

**TECHNOLOGY ACCEPTANCE DETERMINANTS AND
ADOPTION OF ONLINE STOCK TRADING IN NEPAL**

By

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RECOMMENDATION

CERTIFICATION

DECLARATION OF AUTHENTICITY

I, Nikita Maharjan, declare that this GRP is my own original work and that it has fully and specially acknowledged wherever adopted from other sources. I also understand that if at any time it is shown that I have significantly misrepresented material presented to SOMTU, any credits awarded to me on the basis of that material may be revoked.

Signature:

Nikita Maharjan

Date: July, 2021

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Nikita Maharjan

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LIST OF ABBREVIATIONS

AI	Adoption Intention
AVE	Average Variance Extracted
CA	Cronbach Alpha
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CMIN	Chi-square value
COVID	Corona Virus Disease
CR	Composite Reliability
DF	Degree of freedom
GRP	Graduate Research Project
IFI	Incremental Fit Index
MBA	Masters of Business Administration
NEPSE	Nepal Stock Exchange
PBC	Perceived Behavioral Control
PEOU	Perceived Ease of Use
PR	Perceived Risk
PT	Perceived Trust
PU	Perceived Usefulness
RMR	Root Mean Square Residual
RMSEA	Root Mean Square Error of Approximation
SEM	Structural Equation Modeling
SN	Subjective Norm
SOMTU	School of Management Tribhuvan University
SPSS	Statistical Package for Social Scientists
TAM	Technology Acceptance Model
TLI	Tucker Lewis Index
TMS	Trade Management System
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action
UNCTAD	United Nations Conference on Trade and Development
UTAUT	Unified Theory of Acceptance and Use of Technology
χ^2	Chi-square

EXECUTIVE SUMMARY

Behavioral intention of individuals is guided by various technological acceptance determinants which consequently influence their adoption intention. The review of previous literatures revealed influence of various technological variables on the investor's adoption intention of online stock trading. Keeping this view, this paper has identified the major technological acceptance determinants like perceived behavioral control, subjective norms, perceived ease of use, perceived usefulness, perceived trust and perceived risk, that is based on different models used in previous literatures and has tried to show impact of those determinants on adoption intention of online stock trading in Nepal.

The research has used descriptive and casual research design. Using convenience sampling, the responses collected from 384 investors through questionnaire survey were pre-processed through excel and analysis was done through SPSS and AMOS 23 program. Confirmatory factor analysis has been applied in order to determine the reliability and validity of model and factor loading values. Similarly, structural equation modeling technique has been applied to test the purposed hypothesis.

The findings of the study suggest that perceived usefulness, subjective norms and perceived trust have a positive significant and perceived risk have negative significant impact on investor's behavioral intention to adopt the online share trading in Nepal. In other words, higher the usefulness of the system, more the influence from peers, family and friends and, higher the trust over the system, then higher will the chances of current and potential adopters to go for online share trading. The finding also concludes perceived ease of use and perceived behavioral control have no significant impact on behavioral intention to adopt the online share trading in Nepal. The study can be used to understand the factors that affect investor's intention to adopt the online share trading in Nepal. Accordingly, NEPSE and stockbroker can come up with a better strategy to implement and improve the online share trading which would be beneficial for investors, companies, NEPSE and Nepal's economy as a whole.

CHAPTER I

INTRODUCTION

1.1 Background of study

A stock market refers to the collection of markets and exchanges where stockbrokers and investors can buy and sell publicly held companies securities, such as shares of stock, bonds and other financial securities in an organized marketplace which operate under a defined set of regulations (UNCTAD, 2017). Online trading is the act of using a brokerage's internet-based proprietary trading platforms to place buy/sell orders for financial securities and/or currencies (Rameshbhai, 2020). The history of online share trading dates back to 1969 with the introduction of digital trading systems called electronic communications networks (Hur, 2016). The advancement in the technology has made possible for online stock trading by enabling stock brokerages to offer financial services and products via internet at a low cost (Lee & Ho, 2003). In recent years, online trading has grown at an exponential rate. Since it is less costly and more effective to process orders electronically, online brokers are able to charge less (Muniandy, 2006). Online trading services has penetrated the stock market and playing a critical role in enabling electronic trading of shares and contracts (Lee & Ho, 2003; Ramayah, Rouibah, Gopi & Rangel, 2009). Online trading has presented as an indisputable option for improving existing trading structures (Gopi & Ramayah, 2007).

Literature surveys show that researchers for theoretical support have used various models to measure intentional behavior and level of acceptance of technology. In 1986, Davis developed a technology acceptance model (TAM), which predicted the factors influencing the decision of an individual in acceptance of new technology. TAM is an extension of theory of reasoned action (TRA) (Ajzen & Fishbein, 1980). When users are faced with new technology, the model implies that a number of factors influence their decision on how and when to accept, adopt, and finally use the new system. The TPB developed by Ajzen (1991) and TAM as developed by Davis (1986) explains the basis for the intention to perform a behavior. In their research they explained the major five technological determinants that explain an individual intention to perform certain behavior and those five determinants are attitude,

subjective norms and perceived behavioral control from TPB and, perceived usefulness and perceived ease of use from TAM.

A number of studies have investigated on the investor's adoption of online stock trading, notably Muniandy (2006), Singh, Sandhu and Kundu (2010) and, Ramayah, Acostab, Palacios, Gopi and Popa (2014), and an empirical support provided by Lee (2009), Singh and Malhotra (2016) and Hemalatha (2019) identified eight main determinants of the investor's adoption intention of online stock trading including TPB and TAM variables with major three external variables like perceived risk, trust and benefit. Siriluck (2006) studies on Thailand stock trading intentions to use the Internet for the purpose of trading in stock market also employed TAM.

Ajzen (1985) defined that intentions are predicted by certain attitudes, while intentions further predicts the behavior of an individual, so intentions basically acts a link between the act of actually adopting something and the external influences. Fini, Girmaldi, Marzocchi and Sobrero (2012) explained that intentions have been proved to be the best predictors of individual behavior particularly when the behavior is rare, hard to observe or involves unpredictable time lags. Likewise, Krueger, Reilly and Carsrud (2000) and, Lau, Yen and Chau (2001) explained that intentions are one of the best tools to understand the behavior of an individual.

The trade management system (TMS) came into operation as a means of converting investors to the system of broker and Nepal Stock Exchange (NEPSE) allowing the investors to purchase and sale the shares through online (Investopaper, 2021). But in recent, only 38.77% of the active clients from all the broker companies use the online platform actively (Sharesansar, 2021). Online trading adoption rate remains low, suggesting the service is largely unnoticed and under-utilized in spite of its availability and numerous benefits (Vaddadi & Pratima, 2016). The difficulty of attracting and retaining investors on the internet, and why investors adopt and accept online services has drawn considerable attention from both the practice and the research community (Gefen & Straub 2003).

Gopi and Ramayah (2007) noted that simply offering updated technologies and deploying the best infrastructure in a stock market would not result in major improvements in online stock trading. It must be noted that if online traders are already losing money, the rate of online trading performed by these traders will

decrease over time as a result of their lack of trust in the system. Thus, it is inevitably clear that technology acceptance factors should be given consideration in order to provide a better future for online stock trading as investors are the key players in developing the stock market in Nepal. Therefore, this study identifies the factors that influence an online user to adopt and use online stock trading services on Nepalese stock trading by integrating TAM and TPB with perceived trust and risk as external variables.

1.2 Statement of Problem

TAM (Davis, 1989) and TPB (Ajzen, 1985) are an information systems theories that models how users embrace and use a technology. Various prior empirical researches have jointly shown that TAM and TPB is a robust model of technology acceptance behaviors in a wide variety of technology across levels of expertise and across countries (e.g., Gefen & Straub, 2003).

Muniandy (2006) opined that investor's intention is influenced by subjective norm, perceived behavioral control, descriptive norm and perceived usefulness. Likewise, Singh and Malhotra (2016) stated perceived usefulness and subjective norm had positive impact on the behavioral intention to adopt online stock trading. The lack of interest from investors is the primary explanation for the sluggish growth of online stock trading (Abzari & Safari, 2005; Bagheri, 2006). Some investors are concerned that the technology may not be able to satisfy their stock-trading needs and others are unsure whether electronic stock trading will provide them with the competitive advantages and commercial opportunities they need (Abroud, 2012).

So, it is also undeniable that investor's intention to adopt certain technology is affected by technology acceptance factors. Previous literatures like Roca, Garcia and Vega (2009), Mohan and Bhuvanam (2015) and Prabakaran (2017) used TAM and TPB model to study on adoption intention of investors on online stock trading. But only few researchers like Lee (2009a), Singh and Malhotra (2016) and Hemalatha (2019) had conducted their studies by combining TAM and TPB model with external variables like perceived trust and perceived risk. Limited research can be found with TPB and TAM variables with trust and risk factor in the context of investor's intention about using online stock trading. It is important to add those external

variables while studying the adoption intention behavior of investors in order to give more reliable explanation of study.

Similarly, with the availability of online stock trading facility in Nepal for the past 2 years, it has not yet to take off in a big way among local retail investors. In a recent report (Sharesansar, 2021), only 38.77% of the active clients from all the broker companies use the online platform actively and more than 80% investors haven't entered secondary market yet. Despite of the numerous benefits, the acceptance of online stock trading in Nepal is relatively low when comparing to Europe and India. Therefore, efforts are needed to understand the technological acceptance determinants of Nepalese investors for adopting online stock trading.

The research deals with following issues:

- What are the major technology acceptance determinant factors that affect the investor's intention to adopt online stock trading in Nepal?
- Does technological acceptance determinants (perceived usefulness, perceived ease of use, subjective norm, perceived behavioral control, perceived trust and perceived risk) significantly impact on investor's online stock trading adoption intention?

1.3 Objective of study

The general objective of the study is to examine the behavioral intention of individual investors to adopt online stock trading in Nepal.

The specific objectives of the study are:

- To determine the major technology acceptance determinant factors affecting the investor's intention to adopt online stock trading.
- To investigate the impact of technological acceptance determinants (perceived usefulness, perceived ease of use, subjective norm, perceived behavioral control, perceived trust and perceived risk) on adoption intention of online stock trading.

1.4 Research Hypothesis

Many Researchers like Roca et al. (2009), Lee (2009a), Singh and Malhotra (2016) and Hemalatha (2019) have used the variables of technology acceptance determinants

to examine its effect over the behavioral intention of individual investors to adopt online stock trading. This study is guided by the hypothesis developed by Roca et al. (2009) and Lee (2009a).

Hypothesis 1: Perceived usefulness has a significant positive impact on the adoption intention of online stock trading.

Perceived usefulness (PU) is a concept that describes how the use of technology can help and improve a person's job efficiency (Abroud, 2012). It was established that PU is significant in affecting attitude towards online stock trading (Ramayah et al., 2009; Gopi & Ramayah, 2007). Further, Lee (2009a) revealed that if the investors have a positive PU of using the internet to trade stocks, the investor's intention to accept the online technology to trade stocks also becomes favorable.

If alternative hypothesis 1 is accepted, it indicates that the investor perceives online stock trading will enhance their effectiveness and performance in conducting stock trading transaction. Investor also perceives that it will increase their profit gain from investment, save their time and effort of transactions and make easier for them to conduct stock trading related transaction and hence lead toward adoption intention.

Hypothesis 2: Perceived ease of use has a significant positive impact on the adoption intention of online stock trading.

Davis (1989) defined perceived ease of use (PEOU) as the degree to which an individual thinks that using online trading service is easy and simple. Extensive research over the past decade provides evidence of the significant effect of PEOU on usage intention, either directly or indirectly through its effect on PU (Davis, 1989; Davis and Venkatesh, 1996). It was also confirmed by Hemalatha (2019), Loh and Ong (1998) and, Bhuvanam and Mohan (2015) that in the case of online trading, intention was strongly influenced by the PEOU.

If alternative hypothesis 2 is accepted, it indicates that the investor believes learning to operate the online trading website and to get the system to do what they want to do is easy. Likewise, it indicates the investor would find clear and understandable interaction with the system and believes conducting online stock trading is not a complex task.

Hypothesis 3: Subjective norm has a significant positive impact on the adoption intention of online stock trading.

Lau et al. (2001) explained subjective norm (SN) as the perception that the person feels that other people feel strongly about the behavior or whether he or she should or should not perform. It also refers to perceived social pressure to perform or not to perform the behavior (Ali, Zani & Kasim, 2014). Mohan and Bhuvanam (2015) confirmed that subjective norm plays the important role on determining intention to adopt online share trading. Lee (2003) and Siriluck (2006) conducted a study which revealed the positive relationship between the subjective norm and the intention of the potential adopters of online trading.

If alternative hypothesis 4 is accepted, it indicates investors who think someone is important to them, influence them and whose opinions are valuable to them prefer that he/she should use online stock trading. Similarly it indicates, the friends and coworkers who are important to the investors believe that using online stock trading is good idea.

Hypothesis 4: Perceived behavioral control has a significant positive impact on the adoption intention of online stock trading.

Perceived behavioral control (PBC) is the perception of the availability of skills, resource and opportunities (Lau et al., 2001). Singh and Malhotra (2016) and Lee (2009a), asserted that PBC towards the technology showed a significant positive association with the intention to adopt the online stock trading. Hemalatha (2019) asserted that PBC significantly affected continuance intention on the online trading platform.

If alternative hypothesis 5 is accepted, it indicates that investors will be able to use the online trading well when trading and they think the system would entirely be within their control. Likewise, investors think they have enough potentials, resources, knowledge and ability to use online trading. Investors think it is mostly up to them whether or not to use online stock trading.

Hypothesis 5: Perceived trust has a significant positive impact on the adoption intention of online stock trading.

Vaddadi and Pratima (2016) defined perceived trust (PT) as the investor's trust on the brokers/broking firms offering online trading services to behave ethically and in a socially acceptable manner. Studies conducted by Lee (2009a), Singh and Malhotra (2016) and Hemalatha (2019) revealed that there is a direct and positive relationship between adoption of online stock trading and the level of trust placed in online stock transactions.

If alternative hypothesis 6 is accepted, it indicates that the investors perceive online stock trading is trustworthy and predictable. It means investor trust the online stock trading services in Nepal as they think system keeps all the information confidential and protect investor's privacy when using online stock trading service.

Hypothesis 6: Perceived risk has a significant negative impact on the adoption intention of online stock trading.

The degree to which users believe that using specific services causes possible loss is known as perceived risk (PR) (Lee, 2009a). In online context, an increase in risk perceived by individuals could reduce their intention to trade through online. The perceived risk associated with the online transactions may reduce perceptions of behavioral and environmental control, affecting transactions intentions negatively (Forsythe & Shi, 2003).

If alternative hypothesis 7 is accepted, it indicates that investors would not feel secure sending private personal information on the online stock trading system and are worried for getting compensation from error transaction and fraud and hacker intrusion activities from the online stock trading system.

1.5 Significance of the study

The internet offers online financial services that make it easier and more comfortable to conduct financial transactions while still spanning time and space (Abroud, 2012). As a result, identifying the technological factors that cause to adopt online stock trading is extremely beneficial. Since, the internet penetration in Nepal stood at 36.66% in January 2021 (Kemp, 2021), the study on the online and electronic stock trading in relation to the various technology acceptance determinates is the primary research issue nowadays. Thus, taking references from the previous studies on adoption of online stock trading like Hemalatha (2019), Singh and Malhotra (2016)

and Lee (2009a), this study hopes to contribute in adding the literature in Nepal in the research area of investor's adoption intention of online stock trading and enabling for comparison of findings with different countries of the world. The existing research gap can be eliminated by adding knowledge base in the field of research on adoption of online stock trading.

Further this research will help professional bodies, stock broker firms and NEPSE in order to understand the level of adoption of the individual investor and if necessary then the potentiality of adopting online stock trading could be nurtured at a very early stage in the investors life and more over it helps to know about the current status of adoption intention of the individual investors as well.

1.6 Limitations of the study

Limitations

- The study has used judgmental sampling technique, so this study might misrepresent the entire population limiting generalization of results of the study.
- The entire study has been carried out in limited time duration.

Delimitations

- The data has been collected from individual investors alone. Institutional investors were avoided in this study.
- Only few determinants like PEOU, PU, PR, PT, PBC and SN has been considered as technology acceptance determinants. However, there are other technology adoption variables which also influence the intention of investors to adopt online share trading.

1.7 Structure and Outline of study

This study is illustrated and systematically arranged in five chapters. They are as follows:

The first chapter of this study provides a brief overview of the study's subject. It explains what the project entails and why the project is worthwhile. The broad problem goals are stated in this chapter, which also serves to introduce the project

topic and clarify why the problem is worth solving. Other subtopics include study goals, research concerns, hypotheses and limitations of study.

The second chapter of this study provides a summary of previous writings and studies that are relevant to the problem being explored, and the framework of the theory structure. It contains a list of previous researchers' main findings, which are organized under different headings. It explains why each piece of literature was selected for critical review and how it contributed to the theoretical framework development.

The third chapter includes the research methodology that was applied in this study along with discussions of variables and statistical techniques applied to test the hypothesis. It includes research design, population and sampling, instruments, sources and methods of data collection, pilot study and data analysis technique.

The fourth chapter of the study deals with analysis and result. This chapter has used the structural equation modeling analysis like modification of data, measurement model and structural model analysis. Then this chapter reveals the major findings from the analysis of data which are predetermined as objectives of the study.

The final chapter of the body part includes three major sections. The first section is the discussion that covers the discussions related to the research study by the researcher. The findings are given logic with facts of the study. The second part is the conclusion where the researcher compares and contrasts the results and come up with a conclusion. And finally, the implication and future research part covers different ideas on how this particular study can be applied in the future.

CHAPTER II

RELATED LITERATURE AND THEORETICAL FRAMEWORK

2.1 Introduction

This chapter begins with the review of different intention models that have been proposed by different researchers such as the concept of theory of reasoned action, theory of planned behavior, technology acceptance model. Likewise, the chapter also contains an empirical review of various aspects that affects the individual investor's online trading adoption intention. And lastly the research gap is identified for the study and the purposed theoretical framework for this study is also established.

2.2 Theoretical concepts

2.2.1 Theories and Models

Theory of Reasoned Action (TRA)

The Theory of Reasonable Action (TRA) was presented by Fishbein and Ajzen in 1975 (Fishbein & Ajzen, 1975). It is one of the most popular theories used to determine behavioral intention of the person's attitudes toward that behavior. TRA attempts to explain the effect of attitude on the behavior and predict behavior considering beliefs, attitude and intention.

Fishbien and Ajzen (1975) defined "attitude" as the individual's evaluation of an object and defined "belief" as a link between an object and some attribute, and defined "behavior" as a result or intention. Attitude is the result of experiences beliefs that one accumulates through his/her course of life. The attitude depends upon the expectations and beliefs about personal impacts of outcomes resulting from the behavior (Krueger et al., 2000). People like objects that are associated with positive things and acquire negative feelings toward object associated with bad things (Fishbein & Ajzen, 1975).

Subjective norms are the result of two distinct factors, normative belief and motivation to comply. Normative beliefs are individuals' beliefs about the extent to which people who are important to them think they should or shouldn't perform

particular behavior (Sheppard, Hartwick & Warshaw, 1988). It is a belief of an individual that are accepted by specific people or groups and dictate whether behaving in a particular fashion is appropriate (Fang, Ng, Wang & Hsu, 2017). Motivation to comply is the second factor affecting the subjective norm that defines as a desire to comply or conform to social network member’s opinion (Etcheverry & Agnew, 2016).

According to Fishbein and Ajzen, behavioral intention is affected by individual’s attitude toward the behavior and also the subjective norms. Individual’s intention to use a system is their belief that a certain action will be carried out (Fishbein & Ajzen, 1985). Fishbein and Ajzen have found that behavioral intention predicts actual behavior (Fishbein & Ajzen, 1975). The construct of TRA is shown in Figure 1.1.

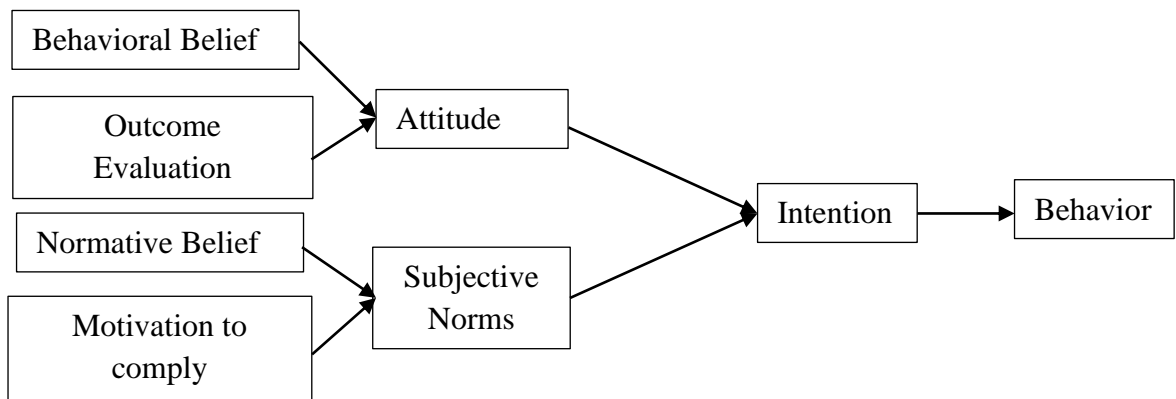


Figure 1.1 Theory of Reasoned Action (Fishbein & Ajzen, 1975)

Theory of Planned Behavior (TPB)

The Theory of Planned Behavior (TPB) is an extension of TRA developed by Icek Ajzen in 1985 (Ajzen, 1985). In addition to the factors of attitude and subjective norm, theory of planned behavior (figure 1.2) incorporates an additional construct of perceived behavioral control (PBC). It improves on the predictive power of the TRA by including perceived behavioral control.

According to TPB, an actual behavior is a function of behavioral intention and perceived behavioral control of an individual. TPB also explains that behavioral intention is not only influenced by attitudes toward behavior and subjective norms but is also influenced by perceived behavioral control (Ajzen, 1985).

PBC refers to the perception of internal and external resource constraints on performing the behavior (Ramayah et. al., 2009). The insight into "the ease or complexity of executing the behavior of interest" was originally the concept of PBC (Ajzen, 1991). It addresses both internal control (e.g. a person's skills and abilities or self-efficacy) as well as external constraints (e.g. opportunities and facilities) need to perform behavior (Elli, 2011). The construct of TPB is shown in Figure 1.2.

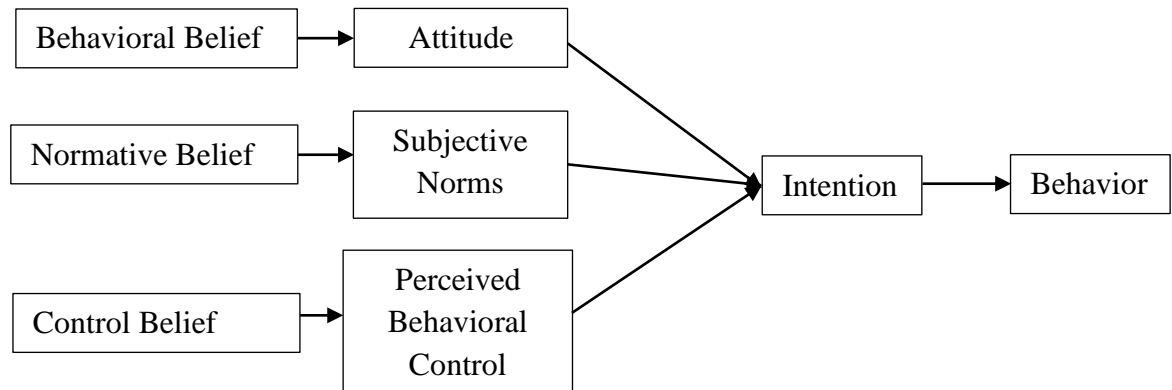


Figure 1.2 Theory of Planned Behavior (Ajzen, 1985)

Technology Acceptance Model (TAM)

The technology acceptance model (TAM) is developed by Fred Davis in 1986 to fit the field of information systems and technologies. Theory was later refined by Davis, Bagozzi and Warshaw in 1989 (Davis, Bagozzi & Warshaw, 1989). Since its original development it has been updated multiple times, evolving into TAM2, TAM3, and the closely related UTAUT (Unified Theory of Acceptance and Use of Technology). The basic TAM model considered two specific beliefs: Perceived usefulness and perceived ease of use. The belief of person towards a system may be influenced by other factors referred to as external variables in TAM.

PU is the extent to which an individual believes that using an information system will enhance their productivity and performance (Davis, 1986). PEOU refers to the degree to which a person believes that employing a particular system would be free of effort (Davis, 1986). TAM posits that PU will be influenced by PEOU because, other things being equal, the easier a technology is to use, the more useful it can be (Venkatesh, 2000). The two measures of PU and PEOU have clearly differentiated the TAM from the TRA. PU and PEOU are affected by external variables (Davis et.al., 1989).

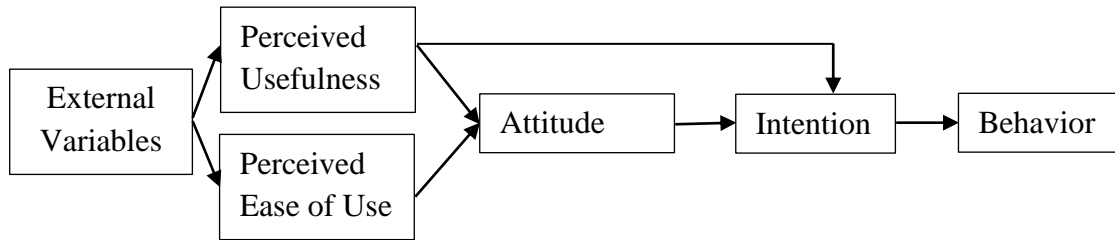


Fig 1.3 Technology Acceptance Model (Davis, 1986)

The final version of Technology Acceptance Model was formed by Venkatesh and Davis (1996) as shown in Figure 1.4 after the main finding of both perceived usefulness and perceived easiness of use were found to have a direct impact on behavior intention, thus eliminating the necessity for the attitude construct.

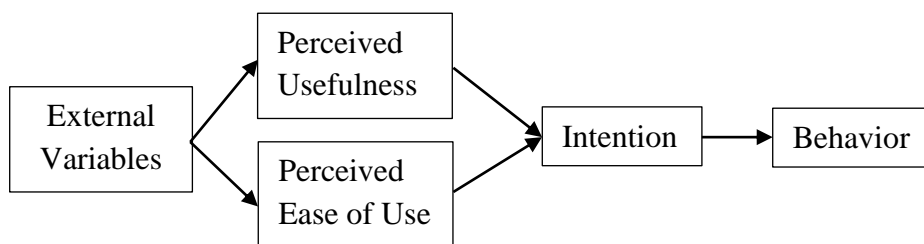


Figure 1.4 Final version of Technology Acceptance Model (Venkatesh & Davis, 1996)

2.3 Empirical Review

The intention to adopt online stock trading of the investors is influenced by various technology acceptance determinants. A few studies had been made which are helpful to this investigation.

2.3.1 Perceived Usefulness

Ajzen (1980) stated that perceived usefulness occurs when an investor believes that using a particular internet stock trading will be beneficial. Robey (1979) confirmed that there is a high correlation between perceived usefulness and the actual use of any system. Davis in 1989 found that perceived usefulness was a great determining factor of one's intention to using the online platform. According to Abroud (2012), if investors understood that online trading can prove to be beneficial and enhance their benefits and improved their job performance, they intent to use the technology at maximum level.

Robey (1979) and Davis (1989) carried out exploratory study and confirmed the high correlation between PU and system adoption. Majority of the studies found the evidence in favor of the positive significant impact of PU of technology in adoption intention of online stock trading (Muniandy, 2006; Roca et al., 2009; Abroud et al., 2010; Abroud, Choong, Muthaiyah, & Fie, 2013; Ramayah et al., 2014 ; Hemalatha, 2019). Lau et al. (2001) implied that investors possess positive feelings for using online trading if they believe that the system can enhance their efficiency and effectiveness of placing orders through online. Similarly, Lee (2009a) opined that PU influenced adoption intention behavior since investors perceived online trading is useful for searching stock investment information and hence yield more profits than phone-based stock trading methods.

Bhuvanam and Mohan (2015) also stated that favorable perception on usefulness of the technology encourages online investors to navigate easily and also creates willingness in them to use more and more and frequent usage of system. So, the significant roles of PU in the studies confirmed that the TAM can be successfully applied to the domain of online stock trading.

2.3.2. Perceived Ease of Use

PEOU is the extent of effortlessness of the concerned system (Davis et al, 2000). In such cases, when the system is easy to operate and use, it will result in improved performance (Davis, 1989; Venkatesh & Davis, 2000). Investors would be in favor of using the services of the Internet in order to transact, if they find that the system is easy and convenient to use (Abroud, 2012).

Many studies (i.e. Loh & Ong, 1998; Abroud et al., 2013; Bhuvanam & Mohan, 2015 ; Hemalatha, 2019) revealed that there is positive significant impact of PEOU of the system or technology on adoption intention of online stock trading of investors. Bhuvanam and Mohan (2015) concluded major reason behind preferring online stock trading is the lower commission cost for trading, faster trade execution and more ease of flexibility over the types of transaction investors choose to conduct.

Studies conducted in the past did not shown any evidence regarding research conducted on the relationship between PEOU and intention in online stock trading context. The research made by Roca et al. (2009) and Abroud et al. (2010)

experienced no significant impact of PEOU over adoption intention of online stock trading. They measured the PEOU with the statement of easiness for learning the system, becoming skillful using the system and easiness interaction with the system. According to Venkatesh, Morris, Davis and Davis (2003), PEOU was only significant in the early stages of learning to use different applications. However, after a month, the relationship between PEOU and adoption intention became insignificant.

Abroud (2012) stated that the investor would not be in favor of using the new technology in case where it is difficult for them to use the technology or tool. According to Abroud (2012), the ease of use of online trading service includes simple and convenient use of stock trading websites, facilitation of convenient information search, ease of making online payment and ease of purchase order tracking.

2.3.3 Subjective Norms

Subjective norm is actually related to the social pressure that directs certain behavior and thus a person's perception of this pressure. It is based on the philosophy that the behavior of a person is affected by the attitudes and ideas of the social group in which he/she belongs to (Ajzen, 1991). Karahanna, Straub and Chervany (1999) stated that the recommendation by friends and family is quite effective for expansion of online stock trading by individuals.

The experimental studies conducted by Vijayasathy (2004) on the intention to use online stock trading and electronic commerce revealed intention of whether to adopt a type of behavior is directly related to this subjective norm. For the purpose of this research, subjective norm means the extent to which, the family, friends, competitors and peers acknowledge the use of online trading.

The behavioral intention of a Malaysian investor was significantly and positively influenced by subjective norms (Muniandy, 2006; Gopi & Ramayah, 2007; Ramayah et al., 2009; Ramayah, et al., 2014). Likewise, there are various other studies that have shown online stock trading literature having supported this relationship like Abroud et al. (2010), Mohan and Bhuvanam (2015), Singh and Malhotra (2016), Afif, Handayani and Pinem (2018) and Hemalatha (2019). The findings of the studies confirmed that the individual investor believes on the opinion of peers and other important parties to individual investors regarding adoption of online stock trading.

Applying the correlation analysis, Lau et al. (2001) found SN of the concerning system does not affect the behavior intention of investors. Likewise, the study conducted by Lee and Ho (2003) and Lee (2009a) was inconsistent with the previous research of Taylor and Todd (1995) and Ajzen (1985) as the SN were found to have no any impact on investor's intention to adopt online stock trading. It means investor's behaviors are not influenced by normative belief. Lee and Ho (2003) also signified that the group opinions that the investors take to make decision for using the technology seemed to be insignificantly affected by social norms.

2.3.4 Perceived Behavioral Control

According to Abroud (2012), perceived behavioral control is defined as the degree to which one can perform and control over the specific behavior and also determining how much the behavior is under their control. Ajzen (1985) highlighted the point that behavioral controls are a perception of ones believes in their capability to perform a particular behavior. Abroud (2012) concluded that the investor needs the resources and must have the ability to use Internet for trading stock and to adopt the Internet technology.

Bhattacharjee (2000) studied the adoption of online trading and found that PBC was an important factor in order to ascertain behavioral intention on the electronic brokerage acceptance among online investors. While a study conducted by Lau (2002) on online trading acceptance among brokers in Hong Kong revealed the PBC positively influenced the intention to use the technology. Other studies too exposed the positive affect of PBC on intention (Taylor & Todd, 1995; Muniandy, 2006; Gopi & Ramayah, 2007; Lee, 2009a; Ramayah et al., 2014; Mohan & Bhuvanam, 2015). These researches reveal that when an investor has the capability to make use of technology (online trading) then he/she will use it to execute trading transactions using the Internet.

The study conducted by Lau et al. (2001), Lee and Ho (2003), Afif et al. (2018) and Hemalatha (2019) was inconsistent with the previous research of Taylor and Todd (1995) as the PBC were found to have no any impact on investor's intention to adopt online stock trading. Likewise, Abroud et al. (2010) found that PBC had weak relationship and proved to possess no effect on the intention of the investors to engage in internet stock trading. This study measured PBC based on the level of difficulty in

order to executed trading transactions over the Internet. Similarly, the study conducted by Singh and Malhotra (2016) found negative but significant effect of PBC on the intention of investors for using online stock trading in Patiala.

2.3.5 Perceived Trust

In certain situations, trust allows for the expression of an assumption about a person's future behavior based on previous experiences. According to social psychologist, trust is determined by the expectation and willingness of the trusting party to participate in a transaction (Roca et. al., 2009). Mayer, Davis and Schoorman (1995) described trust as a behavioral reaction to another person's beliefs about their characteristics. Since the degree of uncertainty in a transaction in a virtual environment is higher than in a conventional setting, trust becomes an important factor. One of the key reasons why consumers do not engage in commercial transactions on the internet is a lack of trust and confidence in online businesses (Hoffman, Novak & Peralta, 1999; Pavlou, 2003).

Some research conducted in the past shows that PT is meaningfully related to adopting online stock trading. An empirical support provided by Roca et al. (2009) asserted that PT affects the intention of using online stock trading services. The study stated that e-investors shape expectations about the system's perceived security, and when these perceptions are confirmed, their trust is strengthened, and they are more likely to use these online services, particularly if the system is useful for their purposes. Abroud (2012) contend that trust can be used as a strategic variable in order to minimize risk of transacting in uncertain environment.

The study conducted by Gefen and Straub (2003) revealed the significance of PT in relation to the acceptance of online trading stock. Thus, it can be concluded that if the customer do not trust the new technology or the transaction tool used in comparison to the existing tools or methods, he/she will not be willing to use the new technology or tool. Likewise, Lee (2009a), Abroud (2012), Abroud et al. (2013), Bhuvanam and Mohan (2015) and, Maziriri, Mapuranga and Madinga (2019) found that the investor PT had a positive significant impact on the intention to invest in online trading platforms. Abroud (2012) and Lee (2009a) measured PT on the basis of predictability and trustworthiness factor toward online trading system.

Further, Bhuvanam and Mohan (2015) stated PT was the weakest predictors to the customer's perceptions of online stock trading. This study measured PT as an expression of an expectation about the future behavior of a person based on previous interactions. Likewise, Hemalatha (2019) concluded PT with its indicators does not significantly enhance the intention to trade shares through online.

2.3.6 Perceived Risk

Impact of risk on traditional consumer decision-making has been studied extensively. Peter and Ryan, 1976 described perceived risk as a kind of subjective anticipated loss, while Featherman and Pavlou (2003) defined it as the risk of failing to achieve a desired result. Perceived risk is the amount that would be lost if the consequences of the act were not favorable and the individual's subjective feeling of certainty that the consequences would be negative (Cunningham, 1967). Kaplan and Szybille (1974) claimed that consumer's perceived risk consists of different types, which vary according to the product class. Security/ privacy risk refers to the potential loss to internet fraud or hacker intrusion (Mayer et. al., 1995). Lee (2009a) defined financial risk refers to the potential of monetary loss due to transaction error or stock amount misuse. Many customers are afraid of losing money while performing transactions or transferring money over internet (Kuisma, Laukkanen & Hitunen, 2007).

According to Lee (2009a), the intention to use the online stock trading system is negatively and dominantly affected by PR associated with the use of that system or technology. Many investors of Taiwan believe that risk associated with theft and frauds are major concern for low adoption rate of online stock trading. This is similar with the finding of Hemalatha (2019) where the author claimed the negative and significant effect of PR on behavioral intention to trade online. Likewise, Khan, Liu, Khan, Liu and Hameed (2018) found various risk dimensions like time, financial, performance, privacy and opportunity cost risk having negative and significant relationship between risk dimensions and investor's behavioral intentions to use online stock trading.

Similarly, the study conducted by Singh and Malhotra (2016) contradict the previous conducted researches as the study revealed that all the PR elements like security risk,

privacy risk, financial risk and fraud risk had positive significant impact on investor's adoption intention toward online trading platforms.

Table 2.1

Summary of related literature on adoption intention of online stock trading and models of technology adoption

Author (Date)	Model (Study Sample)	Variable	Analysis	Finding/Conclusion
Lau , Yen and Chau (2001)	DTPB (178 investor s)	1. Attitude 2. SN 3. PBC 4. PEOU 5. Behavior Intention 6. PU 7. Usage Behavior	Correlati on	1. PU, PEOU and compatibility significantly affect the attitude towards using the online stock trading. 2. Attitude toward the system positively affects the behavior intention on adoption of online trading. 3. SN and PBC of the concerning system does not positively affects the behavior intention of investors on adoption of online trading.
Lau (2002)	DTPB (200 broker firms)	1. Attitude 2. SN 3. PBC 4. PEOU 5. Behavior Intention	Correlati on	1. Attitude, SN and PBC of broker towards adoption of e-trading positively affect the behavioral intention.
Lee and Ho (2003)	TPB (291 online experie nced investor s)	1. Attitude 2. SN 3. PBC 4. Intention	SEM	1. PBC and SN were found to have no any impact on investor's intention to adopt online stock trading. 2. Attitude significantly influences investor's intention towards adopting internet stock trading.
Muniandy (2006)	TAM, TPB, DTPB and ITPB (144 investor s)	1. Attitude 2. SN 3. PU 4. PEOU 5. Injunctive and Descriptive norm	Multiple Regressi on	1. Attitude, SN, PBC, descriptive norm and PU have a direct significant positive relationship towards behavioral intention.

			7. PR	
			8. Behavioral Intention	
Gopi and Ramayah (2007)	TPB (300 investors)	1. Attitude 2. SN 3. PBC 4. Intention	Multiple Regression	1. Attitude, SN and PBC have positive influence on intention.
Roca, Garcia and Vega (2008)	TAM (180 students in an advanced undergraduate course)	1. PU 2. PEOU 3. PT 4. Behavioral intention 5. Perceived security 6. Perceived Privacy	PLS	1. Positive relationship between PEOU and PU and behavioral intention to use online trading. 2. PEOU did not influence behavioral intentions. 3. Trust is a key determinant of behavioral intention.
Lee (2009a)	TPB and TAM (338 stock trading investors)	1. PEOU 2. Trust 3. PBC 4. PU 5. SN 6. Attitude 7. PR 8. Intention	CFA, Regression Analysis - SEM	1. PEOU, Attitude and PBC had significant positive impact on intention toward online trading. 2. Perceived risk has significant negative impact on intention. 3. SN has insignificant impact on intention.
Ramayah, Rouibah, Gopi and Rangel (2009)	DTRA (144 practicing and prospective investors)	1. Attitude 2. SN 3. PU 4. PEOU 5. Injunctive norm 6. Descriptive norm	Multiple regression	1. Direct positive connection of attitude and SN toward behavioral intention to adopt online stock trading. 2. PU was found as most significant factor in determining attitude toward using internet stock trading than PEOU
Abroud, Yap and Muthaiyah (2010)	TAM (51 investors)	1. Attitude 2. SN 3. PBC 4. PU 5. PEOU 6. PR 7. Social demography 8. Intention	Hierarchical Regression	1. Attitude, SN and PU had strong relationship with intention and other related variables. 2. Risk variable had a negative relationship with attitude. 3. PBC, social demography, and PEOU had weak and no effect on the intention of the investors to engage in internet stock trading.
Ramayah, Acostab, Colomo-	IDTPB (144 experienced)	1. PU 2. PEOU 3. PR 4. Attitude	Multiple Regression	1. PU is significant related to intention. 2. PU is seen as a more significant factor in determining attitude to use

Palacios c, Gopi and Popa (2014)	investor s)	5. SN 6. PBC 7. Behavioral Intention		Internet stock trading, compared to perceived ease of use. 3. Attitude, SN and PBC to behavioral intention to use is significant.
Bhuvana m and Mohan (2015)	TAM (200 investor s having 1 year of online trading experie nce)	1. PEOU 2. PT 3. PU 4. Behavioral Intention	Multiple regressio n	1. Trust is a key determinant of behavioral intention to adopt online share trading. 2. PEOU, PU and Perceived trust significantly impact the intention to trade online.
Singh and Malhotra (2016)	TAM and TPB (195 investor s)	1. PU 2. Perceived Benefits 3. PEOU 4. Attitude 5. SN 6. PBC 7. PR 8. Trust 9. Intention	SEM	1. Trust has a strong indirect effect on intention to adopt online trading. 2. PBC has a negative effect on intention to adopt online trading. 3. PU, SN and Attitude has positive effect on intention to adopt online trading. 4. Perceived risk doesn't affect intention adoption.
Afif, Handaya ni and Pinem (2018)	TAM, TRA and TPB	1. PU 2. PEOU 3. Trust 4. PBC 5. Attitude 6. Intention	SEM	1. Trust also found to has influence toward SN. 2. PBC is not proven to influence investor intention to use the online trading.
Hemalat ha (2019)	TAM, TAM2, TAM3, UTAU T and TRA (374 seconda ry market online investor s)	1. PEOU 2. PT 3. Perceived benefit 4. PBC 5. PU 6. SN 7. Attitude 8. PR 9. Intention	SEM	1. PEOU, PU enhances the intention to trade shares through online. 2. Perceived trust and Perceived risk significantly enhances the intention to trade shares through online. 3. PBC does not significantly enhance the intention to trade shares through online. 4. SN and Attitude significantly enhances the intention to trade online.

Maziriri, Mapuranga and Madinga (2019)	(261 students)	1. Perceived security risk 2. Perceived privacy risk 3. Investor trust 4. Perceived financial risk 5. Perceived fraud risk 6. Intention	SEM	1. Perceived risk elements have significant positive impact on investor's trust. 2. Investor trust has a positive impact on the intention to invest in online trading platforms.
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2.4 Research Gap

Researchers have widely applied the TAM and TPB models and theories for exploring factors affecting adoption of online stock trading systems and similar topics (Lee, 2009a; Roca et al., 2009; Singh & Malhotra, 2016; Hemalatha, 2019). In spite of the fact that the models and theories have been modified and improved for studying the impact of social influence, perceived usefulness, security concerns, perceived service quality, perceived trust, usability, perceived risk, etc., following critical observations draw serious research gaps insisting on a strong need of further exploration in this research domain. It is understood that many research have been done in the area of online shopping and online banking with innovativeness scale. Only few studies have been attempted on the study of impact of technological acceptance determinants on the adoption intention of online stock trading and most of these studies are done in the western countries like India, Malaysia, Pakistan, Iran, Indonesia, Spain and South Africa. Clear understanding on this phenomenon, both in theoretical as well as empirical literature is limited.

Online stock trading system has been growing since few years with the introduction of online applications to conduct online trading of stocks, online banking facilities and widespread usage of internet. However, the adoption of online stock trading system in context of Nepal seems to be in early stage. Moreover, in the context of Nepal, no research has been conducted to analyze the technological acceptance determinants and its impact on the adoption intention of online stock trading in Nepal. It is interesting to examine the factors particularly in the Nepalese setting due to the intriguing technological developments that are currently taking place, more so on the

prediction that online stock trading use will grow at a significant rate within the next few years. This study fulfills the research gap by studying the presence of technological acceptance determinant factors by reviewing various literatures and technology adoption determinant models like TRA, TPB and TAM.

2.5 Theoretical Framework

The theoretical framework has integrated TPB model (Ajzen, 1985) and TAM model (Davis, 1986), with two external variables like perceived trust and perceived risk. The other variables like perceived usefulness and perceived ease of use are extracted from TAM model and, perceived behavioral control and subjective norm are extracted from TPB model.

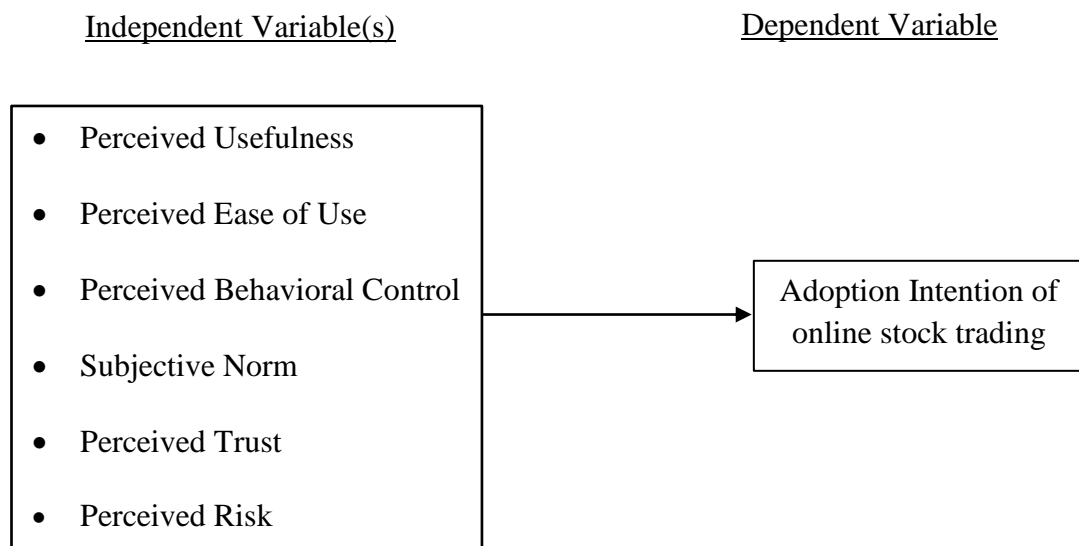


Figure 2.1 Theoretical Framework

The conceptual framework for this study has been extracted from the earlier research of Hemalatha (2019).

Dependent Variable

The dependent variable for the study is adoption intention towards online stock trading in Nepal. Here, behavioral intention to adopt online stock trading refers to dependent variables which are affected by various technology acceptance determinants as mentioned in the independent variables.

Independent Variables

The technology acceptance determinants that affect the behavioral intention toward the adoption of the online stock trading are taken as independent variables. These variables are perceived usefulness, perceived ease of use, perceived behavioral control, subjective norms, perceived trust and perceived risk.

2.5.1. Introduction to Variables

1. Perceived Usefulness

PU is explained as the extent to which one personally believes in the likelihood of enhancing personal job performance through the use of a particular information technology (Ajzen, 1980). Davis (1989) defined PU as the extent to which a person believes that adopting a particular system and technology would enhance his or her job performance level. In the case of online stock trading, perceived usefulness is termed as an individual's extent for making use of the Internet technology to his advantage to trade online over traditional stock trading (Chan & Lu, 2004).

2. Perceived Ease of Use

PEOU is the extent of a person's belief in the prospect of being freed from physical and mental efforts by using a particular system (Davis, 1989). It is the extent of effortlessness of the concerned system (Gefen & Straub, 2000). Zhu, Luo, Wang and Li (2011) have defined that a user-friendly technology or system which are easier to use and apply are more likely beneficial. In the online trading domain, it is perceived as the simplicity of the process in order to learn, comprehend and use online stock trading (Siriluck, 2006).

3. Subjective Norms

Subjective norm refers to the person's perception that most people who are important to him think he should or should not perform the behavior in question (Fishbein & Ajzen 1975). It is the social pressure towards people to accomplish or not accomplish certain behavior (Ajzen, 1991). Krueger et al. (2000) explained that subjective norms include the expectations of relevant groups that influence the individual in carrying out the target behavior.

4. Perceived Behavioral Control

PBC reflects ability and capability of people to perform a particular behavior (Ajzen, 1991). It is concerned with thoughts regarding the presence of control elements that may help or hinder the behavior's performance. So, control beliefs about resources and opportunities are the underlying determinant of perceived behavioral control (Wu & Chen, 2005). Individuals who perceive that the outcomes of their behavior are under control should have more desire to perform the behavior (Schlaegal & Koeing, 2014).

5. Perceived Trust

Perceived trust is explained as the voluntary decision by one to be exposed to the vulnerability of another's actions on the assumption that the other will act in a way that is important to the trust or, regardless of whether the other's actions can be controlled or monitored (Mayer et. al., 1995). Trust is based on the terms of the expectation and willingness of the trusting party engaging in the transaction activities (Roca et al., 2009).

6. Perceived Risk

Perceived risk is described as an unpredictability with negative consequences that arises prior to a purchasing decision when searching for and selecting information for goods and services (Featherman & Pavlou, 2003). Lim (2003) had examined the definition of perceived risk in business-to-consumer e-commerce. The study projected a new categorization of the perceived risk of consumers based on sources.

Adoption Intention

Fishbein and Ajzen (1975) defined AI as a measure of the strength of one's intention to perform a specified behavior. People form intentions toward using specific systems based largely on a cognitive appraisal of how it will improve their performance (Davis et al., 1989). BI is a function of both the attitudes and subjective norms towards that behavior, which have been found to predict actual behavior (Ali et al., 2014). Regarding the power of TPB factors to predict real behavior, Sheeran (2002) reported that intention accounted for almost one-third of the variance in behavior.

CHAPTER III

RESEARCH METHODS

3.1 Research Design

The study has adopted descriptive and casual research design. Descriptive research design is used to describe the characteristics of respondents on the basis of their demographic, educational and economic characteristics. Similarly, casual research design has been adopted to examine the impact of technology acceptance determinates on the adoption intention of online stock trading. The study has employed survey research design to collect the related data on the issue through research administered by using structured questionnaires based on previous literature.

3.2 Population and Sample

The study population in the research constitutes of all the Nepalese individual investors who are the users of online stock trading. As per the report of Sharesansar (2021), there are a total of 3,226,111 citizens in Nepal who have Demat (dematerialized) account. The Demat account holders are taken as total population in the study on the fact that investor's using online stock trading platforms mandatory need to have Demat account. Structural Equation Modeling (SEM) is a large sample approach to data analysis (Hair, Tatham, Anderson, & Black, 1998). Thus, in order to make the SEM more accurate, a larger sample size is suggested (Schumacker & Lomax, 1996). Hence, based on the population, 384 online user individual investors are taken as a sufficient sample for the study using the judgmental sampling method.

3.3 Nature and Sources of Data

The nature of this research is quantitative research. For this research, both primary and secondary sources of data have been used in order to derive the required conclusion from different sources. This survey was basically based on primary source of data. Secondary sources like already conducted research article on the same variables and topics have been used while designing questionnaire and defining the major research issues.

3.4 Instrumentation

The study has employed close-ended questionnaire to collect primary data. The questionnaires were presented in the form of Google sheets and were being distributed among Nepalese individual investors who have experience of using online stock trading platforms. The questionnaire had been divided into two sections. The first section of the questionnaire dealt with the demographic information of the respondents like gender, age, education and monthly income. The second section of the questionnaire included the statement to measure the impact of technology acceptance determinates on adoption intention of online stock trading. Questionnaire were in the form of five point likert scale statements ranging from 1-Strongly Disagree to 5-Strongly Agree to collect the view of respondents on the topics of perceived usefulness, perceived ease of use, perceived behavioral control, subjective norms, perceived trust and perceived risk.

3.4.1 Origin of Constructs

The questionnaire in the second section has been adopted from Davis (1989), Lau et al. (2001), Nor (2005), Lee (2009a), Roca et al. (2009), Abroud (2012), Majali (2013) and, Vaddadi and Pratima (2016).

Table 3.1

Sources of questionnaire

Factors	Number of items	Source
Perceived usefulness	4	Davis (1989) and Lau et al. (2001)
Perceived ease of use	5	Davis (1989), Lee (2009a) and Abroud (2012)
Perceived behavioral control	5	Lee (2009a) and Abroud (2012)
Subjective norms	5	Lee (2009a) and Abroud (2012)
Perceived trust	5	Lee (2009a), Nor (2005), Majali (2013) and, Vaddadi and Pratima (2016)
Perceived risk	3	Lee (2009a)
Adoption Intention	5	Lee (2009a), Abroud (2012) and Roca et al. (2009)

3.5 Pilot Study

The study conducted a pilot study in order to testify the instrument designed for the purpose of this study. So, pilot survey was conducted from 30 questionnaires distributed through online. The content validity was confirmed and comments and suggestions received from the pilot test were used and incorporated into the final version of the questionnaire for the main study.

3.6 Data analysis Methods

For processing the responses, the completed questionnaires have been edited for completeness and consistency through Excel sheet. The study is used to generate quantitative data. Quantitative data have be coded and entered into Microsoft Excel Sheet and Statistical Packages for Social Scientists (SPSS). Responses obtained from set of structured questionnaires have been analyzed quantitatively using descriptive statistics which was performed with SPSS. Quantitative data has been presented in tables and then explanation has been presented. In addition, the study has conducted Confirmatory Factor Analysis (CFA) with the tool of AMOS 23 program to evaluate overall fitness of the measurement model. Furthermore, Structural equation modeling (SEM) tool of AMOS program has been used to evaluate the fitness of structural model and to test the purposed hypothesis.

Whereby the variables have been identified as follows;

Dependent variable:

Adoption intention of online stock trading= AI,

Independent variable:

Perceived usefulness = PU

Perceived ease of use = PEOU

Perceived behavioral control = PBC

Subjective norms = SN

Perceived trust = PT

Perceived risk = PR

The study has used the following methods of data analysis:

3.6.1 Descriptive Statistics

Descriptive statistics consists of frequency, percentage, mean and standard deviation to describe the characteristics of the data. The respondent profile is based on frequency and percentage. The mean is used to find the average value of each dependent variable's query statements.

3.6.2 Internal Consistency and Reliability Analysis

Cronbach alpha is a major and significant research statistics for test construction and use (Hair et al., 1998). The internal consistency of each construct can be measured through an assessment of the composite reliability.

Nunnally (1978) suggested that 0.7 is an acceptable reliability coefficient which is the functional aspect of internal consistency but lower thresholds are sometimes measured in the literature. Likewise, According to Fornell and Larcker (1981), composite reliability (CR) is a less biased estimate of reliability than cronbach alpha, the acceptable value of CR is 0.7 and above.

3.6.3 Measurement Validation and Model Fit

The adequacy of measurement model was evaluated to ensure the scale validity as it is standard procedure for structural equation model analysis. For the study, confirmatory factor analysis (CFA) was used in order to examine if the model was fit for the suggested factor solution (Hair et al., 1998). This study conducted construct validity test to ensure that the measurements are in agreement and do not reflect other variables (Hair, Hult, Ringle, & Sarstedt, 2013). So, CR and average variance extracted (AVE) are considered to ensure the convergent validity and square root of AVE are considered to ensure the discriminant validity.

Fornell-Larcker (1981) stated AVE that measures the level of variance captured by a construct versus the level due to measurement error, values above 0.7 are considered very good, whereas, the level of 0.5 is acceptable. Likewise for CR, values of 0.70 are accepted as a suitable value for reliability (Fornell & Larcker, 1981). Further, the

squared AVE should be exceeded by the correlation coefficient to confirm discriminant validity (Fornell & Larcker, 1981). In this research, the CR and AVE of all latent constructs are computed by employing Fornell and Larcker's (1981) proposed formula.

The overall measurement model fit can be performed by several goodness-of-fit measures with the help of three measures: absolute, incremental and parsimonious fit measures (Hair et al., 1998; Joreskog & Sorbom, 1993). The study has examined goodness of fit indices comprising of χ^2 , CMIN/df, CFI, IFI, TLI, RMR and RMSEA as recommended by Hair et al. (1998), Hair, Black, Babin and Anderson (2010), Kline (1998), Fornell and Larcker (1981), Tucker and Lewis (1973) and, MacCallum, Browne and Sugawara (1996).

3.6.4 Structural Equation Modeling Analysis

Structural equation modeling technique has been adopted for conducting the inferential statistics and to test the hypothesis. SEM analysis is used to evaluate the casual models by examining the relationship between dependent and independent variables and it involves analyzing the impact through significant level of p-value. The study used SPSS AMOS to conduct the analysis.

Table 3.2

Summary of expected result and related empirical evidences

Variables	Expected Result	Empirical Evidence
PU and AI	Positive and significant	Muniandy (2006), Roca et al. (2009), Abroud et al. (2010), Abroud et al. (2013), Ramayah et al. (2014) and Hemalatha (2019).
PEOU and AI	Positive and significant	Loh and Ong (1998), Abroud et al. (2013), Bhuvanam and Mohan (2015) and Hemalatha (2019).
SN and AI	Positive and significant	Abroud et al. (2010), Ramayah, et al. (2014), Mohan and Bhuvanam (2015), Singh and Malhotra (2016) and Hemalatha (2019).
PBC and AI	Positive and significant	Muniandy (2006), Gopi and Ramayah

	significant	(2007), Lee (2009a), Ramayah et al. (2014) and, Mohan and Bhuvanam (2015).
PT and AI	Positive and significant	Lee (2009a), Abroud (2012), Abroud et al. (2013), Bhuvanam and Mohan (2015) and Maziriri et al. (2019).
PR and AI	Negative and significant	Lee (2009a), Khan et al. (2018) and Hemalatha (2019)

CHAPTER IV

ANALYSIS AND RESULTS

This chapter deals with presentation and analysis of primary data collected through questionnaire survey. Here the collected data are tabulated, presented and analyzed. The main aim of this chapter is to present the perceived individual factors that affect the online stock trading intention among the individual investors of Nepal.

4.1 Demographic Characteristics

This section explains the demographic characteristics of the respondents. In this section, the respondents' profile has been analyzed in terms of gender, age, education, occupation, monthly income, trading experience and preference in stock market.

Table 4.1

Demographic characteristics of respondents

	Characteristics	Frequency	Percentage (%)
Gender	Male	221	57.6
	Female	163	42.4
Age	18-25 years	75	19.5
	26-35 years	194	50.5
	36-45 years	95	24.7
	45 years and above	20	5.2
Education	Master level and above	227	59.1
	Bachelor level	118	30.7
	+2 or Intermediate	33	8.6
	SLC/SEE	6	1.6
Occupation/ Profession	Student	80	20.8
	Employee/ Job Holder	241	62.8
	Businessman	43	11.2
	Others	20	5.2

	Currently		
	unemployed/ Family	75	19.5
	income		
Monthly Income	Up to Rs.30,000	115	29.9
	Rs.30,001 to		
	Rs.50,000	126	32.8
	Rs.50,001 and		
	above	68	17.7
Trading experience	Less than 3 years	300	78.1
	More than 3 years	84	21.9
Preference in stock market	Primary Market	173	45.1
	Secondary Market	54	14.1
	Both	157	40.9

Source: Based on survey

As it is evident from table 4.1, out of 384 respondents, 163 i.e. 42.4 percent were female whereas 221 i.e. 57.6 percent were male. This shows that the proportion of male investors is higher than the proportions of male investors who trade online in the Nepalese stock market. Similarly, among the total respondents, majority of them were between the age group of 26-35 years i.e. 50.5 percent, followed by the age group of 36-45 years i.e. 24.7 percent. Respondents 18-25 years and above 45 years comprised of 19.5 percent and 5.2 percent respectively.

Table 4.1 also shows that out of 384 respondents, 227 i.e. 59.1 percent were doing their master's degree or had completed them, 118 i.e. 30.7 percent had completed their bachelor's degree, 33 i.e. 8.6 percent had completed their intermediate level and 1.6 percent had completed SLC/SEE level. Similarly, 80 i.e. 20.8 percent of them were students, 241 i.e. 62.8 percent of them were employees or job holders, 43 i.e. 11.2 percent of them were businessmen, and 20 of them i.e. 5.2 percent of them were doing some other types of occupation that could not be included in the questionnaire. This shows that most of the respondents are job holders/employees.

Table 4.1 also indicates that 75 i.e. 19.5 percent of respondents were currently unemployed or they depend on family income for investing, 115 i.e. 29.9 percent

earns monthly income of up to Rs.30,000, 126 i.e. 32.8 percent earns between Rs.30,001 to Rs.50,000 rupees and 68 i.e. 17.7 percent of the respondents earns above Rs.50,000 rupees. It can be analyzed that most of the investors earned monthly salary greater than Rs.30,000 due to which they are willing to invest in stock market as their other basic needs can be easily met.

Finally, table 4.1 shows the experience level of the respondents on the basis of their real life time trading/investing experience in the stock market. Among 384 respondents, 300 i.e. 78.1 percent had been trading/investing in the Nepalese stock market for less than three years whereas, 84 i.e. 21.9 percent had trading experience in the Nepalese stock market for at least three years. Hence, it can be analyzed that most of the current investors in the Nepalese stock market are beginners in nature with less than three years of experience.

Similarly, table 4.1 also shows that 45.1 percent of respondents preferred primary market and 14.1 percent of respondents preferred secondary market in order to invest in through online trading. Likewise, 40.9 percent of respondents preferred both primary and secondary market in order to invest in through online trading. The data shows that most of the Nepalese investors are active in primary market which they are more interested to enter into capital market through online trading.

4.2 Descriptive Statistics

In this section descriptive analysis regarding the technology acceptance determinant factors of individual investor and their adoption intention of online stock trading playing an important role in drawing conclusion has been presented in this section. The mean, standard deviation values are presented in the tabular form for the variables and questions in this section.

4.2.1 Perceived Usefulness

This section includes the response received from individual investors regarding the perceived usefulness of online stock trading, where they tick for the appropriate option in 5 point likert scale. Thus, the analysis is shown below.

Table 4.2

Descriptive statistics of Perceived Usefulness

Statement	N	Minimum	Maximum	Mean	Std. Deviation
Using the online trading enhances my effectiveness in stock trading.	384	1	5	4.11	0.802
Using the online stock trading system saves time and effort.	384	1	5	4.36	0.789
Using the online stock trading system makes it easier for me to conduct stock trading transaction.	384	1	5	4.11	0.768
Using the online stock trading system improves my performance in conducting stock trading transaction.	384	1	5	4.01	0.793

As it is evident from table 4.2, investors gave the most preference to the statement that the online stock trading system saves time and effort with the mean value of 4.36. Likewise, equal and medium preference was also given to the statement that ensures online stock trading enhances the investor's effectiveness and makes them easier to conduct transaction with the mean value of 4.11. Similarly, compared to other statements, low preference was given to the statement with the mean value of 4.01, that states using the online stock trading system improve investor's performance in conducting stock trading transaction.

4.2.2 Perceived Ease of Use

This section includes responses received from investors about perceived ease of use of the online stock trading. The questions were also asked with 5 point likert scale.

Table 4.3

Descriptive statistics of Perceived Ease of Use

Statement	N	Minimum	Maximum	Mean	Std. Deviation
Q1: Learning to operate the	384	2	5	3.92	0.745

online stock trading website is easy.					
Q2: It is easy to get the online trading system to do what I want to do.	384	1	5	3.87	0.923
Q3: Conducting the online stock trading is not a complex task.	384	1	5	3.77	0.826
Q4: Interaction with the online stock trading service is clear and understandable.	384	1	5	3.94	0.820
Q5: The online stock trading system is easy to use.	384	1	5	3.99	0.691

Table 4.3 depicts that with the mean value of 3.99, most of investors highly preferred the statement that online stock trading system is easy to use. Likewise, with the mean value of 3.94 and 3.92, investors moderately preferred with the statement that learning to operate the system is easy and they having clear and understandable interaction with the online trading system. But, compared with other statements, with the mean value of 3.77, investors preferred less with the statement that states conducting the online stock trading is a complex task.

4.2.3 Subjective Norm

This section includes responses received from investors about subjective norms that was also asked with 5 point likert scale and it refers to the extent to which investors are influenced and motivated by social groups.

Table 4.4

Descriptive statistics of Subjective Norm

Statement	N	Minimum	Maximum	Mean	Std. Deviation
Q1: People who are important to me would think that I should use the online stock trading.	384	1	5	3.88	0.771
Q2: People who influence me would think that I should use the online stock trading.	384	1	5	3.90	0.773

Q3: People whose opinions are valuable to me would prefer me to use the online stock trading.	384	1	5	4.02	0.821
Q4: My friends who are important to me believe that the use of the online stock trading is necessary.	384	1	5	3.84	0.772
Q5: My coworkers who are important to me would think that using the online stock trading is a good idea.	384	1	5	3.86	0.837

Table 4.4 gives us that, with the mean value of 4.02, investors highly preferred with the statement that people whose opinions are valuable to them would prefer them to use the online stock trading. While with mean value of 3.90, 3.88 and 3.86, investors moderately preferred the statement that that people who influence them, important to them and coworkers who are important to them would think that they should use the online stock trading. Further, we can see that with the mean value of 3.84, investors preferred less with the statement that their friends who are important to them believe that the use of the online stock trading is necessary.

4.2.4 Perceived Behavioral Control

The responses regarding perceived behavioral control were also asked with 5 point likert scale and it refers to the perception of investors having control over the use of online stock trading.

Table 4.5

Descriptive statistics of Perceived Behavioral Control

Statement	N	Minimum	Maximum	Mean	Std. Deviation
Q1: I will be able to use the online stock trading well when trading.	384	1	5	3.77	0.900
Q2: Using the online stock trading is entirely within my control.	384	1	5	3.80	0.840
Q3: I have the resources,	384	1	5	3.78	0.828

knowledge, and ability to use online stock trading.					
Q4: I have the required potentials to use online stock trading.	384	1	5	3.73	0.791
Q5: It is mostly up to me whether or not to use the online stock trading.	384	1	5	3.84	0.810

Above table 4.5 shows that with the mean value of 3.84 and 3.80, investors mostly preferred with the statement that state it is mostly up to them whether or not to use the online stock trading and think that online stock trading is entirely within their control. Likewise, as compared with other statements, investors preferred less with the statement that they have required potentials to use online stock trading with the mean value of 3.73. While few investors moderately preferred with the statement that they believe they will be able to use the online stock trading well and have the resources, knowledge, and ability to use online stock trading with the mean value of 3.78 and 3.77 respectively.

4.2.5 Perceived Trust

The responses regarding perceived trust were also asked with 5 point likert scale and it refers to the personal trust over online stock trading system usage.

Table 4.6

Descriptive statistics of Perceived Trust

Statement	N	Minimum	Maximum	Mean	Std. Deviation
Q1: Based on my perception of the online stock trading, I know it is trustworthy.	384	1	5	3.90	0.763
Q2: Based on my perception of the online stock trading, I believe it is predictable.	384	1	5	3.80	0.894
Q3: I trust the transactions in financial markets made through the Internet.	384	1	5	3.91	0.797
Q4: I think my information is kept confidential when I use	384	1	5	3.86	0.815

the online stock trading.

Q5: I think the online stock trading system protect the investor's privacy.	384	1	5	3.80	0.870
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Table 4.6 shows that investors mostly gave preference to the statement that they trust the transactions in financial markets made through the internet and hence perceives that the system is trustworthy as well with the mean value of 3.91 and 3.90 respectively. However, investors gave medium preference to the statement that they think that their information is kept confidential with the mean value of 3.86. Similarly, investor gave very least preference to both the statement that state online stock trading system protect the investor's privacy and system is predictable with the equal mean value of 3.80 on both statement.

4.2.6 Perceived Risk

The responses regarding perceived risk were also asked with 5 point likert scale and it refers as the degree to which one feels personally risk associated with the adoption of online stock trading.

Table 4.7

Descriptive statistics of Perceived Risk

Statement	N	Minimum	Maximum	Mean	Std. Deviation
Q1: I would not feel secure sending private personal information on the internet.	84	1	5	2.77	1.169
Q2: If online trading errors were to occur, I worry that I would be unable to get compensation.	384	1	5	3.05	1.102
Q3: I worry about the occurrence of fraud and hacker intrusion while trading online.	384	1	5	2.89	1.252

Table 4.7 shows that with the mean value of 3.05, most of the investors gave high preference to the statement that if online trading errors were to occur they have to worry that they would be unable to get compensation. The investor gave medium

preference with the statement that they have to worry about the occurrence of fraud and hacker intrusion while trading online with the mean value of 2.89. However, most of the investors as compared with other statements, preferred less with the statement they would not feel secure sending private personal information on the internet as well with the mean value of 2.77.

4.2.7 Adoption Intention

The responses regarding adoption intention were also asked with 5 point Likert scale and it refers to state of mind that directs attention towards adoption behavior.

Table 4.8

Descriptive statistics of Adoption Intention

Statement	N	Minimum	Maximum	Mean	Std. Deviation
Q1: I intend to buy and sell my stocks through the online trading system.	384	1	5	4.20	0.704
Q2: I expect to trade stocks online in future.	384	2	5	4.34	0.761
Q3: If I have access to online stock trading, I want to use it as much as possible.	384	2	5	4.29	0.753
Q4: I believe that the performance of online stock transactions will become an obligation in the near future.	384	1	5	4.36	0.852
Q5: I strongly recommend others to use the online stock trading.	384	2	5	4.34	0.737

Table 4.8 depicts that with the mean value of 4.36, investor mostly preferred the statement that the performance of online stock transactions will become an obligation in the near future. Likewise, investor gave equal preference with the statement that they expect to trade stocks online in future and they strongly recommend others to use the online stock trading with the mean value of 4.34. But, investors gave less preference to the statement that they intend to buy and sell my stocks through the online trading system with the mean value of 3.20.

4.3 Analysis of Measurement Model

Prior to investigating the relationships between the variables, questionnaire item of the latent variables was investigated using confirmatory factor analysis to determine its unidimensionality. In SEM, the CFA has a major role (Abroud, 2012). To begin, a certain degree of model fit is required before the overall model is tested. So, CFA model fit test was done. The results of the CFA are placed in table 4.9.

Table 4.9

Summary of Measurement Model fit indices

Index	Model Estimates	Allowed
Chi-square (χ^2)	797.223 (p=0.00)	
Degree of freedom (df)	442	
CMIN/df	1.804	< 3
RMSEA	0.046	< 0.08
RMR	0.035	< 0.08
CFI	0.919	> 0.90
IFI	0.920	> 0.90
TLI	0.909	> 0.90

The study improved the model using the modification indices because modification indices values enhance the model fit and heightens the likelihood of the researcher capitalizing on the uniqueness of the particular data set (Joreskog & Sorbom, 1993). Since the covariance between PT4 and PT5 has high modification indices value of 42.197. Hence, PT4 and PT5 were covariate and the model was improved.

The measurement model yielded the chi-square value of 797.223 with p-value below the significance level of 0.01 and with degree of freedom of 442, indicating general lack of fit. However, the chi-square test is sensitive to sample sizes, especially for cases in which the sample size exceed 200 respondents (Hair et al., 1998). So, as an alternative, chi-square to degrees of freedom can be considered. The study obtained CMIN/df value of 1.804 which falls within suggested value of below 3 (Kline, 1998). The RMSEA is 0.046 and RMR is 0.035 which is below 0.08 allowed level giving

overall model goodness of fit (MacCallum et al., 1996; Kelloway, 1998). The Comparative Fit Index (CFI) is 0.919 and Incremental Fit Index (IFI) value of 0.920 which is under the criteria level of 0.90. According to Fornell and Larcker (1981), CFI and IFI value above 0.90 allowed limit gives us the overall fitness of the model. Further, Tucker Lewis Index (TLI) value is 0.909 which is above 0.90, and hence it can term as a good model and thus indicates a good fit to the data (Tucker & Lewis, 1973). At least three indices must be fitted well to determine the model fit (Hair et al., 2010). It can be concluded with the help of indices that the designed scales had good unidimensionality.

The CFA of latent variable construct are shown in Figure 4.1.

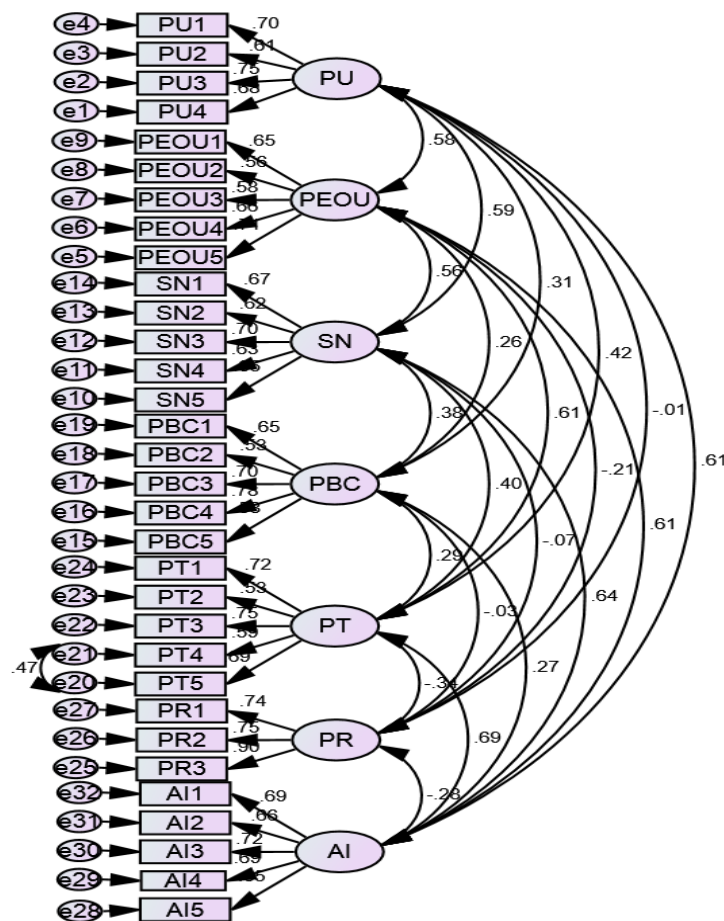


Figure 4.1 Confirmatory Factor Analysis

The result of the reliability and validity is presented in table 4.10. Reliability was analyzed with CA. CR and AVE was used to test convergent validity. Likewise, square root of AVE was used to test the discriminant validity of the measurement model.

Table 4.10

Reliability and convergent validity

Constructs	Questions	Factor			
		Loading	CR	CA	AVE
Perceived Usefulness	PU1	0.703			
	PU2	0.610			
	PU3	0.746			
	PU4	0.675	0.7789	0.777	0.4696
Perceived Ease of Use	PEOU1	0.646			
	PEOU2	0.561			
	PEOU3	0.580			
	PEOU4	0.661			
	PEOU5	0.709	0.7691	0.760	0.4016
Subjective Norm	SN1	0.669			
	SN2	0.616			
	SN3	0.695			
	SN4	0.626			
	SN5	0.649	0.7864	0.785	0.4246
Perceived Behavioral Control	PBC1	0.649			
	PBC2	0.534			
	PBC3	0.698			
	PBC4	0.781			
	PBC5	0.577	0.7856	0.782	0.4273
Perceived Trust	PT1	0.718			
	PT2	0.530			

	PT3	0.746			
	PT4	0.587			
	PT5	0.686	0.7903	0.806	0.4336
Perceived Risk	PR1	0.735			
	PR2	0.747			
	PR3	0.901	0.8389	0.837	0.6367
Adoption Intention	AI1	0.687			
	AI2	0.662			
	AI3	0.716			
	AI4	0.690			
	AI5	0.653	0.8128	0.811	0.4651

CA- Cronbach Alpha, CR – Composite Reliability, AVE – Average Variance Extracted

Cronbach's alpha is a functional aspect of internal consistency which refers to the interrelation of items (Hair, Anderson, Tatham & Black, 2006). The model's construct attained cronbach's alpha of constructs more than 0.7 and composite reliability coefficients above the recommended cut-off of 0.7 which exhibits high internal consistency and high reliability of the findings suggested by Fornell and Larcker (1981).

Construct validity provides a clear picture whether a measure sufficiently evaluates the theoretical concept which needs to be assessed. This can be achieved by convergent validity and discriminant validity. Convergent validity measures the extent to which different indicators determine the concept (Abroud, 2012). In order to test the convergent validity, factor loading, CR and AVE criteria are employed. Most of the items have a standardized factor loading significantly larger than 0.5. Hair et al. (2010) suggested that the standardized factor loadings should be above 0.5 which is met in the above model. The AVE of certain constructs are below the criteria of 0.5 but as suggested by Fornell and Larcker (1981) if AVE is below 0.4 level the composite reliability (CR) should be larger than 0.6 threshold level to confirm convergent validity of data. In the model, the composite reliability is above 0.7, which

confirms the convergent validity of the model. This indicates measurement model is similar to the original assumptions which are made before.

Table 4.11

Correlations and discriminant validity

	PU	PEOU	SN	PBC	PT	PR	AI
PU	0.6853						
PEOU	.452**	0.6337					
SN	.471**	.434**	0.6516				
PBC	.253**	.226**	.299**	0.6537			
PT	.307**	.476**	.303**	.236**	0.6858		
PR	-.041	-.164**	-.051	-.014*	-.251**	0.7979	
AI	.491**	.474**	.517**	.220**	.519**	-.238**	0.6819

Note: Diagonal elements are square roots of average variance extracted

** . Correlation is significant at the 0.01 level

* . Correlation is significant at the 0.05 level

Discriminant validity measures the extent to which a concept and its indicators is different from another concept and its indicators (Bandura, 1986). In order to determine the discriminant validity of the model the standard procedure is used that is square root of AVE is compared with the inter-constructs correlations. In the above table 4.11, the square root of the AVE which is highlighted exceeds the inter-constructs correlations which mean that in the model the item of each latent variable differ significantly from other latent variable items (Fornell & Larcker, 1981). Thus discriminant validity of the model is also confirmed.

According to these obtained statistical results, it has been believed that model of measurement has good reliability and at the same time acceptable validity. Now the data is perfect to test the structural model.

4.4 Analysis of Structural Model

Structural equation modeling is a multivariate statistical analysis technique which is used to analyze structural relationships and this technique is a combination of factor analysis and multiple regression analysis which is used to analyze the structural relationship between measured variable and latent constructs. After the confirmation of the measurement model, the examination regarding the structural model was conducted through SEM approach. The structural model was designed based on research conceptual framework and has added a residual error to measure and run the structural model for all endogenous variables.

a. Structural Model fit

Table 4.12

Summary of Structural Model fit indices

Index	Model Estimates	Allowed
Chi-square (χ^2)	797.223 (p=0.00)	
Degree of freedom (df)	442	
CMIN/df	1.804	< 3
RMSEA	0.046	< 0.08
RMR	0.035	< 0.08
CFI	0.919	> 0.90
IFI	0.920	> 0.90
TLI	0.909	> 0.90

The results of SEM obtained for the purposed conceptual model revealed a good model fit. The SEM Analysis of latent and observed variable construct is shown in figure 4.2.

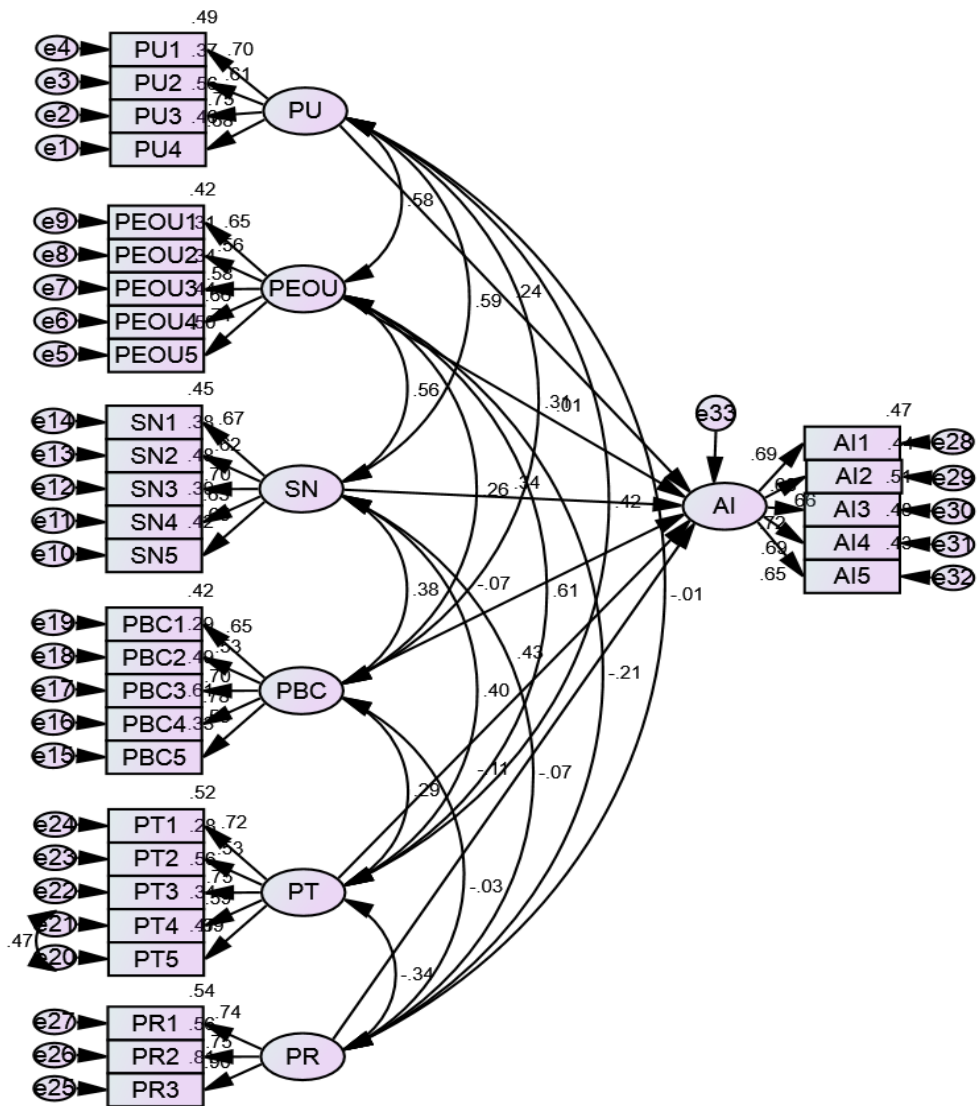


Figure 4.2 SEM Analysis

b. Result of Hypothesis Testing

SEM analysis has been done to test the hypothesis of this study. In table 4.13, estimate values are standardized version of linear regression weights.

Table 4.13

Summary of hypothesis testing

	Hypothesized relationship	Sign	Standardized Estimate	p-value	Hypothesis results	R-square
H1	PU → AI	Positive	0.241**	0.001	Supported	
H2	PEOU → AI	Positive	0.008	0.924	Not Supported	
H3	SN → AI	Positive	0.344**	0.000	Supported	
H4	PBC → AI	Negative	-0.068	0.197	Not Supported	0.677
H5	PT → AI	Positive	0.426**	0.000	Supported	
H6	PR → AI	Negative	-0.107*	0.032	Supported	

* Coefficient significant at 0.05 levels

** Coefficient significant at 0.001 levels

The result of SEM analysis as seen in table 4.13, provide support for proposed hypothesis at significance level of 0.000, 0.001 and 0.032 level. The TAM and TPB model variables like perceived usefulness, subjective norm and perceived trust were found to be positively significant with investor's adoption intention of online stock trading and hence supporting hypothesis 1, hypothesis 3 and hypothesis 5 respectively. While another external variable, perceived risk was found to be negatively significant with investor's adoption intention of online stock trading and hence supporting hypothesis 6. The result didn't supported the hypothesis 2 and hypothesis 4 as the study found no significant impact of perceived ease of use and perceived behavioral control on the adoption intention behavior of investors.

4.5 Major Findings

The major findings of the study are summarized as follow:

- Perceived usefulness ($\beta=0.241$, $p=0.001$) have a significant positive impact on adoption intention of online stock trading.

- Perceived ease of use ($\beta=0.008$, $p=0.924$) have an insignificant positive impact on adoption intention of online stock trading.
- Subjective norm ($\beta=0.344$, $p=0.000$) have a significant positive impact on adoption intention of online stock trading.
- Perceived behavioral control ($\beta= -0.068$, $p=0.197$) have an insignificant negative impact on with adoption intention of online stock trading.
- Perceived trust ($\beta=0.426$, $p=0.000$) have a significant positive impact on adoption intention of online stock trading.
- Perceived risk ($\beta= -0.107$, $p=0.032$) have a significant negative impact on adoption intention of online stock trading.
- The model explains 67.7% variation in adoption intention behavior of investors for using online stock trading in Nepal.

CHAPTER V

DISCUSSION, CONCLUSION AND IMPLICATIONS

This chapter presents discussion of the results and findings that has been obtained from the data analysis. The chapter is further subdivided into three sections. The first section includes the discussion that involves findings of this study and the comparison of findings with previous studies. The second section consists of conclusion that is drawn from the result obtained from the data analysis inferred in the study. Likewise, the third and fourth section includes implication of the study and future research of the study.

5.1 Discussion

This research aims to explore the impact of different technology acceptance determinants such as perceived usefulness, perceived ease of use, subjective norms, perceived behavioral control, perceived trust and perceived risk on behavioral intention to adopt online share trading. The research was based on the responses collected from individual investors of Nepal who trade online in stock market. The study used online based self-administered questionnaire for the collection of responses from 384 respondents from different places of Nepal. Several hypotheses were used to examine the relationship between different variables in this study. Chapter one presented six hypotheses for the study. Each hypothesis produced and tested in the study is discussed here.

In this study, perceived usefulness showed positive and significant impact on adoption intention of online stock trading. The study reveals that when an investor is assured on the fact that think online trading enhances their effectiveness in stock trading and hence maximizing their level of performance by saving time and effort of transaction then, he/she will use it to execute trading transactions using the Internet. The obtained result is also consistent with the findings of Lau et al. (2001) Muniandy (2006), Roca et al. (2009), Abroud et al. (2010), Abroud et al. (2013), Ramayah et al. (2014), Bhuvanam and Mohan (2015) and Hemalatha (2019). The research is also supported by the study of Lee and Ho (2003) which stated that the investor will favor the system that enables them to trade more effectively and profitably.

The result of the study found positive insignificant impact of perceived ease of use on adoption intention of online stock trading in Nepal. This finding is inconsistent with the findings of, Loh and Ong (1998), Abroud (2012), Abroud et al. (2013), Bhuvanam and Mohan (2015) and Hemalatha (2019) which stated that the perceived ease of use positively and significantly influenced adoption intention of online stock trading. Venkatesh, Morris, Davis and Davis (2003) stated that PEOU was only significant in the early stages of learning to use different applications. However, after a month, the relationship between PEOU and adoption intention became insignificant.

The findings of the study also suggested that there is positive and significant impact of subjective norm on adoption intention of online stock trading in Nepal. The result reveals that social pressure plays a big role and has a huge impact on investor's behavior towards the intention to make use of online trading. Ajzen (1991) stated that attitudes and beliefs of others in groups to which an individual belongs can shape his or her behavior toward the use of a specific technology. The finding coincide with the study of Muniandy (2006), Gopi and Ramayah (2007), Ramayah et al. (2009), Abroud et al. (2010), Ramayah, et al. (2014), Mohan and Bhuvanam (2015), Singh and Malhotra (2016), Afif et al. (2018) and Hemalatha (2019). On the other hand, the result obtained contradicts with the study of Lau et al. (2001), Lee and Ho (2003) and Lee (2009a) who did not found any significant impact of subjective norm on adoption intention of online stock trading.

When viewed theoretically, perceived behavioral control causes to control the behavior regarding the adoption of online stock trading. But, the result of this research showed that perceived behavioral control has insignificant impact toward adoption of online stock trading in Nepal. The results are similar from the findings of Lau et al. (2001), Lee and Ho (2003), Afif et al. (2018) and Hemalatha (2019). This result is different with the research of Taylor and Todd (1995), Muniandy (2006), Gopi and Ramayah (2007), Lee (2009a), Ramayah et al. (2014) and, Mohan and Bhuvanam (2015) that experienced perceived behavioral control significantly influencing adoption intention of online stock trading.

It is also known from the findings that there is positive significant impact of perceived trust on adoption intention of online stock trading of Nepalese investors. The study revealed that a belief in the system to maintain confidentiality and protecting

investor's privacy have a huge impact on adoption intention of online stock trading. Roca et al. (2009) stated investor shape positive expectation toward system if they can strengthen the trust over the system. The study is similar from the previous studies like Lee (2009a), Abroud (2012), Abroud et al. (2013), Bhuvanam and Mohan (2015) and, Maziriri et al. (2019) which stated perceived trust has significant impact on adoption intention of online stock trading. This finding however is not consistent with the findings from the studies conducted by Hemalatha (2019), as they found perceived trust to have no impact on adoption intention of online stock trading.

The study also confirms that perceived risk has a negative significant impact on adoption intention of online stock trading of Nepalese investors. So, if someone has a high perception of risk associated with online stock trading like compensation, fraud and hacker intrusion activities, then the investors tends to reduce their intention for adopting online stock trading and might prefer to invest physically rather than online. The results of this study support research conducted by Lee (2009a), Khan et al. (2018) and Hemalatha (2019). Kuisma et al. (2007) stated many customers are afraid of losing money while performing transactions or transferring money over internet. However, the findings of this research contradict the study conducted by Singh and Malhotra (2016) that mentioned all the PR elements like security risk, privacy risk, financial risk and fraud risk had positive significant impact on investor's adoption intention toward online trading platforms.

5.2 Conclusion

This study measures the impact of technology acceptance determinants on adoption intention of online stock trading of Nepalese investors. This research is possibly the first one that studies the adoption behavior of online stock trading in Nepalese context. Sufficient evidence has been produced which concluded that few technology acceptance determinants used in the study have a significant impact on the investor's adoption intention behavior of online stock trading.

According to the results of the analysis, the conclusions can be drawn like significant positive impact of perceived usefulness, subjective norms and perceived trust and, significant negative impact of perceived risk on behavioral intention of investors towards adopting online stock trading in Nepal. So, technological acceptance determinants act as a basis for the investors which are perceived by the investors after

having experience in online stock market and it affect the investor's perceived psychology which ultimately affect the adoption intention behavior of the investors towards online stock trading.

The study concludes that system privacy and confidentiality of the transactions help the investors to develop the intention to trade stocks through online. Nepalese investors are more concern on the risk matter of trading through online system as they would not feel secure sending private personal information on the Internet. Hence, firms must ensure that their system are constantly upgrading with technology. As there is no chance of building personal relationships in such a scenario, it becomes primarily important to develop trust within the investors so that they may utilize online technologies to execute trading transactions. The study concludes online investors mostly have less experience of trading in market and they are highly influenced by the social groups regardless of having them control and capacity to use the system. The result suggest that stockbrokerage firms need to take a more active role in marketing online stock trading by demonstrating the transaction procedures and its benefits through video tutorials or other campaigns.

5.3 Implications

The study has used composed theory of planned behavior and utilized the technology acceptance model to predict behavioral intention for the purpose of trading stock over the Internet in Nepal. For this purpose, this study has broadened the prevailing knowledge regarding the composed TPB and TAM with perceived trust and perceived risk. The research results have supported the solidarity of these theories with respect to their capability to predict intention within a variety of countries, samples and technologies. Therefore, this study contributes to the literatures of adoption intention of online stock trading in context of Nepal.

With the help of this research, investors who are using the online technology are in a better position to understand more accurately about the aspects of their behavior. It was known from this study that when the investor transact stock over the internet, they consider the determinant factors like usefulness of online technology, trust over the technology, influence of social groups and the risk associated with the system. Investors need to be more cautious about the technological determinants, since those determinants has the highest impact on adoption intention of online stock trading.

This research is especially of great help to the investors who are not very skilled as it overcomes various distractions and nervousness during the process of trading online.

This study can help stock broker and NEPSE to find out the specifications of the individuals who have more potential to adopt and use online stock trading and devising more effective methods in order to encourage current investors and potential future investors to adopt online stock trading. In order to increase trust and lower the level of risk perception caused due to hesitation, NEPSE can ascertain a link between trading technology and websites like Meroshare and TMS. Further, NEPSE can ensure that they increase concentration and thereby reduce the factor of mistrust over online stock trading. Since, subjective norms have significant role in online trading, online brokers can also be more helpful for investors by creating a more favorable environment by reducing the nervousness as representing themselves as another important social group.

The better consideration of technology acceptance determinants could also help finance students, professionals and researchers to have some research information knowledge while making strategies and conducting further research. Lastly, it is also noteworthy to mention that the adoption intention behavior of the investors toward online stock trading is most likely to be affected in a favorable manner if the stock exchange provides low cost services and products.

5.4 Future Research

This research is relatively new in the context of Nepal as online share trading was introduced just few years ago and no studies regarding the same has been conducted in context of Nepal. By considering the limitations and scope of this research, the concept can be explored and examined extensively in future studies.

- This study takes six variables namely; PU, PEOU, SN, PBC, PT and PR that can affect the intention to adopt online share trading. Further studies can be conducted by taking other variables into consideration or adding other technological acceptance variables in the same model.
- The study has collected data only from individual investors. So, the same study can be extended by considering both individual and institutional investors.

- The investors in capital market are relatively small in Nepal. A research can be done to analyze opinion of the public towards investment in corporate securities and awareness about online stock trading to predict more about their intention for adopting new technologies in stock market.
- A comparative study of investor's perception of online share trading among cross cultural groupings can be carried out to know the factors influence on adoption intention.

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Appendix I

Appendix 1. Questionnaire

Dear Respondent, I am Nikita Maharjan, a student of Master of Business Administration (MBA) from School of Management Tribhuvan University (SOMTU), Kirtipur. I am conducting the survey entitled “**Technology acceptance determinants and adoption of online stock trading in Nepal**” as a graduate research project. I request you kindly spare few minutes to fill-in the questionnaire. Your information will be kept strictly confidential and will be used only for academic research purpose. Thank you for your participation.

Section A

1. Gender

Female

221

Male

163

2. Age groups

18 - 25 years

75

26 - 35 years

194

36 - 45 years

95

46 years and above

20

3. Education level

Masters Level

227

Bachelor's level

118

+2 or Intermediate level

33

SLC/ SEE level

6

4. Occupation/ Profession

Student

80

Employee/ Job Holder

241

Businessman

43

Others

20

5. Monthly income range

Currently unemployed/ Family income

75

Rs.13,501 – Rs.30,000

115

Rs.30,001 – Rs.50,000

126

Rs.50,001 and above

68

6. How long have you been investing/ trading in stock market?

Less than 3 years

300

More than 3 years

84

7. Which market would you like to invest in through online trading?

Primary Market	173
Secondary Market	54
Both	157

Section B

State your agreement based on the scale of: **1= Strongly Disagree, 2= Disagree, 3 = Neutral, 4= Agree, 5 = Strongly Agree**

**Please check only one per row*

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Perceived Usefulness					
Q1: Using the online trading enhances my effectiveness in stock trading.	6	14	26	223	115
Q2: Using the online stock trading system saves time and effort.	4	8	27	151	194
Q3: Using the online stock trading system makes it easier for me to conduct stock trading transaction.	4	12	34	221	113
Q4: Using the online stock trading system improves my performance in conducting stock trading transaction.	6	8	58	215	97
Perceived Ease of Use					
Q1: Learning to operate the online stock trading website is easy.	0	26	44	247	67
Q2: It is easy to get the online trading system to do what I want to do.	2	32	84	163	103
Q3: Conducting the online stock trading is not a complex task.	6	19	91	208	60
Q4: Interaction with the online stock trading service is clear and understandable.	7	16	51	229	81
Q5: The online stock trading system is easy to use.	1	13	48	248	74
Subjective Norm					

Q1: People who are important to me would think that I should use the online stock trading.	2	26	49	245	62
Q2: People who influence me would think that I should use the online stock trading.	3	17	67	226	71
Q3: People whose opinions are valuable to me would prefer me to use the online stock trading.	3	19	51	207	104
Q4: My friends who are important to me believe that the use of the online stock trading is necessary.	2	19	81	219	63
Q5: My coworkers who are important to me would think that using the online stock trading is a good idea.	5	22	69	214	74
Perceived behavioral control					
Q1: I will be able to use the online stock trading well when trading.	10	24	78	205	67
Q2: Using the online stock trading is entirely within my control.	4	14	114	173	79
Q3: I have the resources, knowledge, and ability to use online stock trading.	8	17	85	217	57
Q4: I have the required potentials to use online stock trading.	4	24	89	221	46
Q5: It is mostly up to me whether or not to use the online stock trading.	6	17	74	222	65
Perceived Trust					
Q1: Based on my perception of the online stock trading, I know it is trustworthy.	8	17	34	272	53
Q2: Based on my perception of the online stock trading, I believe it is predictable.	4	32	80	190	78
Q3: I trust the transactions in financial markets made through the Internet.	6	15	59	231	73
Q4: I think my information is kept confidential when I use the online stock trading.	8	15	65	231	65

Q5: I think the online stock trading system protect the investor's privacy.	10	23	62	228	61
Perceived Risk					
Q1: I would not feel secure sending private personal information on the Internet.	56	126	74	106	22
Q2: If online trading errors were to occur, I worry that I would be unable to get compensation.	23	112	116	90	43
Q3: I worry about the occurrence of fraud and hacker intrusion while trading online.	57	109	79	96	43
Adoption Intention					
Q1: I intend to buy and sell my stocks through the online trading system.	3	8	22	227	124
Q2: I expect to trade stocks online in future.	0	7	47	140	190
Q3: If I have access to online stock trading, I want to use it as much as possible.	0	12	33	170	169
Q4: I believe that the performance of online stock transactions will become an obligation in the near future.	4	11	38	122	209
Q5: I strongly recommend others to use the online stock trading.	0	6	43	150	185