English, and the survey need target the people who were employed in Cambodia. Thus, conducting the questionnaire would be careful by translating into the Khmer language in order to be a convenience for the respondent easy to understand the question is talking about. The question was sent to a university lecture who is currently teaching at the Royal University of Phnom Penh, major in international business management in Cambodia to make the questionnaire more professional and match with the meaning between English and Khmer version. Then, it should be double check by using the questionnaire in the Khmer language to translate in the English version in order to be transparent with these two languages version. Therefore, the final version of Khmer language questionnaire will confirm after double check the meaning of these two languages with modifying some problem.

3.7. Construct Measurement

This study consists of five constructs. Those constructs are perceived ease of use, perceived usefulness, attitude, behavioral intention, and perceived risk. Each construct obtains component and questionnaire items which is derived from the previous studies to conduct questionnaire survey.

Table 3-1 Construct Measurement

No.	Variables	Number of Items	Sources
1	Perceived Ease of Use	6	Venkatesh and Bala (2008); Zhou (2011) & Huh et al. (2009)
2	Perceived Usefulness	6	Bankole et al. (2011); Zhou (2011); Koenig-Lewis et al. (2010) & Riquelme and Rios (2010)
3	Attitude	7	Morosan (2008) and Jeong (2013)
4	Behavioral Intention	7	Davis (1989); Venkatesh and Davis (2000) & Cheng et al. (2006)
5	Perceived Risk	10	Lu, Yang, Chau, and Cao (2010)

Source: Original Study

1. Perceived Ease of Use (PEU)

The past study by Venkates and Bala (2008), clearly showed perceived ease of use is still consistently responsive from users to various of technology (mobile banking), even if customers get extensive hands-on experiment with application. This essential theoretical correlation has a variety of important implementations, as there is growing concern about the usability of various mobile devices. Therefore, customers are able to use mobile banking to fulfill his or her expectancy, including improving their life and work performance (Zhou, 2011). Huh et al., (2009) is classified perceived ease of use as the

proportion that people accept in choosing a mobile banking for the purpose of easy and free of efforts. Six questionnaire items will be measured. All items use the five-point Likert Scales to measure from 1 = strongly disagree to 5 = strongly agree. The questionnaire items are shown in Table 3-3 below:

Table 3-2 Measurement of Perceived Ease of Use

Construct: Perceived Ease of Use
PEU1: Using mobile banking does not demand a lot of mental effort.
PEU2: I would easily find the information I am looking for using the mobile banking
PEU3: Instruction in mobile banking system is crystal-clear and understandable.
PEU4: Mobile banking is equipped with user-friendly interface.
PEU5: I find it easy to use my mobile devices to conduct banking services.
PEU6: It is easy for me to become skillful at conducting mobile banking transactions.

Source: Venkatesh and Bala (2008); Zhou (2011) & Huh et al. (2009)

2. *Perceived Usefulness (PUN)*

Perceived usefulness determined as the principle necessary for technology adoption that is based on strong belief how new technology would make their lives better and simplify as mentioned by Riquelme and Rios (2010), Bankole et al. (2011), Koenig-Lewis et al. (2010), and Zhou (2011). They also stated perceived usefulness manage the beliefs of user that apply the new

technology system may enhance work effectiveness, help to get raise, improve productivity, enhance work implementation. Therefore, six questionnaire items had been measured. All items conduct the five-point Likert Scales to measure from 1=strongly disagree to 5=strongly agree. The table below shows the questionnaire items:

Table 3-3 Measurement of Perceived Usefulness

Construct: Perceived Usefulness
PUN1: Mobile banking is fast, cost-saving and convenient.
PUN2: Within mobile banking, it is very flexible for me to apply banking transaction 24-hour per day.
PUN3: It is capable to perform financial transactions of even smaller denominations.
PUN4: Banking transactions on a mobile device reduces space and time constraints.
PUN5: Mobile banking boosts my daily activities and work effectiveness.
PUN6: I believe that using proper mobile banking promotes people's engagement.

Source: Koenig-Lewis et al. (2010); Riquelme and Rios (2010); Bankole et al. (2011); and Zhou (2011)

3. Attitude (ATT)

Morosan and Jeong, (2008) clear that an individual's attitude is described as their desire to convey a specific response to a notion or subject. In both subsamples, attitude was a critical factor of users' plans to utilize these sites for bookings. They advised industry decision-makers to improve their internet

distribution tactics to capitalize on customers' access to Internet as a permit tool. According to above literature review, seven questionnaire items will be measured. All items use the five-point Likert Scales to measure from 1 means strongly disagree to 5 means strongly agree. The table below shows the questionnaire items:

Table 3-4 Measurement of Attitude

Construct: Attitude
ATT1: I believe that using mobile banking for financial transactions would be a wise idea
ATT2: I believe that using mobile banking is pleasant.
ATT3: I enjoy using my mobile devices for banking services facilitation.
ATT4: I use mobile banking to create digital financial management.
ATT5: Using mobile devices to perform banking transactions is very interesting.
ATT6: In my perspective, it is desirable to use mobile banking
ATT7: I think if a bank sells its service through the mobile phone, it will give the bank competitive advantage.

Source: Morosan and Jeong (2008)

4. Behavioral Intention (BIN)

Cheng et al. (2006) found that when it comes to the individual predictive power of on behavior intention, the conclusion come out with perceived usefulness has a marginally statistically significant influence, retaining its influencing role of customer to use banking system. Behavioral intention questionnaires were adopted form Davis (1989), Vankatesh and Davis (2000),

and Cheng et al. (2006), consist of seven items are listed bellowed. All items adopt the five-point Likert Scales to measure from 1=strongly disagree to 5=strongly agree. The table below shows the questionnaire items:

Table 3-5 Measurement of Behavioral Intention

Construct: Behavioral Intention
BIN1: Assuming that I get access to mobile banking systems, I intend to use them.
BIN2: I plan to increase my use of mobile banking in the future.
BIN3: I would like to use mobile banking for all my transaction.
BIN4: I am confident to use because mobile banking provider illustrate me a very clear information
BIN5: I will constantly use mobile banking in the future.
BIN6: I will firmly suggest others to use mobile banking service.
BIN7: I would use mobile banking for my banking needs.

Source: Davis (1989); Venkatesh and Davis (2000); and Cheng et al. (2006)

5. *Perceived Risk*

According to Lu, Yang, Chau, and Cao (2010), perceived risk was also designed as a multidimensional concept. It was considered essential to build consumer confidence in online transactions. The consumer's perception of the ultimately unpredictable bad outcomes of an online transaction is known as the perceived risk. It can be argued that environmental riskiness accompanying to perceived risk is associated with reliance of mobile application technology, while the reliability in mobile devices is attributed to behavioral ambiguity that leads to perceived risk. As literature mentioned, this study adopted ten

questionnaire items from Lu, Yang, Chau, and Cao (2010). All items using the five-point Likert Scales to measure from 1=strongly disagree to 5=strongly agree. The table below shows the questionnaire items:

Table 3-6 Measurement of Perceived Risk

Construct: Perceived Risk
PER1: I would not feel totally safe providing personal private information over the mobile banking.
PER2: I am worried about using mobile banking because other people may be able to access my account.
PER3: I would not feel secure sending sensitive information across the mobile banking.
PER4: I think the application may not let me feel bored when accessing mobile banking.
PER5: This application is too complicate to make a transaction.
PER6: I think mobile banking provider would not send my personal information to the third party.
PER7: I hope that my mobile banking transaction would reach only the bank target account.
PER8: This mobile banking provider will not help me to reduce user uncertainty.
PER9: This application provides incomplete transaction information.
PER10: I am worried about the trustworthiness of this application.

Source: Lu, Yang, Chau, and Cao (2010)

6. Demographic Information

The demographic dimension was created to measure the differences between each respondent who participated in this survey. According to previous studies also the measurement demand for this study, the personal demographic features can be measured by the following indicators:

Table 3-7 Demographic Information

Demographic Information
1). Gender
2). Age
3). Educational level
4). Occupation
5). Income level
6). Frequency of using mobile banking

3.8. Data Analysis Procedure

This study applied the primary method, quantitative approach was conducted based on the nature of this study. To perform the research variables and analyze data collected, statistical approaches such as descriptive statistics and inferential statistics are used to test hypotheses after all elements of each construct have been transformed with SPSS statistical software. This study applied SPSS software version 25 to analyze the collected data.

- Descriptive Statistic Analysis
- Factor loading and Reliability test
- Independent Sample t-test
- One-Way Analysis of Variance (ANOVA)
- Multiple Regression Analysis
- The Hierarchical Regression Analysis

3.8.1. Descriptive Statistic Analysis

In order to clarifying the characteristics of each variable, the descriptive statistical analysis is conducted to present the means and standard deviation of individual research variable. In this study, respondents' profile will be also illustrated which use descriptive statistical analysis techniques in term of frequency of distribution. Therefore, descriptive statistics on demographic information including gender, age, education level, occupation, and income level are used to examine and explain the characteristics of the data collected in terms of frequency and percentage (%).

3.8.2. Factor Analysis and Reliability Test

A factor analysis of principle components with maximum likelihood method was performed to condense the acquired data into factors in order to validate the measurement items and determine dimensions. Following the completion of factor analysis, item-total-correlation, and reliability coefficient analysis (Cronbach's alpha) were employed to verify the reliability of the specific research factors.

Factor analysis has used for investigating the underlying covariance structure of a set of correlation coefficients. In other hand, factor analysis reveals that the relationships between a significant number of measured variables are caused by a small proportion of unseen constructs. Furthermore, factor analysis is utilized for more than just summarizing or reducing data; it is also employed for exploratory or confirmatory purposes. Bartlett's (1951) sphericity test determines whether a matrix (of correlations) differs considerably from an identity matrix. The test determines the likelihood that the correlation matrix contains significant correlations between at least some of

the variables in a dataset. Items of observation with the factor loading larger than 0.7 were chose as the members for specific factors.

The correlation of every element to the sum of the rest of the items within one factor is measured by item-to-total correlation. This method implies that the overall score is credible, furthermore the degree to which the item correlates with the whole score reflects the item's convergent validity. Items which obtain with a poor correlation (e.g., less than 0.5) were excluded from further investigation.

Cronbach's alpha (α) is computed by subtracting the true score variation by the observed score variance. It can have an impact on the internal consistency of each element. According to Robinson and Shaver (1973), if α is larger than 0.7, the factor is highly reliable, and if α is less than 0.3, the factor is unreliable. In this study, Cronbach's alpha (α) will be determined for all elements of each measurement construct.

According to Hair et al. (2010), the following criteria are mentioned:

- (1) $KMO > 0.5$ and Barlett $p < 0.05$
- (2) $Communality > 0.5$
- (3) $Explained\ Variance\ (Accumulative) > 0.6$
- (4) $Eigen\ Value > 1$
- (5) $Difference\ between\ Loading > 0.3$
- (6) $Factor\ Loading > 0.7$
- (7) $Cronbach's\ \alpha > 0.7$
- (8) $Item\ to\ Total\ Correlation > 0.5$

3.8.3. Independent Sample T-test

The independent sample t-test is performed in this research to identify whether there are any differences between two groups regarding to a particular variable. In this study, the following constructs used were: perceived ease of use, perceived usefulness, attitude, perceived risk, and behavioral intention.

3.8.4. One-way Analysis of Variance (ANOVA)

In order to investigate whether there are any differences in more than two groups in relation to one variable, One-way analysis of variance (ANOVA) was encoded in this study to analyze the differences across demographic characteristics (i.e., genders, ages, educational levels, occupation, income levels, and frequency accessing to the mobile banking) of the participants in the constructs in the model. With the F-value test, and the Post hoc test, the analysis will be significant.

3.8.5. Regression Analysis

First of all, simple linear regression is applied for identifying relation between among two variables or constructs that can be predicted relation among in independent and dependent variables. Basic purpose of linear regression analysis used in research is to examine the relative effect on the five constructs: Perceived Ease of Use, Perceived Usefulness, Attitude, Perceived Risk, and Behavioral Intention. Secondly, multiple regression applied to evaluate the impact of one variable on the values of other two or more variables. The variable utilized to project was referred as dependent variable. Furthermore, multiple regression allowed the study for determining the general fit of the model as well as the proportion of contribution of the factor to the

total variance explained. Once R^2 is greater than 0.1 ($R^2 > 0.1$), the F-value is more than 4, the analysis is considered significant. In this study, multiple regression analysis is conducted for exploring the mediating effect of attitude on the relationship of perceived ease of use (independent variable) and behavioral intention (dependent variable), and the mediating effect of attitude on the relationship of perceived usefulness (independent variable) and behavioral intention (dependent variable). According to Hair et al. (2014), the following criteria for regression analysis are as below:

$$R\text{-square } (R^2) \geq 0.1$$

$$\text{Adjusted } R\text{-square} \geq 0.1$$

$$F\text{-value} \geq 4$$

$$\text{Sig. (p-value)} \leq 0.05$$

To enhance the mediating role of mediator, Sobel test was employed to validate the result of mediation. A method conducted by Preacher and Hayes's (2004). Other type of this analysis that is often used in academic research is hierarchical linear regression. After controlling for those other variables, hierarchical regression was employed to determine whether variables of interest can interpret a statistically significant level of variance in dependent variable (DV). This is a model evaluation framework rather than a statistical tool. This study used regression models by including variables to a prior model at each stage; subsequent models always include smaller models from previous phases. Consequently, researcher is interested in determining whether recently added variables increase R^2 (the proportion of explained variance in DV by the model). This study applied hierarchical regression analysis to verify the moderating effect of perceived risk on relation of attitude (independent variable) and behavioral intention (dependent variable).

CHAPTER FOUR

DATA ANALYSIS AND RESULTS

This chapter describes the results of the research study. First of all, descriptive statistics of collected results including respond rates, character of respondent, and measurement. For the following part show the factor analysis, reliability test of constructs and criteria principles. Then, the last of chapter four will illustrate the result of analyzed data which related to correlation and hypotheses tested.

4.1. Descriptive Analysis

To obtain a deeper grasp of the characteristics of the research design and demographic data, descriptive statistics analysis are applied for generating mean, standard deviation for all research variables, and even the frequencies of demographic data.

4.1.1. Characteristics of Respondents

This survey was done by Cambodian, with 315 respondents receiving an online survey by email, web address, Facebook, and Line. After almost two months (beginning of March 2022 to April 2022) , 309 questionnaires had been gathered, with 3 surveys being dropped due to insufficient data. As a result, 306 surveys were able to use for further investigation.

The disclosure of characteristics of respondents are in Table 4-1 including gender, age, education level, occupation, income level, and frequency of accessing mobile banking. As showed in Table 4-1, the major group of respondents are male accounted for 169 respondents (55.2%) while 137 (44.8%) are female. Group of age 21-30 are 177 accounted for 57.9% of total sample and 45 of them are in the group of age 31-40 equals to 14.7% accordingly. By

the way, group of age above 40 years old consumed 17.3% equals to 53 respondents and the group of age 20 and below marked up for only 31 respondents (10.1%). Move to education level, even though Cambodian are in lower rate of education, but the results are showed for selected respondents who experience the mobile banking. So far, most of respondents have bachelor degree of education with the highest number of 130 generated 42.5% followed by master degree which resulted 86 or 28.1% respectively, while others hold a Ph.D. degree with 49 people (16.0%) when 41 of them (13.4%) had high school degree or lower. Respondent occupation profile turns out in private sector accumulated 40.8% equals to 125 responds. There were 105 employed in public sector conducted in this study accounted for 34.3% while 55 were students (18%) and entrepreneur 21 (6.9%).

For the income range expose that the massive group of the respondents have income (USD) around \$500 and below per month for 137 (44.8%) and the second largest group is \$501- \$1,000 per month for 94 people or 30.7%. Besides that, the income between \$1,001- \$1,500 per month had 32 respondents equals to 10.5% , the income of \$1501-\$2000 were 14 people (4.6%) and rest of them can earn more than \$2000 per month which accounted for 29 respondents equal to 9.5%. Not faraway of this part, the result delivered frequency of accessing mobile banking that most of them (93 respondents) access every day (30.4%) followed by other group once a month 21.9%, twice a month 19.9%, once a week 18.9%, and several times a week 9.2% accordingly.

Table 4-1 The Characteristics of Respondents

Demographic Variables		Frequency (n=306)	Percentage (%)
Gender	Male	169	55.200
	Female	137	44.800

Table 4-1 The Characteristics of Respondents (Continued)

Demographic Variables		Frequency (n=306)	Percentage (%)
Age	≤20	31	10.100
	21-30	177	57.900
	31-40	45	14.700
	>40	53	17.300
Education	High School/Lower	41	13.400
	Bachelor	130	42.500
	Master	86	28.100
	Ph.D.	49	16.000
Occupation	Public Sector	105	34.300
	Private Sector	125	40.800
	Entrepreneur	21	6.900
	Student	55	18.000
Income (USD) (monthly)	≤\$500	137	44.800
	501-1000	94	30.700
	1001-1500	32	10.500
	1501-2000	14	4.600
	>\$2000	29	9.500
Frequency of accessing mobile banking	Everyday access	93	30.400
	Several times a week	28	9.200
	Once a week	57	18.900
	Twice a month	61	19.900
	Once a month	67	21.900

Source: Original Study

4.1.2. Descriptive Analysis

Table 4-2 shows descriptive data, as well as mean and standard deviations, for each of 306 respondents' variables. The findings of the means and standard deviations were shown in Table 4-2, which showed that all participants described the study framework constructs with high levels of satisfaction because the mean was above 4 on a five-point Likert scale: perceived ease of use, perceived usefulness, attitude toward mobile banking, behavioral intention, and perceived risk. Anyway, mean values and standard deviation are ranging from: perceived ease of use (M=4.303-4.451; Std=0.514-0.565), [PEU1] has the mean (M=4.303) present that it is lowest of satisfaction level among respondents while [PEU4] has highest mean (M=4.451) that is the highest satisfaction level of respondents. Perceived usefulness (M=4.353-4.470; Std=0.476-0.500), [PUN1] has the mean (M=4.353) present that it is lowest of satisfaction level among respondents while [PUN6] has highest mean (M=4.470) that is the highest satisfaction level of respondents. Once again, for attitude (M=4.303-4.395; Std=0.460-0.489), [ATT4] has the mean (M=4.303) present that it is lowest of satisfaction level among respondents while [ATT6] has highest mean (M=4.395) that is the highest satisfaction level of respondents. However, for behavioral intention (M=4.326-4.356; Std=0.470-0.479), [BIN1] has the mean (M=4.326) present that it is lowest of satisfaction level among respondents while [BIN5] has highest mean (M=4.369) that is the highest satisfaction level of respondents and finally, perceived risk (M=4.029-4.284; Std=0.260-0.46), [PER3] has the mean (M=4.029) present that it is lowest of satisfaction level among respondents while [PER9] has highest mean (M=4.284) that is the highest satisfaction level of respondents as well.

Table 4-2 Mean and Standard Deviation of Research items

Research Items	Mean	Standard Deviation
Perceived Ease of Use		
[PEU1]	4.303	0.514
[PEU2]	4.398	0.533
[PEU3]	4.434	0.540
[PEU4]	4.451	0.542
[PEU5]	4.441	0.547
[PEU6]	4.402	0.565
Perceived Usefulness		
[PUN1]	4.353	0.476
[PUN2]	4.362	0.477
[PUN3]	4.371	0.483
[PUN4]	4.453	0.498
[PUN5]	4.464	0.499
[PUN6]	4.470	0.500
Attitude		
[ATT1]	4.323	0.468
[ATT2]	4.317	0.466
[ATT3]	4.320	0.467
[ATT4]	4.303	0.460
[ATT5]	4.382	0.486
[ATT6]	4.395	0.489
[ATT7]	4.388	0.488

Table 4-2 Mean and Standard Deviation of Research items (Continued)

Research Items	Mean	Standard Deviation
Behavioral Intention		
[BIN1]	4.336	0.473
[BIN2]	4.339	0.474
[BIN3]	4.339	0.481
[BIN4]	4.326	0.470
[BIN5]	4.356	0.479
[BIN6]	4.349	0.477
[BIN7]	4.349	0.477
Perceived Risk		
[PER1]	4.042	0.283
[PER2]	4.035	0.272
[PER3]	4.029	0.260
[PER4]	4.042	0.271
[PER5]	4.035	0.259
[PER6]	4.032	0.253
[PER7]	4.032	0.254
[PER8]	4.281	0.464
[PER9]	4.284	0.466
[PER10]	4.281	0.464

Source: Original Study

4.2. Factor Analysis and Reliability Test

This investigation validated the construct dimensionality and dependability, as well as the purification processes. In addition, factor analysis

and Cronbach's alpha were performed for this study. The technique of examining fundamental structure of data is known as factor analysis. The construct validity of each discovered dimension was determined by the coefficient (Cronbach's) alpha. To begin, factor analysis was used to identify construct dimensionality for examining the maximum factor loading of questionnaire items based on the determination criterion. Second, item to total correlation and coefficient alpha were calculated for determining construct's internal consistency and reliability. The principal component and varimax rotated methods were used in the factor analysis process to exclude related components with eigenvalues greater than 1. There are two crucial requirements to ensure in the specification: factor loading larger than 0.7 and variance of factor loadings between each item higher than 0.3. The item-to-total correlation is used to assess reliability, and it must be larger than 0.5. The Cronbach's alpha coefficient (α) must be more than 0.7. (Hair et al., 2010).

4.2.1. Perceived Ease of Use

In finding of factor loading for measuring "perceived ease of use", the results are displayed in Table 4-3. Overall, KMO value of elements for this factor is 0.831 more than 0.5, and the Bartlett test (BTV) with a significant value $p < 0.001$, indicating that correlations between variables are significant. As a result, it is demonstrated that the elements in this factor are all suitable for factor analysis. The findings of factor loadings for perceived ease of use measurements are shown in Table 4-3. The result shows that this variable explains 64.778 percent of the variation. Additionally, the result indicates that Cronbach's alpha for this variable is 0.869. All variables within this component have strong item-to-total correlation coefficient (0.605-0.772). Otherwise, one of items was deleted due to factor loading was less than 0.7. Based on all criteria,

we can conclude that this factor's reliability and internal consistency are acceptable.

Table 4-3 Factor Analysis and Reliability Test of Perceived Ease of Use

Research Construct	Research Items	FL	EV	AE	ITC	α
Perceived Ease of Use (KMO=0.831, BTV, $p < 0.001$)	PEU5	0.863	3.647	64.778	0.772	0.869
	PEU4	0.852			0.759	
	PEU3	0.789			0.681	
	PEU6	0.781			0.660	
	PEU2	0.718			0.605	
	PEU1	Factor loading < 0.7			Deleted	

Note: FL= Factor Loading; EV= Eigen Value; AE= Accumulative Explained;

ITC= Item-to-Total-Correlation; BTV=Bartlett's Test Value

Source: Original Study

4.2.2. Perceived Usefulness

The factor loadings for the measurements of perceived usefulness are shown in Table 4-4. The findings suggest that the KMO value of all elements for this variable is 0.769 more than 0.5, and the Bartlett test with a significant value $p < 0.001$. Moreover, the variance explained by the construct "perceived usefulness" is 67.917 percent. This factor contains six elements. Factor loading for all items was higher than 0.7 (0.725-0.874). Cronbach's alpha is 0.899, which includes items with high coefficient of item-to-total correlation (0.648-0.773). Based on all criteria, we can conclude that this factor's reliability and internal consistency are justified.

Table 4-4 Factor Analysis and Reliability Test of Perceived Usefulness

Research Construct	Research Items	FL	EV	AE	ITC	α
Perceived Usefulness (KMO=0.769, BTV, p< 0.001)	PUN2	0.874	4.275	67.917	0.773	0.899
	PUN3	0.871			0.769	
	PUN1	0.864			0.757	
	PUN4	0.821			0.754	
	PUN5	0.739			0.666	
	PUN6	0.725			0.648	

Note: FL= Factor Loading; EV= Eigen Value; AE= Accumulative Explained;
ITC= Item-to-Total-Correlation; BTV=Bartlett's Test Value

Source: Original Study

4.2.3. Attitude

The findings of factor loading for measuring " attitude " are shown in Table 4-5. Overall, the KMO value of elements for this variable is 0.817 more than 0.5, and the Bartlett test with a significant value $p < 0.001$, indicating that correlations between variables are substantial. As a result, it is demonstrated that the elements in this factor are all suitable for factor analysis. The findings of factor loadings for attitude measurements are shown in Table 4-5. This factor contains seven elements. Factor loading of all items was higher than 0.7 (0.741-0.824). The result shows that this variable explains 69.562 percent of the variation. Additionally, the result indicates that the Cronbach's alpha for this construct is 0.895. All variables within this component have strong item-to-total correlation coefficient (0.660-0.748). Based on all criteria, we can conclude that this factor's reliability and internal consistency are acceptable.

Table 4-5 Factor Analysis and Reliability Test of Attitude

Research Construct	Research Items	FL	EV	AE	ITC	α
Attitude (KMO=0.817, BTV, p< 0.001)	ATT4	0.824	4.309	69.562	0.748	0.895
	ATT2	0.803			0.703	
	ATT3	0.797			0.695	
	ATT5	0.789			0.717	
	ATT1	0.789			0.684	
	ATT7	0.746			0.666	
	ATT6	0.741			0.660	

Note: FL= Factor Loading; EV= Eigen Value; AE= Accumulative Explained;
ITC= Item-to-Total-Correlation; BTV=Bartlett's Test Value

Source: Original Study

4.2.4. Behavioral Intention

The findings of factor loading for measuring " behavioral intention " are shown in Table 4-6. Overall, the Kaiser-Meyer-Olkin (KMO) test of elements for this variable is 0.803 more than 0.5, and the Bartlett test with a p value < 0.001, indicating that correlations between variables are substantial. As a result, it is demonstrated that the elements in this factor are all suitable for factor analysis. The findings of factor loadings for behavioral intention measurements are shown in Table 4-6. This factor contains seven elements. The factor loading for all items was greater than 0.7 (0.738-0.817). The result shows that this variable explains 66.290 percent of the variation. Additionally, the result indicates that Cronbach's alpha of this variable is 0.890. All variables within this component have strong item-to-total correlation coefficient (0.651-.0734). Based on all criteria, we can conclude that this factor's reliability and internal consistency are desirable.

Table 4-6 Factor Analysis and Reliability Test of Behavioral Intention

Research Construct	Research Items	FL	EV	AE	ITC	α
Behavioral Intention (KMO=0.803, BTV, $p < 0.001$)	BIN4	0.817	4.220	66.290	0.734	0.890
	BIN5	0.801			0.701	
	BIN7	0.798			0.698	
	BIN6	0.793			0.691	
	BIN1	0.743			0.661	
	BIN2	0.740			0.657	
	BIN3	0.738			0.651	

Note: FL= Factor Loading; EV= Eigen Value; AE= Accumulative Explained;
ITC= Item-to-Total-Correlation; BTV=Bartlett's Test Value

Source: Original Study

4.2.5. Perceived Risk

The findings of factor loading for measuring "perceived risk" are shown in Table 4-7. Overall, the KMO value of elements for this variable is 0.803 more than 0.5, and the Bartlett test with a significant value $p < 0.001$, indicating that correlations between variables are substantial. As a result, it is demonstrated that the elements in this factor are all suitable for factor analysis. The findings of factor loadings for perceived risk measurements are shown in Table 4-7. This factor contains ten elements. The factor loading for seven items was greater than 0.7 (0.799-0.933). Three items were eliminated because factor loadings were less than 0.7. The result shows that this variable explains 88.720 percent of the variation. Additionally, the result indicates that Cronbach's alpha of this construct is 0.979. All variables within this component have strong item-

to-total correlation coefficient (0.861-0.949). Based on all criteria, we can conclude that this factor's reliability and internal consistency are valid.

Table 4-7 Factor Analysis and Reliability Test of Perceived Risk

Research Construct	Research Items	FL	EV	AE	ITC	α		
Perceived Risk (KMO=0.891, BTV, $p < 0.001$)	PER5	0.933	6.210	88.720	0.949	0.979		
	PER4	0.927			0.945			
	PER7	0.911			0.934			
	PER6	0.910			0.932			
	PER3	0.883			0.920			
	PER2	0.848			0.898			
	PER1	0.799			0.861			
	PER9	Factor loading < 0.7			Deleted			
	PER8	Factor loading < 0.7			Deleted			
	PER10	Factor loading < 0.7			Deleted			

Note: FL= Factor Loading; EV= Eigen Value; AE= Accumulative Explained;
ITC= Item-to-Total-Correlation; BTV=Bartlett's Test Value

Source: Original Study

4.3. Independent Sample T-test

The goal of this section is to highlight the distinctions between male and female genders and compare their means to the five constructions mentioned above. The factors of perceived ease of use (PEU), perceived usefulness (PUN), attitude (ATT), behavioral intention (BIN), and perceived risk (PER) were employed in the analysis. Furthermore, the level of significance and the t-value is higher than 1.96, and the p-value cannot be smaller than 0.05. Table 4-8 shows that there is no significant t-value and p-value to be noted. So, the results

of independent sample t-test revealed no differences between male and female for constructs: perceived ease of use (PEU), perceived usefulness (PUN) attitude (ATT), behavioral intention (BIN), and perceived risk (PER).

Table 4-8 Result of Independent Sample T-test

Factor	Male (N=169)	Female (N=137)	t-value	p-value
PEU	4.390	4.420	-0.614	0.539
PUN	4.380	4.440	-1.937	0.054
ATT	4.318	4.382	-1.497	0.135
BIN	4.309	4.383	-1.756	0.080
PER	4.030	4.042	-0.429	0.668

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: Original Study

4.4. One-way Analysis of Variance (ANOVA)

This study employed one-way analysis of variance (ANOVA) method for comparing differences between more than two groups in order to determine which groups are similar or distinct. ANOVA uses F statistics and p value to examine whether the group of mean of variables are significant. The results use two methods to do the post-Hoc test. Scheffe performs simultaneous joint pairwise comparisons for all possible pairwise combinations of means. For Dunnett's T3, pairwise comparison test based on the studentized maximum modulus. This test is appropriate when the variances are unequal. By the way, Scheffe in this study is better in ANOVA because it distributes the homogeneous subset of mean comparison effectively for a better understanding of differences. However, this study uses both methods for strengthen the

verification of statistically differences. So, this section was chosen based on demographic information as well as age, education level, income level, and frequency of accessing mobile banking in order to compare the mean of perceived ease of use (PEU), perceived usefulness (PUN), attitude (ATT), behavioral intention (BIN), and perceived risk (PER). ANOVA provides a one-way analysis of variance of a quantitative dependent variable by a single independent variable.

4.4.1. Age

There is only one factor which statistically significant within the five constructs of the study among the differences of age groups of Perceived ease of use (PEU) confirmed with one-way analysis of variance (ANOVA), ($F=3.937$, $p=0.009$), checked with Dunnett T3 where the group means are significant, check with Scheffe which group means (4)>(3), both methods showed the significantly difference between group of age higher than 40 years old (Mean=4.543) is higher than ages group 31-40 years old (Mean=4.253). Perceived Usefulness (PUN) checked with ANOVA, PUN ($F=0.101$, $p=0.959$) not significant different, checked with Scheffe and Dunnett T3 where the mean groups were not significant difference between the ages group. Attitude (ATT) checked with ANOVA, ($F=0.676$, $p=0.567$) was not significant, checked with Scheffe and Dunnett T3 where the mean groups were not statistically significant differences between ages group. Behavioral Intention (BI) checked with ANOVA, ($F=0.986$, $p=0.400$) not significant, checked with Scheffe and Dunnett where the mean groups were not statistically significant differences between ages group. Perceived Risk (PER) checked with ANOVA, ($F=1.563$, $p=0.198$), checked with Scheffe and Dunnett T3 where the mean groups were not statistically significant differences between ages group.

Table 4-9 One-way Analysis of Variance (ANOVA) of Group of Age

Factor	≤20	21-30	31-40	>40	F-value	p-value	Scheffe/ Dunnett T3
	(1) N=31	(2) N=177	(3) N=45	(4) N=53			
PEU	4.400	4.401	4.253	4.543	3.937**	0.009	(4)> (3)
PUN	4.335	4.339	4.315	4.309	0.101	0.959	NS
ATT	4.437	4.340	4.406	4.304	0.676	0.567	NS
BIN	4.285	4.325	4.403	4.382	0.986	0.400	NS
PER	4.124	4.032	4.012	4.016	1.563	0.198	NS

Note: *p<0.05, **p<0.01, ***p<0.001; NS=Not Significant

Source: Original Study

4.4.2. Education Level

There are three factor which statistically significant within the five constructs of the study among the differences of education level of Perceived usefulness (PUN) confirmed with one-way analysis of variance (ANOVA), (F=7.145, p<0.001), checked with Dunnett T3 where the group means was significant, check with Scheffe which group means (3)>(4), both methods showed the significantly difference between group master degree (Mean=4.488) is higher than Ph.D. (Mean=4.293). Perceived ease of use (PEU) checked with ANOVA, PEU (F=0.237, p=0.870) not significant different, checked with both Scheffe and Dunnett T3 where the mean groups were not significant difference between the education level. Attitude (ATT) checked with ANOVA, (F=3.762, p=0.011) was significant, checked with Dunnett T3 where the mean groups were statistically significant differences between education level, confirmed with Scheffe which group means (3)>(1), there are significantly difference between group master degree (Mean=4.446) is higher

than high school/lower (Mean=4.243). Behavioral Intention (BI) checked with ANOVA, (F=17.802, $p<0.001$) was significant, checked with Scheffe and Dunnett T3 which group means (4)>(1), there are significantly difference between group Ph. D. (Mean=4.510) is higher than high school/lower degree (Mean=4.142). Perceived Risk (PER) checked with ANOVA, (F=0.354, $p=0.786$) not significant, checked with both Scheffe and Dunnett T3 where the mean groups were not statistically significant differences between education level.

Table 4-10 One-way Analysis of Variance (ANOVA) of Education Level

Factor	Highschool /lower (1)	Bachelor (2)	Master (3)	Ph.D. (4)	F-value	p-value	Scheffe or Dunnett T3
	N=41	N=130	N=86	N=49			
PEU	4.361	4.404	4.427	4.395	0.237	0.870	NS
PUN	4.224	4.272	4.488	4.293	7.145***	<0.001	(3)>(4)
ATT	4.243	4.306	4.446	4.367	3.762*	0.011	(3)>(1)
BIN	4.142	4.242	4.493	4.510	17.802***	<0.001	(4)>(1)
PER	4.045	4.025	4.056	4.020	0.354	0.786	NS

Note: * $p<0.05$, ** $p<0.01$, *** $p<0.001$; NS=Not Significant

Source: Original Study

4.4.3. Occupation

There are four factor which statistically significant among the five constructs of the study. The differences of occupation of Perceived ease of use (PEU) confirmed with one-way analysis of variance (ANOVA), (F=2.922, $p=0.034$), checked with Dunnett T3 where the group means are significant, check with Scheffe which group means (4)>(3), there are significantly

difference between group of student (Mean=4.527) is higher than entrepreneur (Mean=4.238). Perceived usefulness (PUN) checked with ANOVA, PUN (F=4.790, p=0.003) significantly different, checked with Dunnett T3 where the mean groups were significant difference between the group of occupation, confirmed with Scheffe test which group means (1)>(3), there are significantly difference between group of public sector (Mean=4.424) is higher than entrepreneur (Mean=4.123). Attitude (ATT) checked with ANOVA, (F=3.972, p=0.008) was significant, checked with Dunnett T3 where the mean groups were statistically significant differences between group of occupation, also check the differences with Scheffe which group means (1)>(3), there are significantly difference between group of public sector (Mean=4.442) is higher than entrepreneur (Mean=4.224). Behavioral Intention (BI) checked with ANOVA, (F=7.307, p<0.001) was significant, check with Scheffe and Dunnett T3 which group means (4)>(2), there are significantly difference between group of student (Mean=4.529) is greater than group of private sector (Mean=4.285). Perceived Risk (PER) checked with ANOVA, (F=0.641, p=0.589) not significant, checked with Scheffe and Dunnett T3 where the mean groups were not statistically significant differences between group of occupation.

Table 4-11 One-way Analysis of Variance (ANOVA) of Occupation

Factor	Public Sector	Private Sector	Entrepreneur	Student	F-value	p-value	Scheffe or Dunnett T3
	(1)	(2)	(3)	(4)			
	N=105	N=125	N=21	N=55			
PEU	4.409	4.372	4.238	4.527	2.922*	0.034	(4)>(3)
PUN	4.424	4.281	4.123	4.338	4.790**	0.003	(1)>(3)
ATT	4.442	4.296	4.224	4.329	3.972**	0.008	(1)>(3)

**Table 4-11 One-way Analysis of Variance (ANOVA) of Occupation
(Continued)**

Factor	Public Sector (1)	Private Sector (2)	Entrepreneur (3)	Student (4)	F-value	p-value	Scheffe or Dunnett T3
	N=105	N=125	N=21	N=55			
BIN	4.342	4.285	4.190	4.529	7.307***	<0.001	(4)>(2)
PER	4.044	4.020	4.000	4.065	0.641	0.589	NS

Note: *p<0.05, **p<0.01, ***p<0.001; NS=Not Significant

Source: Original Study

4.4.4. Income Level

There are three factor which statistically significant within the five constructs of the study among the differences of income level of Perceived usefulness (PUN) confirmed with one-way analysis of variance (ANOVA), (F=3.801, p=0.005), checked with Dunnett T3 where the group means are significant, verified with Scheffe which group means (2)>(4). Hence there are significantly difference between group \$501-\$1000 (Mean=4.393) is higher than group of \$1501-\$2000 (Mean=4.028). Perceived ease of use (PEU) checked with ANOVA, PEU (F=0.156, p=0.960) not significant different, checked with both Scheffe and Dunnett T3 where the mean groups were not significant difference between the income level. Attitude (ATT) checked with ANOVA, (F=5.791, p=0.005) was significant, checked with Dunnett T3 where the mean groups were statistically significant differences between income level, check with Scheffe is also significant which group means (1)>(4), there are significantly difference between group of <\$500 (Mean=4.309) is greater than \$1501-\$2000 (Mean=4.030). Behavioral Intention (BI) checked with

ANOVA, (F=7.933, p<0.001) was significant, confirmed with Scheffe and Dunnett T3 which group means (4)>(1), there are significantly difference between group of \$1501-\$2000 (Mean=4.530) is higher than group of ≤\$500 (Mean=4.232). Perceived Risk (PER) checked with ANOVA, (F=1.317, p=0.264) not significant, checked with Scheffe and Dunnett T3 where the mean groups were not statistically significant differences between income level.

Table 4-12 One-way Analysis of Variance (ANOVA) of Income Level

Factor	≤\$500	\$501 - \$1000	\$1001- \$1500	\$1501- \$2000	>\$2000	F-value	p-value	Scheffe or Dunnett T3
	(1)	(2)	(3)	(4)	(5)			
	N=137	N=94	N=32	N=14	N=29			
PEU	4.395	4.423	4.418	4.414	4.358	0.156	0.960	NS
PUN	4.313	4.393	4.418	4.028	4.234	3.801**	0.005	(2)>(4)
ATT	4.309	4.425	4.491	4.030	4.266	5.791**	<0.001	(1)>(4)
BIN	4.232	4.369	4.549	4.530	4.458	7.933***	<0.001	(4)>(1)
PER	4.070	4.001	4.031	4.010	4.000	1.317	0.264	NS

Note: *p<0.05, **p<0.01, ***p<0.001; NS=Not Significant

Source: Original study

4.4.5. Frequency of Accessing Mobile Banking

There are two factor which statistically significant within the five constructs of the study among the differences of frequency of accessing to mobile banking of Perceived usefulness (PUN) confirmed with one-way analysis of variance (ANOVA), (F=10.258, p<0.001) significant, check with both Scheffe and Dunnett T3 which group means of frequency (4)>(1), there are significantly difference between group accessing twice a month, and everyday which the group of accessing twice a month (Mean=4.557) and group of accessing everyday (Mean=4.225). Perceived ease of use (PEU) checked

with ANOVA, PEU ($F=2.770$, $p=0.054$) not significantly different, checked with Dunnett T3 where the mean groups were not significant difference between the frequency of accessing. Attitude (ATT) checked with ANOVA, ($F=11.492$, $p<0.001$) significant, check with Scheffe which group means of frequency (4)>(1), there are significantly difference between group accessing twice a month and every day, which the group of accessing twice a month (Mean=4.583) and group of accessing everyday (Mean=4.253). Behavioral Intention (BI) checked with ANOVA, ($F=2.262$, $p=0.063$) was not significant, checked with Dunnett T3 where the mean groups were not statistically significant differences and Scheffe result is not significant. Perceived Risk (PER) checked with ANOVA, ($F=0.197$, $p=0.940$) not significant, checked with both Scheffe and Dunnett T3 where the mean groups were not statistically significant differences between frequency of accessing to mobile banking.

Table 4-13 One-way Analysis of Variance (ANOVA) of Frequency of Accessing to Mobile Banking

Factor	Everyday	Several times a week	Once a week	Twice a month	Once a month	F-value	p-value	Scheffe or Dunnett T3
	(1)	(2)	(3)	(4)	(5)			
	N=93	N=28	N=57	N=61	N=67			
PEU	4.361	4.307	4.771	4.557	4.391	2.770	0.054	NS
PUN	4.225	4.485	4.305	4.557	4.223	10.258***	<0.001	(4)>(1)
ATT	4.253	4.479	4.315	4.583	4.234	11.492***	<0.001	(4)>(1)

Table 4-13 One-way Analysis of Variance (ANOVA) of Frequency of Accessing to Mobile Banking (Continued)

Factor	Everyday	Several times a week	Once a week	Twice a month	Once a month	F-value	p-value	Scheffe or Dunnett T3
	(1)	(2)	(3)	(4)	(5)			
	N=93	N=28	N=57	N=61	N=67			
BIN	4.400	4.173	4.370	4.334	4.315	2.262	0.063	NS
PER	4.039	4.040	4.012	4.032	4.051	0.197	0.940	NS

Note: *p<0.05, **p<0.01, ***p<0.001; NS=Not Significant

Source: Original Study

4.5. The Relationship Between Constructs

This study used the method developed by Beneth and Health (2000) to examine the factors' mediation and moderation effects. The data analysis was employed SPSS software version 25, to evaluate the hypotheses and the relationship in between seven constructs. Table 4.14 exhibits descriptive statistics as well as bivariate correlations between variables.

4.5.1. Result of Correlation Analysis

Correlation analysis were being conducted for analyzing the correlation between the two or more variables. The correlation matrix of this study was summarized in Table 4-14. Cohen (1989) defined r (Correlation coefficient) as a measurement to evaluate the strength and direction of a linear relation between variables. If r is between 0.10 and 0.29 as suggesting a low level of correlation, r between 0.30 and 0.49 as showing a moderate level of correlation, and r between 0.50 and 1.00 as indicating a high level of correlation.

According to the findings, all of the factors show a positive significant association with one another. Primarily, perceived risk has found to be slightly positive related to perceived ease of use ($r = 0.096$, $p < 0.05$), with perceived usefulness ($r = 0.179$, $p < 0.01$), with attitude ($r = 0.175$, $p < 0.01$), and behavioral intention ($r = 0.150$, $p < 0.01$). Secondly, a positive correlated between behavioral intention and perceived ease of use ($r = 0.167$, $p < 0.01$), with perceived usefulness ($r = 0.416$, $p < 0.001$), and attitude ($r = 0.425$, $p < 0.001$). Third, attitude found a positively associated with perceived ease of use ($r = 0.181$, $p < 0.01$) and perceived usefulness ($r = 0.383$, $p < 0.001$). Then, perceived usefulness generated a positive correlation to perceived ease of use ($r = 0.178$, $p < 0.01$).

Table 4-14 Correlation Between Research Constructs

Variable	Mean	Std. De	PEU	PUN	ATT	BIN	PER
PEU	4.4039	0.4229	1				
PUN	4.3301	0.3923	0.178**	1			
ATT	4.3473	0.3726	0.181**	0.383***	1		
BIN	4.3427	0.3695	0.167**	0.416***	0.425***	1	
PER	4.0359	0.2494	0.096*	0.179**	0.175**	0.150**	1

Note: 1. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$

2. PEU = Perceived ease of use, PUN = Perceived usefulness,

ATT=Attitude, BIN = Behavioral Intention, PER = Perceived Risk

Source: Original Study

4.5.2. Simple Regression Analysis

Table 14-5 indicates simple regression analysis of the relationship of two constructs—Independent variable (Perceived ease of use) and dependent variable (Perceived usefulness). In Table 4-15 disclose model 1 tested the relationship between perceived ease of use and perceived usefulness is

significant and positively affected to perceived usefulness ($\beta=0.178$, $p<0.01$) where F-value = 9.938 greater than 4, $R^2=0.320$ and adjusted $R^2=0.280$ are higher than 0.1. Furthermore, D-W is tested to detect correlation of residuals from regression, and result show D-W=1.985 which means simple regression can be used for estimating direct effect. First, in terms of consequences of perceived ease of use, researcher discovered credible evidence to support the hypotheses H2. Perceived usefulness variable is particularly important in terms of the adoption of the suggested m-banking app, as indicated in the study undertaken by Chau and Lai (2003) in the electronic banking aspect, and Hernández (2010) and Muñoz et al. (2012) for tour planning products. Here this study can validate the positive effect of perceived ease of use on the perceived usefulness of the integrated application, as found by Stern, Royne, Stafford, and Bienstock (2008), and Muñoz et al. (2012). Here we could well assume from this that hypothesis H2 is supported.

Table 4-15 Simple Regression Analysis

Independent Variable - PEU	Dependent Variable - PUN
	Model 1
PEU	0.178** (0.002)
R^2	0.320
Adj- R^2	0.280
F-value	9.938 (0.002)
D-W	1.985

Note: 1. Brackets () demonstrate the p-value, in which statement mark * if

* $p<0.05$, ** $p<0.01$, *** $p<0.001$

2. PEU = Perceived Ease of Use, PUN= Perceived Usefulness

Source: Original Study

4.5.3. The Mediating Effect of Attitude on Relationship of Perceived Ease of Use and Behavioral Intention

Beneth and Health (2000) suggested four step of testing mediating effect of those variables. This study conducted the following of their method to determine the mediator role that has been in a particular relationship of independent variables, then use the method to evaluate if there is significantly associated between independent and dependent variables. The next step is to find out or to put together a test to examine whether mediator is significant in the relationship with dependent variable, and lastly to examine that if there are any the mediating between the mediator with the independent-dependent variables correlation. Table 4-16 show the mediating effect of attitude on relationship of perceived ease of use and behavioral intention.

As shown in Table 4-16 the first model (Model 1) examined the relation between perceived ease of use (independent variable) and attitude (mediator). Results revealed that perceived ease of use was significant and definitely related to attitude where coefficient correlation $\beta = 0.181$ and $p < 0.01$. The second model (Model 2) evaluated the relation in among perceived ease of use as an independent variable and behavioral intention as a dependent variable. The results point out that perceived ease of use is significant and positively related to behavioral intention where coefficient correlation $\beta = 0.167$ and $p < 0.01$. In addition, Model 3 figure out the relation in between attitude (mediator) and behavioral intention (dependent variable). The results released that attitude is significant and positively associated with behavioral intention where coefficient correlation $\beta = 0.425$ and $p < 0.001$. Finally, Model 4 illustrates the equation of multiple regression result of perceived ease of use and attitude to behavioral intention ($\beta = 0.093$, $p < 0.05$; $\beta = 0.408$, $p < 0.001$). In addition, the

result indicates that F-value is 35.370 when $p < 0.001$, $R^2 = 0.189$ and adjusted $R^2 = 0.184$, which shown that 18.9% of variance of behavioral intention can be inferenced by perceived ease of use and attitude.

Table 4-16 Mediating Effect of Attitude on Relationship of Perceived Ease of Use and Behavioral Intention

Variables	ATT	BIN		
	Model 1	Model 2	Model 3	Model 4
PEU	0.181** (0.001)	0.167** (0.003)		0.093* (0.049)
ATT			0.425*** (0.000)	0.408*** (0.000)
R^2	0.033	0.028	0.181	0.189
Adj- R^2	0.030	0.025	0.178	0.184
F-value	10.291	8.719	67.139	35.370
D-W	1.957	1.969	2.014	2.554
Max VIF	1.000	1.000	1.000	1.034

Note: 1. Brackets () demonstrate the p-value, in which statement mark * if $*p < 0.05$, $**p < 0.01$, $***p < 0.001$

2. PEU = Perceived Ease of Use, ATT = Attitude, BIN = Behavioral Intention

Source: Original Study

The result mentioned above express that the proposed Hypotheses H1, H4, H6, and H7 are supported. As a result, attitude offer partially mediating effect on relation of perceived ease of use and behavioral intention. (See more in Figure 4-1)

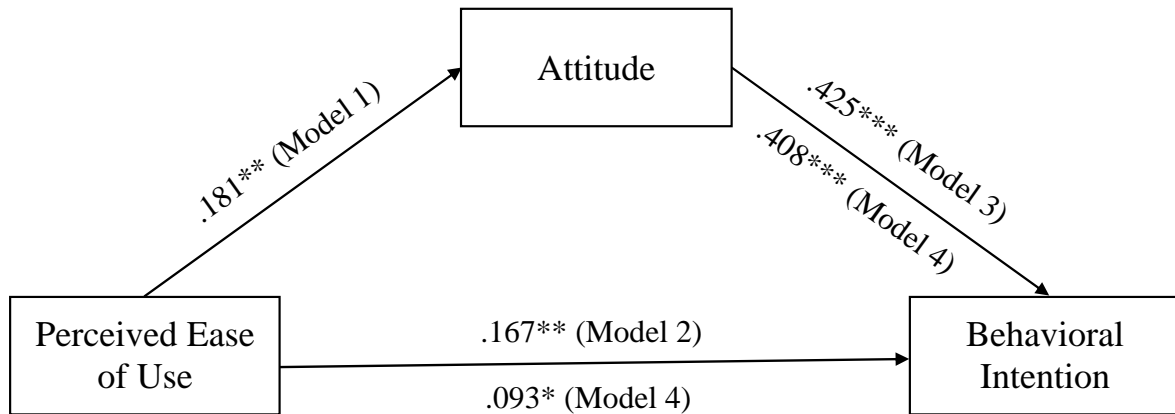


Figure 4-1 Mediating Effect of Attitude on Relationship of Perceived Ease of Use and Behavioral Intention

Source: Original Study

In order to strengthen the finding of mediating effect of attitude on the relation of perceived ease of use and behavioral intention, Sobel test was employed to validate the result of mediation. A method conducted by Preacher and Hayes's (2004) to confirm the mediating effect of mediator, there are four steps to be followed. In step 1, regression analysis of perceived ease of use on behavioral intention, not conducting the mediator, was statistically significant where $\beta=0.145$, $t=2.952$, $p=0.003$. Step 2 indicated the regression of perceived ease of use on mediator (Attitude), was statistically significant in which $\beta=0.159$, $t=3.207$, $p=0.001$. Step 3 of the mediation process showed that the mediator (Attitude), controlling for perceived ease of use, was significant where $\beta=0.405$, $t=7.766$, $p<0.001$. Step 4 of the result express that the mediator (Attitude), controlling for perceived ease of use, resulted a significant predictor of behavioral intention where $\beta=0.081$, $t =2.769$, $p=0.007$. The results of the Sobel test are significant ($p=0.003$). Moreover, the z-value is 2.944, which is higher than 1.96 ($p<0.05$), and mediating effect values 0.064. It showed that attitude factor partially mediated the relationship between perceived ease of use and behavioral intention. The bootstrap method also employed in the study to validate the Sobel test. Bootstrapping (randomly bootstrap 1000 samples based

on normal distribution) reflects a superior alternative to the Sobel test with regards to mediation testing. Baron and Kenny (1986) used this mediation analyses method, to estimates of the direct effect, estimates of the total effect, and estimates of the two paths that make up the indirect effect. The result demonstrates confidence intervals with upper limit 95% and lower limit 5% (excluding 0) reaches significant levels where z value is 2.944 and p=0.003. The indirect effect of Sobel and bootstrap results value 0.064 and mean=0.064. However, the findings showed that perceived ease of use was an indirect effect on behavioral intention.

Table 4-17 Regression Analysis of Indirect Effect between Perceived Ease of Use and Behavioral Intention

Direct and overall effect						
		β	SE	t	p	
PEU→ATT		0.159**	0.049	3.207	0.001	
ATT→BIN, PEU is controlled		0.405***	0.052	7.766	0.000	
PEU→BIN, ATT is controlled		0.081**	0.046	2.769	0.007	
The indirect influence and significance of the normal distribution						
	Value	SE	LL95%CI	UL95%CI	z	p
SOBEL	0.064	0.021	0.021	0.107	2.944	0.003
Bootstrap results from the indirect effect (1000 samples)						
	Value	SE	LL95%CI	UL95%CI	Mean	
Effect	0.064	0.021	0.024	0.110	0.064	

Note. 1. PEU= Perceived Ease of Use (Independent variable),

BIN= Behavioral Intention (Dependent variable),

ATT= Attitude (Mediating variable), β =Unstandardized Coefficient.

2. N= 306, Number of Bootstrap Resamples= 1000, LL= Lower Limit,
CI= Confidence Interval, UL= Upper Limit, SE= Standard Error

Source: Original Study

4.5.4. The Mediating Effect of Attitude on Relationship of Perceived Usefulness and Behavioral Intention

By applying the same Beneth and Health (2000)'s method, the result is shown in Table 4-18 the first model (Model 1) examined the relation between perceived usefulness (independent variable) and attitude (mediator). The results suggest that perceived usefulness is significant and positively associated with attitude where coefficient correlation $\beta = 0.383$ and $p < 0.001$. The second model (Model 2) evaluated the relation in between perceived usefulness (independent variable) and behavioral intention (dependent variable). The findings point out that perceived usefulness is significant and positively associated to behavioral intention where coefficient correlation $\beta = 0.416$ and $p < 0.001$. In addition, Model 3 figure out the relation in between attitude (mediator) and behavioral intention (dependent variable). The results released that attitude is significant and positively associated with behavioral intention where coefficient correlation $\beta = 0.425$ and $p < 0.001$. Finally, Model 4 illustrates the equation of multiple regression result of perceived usefulness and attitude to behavioral intention ($\beta = 0.297$, $p < 0.001$; $\beta = 0.312$, $p < 0.001$). Moreover, the result indicates that F-value is 52.143 when $p < 0.001$, $R^2 = 0.256$ and adjusted $R^2 = 0.251$, which shown that 25.6% of variance of behavioral intention can be predicted by perceived usefulness and attitude.

Table 4-18 Mediating Effect of Attitude on Relationship of Perceived Usefulness and Behavioral Intention

Variables	ATT	BIN		
	Model 1	Model 2	Model 3	Model 4
PUN	0.383*** (0.000)	0.416*** (0.000)		0.297*** (0.000)
ATT			0.425*** (0.000)	0.312*** (0.000)
R ²	0.146	0.156	0.181	0.256
Adj-R ²	0.144	0.153	0.178	0.251
F-value	52.129	63.621	67.139	52.143
D-W	2.491	2.375	2.465	2.406
Max VIF	1.000	1.000	1.000	1.171

Note: 1. Brackets () demonstrate the p-value, in which statement mark * if *p<0.05, **p<0.01, ***p<0.001
 2. PUN = Perceived Usefulness, ATT = Attitude, BIN = Behavioral Intention

Source: Original Study

The result mentioned above express that the proposed Hypotheses H3, H5, and H8 are supported. As a result, attitude offer a partial mediating effect on relation of perceived usefulness and behavioral intention. (See more in Figure 4-2)

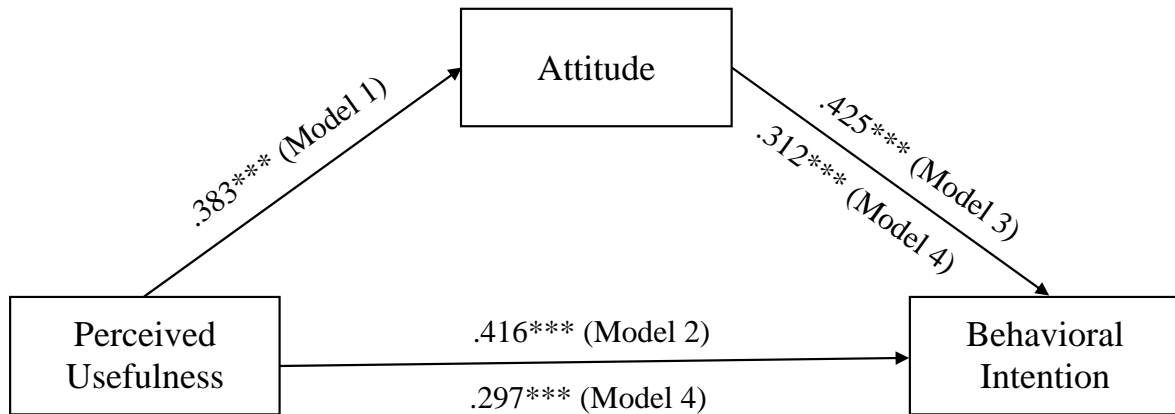


Figure 4-2 Mediating Effect of Attitude on Relationship of Perceived Usefulness and Behavioral Intention

Source: Original Study

To confirm the finding of mediating effect of attitude on relationship of perceived usefulness and behavioral intention, Sobel test was employed to validate the result of mediation. Approaching Preacher and Hayes's (2004) to confirm the mediating effect of moderator, there are four steps to be followed. In step 1 the regression of perceived usefulness on behavioral intention, not conducting the mediator, was statistically significant where $\beta=0.352$, $t=5.500$, and $p<0.001$. Then, Step 2 illustrated regression result of perceived usefulness on the mediator, was also statistically significant in which $\beta=0.312$, $t=5.287$, $p<0.001$. After that, Step 3 of the mediation procedure showed that the mediator (Attitude), controlling for perceived usefulness, resulted significant where $\beta=0.521$, $t=7.075$, and $p<0.001$. Lastly, Step 4 of the result express that the mediator (Attitude), controlling for perceived usefulness was also a significant predictor of behavioral intention where $\beta=0.298$, $t=5.034$, $p<0.001$. The results of the Sobel test are significant ($p=0.001$). The z-value = 3.272, which is higher than 1.96 ($p<0.05$), and mediating effect values 0.090. This showed that attitude factor partially mediated the relationship between perceived usefulness and behavioral intention. The bootstrap method was also employed in the study to

validate the Sobel test. The result demonstrates confidence intervals with upper limit 95% and lower limit 5% (excluding 0) reaches significant levels where z value is 3.272 and p=0.001. The indirect effect of Sobel and bootstrap results value 0.090 and mean=0.045. Therefore, the results also showed that perceived usefulness was an indirect effect on behavioral intention.

Table 4-19 Regression Analysis of Indirect Effect between Perceived Usefulness and Behavioral Intention

Direct and overall effect						
			β	SE	t	p
PUN → BIN			0.352***	0.026	5.500	0.000
PUN → ATT			0.312***	0.022	5.287	0.000
ATT → BIN, PUN is controlled			0.521***	0.047	7.075	0.000
PUN → BIN, ATT is controlled			0.298***	0.024	5.034	0.000
The indirect influence and significance of the normal distribution						
	Value	SE	LL95%CI	UL95%CI	z	p
SOBEL	0.090	0.015	0.023	0.158	3.272	0.001
Bootstrap results from the indirect effect (1000 samples)						
	Value	SE	LL95%CI	UL95%CI	Mean	
Effect	0.090	0.027	0.026	0.176	0.045	

Note. 1. PUN= Perceived Usefulness (Independent variable),

BIN= Behavioral Intention (Dependent variable),

ATT=Attitude (Mediating variable), β =Unstandardized Coefficient.

2. N= 306, Number of Bootstrap Resamples= 1000, LL= Lower Limit,

CI= Confidence Interval, UL= Upper Limit, SE= Standard Error

Source: Original Study

4.5.5. The Moderating Effect of Perceived Risk on Relationship of Attitude and Behavioral Intention

This study used Beneth and Health for validating the moderating effect of the research variables. Moderation analysis, according to Beneth and Health (2000), can be used to examine whether the moderator moderates the relationship between the independent and the dependent variable.

As disclosed in model 1, the result confirm that attitude is positively and significantly affected to behavioral intention ($\beta=0.425$, $p<0.001$). Model 2 imodified that perceived risk is positively and statistically affected to behavioral intention which $\beta=0.150$, $p<0.01$. As shown in model 3 in the Table 4-20 the result found that both independent variables (attitude, $\beta=0.416$, $p<0.001$) and moderating variables (perceived risk, $\beta=0.119$, $p<0.05$) are statistically affected to dependent variable (behavioral intention). Further more, the result in model 4 noticed that f-value is 27.676, the interactional effect ($R^2=0.216$, Adjusted $R^2=0.208$, $\beta=0.153$, $p<0.01$, max VIF= 1.137) of attitude and perceived risk is significantly affect to behavioral intention, it shows that the interaction between perceived risk and attitude realized a moderating effect on behavioral intention, so H9 is supported. This can be verified that perceived risk is a moderator on the relationship between attitude and behavioral intention.

**Table 4-20 Regression Analysis of Moderating Effect of Perceived Risk
on Relationship of Attitude and Behavioral Intention**

Independent variables	Dependent variable			
	BIN			
	Model 1(β)	Model 2(β)	Model 3(β)	Model 4(β)
Independent Variable – ATT	0.425*** (0.000)		0.416*** (0.000)	0.420*** (0.000)
Moderating Variable—PER		0.150** (0.008)	0.119* (0.022)	0.066 (0.228)
Interactive Effect—ATT*PER				0.153** (0.005)
R ²	0.181	0.023	0.195	0.216
Adjusted-R ²	0.178	0.019	0.190	0.208
F-value	67.139	7.044	36.698	27.676
D-W	2.465	2.258	2.472	2.446
VIF	1.000	1.00	1.006	1.137

Note: 1. Brackets () demonstrate the p-value, in which statement mark * if
*p<0.05, **p<0.01, ***p<0.001

2. ATT=Attitude, PER=Perceived Risk, BIN=Behavioral Intention

Source: Original Study

Again, the result mentioned above express that the proposed Hypotheses H9 is supported. As a result, perceived risk plays a moderating role on relationship of attitude and behavioral intention. (See more in Figure 4-3)

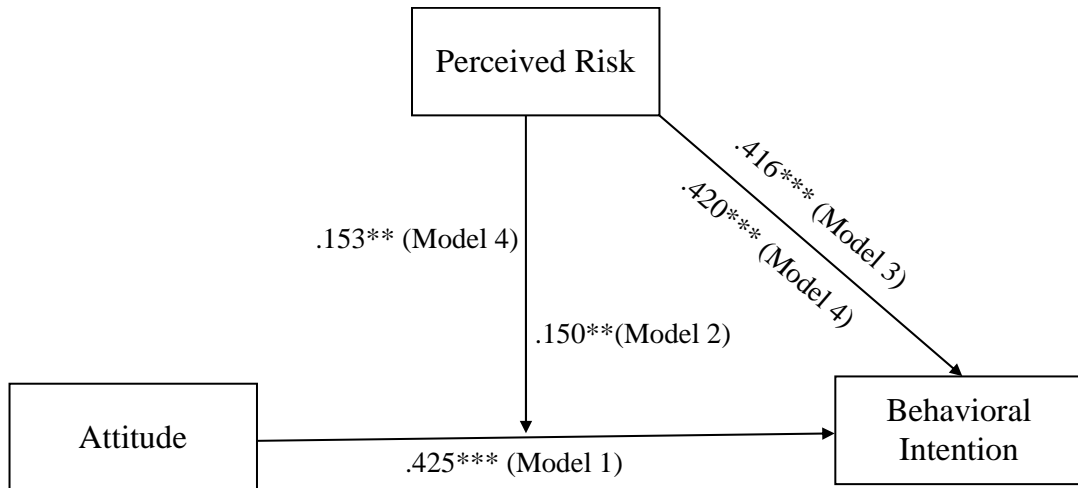


Figure 4-3 Moderating Effect of Perceived Risk on Relationship of Attitude and Behavioral Intention

Source: Original Study



CHAPTER FIVE

CONCLUSION AND SUGGESTION

This chapter will indicate the conclusion, managerial implication, limitation, and future research direction. The first section concludes the results research from Chapter 4. Management implications for academics and practitioners are given in light of these findings. Finally, future research directions and limits are addressed.

5.1. Summary of Hypotheses Results

Table 5-1 illustrates the result of hypotheses which tested and described in chapter four. Among nine hypotheses, all are supported.

Table 5-1 Hypotheses Results

Hypotheses Statement		Results
H1	Perceived ease of use and attitude have a positive relationship.	Supported
H2	Perceived ease of use and perceived usefulness have a positive relationship.	Supported
H3	Perceived usefulness and attitude have a positive relationship.	Supported
H4	Perceived ease of use and behavioral intention have a positive relationship.	Supported
H5	Perceived usefulness and behavioral intention have a positive relationship.	Supported
H6	Attitude and behavioral intention have a positive relationship.	Supported

Table 5-1 Hypotheses Results (Continued)

Hypotheses Statement		Results
H7	Attitude mediates the relationship of perceived ease of use and behavioral intention.	Supported
H8	Attitude mediates the relationship effect of perceived usefulness and behavioral intention.	Supported
H9	Perceived risk moderates the relationship of attitude toward mobile banking and behavioral intention.	Supported

Source: Original Study

5.2. Conclusion and Discussion

The goal of the research is to determine the factor, mediator, moderator, and repercussions of mobile banking acceptance including perceived ease of use, perceived usefulness, attitude, perceived risk, and behavioral intention: 1) investigate the relationship between Perceived Ease of Use and Attitude, 2) explore the association between Perceived Ease of Use and Perceived Usefulness, 3) investigate relationship between Perceived Usefulness and Attitude, 4) identify relationship between Attitude and Behavioral Intention, 5) investigate how Attitude influences relationship among Perceived Ease of Use and Behavioral Intention, 6) investigate how Attitude influences the relationship between Perceived Usefulness and Behavioral Intention. 7) explain the relationship of Perceived Ease of Use and Behavioral Intention, 8) explain the relationship between Perceived Usefulness and Behavioral Intention, and 9) examine how perceived moderate relationship of attitude and Behavioral Intention. The outcomes of this approach could lead to certain conclusions.

First, in terms of the consequences of perceived ease of use, we discovered important outcome to support the hypotheses H1 and H2. The

usefulness variable is particularly important regarding to acceptance of the proposed mobile banking application adaptation, as consisted in the study undertaken by Chau and Lai (2003) in the e-banking aspect or Hernández (2010) and Muñzan et al. (2012) for travel products. In consistency of this result, Jahangir and Begum (2008), Kanchanatane et al. (2014), and Riskinanto et al. (2017), suggested perceived ease of use also has a significantly effect on attitude, and the same remains true for this study. It demonstrates that when users access the mobile banking, they believe that it is convenient to use and do not have to strive to grasp how to use it; additionally, they feel that their performance is productive, thus the level of customer satisfaction with utilizing will be improved and greater. Furthermore, the perceived ease of use of mobile banking has a considerable impact on the perceived usefulness and attitude toward mobile banking. The research found a high association between perceived usefulness and perceived ease of use while utilizing new technology, sound consisted to Shaikh and Karjaluoto (2015). Mobile banking is a solution that integrates physical bank and virtual bank services into a single application on a mobile device; it is an integrated product that provides banking services to users. As a result, mobile banking potentially brings additional convenience to users and enhance users' financial quality (Trimi & Sheng, 2008; Ishmatova & Obi, 2009).

According to the finding in above chapter, perceived usefulness has a statistically significant influence on behavioral intention, which backs up earlier studies by Kwasi (2007), Riskinanto et al. (2017), and Ashraf et al. (2016), who observed that the system has a strong impact on behavioral intention. According to the findings, the extremely useful financial control method would entice users to embrace it in regular everyday living.

There are two mediating affects testing using attitude toward mobile banking as mediator to predict relationship of perceived ease of use and

perceived usefulness to behavior intention, have a statistically influence. The results are consisted with prior investigations (Alalwan et al. 2016; Limayem et al. 2000). These mediating factors have acted as partial mediators, mediating the effects of perceived ease of use, perceived usefulness on behavior intention. The results also suggested that the relevant predictors are critical variables that not only have a direct impact on user's intention, but also have an indirect impact on implementation via mediator factors such as attitude regarding mobile banking and behavior intention. They may serve as a link between client perception and external influencing elements that lead to a desire to utilize mobile banking. Bankers should view intermediaries as the primary factors to conduct on indexes for assessing consumer intents.

Some previous study by Yang et al. (2011); Hidayanto et al. (2015), and Barkhordari et al. (2016) revealed that perceived risk was associated with behavioral intention, this study discovered that perceived risk reflexing significant effects on attitude and behavioral intention. Within their concerns about the risk, consumers have stated that they may somehow consider of loose and security of using mobile banking. Furthermore, the outcome of perceived risk associated with using mobile banking had a moderating effect on attitudes toward mobile banking and behavior intention. This finding suggests that the relation between attitude toward mobile banking and behavior intention has affected. The same conclusion was reached by Yousafzai et al. (2010); Chavali and Kumar (2018). Mobile banking acceptance requires a strong security mechanism that protects consumers' personal information and credit details.

5.3. Research Implication

This study provides some evident for academic implication that scholar could investigate for their future study. TAM has only looked at how customers perceive new technologies, making it impossible to provide a holistic

framework for mobile banking uptake. The study that perceived ease of use, perceived utility, attitude toward usages, and behavioral intention to use are all suitable for assessing the significant relationship. In a range of financial institutions, the approach can be applied effectively.

It is preferable for banks to launch communication practices outlining the benefits of this features of electronic application in order to raise user awareness of its utility and improve their intention to use via attitude. The TAM model extension may also have an impact on the design of public relations campaigns aimed at increasing certainty and mitigating risk and uncertainty, qualities attributed to the application itself and the people in charge of its creation, support, preservation, and monitoring.

According to this proposed model, if the establishment of perceived ease of use, perceived usefulness, and attitude toward usages are adequately handled, behavioral intention to use mobile-banking applications will improve. The findings also highlighted the importance of attitude toward mobile banking and behavior intention as two of the most significant mediators in encouraging technology acceptance. These findings also suggest that bankers should pay considerably more attention to how to design mobile banking services. Bankers must ensure that mobile banking services are secure in terms of both money and confidentiality, and that they are presented as being simpler and more helpful than traditional banking (Mutahar et al. 2018). Furthermore, Deventer et al. (2017) argued that consumers will have a good attitude about mobile banking if they have the willingness and abilities to adhere to it. As a result, in marketing initiatives, perceived risk of utilizing mobile banking and attitude appear to be key for trying to boost mobile banking uptake. (Hanafizadeh et al., 2012; Cristea & Gheorghiu, 2016).

As a result, concentrating on these aspects may help financial institutions attract more attention and acceptance of the app. Business leaders and managers

in Cambodian banks must have practical tools in order to boost behavioral intention to utilize the app. The findings of this study have important implications for Cambodian banking industry executives and managers. To continue in industry or to thrive in this competitive environment in the technological society, one should employ advanced technologies. Similarly, due to its accessibility, convenience, and operational tools, mobile banking applications have begun to acquire acceptance in Cambodia's financial firm's market.

5.4. Limitation and Future Research Suggestion

This is critical for researchers to examine the study's conclusions because, no matter how extensive the study was, there were still certain limits or loopholes. Some of these constraints, however, can be viewed as interesting opportunities for further study within the same field. The sample of respondent chose a convenient sampling strategy based on the results of numerous backgrounds that could influence the questionnaire's response. Some people grasp the questionnaire right away, while others require additional explanation. All of these circumstances could have influenced the correctness of the answer provided. The questionnaire took a long time to complete in addition variables and demographic questions. If the respondent was in a hurry, their replies might not fully reflect their thoughts and feelings. Another limitation of this study is only over in banking sector. Amount of sample should be expanded and use different technique for data collection and even methodology. Future research should extent variety of industry and adding more variable in order to take a deep understanding of respondent.

REFERENCES

1. Adesina, A. & Ayo, C.K. (2010). An empirical investigation of the level of user's acceptance of e-banking in Nigeria, Journal of Internet Banking and Commerce, Vol. 15, No. 1, pp. 1-13,
2. Afshan, S. & Sharif, A. (2016), Acceptance of mobile banking framework in Pakistan, Telematics and Informatics, Vol. 33, No. 2, pp. 370-387.
3. Agag, G., & El-Masry, A. (2016), Understanding The Determinants Of Hotel Booking Intentions And Moderating Role Of Habit, International Journal Of Hospitality Management, Vol. 54, pp.52-67.
4. Akturan, U. & Tezcan, N. (2012), Mobile banking adoption of the youth market: perceptions and intentions. Marketing Intelligence & Planning, Vol. 30, No. 4, pp. 444-459.
5. Alalwan, A. A., Dwivedi, Y. K., & Williams, M. D. (2016), Customers' Intention and Adoption of Telebanking in Jordan, Information Systems Management, Vol. 33, No. 2, pp. 154-178.
6. Aldás, J., Lassala, C., Ruiz, C., & Sanz, S. (2011), Análisis de los factores determinantes de la lealtad hacia los servicios bancarios, Cuadernos de Economía y Dirección de la Empresa, Vol. 14, No. 1, pp. 26-39.
7. Amoroso, D.L. & Magnier-Watanabe, R. (2012), Building a research model for mobile wallet consumer adoption: the case of Mobile Suica in Japan, Journal of Theoretical and Applied Electronic Commerce Research, Vol. 7, No. 1, pp. 94-110
8. Ashraf, R. A., Thongpapanl, N. T., & Spyropoulou, S. (2016), The Connection and Disconnection between E-commerce Businesses and Their Customers: Exploring the Role of Engagement, Perceived

- Usefulness, and Perceived Ease-of-us, *Electronic Commerce Research and Applications*, Vol. 20. No. 2, pp. 69-86.
9. Ayeh, J. K., Au, N., & Law, R. (2013), Predicting The Intention To Use Consumer Generated Media For Travel Planning, *Tourism Management*, Vol. 35, pp. 132-143.
 10. Ba, S. & Paulov, P. A. (2002), Evidence of the effect of trust building technology in electronic market: price premium and buyer behaviour, *MIS Quarterly*, Vol. 26 No. 3, pp. 243-268
 11. Bankole, F.O., Bankole, O.O. & Brown, I. (2011), Mobile banking adoption in Nigeria, *The Electronics Journal on Information System in Developing Countries*, Vol, 47, No. 2, pp. 1-23.
 12. Baptista, G., Oliveira, T. (2016), A weight and a meta-analysis on mobile banking acceptance research, *Computer Human Behavior*, Vol. 63, pp. 480–489.
 13. Barkhordari, M., Nourollah, Z., Mashayekhi, H., Mashayekhi, Y., & Ahangar, M. (2016), Factors Influencing Adoption Of E–Payment Systems: An Empirical Study On Iranian Customers, *Inf. Syst. e–Bus. Manag*, Vol. 14, No. 3, pp. 89-116.
 14. Baron, R.M., & Kenny, D. A. (1986), The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical consideration, *Journal of Personality and Social Psychology*, Vol. 51, No. 6, pp.1173
 15. Bartlett, M. S. (1951), The effect of standardization on a Chi-square approximation in factor analysis, *Biometrics*, Vol. 38, No. 3, pp. 337-344.
 16. Bashir, I., & Madhavaiah, C. (2015), Trust, social influence, self-efficacy, perceived risk and internet banking acceptance: An extension

- of technology acceptance model in indian context, A Journal of Management Research, Vol. 14, No. 1, pp. 25-38.
17. Bennett, J. A. and health (2000), "Mediator And Moderator Variables In Nursing Research: Conceptual And Statistical Differences", Research in Nursing, Vol. 23. No. 5, pp. 415-420.
 18. Cao, X., & Mokhtarian, P. L. (2005), The Intended and Actual Adoption of Online Purchasing: A Brief Review of Recent Literature. UC Davis: Institute of Transportation Studies (UCD), Retrieved from <https://escholarship.org/uc/item/095934s0>
 19. Carter, L., & Belanger, F. (2004), The Influence Of Perceived Characteristics Of Innovating On E-Government Adoption, Electronic Journal of e-Government, Vol. 2, No. 1, pp. 11-20.
 20. Castaldo, S., Premazzi, K. & Zerbini, F. (2010), The Meaning(s) of Trust. A Content Analysis on the Diverse Conceptualizations of Trust in Scholarly Research on Business Relationships, Journal of Business Ethics, Vol. 96, pp. 657–668.
 21. Charles k. Ayo, Aderonke Atinuke Oni, Oyerinde J. Adewoye & Ibukun O. Eweoya, (2016), E-banking users' behavior: e-service quality, attitude, and customer satisfaction. International Journal of Bank Marketing, Vol. 34, No. 3, pp. 347-367
 22. Chau, P. Y. K., & Lai, V. S. K. (2003), An empirical investigation of the determinants of user acceptance of internet banking, Journal of Organizational Computing and Electronic Commerce, Vol. 13, No. 2, pp. 123-145.
 23. Chau, P. Y. K., & Lai, V. S. K. (2003), An empirical investigation of the determinants of user acceptance of internet banking, Journal of Organizational Computing and Electronic Commerce, Vol. 13, No. 2, pp. 123-145.

24. Chavali, K., & Kumar, A. (2018), Adoption of Mobile Banking and Perceived Risk in GCC, Banks and Bank Systems, Vol. 13, No. 1, pp. 72-79.
25. Chellappa, R. K. & Pavlou, P. A. (2002), Perceived information security, financial liability and consumer trust in electronic commerce transactions, Logistics Information Management, Vol. 15, No. 5/6, pp. 358-368.
26. Cheng, T.C.E., Lam, D.Y.C. & Yeung, A.C.L. (2006), Adoption of internet banking: an empirical study in Hong Kong, Decision Support Systems, Vol. 42, No. 3, pp. 1558–1572.
27. Cheng, X., & Zhou, M. (2010), Study on Effect of E Adams, D.A., Nelson, R.R., And Todd, P.A. “Perceived Usefulness, Ease Of Use, And Usage Of Information Technology: A Replication”, MIS Quarterly, Vol. 16, No. 2, pp. 227-247.
28. Chopdar, P.K., Korfiatis, N., Sivakumar, V.J., and LytrasMobile, M.D. (2018), Shopping Apps Adoption and Perceived Risks: A Cross-Country Perspective Utilizing the Unified Theory of Acceptance and Use of Technology, Computers in Human Behavior, Vol. 86, pp.109-128.
29. Coursaris, C., Hassanein, K., & Head, M. (2003), M-Commerce in Canada: An Interaction Framework for Wireless Privacy, Canadian Journal of Administrative Sciences / Revue Canadienne Des Sciences DeL Administration, Vol. 20, No. 1, pp. 54-73.
30. Cristea, M., & Gheorghiu, A. (2016), Attitude, perceived behavioral control, and intention to adopt risky behaviors, Transportation Research Part F: Traffic Psychology and Behaviour, Vol. 43, pp. 157-165.
31. Dabholkar, P.A. (1996), Consumer evaluations of new technology-based self-service options: an investigation of alternative models of service

- quality, International Journal of Research in Marketing, Vol. 13, No. 1, pp. 29-51.
32. Dabholkar, P.A. & Bagozzi, R.P. (2002), An attitudinal model of technology-based self- service: moderating effects of consumer traits and situational factors, Journal of the Academy of Marketing Science, Vol. 30, No. 3, pp. 184-201.
 33. Davis, F. D. (1989), Perceived usefulness, perceived ease of use, and user acceptance of information technology, MIS Quarterly, Vol. 13, No. 3, pp. 319-340.
 34. Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989), User acceptance of computer technology: A comparison of two theoretical models, Management Science, Vol. 35, pp. 982-1003.
 35. Deventer M.V., Klerk N. D. & Bevan-Dye A. (2017), Influence of perceived integrity and perceived system quality on Generation Y students' perceived trust in mobile banking in South Africa, Banks and Bank Systems, Vol. 12, No. 1, pp. 128-134.
 36. Devi J. T., Pudaruth, S. and Ramdin, P. (2012), "Factors influencing the adoption of internet banking: a case study of commercial banks in Mauritius", World Journal of Science, Technology and Sustainable Development, Vol. 9, No. 3, pp. 204-234.
 37. Dwivedi, Y. K., & Williams, M. D., Weerakkody, V., Lal, B., & Bhatt, S. (2008), Understanding Factors Affecting Consumer Adoption of Broadband in India, Journal of Cases on Information Technology, Vol. 10, No. 3, pp. 35-47.
 38. Eelkaseh, A. M., Wong, K. W., & Fung, C. C. (2016), Perceived Ease Of Use Nd Perceived Usefulness Of Social Media For E-Learning In Libyan High Education: A Structural Equation Modeling Analysis,

- International Journal of International and Education Technology, Vol. 6, No. 3, pp. 192.
39. Featherman, M. S., & Pavlou, P. A. (2003), Predicting e-services adoption: A perceived risk facets perspective, International Journal of Human-Computer Studies, Vol. 59, pp. 451-474.
 40. Fishbein, M., & Ajzen, I. (1975), Belief, attitude, intention and behavior: An introduction to theory and research, Reading, MA: Addison-Wesley.
 41. Gefen, D., Karahanna, E. & Straub, D.W. (2003), Trust and TAM in online shopping: an integrated model, MIS Quarterly, Vol. 27, No. 1, pp. 51-90.
 42. George, A. (2018), Perceptions of Internet banking users—a structural equation modelling (SEM) approach. IIMB Management Review, Vol. 30, No. 4, pp. 357-368.
 43. Giovanis, A. N., Binioris, S. & Polychronopoulos, G. (2012), "An extension of TAM model with IDT and security/privacy risk in the adoption of internet banking services in Greece", EuroMed Journal of Business, Vol. 7, No. 1, pp. 24-53.
 44. Gu, J-C., Lee, S-C. & Suh, Y-H. (2009), Determinants of behavioral intention to mobile banking, Expert Systems with Applications, Vol. 36, No. 1, pp. 11605-11616
 45. Gupta, S., & Kim, H. W. (2010), Value-driven Internet shopping: The mental accounting theory perspective, Psychology & Marketing, Vol. 27, No. 1, pp. 13-35
 46. Ha, S., & Stoel, L. (2009), Consumer e-shopping acceptance: Antecedents in a technology acceptance model, Journal of Business Research, Vol. 62, No. 5, pp. 565-571.

47. Hair, G., Black, B., Babin, B., Anderson, R. and Tatham, R. (2010), *Multivariate Data Analysis*, 7th Edition, Pearson, Upper Saddle River, New Jersey.
48. Hair, G., Black, B., Babin, B., Anderson, R. and Tatham, R. (2010), *Multivariate Data Analysis*. 7th Edition, Pearson, Upper Saddle River, New Jersey.
49. Hair, J. F., Hult, G. T. M., Ringle, C. M. & Sarstedt, M. (2014), *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*.
50. Hanafizadeh, P., Behboudi, M., Koshksaray, A. A., & Tabar, M. J. (2012). Mobile-banking adoption by Iranian bank clients. *Telematics and Informatics*, Vol. 31, No. 1, pp. 62-78
51. Hanafizadeh, P., Behboudi, M., Koshksaray, A.A. & Tabar, M.J.S. (2014), Mobile banking adoption by Iranian bank clients. *Telematics and Informatics*, Vol. 31, No. 1, pp. 62-78.
52. Hernández, J. (2010), *Análisis y modelización del comportamiento de uso de las herramientas Travel 2.0*. Universidad de Granada.
53. Hew, J. J., Lee, V. H., Ooi, K. B., & Wei, J. (2015), What catalyses mobile apps usage intention: An empirical analysis, *Industrial Management & Data Systems*, Vol. 115, No. 7, pp. 1269-1291.
54. Hidayanto, A.N., Hidayat, L.S., Sandhyaduhita, P.I., & Handayani, P.W. (2015), Examining The Relationship Of Payment System Characteristics And Behavioral Intention In E-Payment Adoption: A Case Of Indonesia, *Int. J. Business Information Systems*, Vol. 19, No. 1, pp. 58-86.
55. Huh, H.J., Kim, T. & Law, R. (2009), A comparison of competing theoretical models for understanding acceptance behavior of information

- systems in upscale hotels, International Journal of Hospitality Management, Vol. 28, No. 1, pp. 121-134.
56. Jahangir, N. and Begum, N. (2008), The Role of Perceived Usefulness, Perceived Ease of Use, Security and Privacy, and Customer Attitude to Engender Customer Adaptation in the Context of Electronic Banking. African Journal of Business Management, Vol. 5, No. 2, pp. 32-40.
57. Jalilvand, R.M., & Samiei, N. (2012), The Impact Of Electronic Word Of Mouth On A Tourism Destination Choice, Internet Research, Vol. 22 No. 5, pp. 591-612
58. Jeong, B.K. & Yoon, T.E. (2013), An empirical investigation on consumer acceptance of mobile banking services, Business and Management Research, Vol. 2, No. 1, pp. 31-40.
59. Joo, J., & Sang, Y. (2013), Exploring Koreans' smartphone usage: an integrated model of the technology acceptance model and uses and gratifications theory, Computers in Human Behavior, Vol. 29, No. 6, pp. 2512-2518.
60. Kanchanatane, K.N.S., & Anu, J. (2014), Effects of Attitude Toward Using, Perceived Usefulness, Perceived Ease of Use and Perceived Compatibility on Intention to Use E-Marketing. Journal of Management Research, Vol. 6, No. 3, pp. 1941-899.
61. Khalifa, M., Liu, V. (2007), Online Consumer Retention: Contingent Effects of Online Shopping Habit and Online Shopping Experience, Eur. J. Inform. System, Vol. 16, No. 6, pp. 780-792.
62. Khmer times, (2021), Fintech points the way to full financial inclusion for Cambodians. Retrieved from:
<https://www.khmertimeskh.com/50809969>
63. Kim, D. J., Ferrin, D. L., & Rao, H. R. (2008), A trust-based consumer decision-making model in electronic commerce: the role of trust,

- perceived risk, and their antecedents, Decision Support Systems, Vol. 44, No. 2, pp. 544-564.
64. Kim, S. B., Sun, K. A., & Kim, D. Y. (2013), The Influence Of Consumer Value-Based Factors On Attitude-Behavioral Intention In Social Commerce: The Differences Between High- And Low Technology Experience Groups, Journal of Travel & Tourism Marketing, Vol. 30, No. 1-2, pp. 108-125.
65. Kim, T. G., Lee, J. H., & Law, R. (2008), An empirical examination of the acceptance behavior of hotel front office systems: an extended technology acceptance model, Tourism Management, Vol. 29, No. 3, pp. 500-513.
66. Kim, Y., Park & Choi, J. (2017), A Study on The Adoption of Iot Smart Home Service: Using Value-based Adoption Mode, Total Quality Management & Business, Vol. 28, No. 9-10, pp. 1149-1165.
67. Kim, Y., Peterson, R.A. (2017), A meta-analysis of online trust relationships in E-commerce, Journal of Interaction Marketing. Vol. 38, pp. 44–54.
68. Koenig-Lewis, N., Palmer, A. & Moll, A. (2010), Predicting young consumers' take up of mobile banking services, International Journal of Bank Marketing, Vol. 28, No. 5, pp. 410-432.
69. Kwasi, A.G. (2007), Perceived Usefulness, User Involvement and Behavioral Intention: An Empirical Study Of ERP Implementation, Computers in Human Behavior, Vol. 23, pp. 1232-1248.
70. Kwasi, A.G. (2007), Perceived Usefulness, User Involvement and Behavioral Intention: An Empirical Study Of ERP Implementation, Computers in Human Behavior, Vol. 23, pp. 1232-1248.
71. Levitt, J. A., Zhang, P., DiPietro, R. B., & Meng, F. (2019), Food tourist segmentation: Attitude, behavioral intentions and travel planning

- behavior based on food involvement and motivation, International Journal of Hospitality & Tourism Administration, Vol. 20, No. 2, pp. 129-155.
72. Li, H., Liu, Y., & Heikkilä, J. (2014), Understanding the factors driving NFC-enabled mobile payment adoption: An empirical investigation. PACIS, pp. 231.
73. Liébana Cabanillas, F. J. (2012), El papel de los sistemas de pago en los nuevos entornos electrónicos, Granada: Universidad de Granada.
74. Liébana-Cabanillas, F., Muñoz-Leiva, F., & Rejón-Guardia, F. (2013), The determinants of satisfaction with e-banking, Industrial Management & Data Systems, Vol. 113, No. 5, pp. 750-767.
75. Liébana-Cabanillas, F., Muñoz-Leiva, F., & Rejón-Guardia, F. (2013), The determinants of satisfaction with e-banking, Industrial Management & Data Systems, Vol. 113, No. 5, pp. 750-767.
76. Liébana-Cabanillas, F., Muñoz-Leiva, F., Sánchez-Fernández, J. & Viedma-del Jesús, M. I. (2016), The moderating effect of user experience on satisfaction with electronic banking: empirical evidence from the Spanish case, Information Systems and e-Business Management, Vol. 14, No. 1, pp. 141-165.
77. Liébana-Cabanillas, F., Sánchez-Fernández, J., & Muñoz-Leiva, F. (2014a), Antecedents of the adoption of the new mobile payment systems: The moderating effect of age, Computers in Human Behaviour, pp. 464-478.
78. Limayem, M., Khalifa, M., & Frini, A. (2000), What makes consumers buy from Internet? A longitudinal study of online shopping. IEEE Transactions on Systems, Man, and Cybernetics - Part A, Systems and Humans, Vol. 30, No. 4, pp. 421-432.

79. Lin, H.F. (2011), An empirical investigation of mobile banking adoption: the effect of innovation attributes and knowledge-based trust, International Journal of Information Management, Vol. 31, No. 3, pp. 252-260.
80. Lin, W-B. (2008), Investigation on the model of consumers' perceived risk integrated view point. Expert System Application, Vol. 34, No. 1, pp. 77-35
81. Liu, Y., & Li, H. (2011), Exploring the impact of use context on mobile hedonic services adoption: An empirical study on mobile gaming in China, Computers in Human Behavior, Vol. 27, No. 2, pp. 890-898.
82. Lovelock, C.H., Patterson, P.G., Walker, R. (2001), *Services Marketing: Asia and Pacific Perspective*. Upper Saddle River, NJ: Prentice-Hall.
83. Lu, Y., Yang, S., Chau, P. Y., & Cao, Y. (2011), Dynamics between the trust transfer process and intention to use mobile payment services: A cross-environment perspective, Information & Management, Vol. 48, No. 8, pp. 393– 403
84. Lu, Y., Yang, S., Chau, P. Y., & Cao, Y. (2011), Dynamics between the trust transfer process and intention to use mobile payment services: A cross-environment perspective, Information & Management, Vol. 48, No. 8, pp. 393–403.
85. Luo, X. (2010), Examining multi-dimensional trust and multi-faceted risk in initial acceptance of emerging technologies: an empirical study of mobile banking services, Decision Support System, Vol. 49, No. 2, pp. 222–234.
86. Luo, X., Li, H., Zhang, J., & Shim, J. P. (2010), Examining multidimensional trust and multi-faceted risk in initial acceptance of emerging technologies: An empirical study of mobile banking services, Decision Support Systems, Vol. 49, No. 2, pp. 222-234.

87. Malaquias, R. F., & Hwang, Y. (2019), Mobile banking use: A comparative study with Brazilian and U.S. participants, International Journal of Information Management, Vol. 44, pp. 132-140.
88. McKnight, D.H., Choudhury, V. & Kacmar, C. (2002), Developing and validating trust measures for e-commerce: an integrative typology, Information Systems Research, Vol. 13, No. 3, pp. 34-59
89. McKnight, D.H., Choudhury, V. and Kacmar, C. (2002), The impact of initial consumer trust on intentions to transact with a web site: a trust building model, Journal of Strategic Information Systems, Vol. 11(2002), pp. 297–323.
90. Mishra, S., Kulkarni, S., & Marakarkandy, B. (2016), A neoteric approach for ear biometrics using multilinear PCA, International Conference & Workshop on Electronics & Telecommunication Engineering (ICWET 2016). doi:10.1049/cp.2016.1138.
91. Mohamed A. B. M. T. T, Pitchay, A. B. A., Thaker, H. B. M. T., & Amin, M. F. B. (2019), Factors influencing consumers' adoption of Islamic mobile banking services in Malaysia, Journal of Islamic Marketing, Vol. 10, No. 4, pp. 1037-1056.
92. Mohammadi, H. (2015), A study of mobile banking loyalty in Iran, Computers in Human Behavior, Vol. 44, 35-47
93. Morosan, C. (2012), Theoretical and empirical considerations of guests' perceptions of biometric systems in hotels: extending the technology acceptance model, Journal of Hospitality & Tourism Research, Vol. 36, No. 1, pp. 52-84.
94. Mortimer, G., Neale, L., Hasan, S.F.E. & Dunphy, B. (2015), Investigating the factors influencing the adoption of m-banking: a cross cultural study, International Journal of Bank Marketing, Vol. 33, No. 4, pp. 545-570.

95. Muñoz-Leiva, F., Hernández-Méndez, J., & Sánchez-Fernández, J. (2012), Generalising user behaviour in online travel sites through the Travel 2.0 website acceptance model, Online Information Review, Vol. 36, No. 6, pp. 879-902.
96. Mutahar, A. M., Daud, N. M., Ramayah, T., Isaac, O., & Aldholay, A. H. (2018), The effect of awareness and perceived risk on the technology acceptance model (TAM): mobile banking in Yemen, International Journal of Services and Standards, Vol. 12, No. 2, pp. 180-204.
97. Naranjo Z. M., Oliveira, T., & Casteleyn, S. (2018), E-participation adoption models research in the last 17 years: a weight and meta-analytical review, Computer Human Behavior, Vol. 81, pp. 350–365.
98. Park, E., Baek, S., Ohm, J., & Chang, H. J. (2014), Determinants of player acceptance of mobile social network games: An application of extended technology acceptance model, Telematics and Informatics, Vol. 31, No. 1, pp. 3-15.
99. Pay L. Y., Balaji M. S., & Kok W. K. (2015), Building trust in internet banking: a trustworthiness perspective, Industrial Management & Data Systems, Vol. 115, No. 2, 235-252.
100. Persico, D., Manca, S., & Pozzi, F. (2014), Adapting The Technology Acceptance Model To Evaluate The Innovative Potential Of E-Learning Systems, Computers in Human Behavior, Vol. 30, pp. 614-622.
101. Pham, T. T. T., & Ho, J. C. (2015), The effects of product-related, personal-related factors and attractiveness of alternatives on consumer adoption of NFC-based mobile payments, Technology in Society, Vol. 43, pp. 159-172.
102. Posey, C., Lowry, P. B., Roberts, T. L., & Ellis, T. S. (2010), Proposing the online community self-disclosure model: The case of working

- professionals in France and the UK who use online communities, European Journal of Information Systems, Vol. 19, No. 2, pp. 181-195.
103. Preacher, K., & Hayes, A. (2004), Behavior Research Methods, Instruments, and Computers, Journal of the Psychonomic Society, Vol. 36, No. 4, pp. 717-731
104. Rahimi, B., Nadri, H., Afshar, H., L., and Timpka, T. (2018), A systematic review of the technology acceptance model in health informatics, Applied Clinical Informatics, Vol. 9, No. 3, pp. 604-634.
105. Revythi, A., & Tselios, N. (2019), Extension of Technology Acceptance Model by using System Usability Scale to assess behavioral intention to use e-learning, Education and Information Technologies, Vol. 24, No. 4, pp. 2341-2355.
106. Richa P., Aradhana V. G., & Ateeque S. (2018), Mobile banking adoption in an emerging economy: An empirical analysis of young Indian consumers, Benchmarking: An International Journal, Vol. 25, No. 2, pp. 743-762.
107. Riquelme, H.E. & Rios, R.E. (2010), The moderating effect of gender in the adoption of mobile banking, International Journal of Bank Marketing, Vol. 28, No. 5, pp. 328-341.
108. Riskinanto, A., Kelana, B., & Hilmawan, D.R. (2017), The Moderation Effect of Age on Adopting E-Payment Technology, Procardia Computer Science, Vol, 124, pp. 536-543.
109. Schierz, P.G., Schilke, O. & Wirtz, B.W. (2010), Understanding consumer acceptance of mobile payment services: an empirical analysis, Electronic Commerce Research and Applications, Vol. 9, No. 3, pp. 209-216
110. Sekaran, U. and Bougie, R. (2016), Research Methods for Business: A Skill-Building Approach. 7th Edition, Wiley & Sons, West Sussex.

111. Sellitto, C. (2015), User intentions to adopt mobile payment services: A study of early adopters in Thailand, Journal of Internet Banking and Commerce, Vol. 20, No. 1, pp. 1-29.
112. Shaikh, A. A., & Karjaluoto, H. (2015), Mobile banking adoption: A literature review, Telematics and Informatics, Vol. 32, No. 1, pp. 129-142.
113. Shaikh, A. A., Glavee-Geo, R., & Karjaluoto, H. (2018), How relevant are risk perceptions, effort, and performance expectancy in mobile banking adoption?, International Journal of E-Business Research (IJEBR), Vol. 14, No. 2, pp. 39-60.
114. Sheikshoaei, F., & Oloumi, T. (2011), Applying the technology acceptance model to Iranian engineering faculty libraries, The Electronic Library, Vol. 29, No. 3, pp. 367–378.
<https://doi.org/10.1108/02640471111141106>
115. Stern, B. B., Royne, M. B., Stafford, T. F., & Bienstock, C. C. (2008), Consumer acceptance of online auctions: An extension and revision of the TAM, Psychology & Marketing, Vol. 25, No. 7, pp. 619-636.
116. Stewart, K. (2003), Trust transfer on the World Wide Web, Organization Science, Vol. 14, No. 1, pp. 5-17.
117. Suki, N. M. (2011), Exploring The Relationship Between Perceived Usefulness, Perceived Ease Of Use, Perceived Enjoyment, Attitude And Subscribers' Intention Towards Using 3g Mobile Services, Journal of Information Technology Management, Vol 22, No 1, pp. 1042-1319
118. Ting, C. (2018), Understanding Chinese consumer adoption of apparel mobile commerce: An extended TAM approach, Journal of Retailing and Consumer Services, Vol. 44, No. 2, pp. 274-284.
119. Tingting Z., Can L., & Murat K. (2018), Banking “on-the-go”: examining consumers’ adoption of mobile banking services,

- International Journal of Quality and Service Sciences, Vol. 10, No. 3, pp. 279-295.
120. Trimi, S., & Sheng, H. (2008), Emerging trends in m-government, Communications ACM, Vol. 51, No. 5, pp. 53-58.
 121. Venkatesh, V. & Bala, H. (2008), Technology acceptance model 3 and a research agenda on interventions, Decision Sciences, Vol. 39, No. 2, pp. 273-315.
 122. Wang, J., Xiao, N., & Raghav Rao, H. (2015), Research note—An exploration of risk characteristics of information security threats and related public information search behavior, Information Systems Research, Vol. 26, No. 3, pp. 619-633.
 123. Workman, M. (2014), New media and the changing face of information technology use: the importance of task pursuit, social influence, and experience, Computers in Human Behavior, Vol. 31, pp.111-117.
 124. World Bank annual report (2020), Retrieved from: <https://www.wita.org/atp-research/world-bank-annual-report-2020/>
 125. Wu, J.-H., & Wang, S.-C. (2005), What Drives Mobile Commerce? An Empirical Evaluation Of The Revised Technology Acceptance Model, Information & Management, Vol. 42, No. 5, pp. 719-729.
 126. Xia, M., Zhang, Y. & Zhang, C. (2018), A TAM-based approach to explore the effect of online experience on destination image: A smartphone user's perspective, Journal of destination marketing & management, Vol. 8, pp. 259-270.
 127. Yan., Z., Zhang, P., & Vasilakos, A., V. (2016), A security and trust framework for virtualized networks and software-defined networking, Security and Communication Networks, Vol. 9, No. 16, pp. 3059-3069.
 128. Yang, S., Lu, Y., Gupta, S., Cao, Y. & Zhang, R. (2011), 'Mobile Payment Services Adoption Across Time: An Empirical Study Of The

- Effects Of Behavioral Beliefs, Social Influences, And Personal Traits’, Computers in Human Behavior, Vol. 28, No. 1, pp.129-142.
129. Yang, S., Lu, Y., Gupta, S., Cao, Y. & Zhang, R. (2012), Mobile payment services adoption across time: an empirical study of the effects of behavioral beliefs, social influences, and personal traits, Computers in Human Behavior, Vol. 28, No. 1.
 130. Yang, Y., Liu, Y., Li, H., & Benhai, Y. (2015), Understanding Perceived Risks in Mobile Payment Acceptance, Industrial Management & Data Systems, Vol. 115, No. 2, pp. 253-69.
 131. Yoon, H. (2016), User Acceptance of Mobile Library Applications in Academic Libraries : An Application of the Technology Acceptance Model, The Journal of Academic Librarianship, Vol. 42, No. 6, pp 687-693.
 132. Yousafzai, S. Y., Foxall, G. R., & Pallister, J. G. (2010), Explaining Internet Banking Behavior: Theory of Reasoned Action, Theory of Planned Behavior, or Technology Acceptance Model? Journal of Applied Social Psychology, Vol. 40, No. 5, pp. 1172-1202.
 133. Zhou, T. (2011), An empirical examination of initial trust in mobile banking, Internet Research, Vol. 21, No. 5, pp. 527-540
 134. Zhou, T. (2018), Examining users' switch from online banking to mobile banking, International Journal of Networking and Virtual Organizations, Vol. 18, No. 1, pp. 51-66.
 135. Zhou, T., Lu, Y., & Wang, B. (2010), Integrating TTF and UTAUT to explain mobile banking user adoption, Computers in Human Behavior, Vol. 26, No. 4, pp. 760-767.
 136. Zhu, D. H., & Chan, Y. P. (2014), Investigating consumer attitude and intention toward free trials of technology-based services, Computers in Human Behavior, Vol. 30, No. 2, pp. 328-334.

APPENDIX OF QUESTIONNAIRES

អ្នកចូលរួមឆ្លើយសំណួរជាទីរាប់អាន,

ខ្ញុំបាទ អ្នកពិសិដ្ឋ ជាសិស្សិតថ្នាក់អនុបណ្ឌិត នៃនាយកដ្ឋានរដ្ឋបាលពាណិជ្ជកម្ម របស់មហា វិទ្យាល័យ គ្រប់គ្រងនៃសាកលវិទ្យាល័យណានហ្គេវ, តៃវ៉ាន់, បាននឹងកំពុងធ្វើការសិក្សាស្រាវជ្រាវលើប្រធានបទ “ឥទ្ធិពលអន្តរកាវីនេតវិយាបថ និងទូទាត់សម្របសម្រួលនៃទស្សនៈ ហានិភ័យទៅលើចេតនានៃការប្រើប្រាស់ សេវាធានាការចល័តទៅកម្ពុជា”។ យើងខ្ញុំមានសេចក្តីរីករាយដែលបានអញ្ជើញអ្នកមកចូលរួមក្នុងការសិក្សាស្រាវជ្រាវ ដើម្បីស្វែងយល់ពីបទ ពិសោធន៍នៃការប្រើប្រាស់សេវាធានាការចល័ត។ ការស្ទង់មតិអាចចំណាយពេលពី ៥ ទៅ ១០ នាទី។ លោកអ្នកត្រូវបានជ្រើសរើសសម្រាប់ឆ្លើយសំណួរទាំងនេះ ហើយសូមឆ្លើយសំណួរ ទាក់ទងនឹងការយល់ឃើញរបស់អ្នក។ យើងធានាថាព័ត៌មានផ្ទាល់ខ្លួនត្រូវបានរក្សាទុកយ៉ាងយកចិត្តទុកដាក់បំផុត។

អរគុណសម្រាប់ការចូលរួមឆ្លើយសំណួរ។

Dear respondents,

I am UOK PISETH, a master student of Business Administration, College of Management, Nanhua University, Taiwan, conducting a study on "The Mediating effect of Attitude and Moderating Role of Perceived Risk on Mobile Banking Intention in Cambodia". I am pleased to invite you to participate in this study in order to understand your experiences of using mobile banking. The survey would take 5-10 minutes to be completed. You are qualified to fill this survey. Please feel free to complete the survey questionnaire according to your own perspectives. I guarantee that your answers are subjected to this study only. All personal information will be treated confidentially. Thanks for your kind participation!

ព័ត៌មានទំនាក់ទំនង *Contact information:*

UOK PISETH, Master of Business Administration, College of Management, Nanhua University, Chiayi County, Taiwan.

Email: piseth.uok@gmail.com

Facebook: Piseth Uok

Telegram: +855 99 989 982

Section 1: Perceived Ease of Use (ការយល់ឃើញនូវភាពងាយស្រួល)		កម្រិតនៃការយល់ស្រប (Level of Agreement)				
<p>សូមបញ្ជាក់ពីកម្រិតនៃការយល់ស្រប ឬការមិនយល់ស្របរបស់អ្នកដោយគូសរង្វង់លើលេខដែលនៅជាប់នឹងអំណះអំណាងនីមួយៗ ខាងក្រោមដោយផ្អែកលើបទពិសោធន៍នៃការប្រើប្រាស់ សេវាធានាការចល័ត។</p> <p>(Please indicate your level of your agreement or disagreement by circling the number next to each statement below based on your opinion based on the Mobile Banking experiences)</p>		មិនយល់ស្របខ្លាំង (Strongly Disagree)	មិនយល់ស្រប (Disagree)	ធម្មតា (Neutral)	យល់ស្រប (Agree)	យល់ស្របខ្លាំង (Strongly Agree)
		1	[PEU1] ការប្រើសេវាធានាការចល័តមិនតម្រូវឱ្យមានចំណេះដឹងច្រើនក៏បាន (Using mobile banking dose not demand a lot of mental effort).	1	2	3
2	[PEU2] ខ្ញុំស្វែងរកព័ត៌មានអំពីការប្រើប្រាស់សេវាធានាការចល័តបានយ៉ាងងាយស្រួល (I would easily find the information I am looking for using the mobile banking).	1	2	3	4	5
3	[PEU3] របៀបប្រើប្រាស់ប្រព័ន្ធសេវាធានាការចល័តគឺច្បាស់លាស់ និងងាយយល់ (Instruction in mobile banking system is crystal-clear and understandable).	1	2	3	4	5
4	[PEU4] សេវាធានាការចល័តមានមុខងារប្រទាក់ក្រឡាងាយស្រួលប្រើ (Mobile banking is equipped with user-friendly interface).	1	2	3	4	5
5	[PEU5] ខ្ញុំឃើញថាវាមានភាពងាយស្រួលក្នុងការប្រើប្រាស់សេវាធានាការនៅលើទូរស័ព្ទដៃរបស់ខ្ញុំ (I find it easy to use my mobile devices to conduct banking services).	1	2	3	4	5
6	[PEU6] វាងាយស្រួលសម្រាប់ខ្ញុំ ដែលក្លាយជាជំនាញក្នុងការធ្វើប្រតិបត្តិការផ្សេងៗតាមសេវាធានាការចល័ត (It is easy for me to become skillful at conducting mobile banking transactions).	1	2	3	4	5

Section 2: Perceived Usefulness (ការយល់ឃើញនូវអត្ថប្រយោជន៍)		កម្រិតនៃការយល់ស្រប (Level of Agreement)				
<p>សូមបញ្ជាក់ពីកម្រិតនៃការយល់ស្រប ឬការមិនយល់ស្របរបស់អ្នកដោយគូសរង្វង់លើលេខដែលនៅជាប់នឹងអំណះអំណាងនីមួយៗ ខាងក្រោមដោយផ្អែកលើបទពិសោធន៍នៃការប្រើប្រាស់ សេវាធានាគម្ភាមលើទូរស័ព្ទ។</p> <p>(Please indicate your level of your agreement or disagreement by circling the number next to each statement below based on your opinion based on the Mobile Banking experiences)</p>		មិនយល់ស្របខ្លាំង (Strongly Disagree)	មិនយល់ស្រប (Disagree)	ទម្ងន់ (Neutral)	យល់ស្រប (Agree)	យល់ស្របខ្លាំង (Strongly Agree)
		1	[PUN1] សេវាធានាគម្ភាមលើទូរស័ព្ទមានលឿន ងាយស្រួល និងងាយស្រួល (Mobile banking is fast, cost-saving and convenient).	1	2	3
2	[PUN2] ក្នុងមូលដ្ឋានធានាគម្ភាមលើទូរស័ព្ទ វាមានភាពបត់បែនក្នុងការស្នើសុំប្រតិបត្តិការធានាគម្ភាម ២៤ម៉ោង ក្នុងមួយថ្ងៃ (Within mobile banking, it is very flexible for me to apply banking transaction 24-hour per day).	1	2	3	4	5
3	[PUN3] វាអាចទ្រទ្រង់ប្រតិបត្តិការហិរញ្ញវត្ថុតូច បើទោះបីជាក្នុងចំនួនតិចតួចក្តី (It is capable to perform financial transactions of even smaller denominations).	1	2	3	4	5
4	[PUN4] ប្រតិបត្តិការសេវាធានាគម្ភាមលើទូរស័ព្ទជួយកាត់បន្ថយកាត់បន្ថយកាត់បន្ថយកាត់បន្ថយស្ថានភាព និងទីតាំងប្រតិបត្តិការ (Banking transactions on a mobile device reduces space and time constraints).	1	2	3	4	5
5	[PUN5] សេវាធានាគម្ភាមលើទូរស័ព្ទជំរុញឱ្យសកម្មភាពប្រចាំថ្ងៃ និងប្រសិទ្ធភាពការងាររបស់ខ្ញុំបានប្រសើរជាងមុន (Mobile banking boosts my daily activities and work effectiveness).	1	2	3	4	5
6	[PUN6] ខ្ញុំជឿថា ការប្រើសេវាធានាគម្ភាមលើទូរស័ព្ទបានត្រឹមត្រូវ នឹងលើកកម្ពស់ការចូលរួមរបស់ពលរដ្ឋ (I believe that using proper mobile banking promotes people's engagement).	1	2	3	4	5

Section 3: Attitude (តវិយាបថ)		កម្រិតនៃការយល់ព្រម (Level of Agreement)				
<p>សូមបញ្ជាក់ពីកម្រិតនៃការយល់ព្រម ឬការមិនយល់ព្រមរបស់អ្នកដោយគូសរង្វង់លើលេខដែលនៅជាប់នឹងគំណរណ៍ដូចខាងក្រោមដោយផ្អែកលើទិសដៅនៃការប្រើប្រាស់ សេវាធានាការចរន្ត។</p> <p>(Please indicate your level of your agreement or disagreement by circling the number next to each statement below based on your opinion based on the Mobile Banking experiences)</p>		មិនយល់ព្រមខ្លាំង (Strongly Disagree)	មិនយល់ព្រម (Disagree)	ទម្រង់ (Neutral)	យល់ព្រម (Agree)	យល់ព្រមខ្លាំង (Strongly Agree)
1	[ATT1] ខ្ញុំជឿជាក់ថា ការប្រើសេវាធានាការចរន្តសម្រាប់ប្រតិបត្តិការហិរញ្ញវត្ថុ គឺជាគំនិតដ៏ស្មោះត្រង់ (I believe that using mobile banking for financial transactions would be a wise idea).	1	2	3	4	5
2	[ATT2] ខ្ញុំជឿថា ខ្ញុំសប្បាយចិត្តដែលបានប្រើសេវាធានាការចរន្ត (I believe that using mobile banking is pleasant).	1	2	3	4	5
3	[ATT3] ខ្ញុំរីករាយក្នុងការប្រើទូរស័ព្ទដើម្បីសម្រួលដល់ការប្រើប្រាស់សេវាធានាការចរន្ត (I enjoy using my mobile devices for banking services facilitation).	1	2	3	4	5
4	[ATT4] ខ្ញុំប្រើសេវាធានាការចរន្តដើម្បីបង្កើតការគ្រប់គ្រងហិរញ្ញវត្ថុឌីជីថល (I use mobile banking to create digital financial management).	1	2	3	4	5
5	[ATT5] ការប្រើទូរស័ព្ទដើម្បីធ្វើប្រតិបត្តិការធានាការចរន្ត គឺគួរឱ្យចាប់អារម្មណ៍ណាស់ (Using mobile device to perform banking transactions is very interesting).	1	2	3	4	5
6	[ATT6] ខ្ញុំគិតថា បើធានាការលក់សេវាកម្មតាមរយៈកម្មវិធីទូរស័ព្ទដើម្បីផ្តល់ជូនឱ្យធានាការមានការប្រកួតប្រជែង (I think if a bank sells its service through the mobile phone, it will give the bank competitive advantage).	1	2	3	4	5
7	[ATT7] តាមទស្សនៈរបស់ខ្ញុំ គឺចង់ប្រើសេវាធានាការចរន្ត (In my perspective, it is desirable to use mobile banking).	1	2	3	4	5

Section 4: Behavioral Intention (ចេតនានៃការប្រើប្រាស់)		កម្រិតនៃការយល់ព្រម (Level of Agreement)				
<p>សូមបញ្ជាក់ពីកម្រិតនៃការយល់ព្រម ឬការមិនយល់ព្រមរបស់អ្នកដោយគូសរង្វង់លើលេខដែលនៅជាប់នឹងគំណរណ៍ដូចខាងក្រោមដោយផ្អែកលើបទពិសោធន៍នៃការប្រើប្រាស់ សេវាធានាការចល័ត។</p> <p>(Please indicate your level of your agreement or disagreement by circling the number next to each statement below based on your opinion based on the Mobile Banking experiences)</p>		មិនយល់ព្រមខ្លាំង (Strongly Disagree)	មិនយល់ព្រម (Disagree)	ទម្រង់ (Neutral)	យល់ព្រម (Agree)	យល់ព្រមខ្លាំង (Strongly Agree)
1	[BIN1] ឧបមាថា ខ្ញុំអាចធ្លាប់ទៅប្រើប្រាស់ប្រព័ន្ធធានាការចល័ត ខ្ញុំនឹងប្រើវា (Assuming that I get access to mobile banking systems, I intend to use them).	1	2	3	4	5
2	[BIN2] ខ្ញុំមានផែនការបង្កើនការប្រើប្រាស់សេវាធានាការចល័តនៅពេលអនាគត (I plan to increase my use of mobile banking in the future).	1	2	3	4	5
3	[BIN3] ខ្ញុំចង់ប្រើប្រាស់សេវាធានាការចល័តលើគ្រប់ប្រតិបត្តិការរបស់ខ្ញុំ (I would like to use mobile banking for all my transaction).	1	2	3	4	5
4	[BIN4] ខ្ញុំមានទំនុកចិត្តក្នុងការប្រើប្រាស់ ពីព្រោះអ្នកផ្តល់សេវាធានាការចល័តបង្ហាញព័ត៌មានជាក់លាក់មកកាន់ខ្ញុំ (I am confident to use because mobile banking provider illustrate me a very clear information).	1	2	3	4	5
5	[BIN5] ខ្ញុំនឹងនៅតែបន្តប្រើប្រាស់សេវាធានាការចល័តនៅពេលអនាគត (I will constantly use mobile banking in the future).	1	2	3	4	5
6	[BIN6] ខ្ញុំប្រាកដជាណែនាំអ្នកដទៃឱ្យប្រើប្រាស់សេវាធានាការចល័តដែរ (I will firmly suggest others to use mobile banking service).	1	2	3	4	5
7	[BIN7] ខ្ញុំនឹងប្រើប្រាស់សេវាធានាការចល័តចំពោះតម្រូវការសេវាធានាការ (I would use mobile banking for my banking needs).	1	2	3	4	5

Section 5: Perceived Risk (ទស្សនៈហានិភ័យ)		កម្រិតនៃការយល់ស្រប (Level of Agreement)				
<p>សូមបញ្ជាក់ពីកម្រិតនៃការយល់ស្រប ឬការមិនយល់ស្របរបស់អ្នកដោយគូសរង្វង់លើលេខដែលនៅជាប់នឹងអំណះអំណាងនីមួយៗខាងក្រោមដោយផ្អែកលើបទពិសោធន៍នៃការប្រើប្រាស់ សេវាធានាការចល័ត។</p> <p>(Please indicate your level of your agreement or disagreement by circling the number next to each statement below based on your opinion based on the Mobile Banking experiences)</p>		មិនយល់ស្របខ្លាំង (Strongly Disagree)	មិនយល់ស្រប (Disagree)	ធម្មតា (Neutral)	យល់ស្រប (Agree)	យល់ស្របខ្លាំង (Strongly Agree)
1	[PER1] ខ្ញុំមានអារម្មណ៍ថាមិនមានសុវត្ថិភាពសោះដែលផ្តល់ព័ត៌មានផ្ទាល់ខ្លួនទៅលើកម្មវិធីសេវាធានាការចល័ត (I would not feel totally safe providing personal private information over the mobile banking).	1	2	3	4	5
2	[PER2] ខ្ញុំបារម្ភពីការប្រើសេវាធានាការចល័ត ព្រោះអ្នកដទៃប្រហែលជាអាចចូលប្រើគណនីយរបស់ខ្ញុំបាន (I am worried about using mobile banking because other people may be able to access my account).	1	2	3	4	5
3	[PER3] ខ្ញុំនឹងមិនមានអារម្មណ៍ថាមានសុវត្ថិភាពក្នុងការផ្ញើព័ត៌មានរហូតទៅលើសេវាធានាការចល័តទេ (I would not feel secure sending sensitive information across the mobile banking).	1	2	3	4	5
4	[PER4] ខ្ញុំគិតថាកម្មវិធីនេះប្រហែលជាមិនធ្វើឱ្យខ្ញុំមានអារម្មណ៍ធូលីទាន់ពេលវេលាប្រើសេវាធានាការចល័តទេ (I think the application may not let me feel bored when accessing mobile banking).	1	2	3	4	5
5	[PER5] កម្មវិធីផ្តល់សេវាធានាការចល័តនេះពិតជាស្មុគស្មាញណាស់ក្នុងការធ្វើប្រតិបត្តិការ (This application is too complicate to make a transaction).	1	2	3	4	5
6	[PER6] ខ្ញុំគិតថាអ្នកផ្តល់សេវាធានាការចល័តនឹងមិនផ្ញើព័ត៌មានផ្ទាល់ខ្លួនរបស់ខ្ញុំទៅកាន់ភាគីទី៣ឡើយ (I think mobile banking provider would not send my personal information to the third party).	1	2	3	4	5
7	[PER7] ខ្ញុំសង្ឃឹមថាប្រតិបត្តិការធានាការតាមទូរស័ព្ទរបស់ខ្ញុំនឹងទៅដល់តែគណនីធានាការគោលដៅប៉ុណ្ណោះ (I hope that my mobile banking transaction would reach only the bank target account).	1	2	3	4	5
8	[PER8] អ្នកផ្តល់សេវាធានាការចល័តនេះនឹងមិនជួយខ្ញុំក្នុងការកាត់បន្ថយភាពមិនច្បាស់លាស់របស់អ្នកប្រើប្រាស់នោះទេ (This mobile banking provider will not help me to reduce user uncertainty).	1	2	3	4	5

9	[PER9] កម្មវិធីនេះផ្តល់ព័ត៌មានប្រតិបត្តិការមិនពេញលេញទេ (This application provides incomplete transaction information).	1	2	3	4	5
10	[PER10] ខ្ញុំព្រួយបារម្ភអំពីទំនុកចិត្តនៃកម្មវិធីនេះ (I am worried about the trustworthiness of this application).	1	2	3	4	5



Respondent Information

សូមធ្វើការឆ្លើយនូវសំណួរខាងក្រោម: Please answer the following questions below:

១. ភេទ Gender

- ប្រុស Male ស្រី Female

២. អាយុ (ឆ្នាំ) Age (years)

- ≤20 21-30 31-40 >40

៣. កម្រិតវប្បធម៌ Education Level

- វិទ្យាល័យ ឬ ទាបជាង High school/lower បរិញ្ញាបត្រ Bachelor
 អនុបណ្ឌិត Master បណ្ឌិត Ph.D.

៤. តួនាទី/មុខតំណែង Occupation

- វិស័យសាធារណៈ: Public Sector វិស័យឯកជន Private Sector
 សហគ្រិន Entrepreneur សិស្ស/និស្សិត Student

៥. ចំណូល Income (\$)

- ≤500 501-1000 1001-1500
 1501-2000 >2000

៦. ភាពញឹកញាប់នៃការប្រើប្រាស់ធនាគារចល័ត Frequency of accessing mobile banking

- ប្រើរាល់ថ្ងៃ Everyday access ច្រើនដងក្នុង១សប្តាហ៍ Several times a week
 ១សប្តាហ៍ម្តង Once a week ២ដងក្នុង១ខែ Twice a month
 ១ខែម្តង Once a month