

## Mobile stock trading platforms and individual investors' Financial performance

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### Abstract

*Behavioral finance has provided a variety of explanations for individual investors' financial performance that focus on behavioral biases, and information systems (IS) have developed theories about financial information system issues from the system management perspective. This study examines 2,726 proprietary online individual investors' stock trading accounts and analyzes the field survey responses of a group of 178 individual investors. This study investigates different IS-related constructs and their association with individual investors' financial performance. The results reveal that the perceived usefulness of IS mobile stock trading platforms in the risk-seeking individual investors' group is significant and positively associated with their financial performance.*

*Keywords: Mobile stock trading, financial risk disposition, technology acceptance, smart phone, stock trading, financial performance, IS constructs*

### Introduction

The psychology of optimism and wishful thinking suggests that most people display unrealistically optimistic views of their abilities and prospects (Weinstein 1980). Many often believe their perceptions and individual signals instead of public market signals (Buehler et al. 1994) and make decisions based upon how they feel about their competence or expertise levels (Heath and Tversky 1991). Information Systems (IS) have been the key enabler and a significant catalyst in many business operations. From collecting financial market data to conducting the actual financial transactions, these platforms are an irreplaceable component of any financial trading activity. In the past, the main platform took the form of person-to-person meetings via a broker or through phone calls. Now, the preferred platform is mobile, which offers outstanding

accuracy, efficiency, timeliness, and ubiquity. IS have been a catalyst for the startling growth of finance markets over the past few years, particularly the growth in the number of online brokers.

Despite the ever-increasing role of IS in finance, no studies have addressed the impact of IS mobile stock trading platforms and individual investors' financial performance. Behavioral finance theories describe individual investors' financial cognition and psychological behavior (Barber and O dean 2000a) and a variety of explanations for individual investors' financial performance have focused on behavioral biases (Kumar et al. 2011). IS has developed a theory of financial information system issues from the system management perspective (Dass and Pal 2010). However, no study so far has specifically focused on the relationship between mobile-based stock trading platforms and individual investors' financial performance.

Given the critical role of IS in financial markets, the relationship between individual investors' financial performance and mobile stock trading platforms invites tantalizing research inquiries, which led to this study. This study explores the following research questions:

- 1) Which IS constructs should be used to examine the relationship between mobile stock trading platforms and individual investors' financial performance?
- 2) Through what vehicle do IS constructs travel to affect individual investors' trading decisions?
- 3) What is the impact of these constructs on individual investors' financial performance?

The study shows that the perceived usefulness of IS mobile stock trading platforms in the risk-seeking individual investors' group is significant and positively associated with their financial performance. This research bridges the gap between the finance, IS literature, and invites more research along this track to broaden the knowledge base and further examine the relationship between mobile stock trading platforms and financial performance, and advance the developments of other enhanced mobile stock trading platforms.

#### **Theoretical Framework and Research Model**

Currently, no finance studies have examined the relationship between individual investors' financial performance and IS mobile stock trading platforms. In addition, no studies have considered the effects of mobile stock trading platforms on investors' perceptions, risk-taking behaviors, and performance. We, therefore, turn to an area that is essential to the study, that is, the vehicle through which IS travel to affect individual investors trading decisions and ultimately their financial performance: individual investors' perceptions concerning IS mobile stock trading platforms and their predisposed risk-taking behavior.

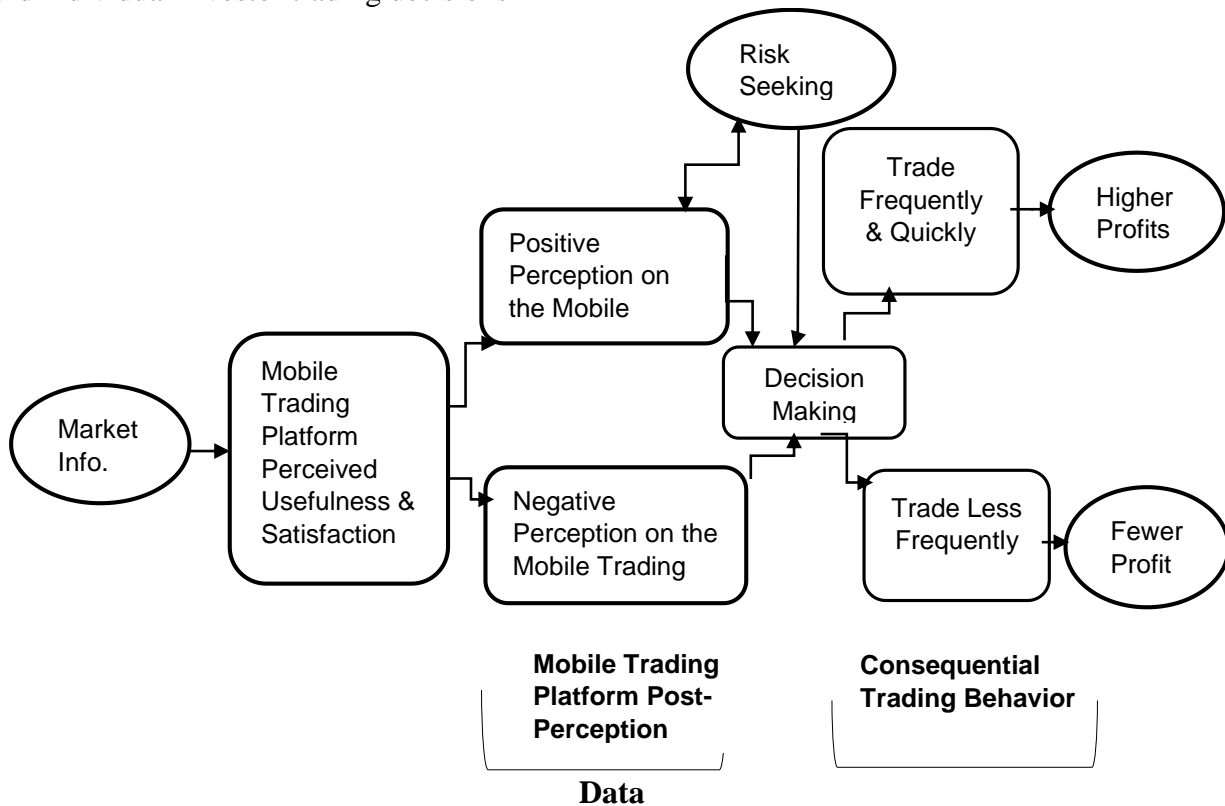
Risk attitude is the set of emotional and psychological attributes of each investor. Widely used tools determine each risk attitude, such as the quantitative approach, which uses measures of dispersion, or the psychometric approach, which is concerned with knowledge, attitudes, and personality traits. This study uses the latter approach, based on the work of Cordell (2001; 2002) and Lucarelli and Brighetti (2010), who report that risk categories can be identified by individuals' self-assessment of their risk tolerance. Similarly, risk attitude can be identified by investors' self-assessed generic risk attitude and risk preferences (Holzhauer and McLeod 2009).

All investors exhibit their level of risk taking through their trading decisions. There are three risk-taking categories: risk averse, risk neutral, and risk seeking. These categories explain what is meant when an investor says, “I am a more risk-averse investor,” “I am a more risk-neutral investor,” or “I am a more risk-seeking investor.” It is also true that the peculiarities and/or cognitive cues in a trade environment may influence an investor’s decisions, but the basic risk-taking tendency is still observable in the individual investors trading decisions. If the investor is risk averse, the investor will take steps to minimize risk. On the other hand, if risk-seeking, the individual investor will take more chances. Such investors are inclined to take more chances with only a select few investments and trade them quickly to make fast profits. For instance, such an investor could invest in one stock, expecting to obtain a high return on investment, or will trade fast to chase profits. Finally, the risk-neutral individual investor stands at the midpoint between the risk-averse and the risk-seeking investors.

Information processing is related to the nature of human decision making (Ricciardi 2008; Sjöberg 2000). Ricciardi (2008) notes that individual investors are exposed to various forms of information due to the rise of the Internet and must seek ways to process this information to make decisions. However, individual investors are not rational. Graham et al. (2009) address irrationality by positing that human behavior not only is cognitive but also can depart from rationality due to behavioral biases. For example, investors could become overconfident (Barber and O dean 2000a). Graham et al. (2009) find that individual investors who believe that they are more conscious act upon that belief and trade more frequently.

Perception is categorized as more of an evaluative than an analytical function (Frijda 1994), in that the action of perceiving is not neutral. Rather, perceiving an event or a collection of information evokes a positive or negative judgment or assigns some positive or negative valence in the perceiver’s mind to that event or information. Perceptual reactions or evaluations occur at a very early stage of perception and are therefore more fundamental than cognitive assessments (LeDoux 1996). Individuals’ selection of information influences how they perceive that information. Selection is necessary because investors are incapable of absorbing all the information available to them. Therefore, they selectively focus on information that receives their immediate, conscious attention. Further complicating how investors use information is the fact that each investor interprets information differently from other investors, based on their subjective understanding, knowledge, feelings, and attitudes (Ricciardi 2008). Some information may even be disregarded if it is inconsistent with the investor’s preconceived beliefs. Moreover, investors are prone to accept information from unreliable sources if such information is believable and consistent with their existing perceptions of events (Evans and Curtis-Holmes, 2005). An individual investor’s source of information is a significant factor, and if the news comes from sources individual investors perceive as reliable, they will trade more frequently or take more risks based on that information (Epstein and Schneider 2008).

**Figure 1.** IS mobile stock trading platform, information collection, perceptions, risk attitudes, and individual investor trading decisions



The primary data set for this research comprises account data from the online advisory service Collective2. The sample consists of 2,726 accounts and 256,674 round-trip transactions from November 2004 to January 2012. The data include the individual trader's name, a unique account identification number, when the position was opened and closed, the open and close prices, whether the position was short or long, the number of contracts opened and closed, and the net profit and loss (P/L) in U.S. dollars.

Table 1 presents descriptive summary statistics for all 2,726 account holders. For each account, we estimate Trade Size in U.S. dollars, Trades per Day, Age in days, Hold Time in hours, and the total Number of Trades. The variable Trade Size is defined as the number of contracts per position (number of contracts - stocks to sell or buy) times the open price paid. The variable Trades per Day is defined as the total number of trades executed by an account holder divided by Age, measured in days. The variable Age is defined as the length of time an account is to be held open, measured in calendar days. The variable Hold Time is defined as the length of time in hours a position is held open before it is closed. The term Number of Trades is defined as the total number of trades executed by an account holder over the entire duration of the account.

The second data set comprises the results of a field survey of a group of 178 online individual investors. Table 2 shows the demographics of the survey respondents.

**Table 1. Descriptive statistics**

<i>Item</i>	<i>Mean</i>	<i>25th Pct</i>	<i>Median</i>	<i>75th Pct</i>	<i>Obs.</i>
Trade Size (US\$)	27,085	3,694	9,184	20,580	256,739
Trades per Day	0.46	0.08	0.24	0.78	2,726
Age (days)	205	21	99	253	2,726
Hold Time (hours)	206	6	30	144	256,739
Number of Trades	94	2	13	54	2,726

**Table 2. Survey respondent demographics**

<i>Demographic Characteristics</i>	<i>Online Investors</i>	<i>Frequency Count</i>	<i>Total Frequency (%)</i>
Age	<i>N = 178</i>		
	18–25	13	7%
	26–35	46	26%
	36–40	23	13%
	41–50	42	24%
	>50	54	30%
Education	<i>N = 178</i>		
	Associate degree	38	21%
	Bachelor degree	62	35%
	High school	43	24%
	Master or higher	35	20%
Trading Experience	<i>N = 178</i>		
	Less than one year	82	46%
	One to two years	27	15%
	Two years or more	69	39%
Risk Level	<i>N = 178</i>		
	I am risk averse.	46	26%
	I am a risk seeker.	47	26%
	I am neutral.	85	48%

### **Identifying the Constructs of Mobile Trading Platforms**

Rational traders should trade on the premise of maximizing their utility, or satisfaction (Viceira 2000). Behavioral preferences explain individual investors' trading choices (Shefrin and Statman 2000). Individual investors' choices are also affected by information, and the act of obtaining this information in the financial markets is directly related to performance and risk. Verrecchia (1982) analyzes the role of information and risk and shows that if the acquisition of information is less costly, the risk tolerance of individual investors will increase (i.e., they will assume more risk). Corroborating these findings, Dorn and Huberman (2005) show that individual investors who are well informed tend to hold riskier stocks, trade more, and achieve high returns on a risk-adjusted basis.

We mention in the theoretical framework that the perception of information collected using a mobile stock trading platforms and individual investors' risk attitudes are closely related to their performance. The theory of planned behavior and other finance studies by Huberman (2001) and Odean (1999) relate to observable behavioral factors that could explain individual investors' decision-making processes. To explain individual investors' decision-making processes, unobservable behavioral factors such as perceptions and risk attitudes are as important as the observable factors (Dorn et al. 2007; Graham et al. 2009).

To develop measurable IS constructs to investigate how mobile stock trading platforms affect individual investors' stock trading performance; we carefully evaluated different research methods and paths. This step was even more challenging since no prior empirical study of this kind exists in either finance or IS. Although no single method clearly stands out from previous research, the field survey approach seemed most appropriate. A questionnaire was drafted to identify measurable constructs. Some survey items were identified from previous studies (Im et al. 2011; Roca and Gagné 2008 Wixom and Todd 2005), namely, behavioral intention, perceived usefulness, accuracy, information quality, information satisfaction, system satisfaction, and system timeliness. A total of 20 items were selected (see Appendix A). The IS constructs' scales were subjected to principal component analysis using SPSS version 19(see Appendix B). Consequently, we had two IS constructs: perceived usefulness and satisfaction.

The above analysis addresses the first research question. Which constructs should be used to examine the relationship between mobile stock trading platforms and individual investors' financial performance? The perceived usefulness construct is one of the two IS constructs from the well-known technology acceptance model (see Davis 1989) and satisfaction is the second (Wixom and Todd 2005).

### **Information Systems Constructs and Their Significance**

The survey asked individual investors about their risk-taking disposition. Of 178 completed responses, 46 were from risk-averse investors, 47 were from risk-seeking investors, and 85 from risk-neutral investors. In this study, we have three levels of risk taking. For labeling convenience in the data analysis, we denote investors identified as risk seeking with RS, the risk averse with RA, and the risk neutral with RN.

We use the Mann–Whitney U-test to determine which group is significantly different from the others. The test used for each pair group makes the following comparisons: (RS) group versus

(RA) group, (RS) group versus (RN) group, and (RA) group versus (RN) group (see Table 3). The findings reveal significant differences between the RS and RA groups ( $p=0.001$ ) and between the RS and RN groups ( $p =0.010$ ), as shown in Table 3. In other words, there was a significant difference in risk seeking between the(RA) group and(RN) groups.

**Table 3. Mann–Whitney U-test results**

	RS vs. RA	RS vs. RN	RA vs. RN
Mann–Whitney U	627.500	1477.500	1693.500
Wilcoxon W	1755.50 0	2605.500	5434.500
Z	-3.366	-2.566	-1.173
Asymp. sig. (two tailed)	.001	.010	.241

To determine if the constructs are significant among the different risk groups, we conduct non-parametric analysis, the Kruskal–Wallis test. For the satisfaction construct, the test result reveals no significant difference between the three groups, with chi-squared (2,  $n =178$ ) = 5.429 and  $p =0.066$  (see Table 4). Concerning the perceived usefulness construct, the test results reveal statistically significant differences between the three groups, with chi-squared (2,  $n =178$ ) = 11.817 and  $p =0.003$  (see Table 4).

**Table 4. Kruskal–Wallis test results**

	<i>Satisfaction Perceived Usefulness</i>	
Chi squared	5.429	11.817
df	2	2
Asymp. sig.	0.066	0.003

\* $p = 0.05$

These results suggest a significant difference in the perceived usefulness of the mobile stock trading platforms among the three different risk-taking groups, but no significant difference for the satisfaction construct.

### **Individual Investors’ Financial Performance, and Information Systems Constructs Hypotheses**

Individual investors’ performance increases with perfect information collection (Peress 2004). The technology acceptance model posits a positive relation between the software usefulness and its frequency of use. The theory states that the more useful the mobile trading platform is perceived to be, the more likely investors will use it (Adams et al. 1992; Davis 1989; Lederer et al. 2000).

According to the gambling theory (Calvet et al. 2006; Dorn et al.2007; Kumar 2009), risk-taking investors often fit the profile of a gambler, which means they will focus on the amount of capital they hope to achieve rather than on the expected profit from each bet. Gamblers chase profits by placing bets that will increase their overall wealth, regardless of the risk that they take on their individual trades (bets). Gambling theory (Kumar 2009; Kumar et al. 2011) helps explain why: as a gambler, a risk-seeking investor is fixated on maximizing the expected return of total capital accumulation rather than the expected profit from each bet. Contrary to the belief that a gambler is a relentless and reckless risk-taker, such an individual often exercises a reasonable measure of control and secures plenty of information before making the next move, hence “maximizing a situation.” Gamblers, or, in this context, risk-seeking individual investors, are enabled by their perception of an IS mobile stock trading platforms’ usefulness to pursue the maximization of their stock trades though risk-seeking trades. Thus, it is clear that the gambler’s betting behavior and the risk-seeking individual investors’ behavior mirror one another.

So, building on the findings above, we hypothesize that the significantly higher perceived usefulness/satisfaction of the IS mobile stock trading platform would influence individuals in the risk seeking group, to act on their predisposed risk attitudes when the technology affords and supports the intentional placing of trades, which ultimately affects individual investors’ financial performance. This leads to the following hypotheses.

- H1: There is a significant association between the *perceived usefulness* of the IS mobile stock trading platforms in the risk-seeking individual investors’ group and their financial performance.
- H2: There is a significant association between the *satisfaction* of the IS mobile stock trading platforms in the risk-seeking individual investors’ group and their financial performance.

### Methodology and Results

This analysis seeks to determine any significant associations between the two constructs as applied to mobile stock trading platforms and individual investors’ stock trading performance. For this analysis, we use a data set of the proprietary financial transactions of 2,726 accounts and 256,674 round-trip transactions of individual investors dating from November 2004 to January 2012. We verified those transactional data using Bloomberg terminals and Thomson Reuter’s databases, the main venues of transactional data verification in stock trading.

Multiple linear regression has been used to analyze similar types of data sets (Abbey and Doukas 2015; French 2008).The regressing equation is

$$P/L_t = \alpha_t + \sum_i \beta_{it} F_{it} + \epsilon_t$$

where

- P/L = profit and loss per account holder or individual investors’ time t  
= constant coefficient  
= coefficient that measures the sensitivity of the P/L to the factor  
= beta factor that affects P/L  
 $\epsilon$  =independent and identically distributed random error term



The variable P/L refers to the profit/loss of an account holder and also represents the individual investors' financial performance. The term  $\sum_{it} \beta_{it} F_{it}$  refers to all the explanatory variables that can impact the profit and loss of an account holder, which are shown in Table 5 and briefly described as follows: Trades per Day is defined as the number of trades completed per day by each individual investor; Account Age refers to the amount of time since the trading account was opened by an individual investor; and Position Size refers to the average position size of a trade, which is calculated by the number of contracts (stocks) purchased or sold times the purchase price. We then introduce dummy variables to help focus the analysis on certain characteristics of the individual investors. We introduce the dummies Education, which takes the value of one for individuals who characterize themselves as having a bachelor degree or above and zero otherwise; Trading Experience, which takes the value of one for individuals who have more than one year of trading experience and zero otherwise, and Risk Level, which takes the value of one for individuals who characterize themselves as risk seekers and zero otherwise.

The rationale for using the variables mentioned above is for them to act as control variables. First, Trades per Day is used as a control variable, because Barber and Odean (2001b) discovered that more active investors (investors who trade frequently) underperform compared to the fewer active investors who do not trade frequently. Second, Account Age is used as a control variable because Nicolosi et al. (2009) find that individual investors learn from their trading experiences. As a result, the authors find that the longer individual investors trade, the more they learn and the better they perform. Third, Position Size is used as a control variable because, according to Abbey and Doukas (2015), account holders who trade larger position sizes outperform those who trade smaller position sizes. The dummy variables Education, Trading Experience, and Risk Level help focus the analysis on certain characteristics of individual investors.

As mentioned in the theoretical framework, the vehicle through which IS constructs travel to affect individual investors' trading decisions and ultimately their financial performance is investors' perceptions of the information and risk attitudes. To explore the relationships between IS constructs, risk-taking behavior, and individual investors' financial performance, we use the variable Hold Time, the mean length of time a position (stocks bought and sold) is held open for individual investor's account. The variable Hold Time is a proxy for risk, because the less time an individual investor holds stocks before trading them, the higher the investor's risk-seeking level. To elaborate more, say there are two investors, X, and Y, who are in the same market and exposed to the same amount of information. Investor X trades more frequently than investor Y. In a financial interpretation, investor X can be described as risk-seeking while investor Y is not, and therefore, Y can be considered risk-averse. These rationales and explanations are from the prominent finance studies of, for example, Calvet (2009), Kelly (1956), and Kumar et al. (2011). The last two variables in the model are the dummy Perceived Usefulness, which takes the value of one if the trading platform is perceived as useful and zero otherwise, and the dummy Satisfaction, which takes the value of one if individual investors are satisfied with the mobile trading platform and zero otherwise. We define the relationship between the perceived usefulness of mobile stock trading platforms and Hold Time (the proxy of risk) using the following theoretical interpolation from the literature. Gambling theory (Barron et al. 1988;

Coups et al. 1998;Shepp 2002) supports that a risk-seeking individual investor will hold stocks for less time and regularly trade to chase after profits.

We estimated the regression and the results in Table 5 show that, in model 1, the Trades per Day variable is positive and significant, with a t-statistic of 4.139, and Account Age (the time since the account has been open) is positive and significant, with a t-statistic of 5.908. These variables suggest that the more an individual investor trades per day and the more time the individual investor's account is open to trade, the more profit the investor can achieve. The variable Position Size is negative and insignificant, with a t-statistic of -0.66, and has no effect on profit/loss. The variable Hold Time is negative and significant, with a t-statistic of -3.26, which means that the faster an individual investor trades, the higher the chance the investor has of making a profit. In other words, an individual investor would make more profit if trading quickly, that is, risk taking behavior.

We introduce the dummies Education in model 2 and Trading Experience in model 3. Table 5 shows that Hold Time is still negative and significant, with a coefficient of -0.001 and -0.0011, and with t-statistics of -3.27 and -3.39for models 2 and 3, respectively. These results further confirm that the Hold Time has a significant relationship with individual investors' performance, even after controlling for specific individual investor characteristics.

In model 4, we introduce the Risk Level dummy to add an important dimension to the analysis: We want to examine what effect individuals self-identified as risk seekers have on the sign and significance of the coefficient of Hold Time. The goal is to confirm if Hold Time remains negative and significant, which should be the case for this focused analysis of individuals who identified themselves as risk seekers. If we observe a shift in the sign and/or significance of Hold Time, it follows that Hold Time is not a proxy for risk. Table 5 shows that, after introducing the dummy Risk Level in model 4, Hold Time is still negative and significant, with a coefficient of -0.0011, and with a t-statistic of -3.25, which confirms that Hold Time is a proxy for risk.

We now focus the analysis on individuals who perceived the IS mobile stock trading platform as useful to determine if there is a relationship between the IS mobile stock trading platforms perceived usefulness construct and individual investors' financial performance while keeping in check the reaction of Hold Time. We postulate that perceived usefulness and satisfaction are related to Hold Time. The rationale behind this assumption is that the more useful an IS mobile stock trading platforms is perceived to be, the more individual investors will be satisfied with it, the more the individual investors will trust the information collected from it, and, thus, the more likely an individual investor will use the platform to trade (Adams et al. 1992; Davis 1989; Lederer et al. 2000). Consequently, the more individual investors use the mobile platform to trade, the less time they will hold their positions.

Model 5 in Table 5 shows that perceived usefulness is positive and significant, with a t-statistic of 1.81. We conclude that the perceived usefulness of the IS mobile stock trading platforms has a positive and significant impact on individual investors' financial performance. Moreover, model 5 of Table 5 shows that the Hold Time variable is still negative and significant, with a coefficient of -0.015, and with a t-statistic of -3.44. After we introduced the perceived usefulness, construct in model 5, the Hold Time variable coefficient increases from -0.001 in model 1 to -0.015 in model 5, which implies a relationship between perceived usefulness and Hold Time (the proxy

for risk). The relationship can be summarized as follows: If individual investors perceive a mobile trading platform as useful (significant t-stat.= 1.81), then they can improve their financial performance through risk-taking behavior by decreasing their hold time (t-stat.= -3.44, negative and significant). The perceived usefulness of the mobile trading platform enables predisposed risk-seekers to act on their risk-seeking behavior and trade frequently and quickly, which ultimately leads to higher profits. Therefore, we find that H1 is supported.

We now focus the analysis on individuals who are satisfied with the mobile stock trading platforms to determine if there is a relationship between the IS mobile stock trading platforms satisfaction construct and individual investors' financial performance while keeping in check the reaction of the Hold Time variable. Model 6 of Table 5 shows that satisfaction is positive and insignificant, with a t-statistic of 0.57, while Hold Time is still negative and insignificant, with a coefficient of -0.007 and a t-statistic of -1.15. We can, therefore, conclude that the level of satisfaction with the IS mobile stock trading platform has no significant impact on individual investors' financial performance; therefore, H2 is not supported.

Finally, we regress all the variables on P/L. Model 7 of Table 5 shows perceived usefulness is still positive and significant, with a t-statistic of 1.79, while satisfaction is now negative and insignificant, with a t-statistic of -0.51. Also, Hold Time is still negative and significant, with a coefficient of -0.019 and a t-statistic of -3.45. These findings further support H1 but not H2.

**Table 5. Regression Models**

<i>Independent Variables</i>	<i>Model 1</i>	<i>Model 2</i>	<i>Model 3</i>	<i>Model 4</i>	<i>Model 5</i>	<i>Model 6</i>	<i>Model 7</i>
<i>Intercept</i>	-6.717	-6.643	-6.974	-7.03	-7.375	-7.147	-7.321
	(-8.05)*	(-7.48)*	(-7.58)*	(-7.61)*	(-7.86)*	(-7.55)*	(-7.73)*
<i>TRADES PER DAY</i>	0.375	0.372	0.384	0.387	0.388	0.39	0.385
	(4.139)*	(4.08)*	(4.2)*	(4.22)*	(4.26)*	(4.24)*	(4.21)*
<i>AGE DAYS</i>	0.006	0.006	0.006	0.0061	0.0063	0.0061	0.0067
	(5.198)*	(5.87)*	(6.02)*	(5.93)*	(6.13)*	(5.94)*	(6.12)*
<i>POSITION SIZE</i>	-0.0006	-0.0009	0.0006	-0.0005	-0.0005	-0.0005	-0.0005
	-0.67	-0.69	-0.66	-0.62	-0.56	-0.61	-0.56
<i>EDUCATION</i>		-0.152	-0.5055	-0.5688	-0.627	-0.613	-0.5901
		-0.25	-0.75	-0.84	-0.93	-0.9	-0.87
<i>TRADING EXPERIENCE</i>			0.931	0.821	0.588	0.767	0.603
			(1.33)*	1.15	0.81	1.06	0.83
<i>RISK LEVEL</i>				0.57562	0.376	0.539	0.378
				0.75	0.49	0.7	0.49
<i>HOLD TIME</i>	-0.001	-0.001	-0.0011	-0.0011	-0.015	-0.007	-0.019
	(-3.26)*	(-3.27)*	(-3.39)*	(-3.25)*	(-3.44)*	-1.15	(-3.45)*



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LIBRARY LINKS

<i>PERCEIVED USEFULNESS</i>					<i>1.336</i>		<i>1.58</i>
					<i>(1.81)*</i>		<i>(1.79)*</i>
<i>SATISFACTION</i>						<i>0.388</i>	<i>-0.417</i>
						<i>0.571</i>	<i>-0.51</i>

### **Contribution**

The major contribution of this study is that we examine if there is a relationship between IS-related constructs and individual investors' financial performance. There has been no study that investigated information technology with relation to individual investors and how information technology can explain profit and loss for them. In addition to there has been no study to examine engagement in how IS can influence the trading activity for individual investors and hence their performance. The study identified the IS constructs that could be used to examine the relationship between mobile stock trading platforms and individual investors' financial performance. These IS constructs were satisfaction and perceived usefulness.

The study provided an illuminating answers as to how IS constructs affect individual investors' financial performance. To address this issue, we identify the level of risk-taking behavior and examine the role of risk in individual investors' decision-making process. The individual investors' perceived usefulness of and satisfaction with a mobile trading platform is related to risk-taking behavior through the emotions triggered by the two constructs identified above. Further examining the significance of these constructs among the different risk-taking groups, the results show that the risk-seeking individual investors' group is significantly different from the other two groups, and that only the perceived usefulness construct is significant and the satisfaction construct is not significant. These results offer valuable insight into the ways individual investors from different risk-taking groups embrace technology or, more specifically, mobile stock trading platforms and how this embrace affects individual investors' trading decisions.

We also identify the risk proxy as the variable Hold Time, which we choose to represent the quantitative and objective measure of risk. A risk-seeking individual investor who perceives an IS mobile stock trading platform to be useful will therefore act on her/his predisposed risk attitude and trade frequently, and hold her/his position (number of stocks to buy or sell) for the least amount of time (a negative and significant Hold Time), which ultimately leads her/him to achieve more profits. The observed change in the coefficient of Hold Time (from -0.001 to -0.015) after we introduced perceived usefulness construct further support the argument that perceived usefulness construct travel through the predisposed risk attitudes of individual investors and that enabled or provided them with the feeling of control to act on their predisposed risk-seeking behavior.

The results also show that there is a significant and positive relationship between the perceived usefulness of an IS mobile stock trading platform in the risk-seeking individual investors' group and their financial performance, which is a novel contribution that bridges the gap between the IS and finance literature.

### **. Conclusion**

This interdisciplinary study of finance and information systems is probably the first to focus on the user experience to evaluate the relationships between users and mobile stock trading platforms and their financial outcomes. This study calls for more attention to the various



consequential financially related user behaviors and outcomes that are significantly influenced by IS.

This study finds a positive and significant connection between the perceived usefulness of IS mobile stock trading platforms in the risk-seeking individual investors' group and higher profits for them. It also concludes that there is no significant relationship between user satisfactions and IS mobile stock trading platforms, which could reflect the volatile and unpredictable day-to-day operations of financial markets. The findings suggest the importance of perceptions concerning IS mobile stock trading platforms, illuminating the way for IS developers to evolve the design and structure of mobile stock trading platforms and better respond to the demands of individual investors.

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