Investor's Intention to Adopt Online Stock Trading in Nepal

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Abstract: This study examines the effect of performance expectancy, effort expectancy, social influence, security risk, economic risk, functional risk, and investor's intention to adapt online stock trading. This research is based upon the primary data. The primary source of the data was used to study the factors that influence the investor's intention to adopt online stock trading in Nepal. For the purpose of collecting the responses on the study and getting into the research objectives, 89 respondents were selected as the sample size. Data were collected with the help of structured questionnaire,which was further subjected to Reliability test, Normality test, correlation regression analysis of respondents in SPSS. Results shows that Performance Expectancy and Effort Expectancy have a high degree of positive correlation with Behavioral Intention, while Social Influence, Security Risk, Economic Risk, and Functional Risk have a moderate degree of positive correlation with Behavioral Intention.

1. INTRODUCTION

There must be change when something is unchangeable. The Greek philosopher Heraclitus once remarked that "Change is the only constant in life." The world, which is thought to have originated some 4.54 billion years ago, has continued to change and is now in the twenty-first century. The age of technology from the Stone Age has arrived in the modern world. The advancement of technology has fundamentally altered the planet. Technology has given this planet new forms, from a basic wristwatch to satellites, from a calculator to airplanes. Artificial Intelligence (AI) is one of technology's greatest contributions to the world. We no longer need to go shopping because everything can be ordered online and delivered right to our house. We can do all of those banking transactions while sitting at home instead of having to go to the bank. Every action we perform now is easy, practical, and affordable thanks to technology. The technological revolution has affected every industry in the world, including food, retail, sports,

and education. Now is easy, practical, and affordable thanks to technology. The technological revolution has affected every industry in the world, including food, retail, sports, and education. The 21st century has so far been the age of technology and science. Today's population uses computerized personal transportation, drives intelligent automobiles, does business on a smart phone, and has a persistent internet connection. Through the ages, technology has helped humans accomplish more in less time and with less effort. This is hailed by many as a means to simplify living. The way of life for people has never been the same since the technology revolution began. Technology has not only made life simpler for individuals, but it has also opened up new economic prospects. The convergence of artificial intelligence (AI), big data, and the Internet of Things (IoT) has resulted in an acceleration of technology's ability to help businesses achieve more with less and deliver better results (Wilburn, 2018).

The major objective of the study is to investigate the Investors intention to adopt online stock trading the specific objectives of the study are stated as follows.
- To analyse investor intention to adopt online stock trading in connection to performance expectancy, effort expectancy, social influence, security risk, economic risk, and functional risk.
- To explore the impact of investor intention to adopt online stock trading as well as performance expectancy, effort expectancy, social influence, security risk, economic risk, and functional risk.

2. RELATED WORKS

Bagozzi and Dholakia (2002) carried out a study to investigate the social and personal factors that influence a member's decision to participate in virtual communities. Intentions to join in virtual communities are determined by both individual factors (positive predicted feelings and desires) and community influences (social identity), according to an empirical study utilising multiple regression analysis on 157 regular users in virtual communities. Constantiou & Mahnke, (2010) also carried out a study to investigate, in the instance of mobile TV, the relationship between an individual's views of value factors and their intentions to adopt. After conducting in-depth interviews with thirty young adults employed in the private sector or students in Austria, as well as collecting questionnaire responses from 232 participants, they arrived at the conclusion that, although women tend to see other people's opinions as opportunities to improve their own decision-making skills, men tend to ignore them. Talukder, (2012) further examined, using TRA and TAM as the theoretical foundation, the factors that influence an individual employee's acceptance of technological innovation within an Australian organisational setting. The collected data from 275 respondents from an Australian organization through survey questionnaire. When they analyzed the collected data through correlation and regression analysis, the findings indicate that peers and social network are the two social elements that have an impact on an individual's adoption of innovation. A number of factors, including job-fit, perceived utility, intrinsic and extrinsic motivation, relative advantage, and information technology outcome expectations, influence performance expectancy. (Wu, Yu, & Weng, 2012). Maharjan (2018) carried out a study to explore citizens' behavior intention towards adoption of e-Government services in Nepal using Unified Theory

of Acceptance and Use of Technology model. This study performed a field survey of 213 people and used Structural Equation Modeling to evaluate the findings. The result revealed that the effect of success expectation, effort expectation, social influence, confidence, and website efficiency on usage behavior was not moderated by Behavior Intention. Poudel (2018) also studied Behavioral intention of job searchers to utilize online recruiting services in Nepal is determined by five factors: Subjective norms, Objective norms, Performance expectancy, Effort expectancy, and facilitating conditions. The study employed a purposeful sampling process to select 56 participants, who were final-year master's students from two Kathmandu business schools. The data was analysed using multiple regression analysis, and the results indicated that job seekers' behavioral intention to use online recruitment services is positively influenced only by their expectations of success and commitment. In contrast, the findings of a study (Thaker et al., 2019) to analyze the elements influencing investors' behavioral desire to participate in a peer-to-peer lending network, where the study was focused on an expanded technology adoption model and a formal survey questionnaire, showed that intention to invest is primarily influenced or motivated by confidence, with protection having no effect on intention investor's decisions.

Theoretical Framework
The Theoretical framework is developed from the literature review discussed. This diagram is the foundation on which entire research work is based. It explains the relationship between dependent variables and independent variables.
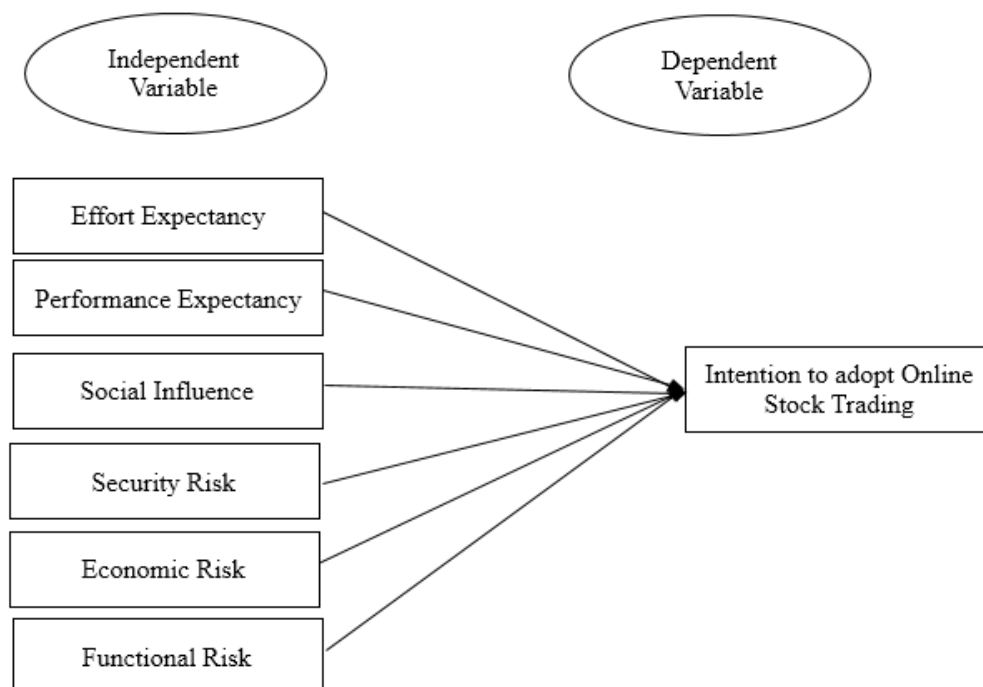

Figure1: Theoretical Framework

3. RESEARCH METHODOLOGY

The nature of this study is descriptive. Its objective is to paint a picture of the investor's plan to use internet stock trading. I employ the cross-sectional research design since the data was gathered all at once. Furthermore, a descriptive research methodology is appropriate when primary data is gathered from a representative sample of respondents, and study findings are extrapolated to the entire population from which the sample was taken. The impact of performance expectancy, effort expectancy, social influence, security risk, economic risk, functional risk, and investor intention to adapt to online stock trading are all examined using a cross-sectional research design. A sample size of 145 respondents was chosen in order to acquire the replies to the study and to address the research objectives.

Data Collection Procedures
The main facts serve as the foundation for this study. The main data source was utilized to investigate the variables influencing investors' propensity to use online stock trading in Nepal. The study involved the collection, processing, and analysis of primary data. Nonetheless, the development of the theoretical framework, questionnaire, and sampling design was aided by the secondary data. A questionnaire that respondents self-administered was used to gather primary data. A survey including questionnaires was sent to individual investors. Performance expectancy, effort expectancy, social influence, security risk, economic risk, and operational risk were the four independent variables, and behavioral intention to embrace online stock trading was the dependent variable. These variables each had three constructions. All the constructs were measured on 5-point Likert scale. The questionnaire was distributed electronically using a google form.

Data Analysis
The information gathered from the questionnaire was summarized using a descriptive statistical technique. The study also looks at the relationship between behavioral intention and performance expectation using inferential statistics, such as regression analysis and correlation. The data was analyzed using the statistical software programmer Statistical Package for Social Sciences (SPSS).

4. RESULT AND CONCLUSION

Table 1: Analysis of Reliability

Variable	No. of items	Cronbach's Alpha
Performance Expectancy	4	0.893
Effort Expectancy	4	0.917
Social Influence	4	0.835
Security Risk	4	0.870
Economic Risk	4	0.914
Functional Risk	4	0.871
Behavioral Intention	3	0.861

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Table 1 shows the Cronbach's Alpha is used to test reliability test of primary data. As the coefficient of variables are grater then 0.6 which indicate that all variables are reliable.

Table 2: Respondent's demographic profile

		Frequency	Percent
Gender	Male	93	64.1
	Female	52	65.9
	Total	145	100
Academic Qualification	Below Bachelors	13	9
	Bachelors	73	50.3
	Masters above	59	40.7
	Total	145	100
Age	18-25	83	57.2
	26-35	42	29
	36 or more	20	13.8
	Total	145	100
Occupation	Salaried employee	66	45.5
	Business or professional	51	35.2
	Student	28	19.3
	Total	145	100
currently usage online stock trading	Yes	135	93.1
	No	10	6.9
	Total	145	100

The information from Table 2 indicates that 64.1percent of participants were male, while 65.9percent were female. Most respondent's 57.2 percent were in the 18-25 age category, followed by 29 percent in the 26-35 age category, and 13.8 percent in the 36 or older category. In terms of occupation, 45.5 percent of the respondents were students, 35.2 percent were salaried employees, and the remaining 19.3 percent were either professionals or businesspeople. Regarding online stock trading, 93.1 percent of the sampled respondents currently use it, indicating its popularity among investors, while 6.9 percent do not use it for various reasons.

Table 3: Analysis of Determinants of Online Stock Trading

	Mean	Std. Deviation
Better performance	1.57	.944
Ease of use	1.98	1.011
Social influence	2.50	1.174
System security	2.59	1.172
Low cost of maintenance	2.73	1.122
Service reliability	2.76	1.295

Table 3 shows the First position is Better Performance with least mean of 1.57 and standard deviation of 0.944, followed by better performance, system security, service reliability, peer influence and maintenance cost respectively with mean of 1.98,2.50, 2.59,2.73 and 4.49 and standard deviation of 1.011, 1.174, 1.172, 1.122 and 1.295 respectively. Opinions on Factors Influencing Adaptation of Online Stock Trading

Table 4: Analysis of Performance Expectancy

Statements	Mean	Std. Deviation
My efficiency in stock trading would increase if I used online stock trading.	3.90	1.139
Online stock trading is helpful, in my opinion.	3.99	1.046
I could make stock trading more convenient by using online stock trading.	3.87	1.076
Using online stock trading would enable me to accomplish stock trading more quickly.	3.79	1.069
Performance Expectancy	3.88	1.08

Table 4 shows the strongest factor is perceived usefulness with average mean of 3.99 and the least strong is perceived efficiency enhancement with average mean of 3.79. The average is 3.88which is higher than the mean value of 3. This shows that most of the people expects online stock trading to enhance their performance related to stock trading.

Table 5: Analysis of Effort Expectancy

Statements	Mean	Std. Deviation
It would be simple for me to pick up the mobile stock trading app.	3.61	1.108
Online stock trading should be transparent and stable, in my opinion.	3.53	1.039
I could easily pick up the skills necessary for online stock trading.	3.61	1.060
I would find it simple to use internet stock trading.	3.64	1.052
Effort Expectancy	3.59	1.06

Table 5 shows the strongest factor is perceived usefulness with average mean of 3.64 and the least strong is perceived easiness of developing online trading skills with average mean of 3.53.

The average is 3.659 which is higher than the mean value of 3. This shows that most of the people expects online stock trading to save their trading efforts while trading through online stock trading.

Table 6: Analysis of Social Influence

Statements	Mean	Std. Deviation
I feel people around me would encourage me to use online stock trading.	3.61	1.217
I'll talk to my peers about trading stocks online.	3.55	.925
In my environment, people who use online stock trading have more prestige than those who do not.	2.97	1.011
Important people in my life would probably advise me to trade stocks online.	3.32	1.006
Social influence	3.36	1.01

Table 6 shows the strongest factor is perceived prestige with average mean of 3.61 and the least strong is perceived encouragement with average mean of 2.97. The average is 3.36 which is higher than the mean value of 3.

Table 7: Analysis of Security Risk

Statements	Mean	Std. Deviation
Using internet stock trading platforms to execute stock trades would not make me feel secure.	2.70	1.212
I'm concerned that someone else could have access to my online stock trading account.	2.91	1.106
Sensitive information would not feel safe to send over internet stock trading platforms.	3.00	1.074
Wouldn't feel comfortable sharing private information with internet stock trading platforms.	3.06	1.155
Security Risk	2.91	4.549

Table 7 shows the most perceived security risks are perceived loss of information theft and perceived fear of identity theft with average mean of 3.06 and the least perceived security risk is insecurity to carry online trading with average mean of 2.70. The average is 2.91, which is just higher than the mean value of 3.

Table 8: Analysis of Economic Risk

Statements	Mean	Std. Deviation
I am uneasy about using online stock trading because I may lose money due to incorrect operation.	2.84	1.193
I am uneasy about using online stock trading because I may lose money due to a careless mistake.	2.98	1.154
I am uneasy about using online stock trading because I may lose money due to system processing errors.	2.90	1.121
When transaction errors occur, I am concerned that the securities broker may not compensate my loss.	3.00	1.165
Economic Risk	2.93	1.15

Table 8 shows the most perceived economic risk is perceived denial of compensation by the broker with average mean of 3 and the least perceived economic risk perceived fear of losing money due to incorrect operations with average mean of 2.84. The average is 2.93, which is higher than the mean value of 3. This shows that most of the people are not afraid of the economic issues associated with the online stock trading.

Table 9: Analysis of Functional Risk

Statements	Mean	Std. Deviation
I might not be able to perform well on online stock trading systems, due to the limited processing power of internet gadgets.	2.92	1.008
I am uneasy about using online stock trading because transactions may fail due to the unstable nature of online devices/operating systems/networks.	2.94	1.103
I may not be able to perform well on online stock trading systems because of system failure.	3.02	1.099
I'm worried that because of inadequate functionality or system errors, internet stock trading services won't be able to satisfy my needs.	2.82	1.109
Functional Risk	2.92	1.07

Table 9 shows the most perceived functional risk is unstable nature of operations networks with average mean of 3.02 and the least perceived functional risk is system malfunction with average mean of 2.82. The average is 2.92, which is just higher than the mean value of 3.

Table 10: Analysis of Behavioral Intention

Statements	Mean	Std. Deviation
I intend to use online stock trading in the future.	3.32	1.166
I will use online stock trading for my stock trading needs.	3.35	1.015
I will prefer online stock trading over offline stock trading	3.23	1.188
Behavioral Intention	3.3	1.123

The table 10 depicts the investor's intention to adopt online stock trading in Nepal. The strongest opinion came for that investor's will use online stock trading for future needs with average mean of 3.35 and least strong opinion came for investor's future intention to use online stock trading with mean value of 3.32. The average is 3.3, which is higher than the mean value of 3.

Table 11: Correlation Analysis

	PE	EE	SI	SR	ER	FR	BI
PE	1	.778**	.687**	.338**	.416**	.378**	.721**
EE		1	.743**	.481**	.399**	.505**	.707**
SI			1	.537**	.423**	.439**	.598**
SR				1	.578**	.534**	.552**
ER					1	.649**	.511**
FR						1	.506**
BI							1

**Correlation is significant at the 0.01 level (2-tailed).
Note: Number of Observation N is 89, PE- Performance Expectancy, EE Effort Expectancy, SI- Social Influence, SR Security Risk, ER- Economic Risk, FR Functional Risk, and BI Behavioral Intention
PE and EE have a high degree of positive correlation with BI, while SI, SR, ER, and FR have a moderate degree of positive correlation with BI.

Table 12: Regression Analysis

Model	Constant	PE	EE	SI	SR	ER	FR	R Square	F	Sig
1	-0.260	0.399*	0.329*	-0.81	0.232	0.175	-0.33	0.672	23.912	0.000

	(0.419)	(0.002)	(0.019)	(0.521)	0.027	(0.085)	(0.767)		
		(3.017)	(3.653)	(2.661)	(1.980)	(2.278)	(2.131)		

Note: * Result are significant at five percent level of significance, ** Results are significant at one percent level of significance. Figure in the parentheses indicate level of significance and variance inflation factor (FIV) respectively.

The table 12 revealed that the model is fitted at 5% level of significance as indicated by the P-value of 0.000. The coefficient of Determination (R2) is 0.672 which shows that in this study the independent variables explained 67.2% of the variations in the dependent variable. The remaining 32.8 % represents other proxy of independent variables that were not considered in this study

Model Diagnostic Test
The variance Inflation Factor of all independent variable (VIF$_{PE}$ =3.017, VIF$_{EE}$ =3.653, VIF$_{SI}$= 2.661, VIF$_{SR}$ = 1.980, VIFER = 2.278, VIFRR = 2.131) is less than 5. So, the model is free from Multicollinearity.

5. CONCLUSION

This paper is to measure the relationship between performance expectancy, effort expectancy, social influence, security risk, economic risk, functional risk, and investor's intention to adapt online stock trading. It is found that performance expectancy and effort expectancy has positively significant related with behavior intention. Likewise, social influence and functional risk is negative insignificant relationship with behavior intention similarly security risk and economic risk is positive insignificant relationship with behavior intention. However, they appear to overlook the risk considerations that come with it, too, as investors' intentions to use online stock trading were not significantly impacted by either the economic or security risks. May be investors are only seeing the money that can be earned from stock trading but ignoring how risky it can be given there is the chance of losing personal information and the money because of the small and silly mistakes. Hence, if online stock trading is made safe, secure, and convenient, both the parties associated i.e. regulator bodies and investors can be benefitted which ultimately will benefit the economy as a whole.

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