

Perceived Risk as a Moderator on the Relationship Between Risk Avoidance, Uncertainty Avoidance and Investment Intentions of Individual Investors

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Abstract: This study aims to advance theoretical knowledge on investment intentions of individual investors from the perspective of behavioural finance. Based on literature review, it is found that risk avoidance, uncertainty avoidance and perceived risk significantly influence the investment intentions of individuals. However, studies on behavioural finance have been unable to provide evidence on the moderating effect of perceived risk on the relationship between risk avoidance, uncertainty avoidance and investment intentions of individual investors. In other words, the role of perceived risk in strengthening or weakening the investment intentions has not been discussed by earlier researchers in the field of behavioural finance. This study fills the identified gap by proposing the moderating effect of perceived risk on the relationship between risk avoidance, uncertainty avoidance and investment intentions of individual investors. This study provides theoretical justification for the moderating role of perceived risk and future research directions to empirically examine the proposed framework.

Keywords: risk avoidance, uncertainty avoidance, perceived risk, investment intention

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Introduction

When making decisions, the risk factor is an important factor that can shape the decision whether or not to buy something. Finance research or specifically behavioural finance research has given much attention to the importance of risk in investment decisions (Dai et al. 2014, Lim et al. 2013, Koleczko 2012). Meanwhile, various risk-related aspects linked to individual decision-making have been highlighted by previous studies as significant factors, including risk avoidance (Disatnik and Steinhart 2015, Lim et al. 2013); uncertainty avoidance (Disatnik and Steinhart 2015, Lim et al. 2013); and perceived risk (Lim et al. 2013).

In previous related studies, risk avoidance is a key concept that influences individuals' attitude and behaviour towards investment (Simonsohn 2009, Slovic 1987). Risk avoidance is tendency of individuals to avoid that investment options perceived as risk investments (Weber and Bottom 1989). Essentially, individuals with a higher level of risk aversion usually have a low tolerance for risk as compared to those individuals with relatively low risk aversion (Disatnik and Steinhart 2015). Specifically, risk avoidance has a significant role in the financial decision-making of individuals (Disatnik and Steinhart

2015, Lim et al. 2013, Shiv et al. 2005, Zhou and Pham 2004). It can be considered that risk avoidance is an important factor in an individual's decision to invest. In the context of this study, intentions to invest refers to intentions of individual investors to invest in the stock market.

Uncertainty avoidance which refers to the extent to which individuals feel threatened by some unknown or uncertain situation (Hofstede, 2001), also remains a major concern in decision-making research (Disatnik and Steinhart 2015, Koleczko 2012, Kahneman 2011, Lim 2013). It is widely believed that a higher level of uncertainty shows a greater probability of loss in the context of financial investment (Mayfield et al. 2008). Moreover, Iyke and Ho (2017) asserted that uncertainty causes investors to invest more or less depending on their level of uncertainty avoidance. It can be argued that the uncertainty avoidance attitude of individual investors is significant for explaining the intentions to invest in the stock market.

Another important concept in explaining investment-related decisions is perceived risk, which is defined as the possibility that consumers perceive uncertainty or unfavourable consequences when

deciding to purchase a product (Dowling and Staelin 1994). The concept of perceived risk has emerged as a key concept in consumer behaviour and behavioural finance research. Researchers have agreed that increased perceived risk reduces purchase intentions (Dai et al. 2014) and investment intentions (Cho and Lee 2006, Lim et al. 2013). Marakanon and Panjakajornsak (2017) added that perceived risk is determined by consumers as unexpended and bad results which occur simultaneously during their purchase process. Cho and Lee (2006) posited that perceived risk lowers the proportion of assets to be invested in the stock market. These studies have shown the adverse and negative relationship between perceived risk and investment in the stock market. It can be argued that perceived risk is a potential factor that influences the intentions of individual investors to invest in the stock market.

Tam (2012) mentioned that most studies on marketing have assessed the mediating role of perceived risk, for example Chen and Dubinsky (2003) and Sweeney et al. (1999); while in behavioural finance literature, very few researchers, like Lim (2013) have assessed the mediating role of perceived risk when examining investment intentions. The results of Lim (2013) furnish evidence that perceived risk partially mediates the relationship between risk avoidance and investment intentions. In some of the previous related studies, Tam (2012) and Liu (2010) used perceived risk as a moderating variable in field marketing research context. The results of these studies support the moderating impact of perceived risk where perceived risk reduces the intensity of the relationship between extrinsic cues and behavioural intentions (Liu 2010). Tam (2012) also reported perceived risk as a significant moderator that influence the relationship between loyalty intentions, perceived value and customer satisfaction. This study concurs that in the relationship between loyalty intentions and other marketing constructs, perceived risk can be a moderating variable that can change the investment intentions of individual investors. Generally, stock investment is perceived to be extremely risky and the possibilities of money loss are high, which makes investing in the stock market riskier. In behavioural finance, and especially in stock market investment intention studies, no study has examined the moderating effect of perceived risk on the relationship between risk avoidance, uncertainty avoidance and investment intentions of individual investors. Therefore, this study intends to propose the moderating effect of perceived risk on the relationship between risk avoidance, uncertainty avoidance and investment intentions of individual investors. The next section discusses the previous literature on risk avoidance,

uncertainty avoidance and perceived risk. The discussion on the role of the direct relationship between risk avoidance and investment intentions as well as uncertainty avoidance and investment intentions is explained in detail. Moreover, the literature on the potential moderating effect of perceived risk on these relationships is discussed to support the proposed model.

Literature Review

Risk Avoidance and Investment Intentions

Consumers are known to identify the products they consider to be 'good' or 'bad' in the development of their choice sets as a means to avoid selecting the incorrect choice and to reduce their risk (Lim 2013). In the investment world, risk-avoidance refers to investors who may seek "risk-free" investments, such as treasury bills, which are backed by the government, rather than investing in stocks which seem risky. Risk avoidance usually involves the avoidance of a particular threat by means of avoiding choices that have more exposure to risk (Lim 2013). In this context, Hallahan et al. (2004) argued that individuals take risks according to their risk tolerance level and try to minimise their exposure to unacceptable situations by risk management strategies. Their risk management strategies urge them to avoid investment venues where they expect more risk. Knoll (2010) explained that investors always look for indications to know whether or not their investment will meet minimum return requirements. Investors seek maximum returns on their investment at a given level of risk, and their risk avoidance level will determine their investment choices.

Individuals with a positive attitude towards risk often choose risky option over less risky options. It is widely believed that the higher the level of risk aversion, the lower will be the investment intention of individual investors (Mayfield et al. 2008). While investing in stocks, individuals perceive a higher level of uncertainty and greater probability of loss, especially in the case of financial investment. Therefore, individuals tend to make a risk-avoidant decision when investing their savings; in fact, they prefer interest-bearing accounts compared to investing in stocks (Gambetti and Giusberti 2012). Similarly, Bennet et al. (2011) documented that when individuals perceive a high probability of loss, they focus on risk-avoidant decisions and go for interest-bearing accounts rather than investing in the stock market. Previous literature has suggested that risk avoidance is directly related to behavioural intentions of investors and personal finance decisions. Moreover, risk-avoidant investors would also refrain from selecting risky options (Franklin and Corter 2010). Arshad, and Ibrahim (2019) also support the notion that risk

avoidance tends to have significant influence on investment intentions. Investors might choose risky investment options over the less risky options if their attitude is positive towards risks as reported by Lim (2013); so, risk avoidance is dependent on risk-bearing capabilities of investors. In the context of the current study, if an investor has a risk-avoidant attitude, the tendency to invest in the stock market will be reduced. Thus, risk avoidance will negatively influence the intentions of individual investors. It is proposed that risk avoidance has a significantly negative influence on the investment intentions of individual investors. Based on the above discussion, this study postulates that:

Proposition 1: Risk avoidance has a significantly negative impact on investment intentions of individual investors.

Uncertainty Avoidance and Investment Intentions

Uncertainty avoidance refers to a tendency to be uncomfortable with uncertain outcomes and such situations are tolerated to a greater or lesser extent in different cultures (Hofstede 2001). Furthermore, uncertainty avoidance is a cultural trait which shows the level of tolerance for ambiguity and uncertainty of a particular society (Wennekers et al. 2007). Unfamiliarity with outcomes and ambiguity are factors that can be frightening to people in some countries in the world. These people will refuse to face unusual and ambiguous situations and outcomes. These countries are known as uncertainty-avoidant countries and the people have a high level of uncertainty avoidance (Hancioğlu et al. 2014). In comparing uncertainty avoidance among countries, Becker and Flanegin (2010) assessed the difference in uncertainty avoidance between Australian and American students. The results reveal that Australian students have greater uncertainty avoidance than American students, indicating that the former are less capable of accepting uncertain situations. Hofstede et al. (2010) developed an uncertainty avoidance index and categorised countries based on their level of uncertainty avoidance; for example, Pakistan had a score of 70, China (40), India (40), Malaysia (36) and Singapore (8) on the uncertainty avoidance index. The score on uncertainty avoidance index indicates that Pakistan has more uncertainty avoidance with a high score while China, India, and Malaysia are comparatively low uncertainty avoiders. Out of these countries, Singapore has the least uncertainty avoidance, while Pakistan has more uncertainty avoidance. This core cultural difference has also been shown to affect individuals' consumption and investment patterns. This may be the reason for the low investment intentions among Pakistani investors as compared to other countries.

Disatnik and Steinhart (2015), in their study, explained the difference between the two constructs of risk avoidance and uncertainty avoidance. They said that risk aversion refers to the way individuals make decisions, given that they have entered the decision process; on the other hand, uncertainty aversion influences the likelihood of entering the decision process. Individuals consider the stock market as a higher uncertain investment venue compared to the bond market. Lindley (2013) argued that buying and selling in the stock market are uncertain activities where investors are not sure whether the investment will increase or fall in value. Stock exchange can resemble a race course, but the difference is that in the race course, odds are clearly displayed for each horse, while in the stock market, quantitative expressions of the stocks are always doubtful and inference can be made on the basis of current prices, past trends and available general information about the market. Thus, stock markets are completely uncertain in nature as compared to other investment options. Thus, uncertainty avoidance significantly affects the intention to invest in stocks. Previous studies have identified that the behaviour exhibited by individual investors is based on their level of uncertainty avoidance. Investors' high and low uncertainty avoidances are reflected in stock investment decisions. High uncertainty avoidance will reduce their investment intentions (Lim 2013).

In the light of the reviewed literature, arguably, investment decisions can be viewed as relatively complex decisions due to a high degree of uncertainty associated with stock market investments (Lim et al. 2013). It is observed that investors' first priority is to avoid uncertainty in investment options. Therefore, an individual with high uncertainty avoidance will reduce uncertainty by avoiding stock investment, which depends on that individual's predisposition towards uncertainty. In the present study, uncertainty avoidance is likely to influence an individual investor's intentions to invest in the stock market. Uncertainty avoidance is expected to have a negatively significant influence on investment intentions of individual investors. The following proposition is posited based on the above discussion and literature:

Proposition 2: Uncertainty avoidance has a significantly negative influence on investment intention of individual investors.

Perceived Risk and Investment Intentions

Perceived risk, in terms of finance, is the risk where a purchased product does not function normally and leads to financial loss for the consumer (Mitra et al. 1999). Dowling and Staelin (1994) defined perceived risk as the possibility of perceiving

uncertainty or unfavourable consequences that a consumer feels during the purchase decision. Bauer (1960, as-cited in Choi, Lee, & Ok, 2013) is the first who used the concept of perceived risk from the perspective of consumer behaviour. Perceived risk is the combination of probabilities and uncertainties associated with an undesirable action during the purchase decision (Ulleberg and Rundmo 2003).

Previous studies have conceptualised perceptions of risk in many contexts, including evaluation of products and services and adoption of new technologies. In addition, risk perceptions, associated with making a poor or an inappropriate decision, reduce the likelihood of a consumer's purchase action (Bhatnagar et al. 2000, Vijayarathy and Jones 2000). A consumer's perceived risk has been found to influence his or her decisions in the study of Antony et al. (2006). It is common for a customer to be reluctant to purchase because of perceived risk (Kim et al. 2008). Chen and Chang (2012) mentioned that perceived risk is powerful in explaining consumer behaviour because consumers are often motivated to reduce risk than to maximise utility in their purchase process.

Investment in stocks is perceived as a risky investment for investors in which they have high possibilities of losing their money (Farrukh 2010). Consumers may have many doubts during purchase transactions and high perceived risks can decrease their behavioural intention towards the purchase (Siau and Shen 2003, Goyal 2008). Bailey and Kinerson (2005) discussed that there is a strong relationship between perceived risk and investment behaviour of the investors. Moreover, Ahmed and Shah (2020) perceived risk related to investment decisions and performance play an important role in the process of decision-making. As a result, perceived risk is a critical factor that influences a consumer's purchase decision (Yee and San 2011, Chen and Chang 2012). Choi et al. (2013), Lim et al. (2013) and Lin (2008) reported a negative influence of perceived risk on behavioural intentions.

Although empirical evidence is available on the strong effect of perceived risk on intentions of consumers and investors, very few studies have used perceived risk as an intervening (mediating) or moderating variable. Among the few studies which have used it as a mediating variable are Chen and Dubinsky (2003) and Sweeney et al. (1999), while in behavioural finance literature, Lim (2013), Ahmad and Shah (2020) used perceived risk as a mediating variable. The findings in Lim (2013) reveal that

perceived risk partially mediates the relationship between risk avoidance and investment intentions, while Ahmed and Shah (2020) reported a mediating effect of perceived risk. These findings provide guidance to further assess the moderating variable role of perceived risk. Moreover, there is very little evidence on perceived risk as a moderator. For example, the studies by Tam (2012) and (2010), among others, have shown the effect of perceived risk in other study settings, i.e., marketing. In both studies, perceived risk acts as a moderating variable for the proposed relationship. As per reviewed literature, there are few or no studies available in the field of behavioural finance that have used perceived risk as a moderator, more specifically in the relationship between risk avoidance, uncertainty avoidance and investment intentions.

In this research context, it is expected that increasing high perceived risk might undermine investment intentions, and in that case, there is a low probability that investors will invest in the stock market. Based on the findings from previous literature, this study proposes that perceived risk significantly moderates the relationship between behavioural finance factors (risk avoidance and uncertainty avoidance) and investment intention of individual investors. In case of an increase in perceived risk, intentions to invest in stocks will be reduced and the relationship between risk avoidance, uncertainty avoidance and investment intentions will be changed. While a decrease in perceived risk will increase the intentions to invest in stocks and effect the relationship between risk avoidance, uncertainty avoidance and investment intentions. The above discussion leads to the following proposition:

Proposition 3: Perceived risk moderates the relationship between risk avoidance, uncertainty avoidance and investment intention of individual investors.

Research Framework

The research framework of the current research proposed that independent variables (risk avoidance and uncertainty avoidance) are proposed to have an influence on the dependent variable (investment intentions). Then the moderating effect of (perceived risk) on the relationship between independent variables (risk avoidance and uncertainty avoidance) and dependent variable (investment intention) also have been proposed.

The proposed conceptual theoretical framework is presented in Figure 1, which also summarises the proposed relationships.

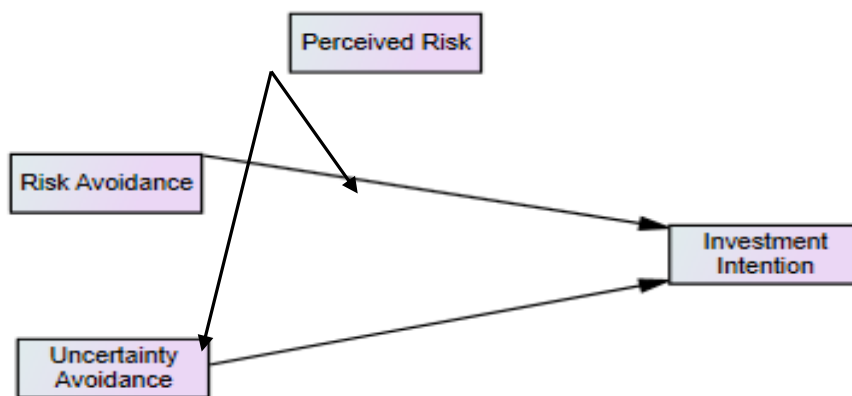


Figure 1.
Proposed Theoretical Framework

Empirical application of the proposed conceptual framework

This section explain how the proposed model can be applied in perspective of individual investors. In the Figure 1, the proposed model is presented in perspective of factors that potentially influence the investment intentions of individual investors and determine their tendency to invest in the stock market. As this model intended to provide an understanding on how individual tend to form their decision to invest in stocks, we assume that the model should be tested with positivist functionalist and interpretive research paradigms of social sciences to gain useful insights. Since, the proposed framework is developed on the basis of sound review of related areas, the proposed relationships are expected to be exist and valid in current study context which is stock market investment. In addition to that we proposed that the

Conclusion

In this paper, the literature on investment intentions and the impact of uncertainty avoidance, risk avoidance and perceived risk is reviewed. According to the reviewed literature, it is clear that there has been a significant advancement in recent years to understand the intentions of investors to invest in stocks. The issue of lack of investment by individual

model should be tested using interpretive paradigm as positivist approach may limit the findings. To gain in-depth knowledge on the nature of investment decision, interpretive paradigm is of worth to be used to test the proposed model.

Proposed research methodology

The data for the above constructs can be collected using self-administered questionnaire. Since, the constructs used are unobservable, the variables can be measured using validated scales by previous authors. In order to assess the measurement model and structural model, structural equation modelling technique using SmartPLS 3 is recommended to analyse the model. This approach as proposed in similar nature studies for instance Shantha, Xiaofang and Gamini (2018). The next section provides conclusion and recommendations.

investors in the stock market has been addressed both qualitatively and quantitatively. Moreover, in the past, efforts have been extensively made to develop a better understanding of investors’ intention in a subjective rather than traditional way, in which only risk and returns have been taken into account. The effect of uncertainty avoidance and risk avoidance on

investment intentions has been successfully established and perceived risk has been reported as a significant factor that influences the investment intentions negatively.

Although much work has been done to assess investment intentions and to know the factors that potentially influence investment intentions, the current study realises that existing knowledge does not address the possible effect of perceived risk as a moderating variable that can significantly influence the relationship between risk avoidance, uncertainty avoidance and investment intentions. The current study proposes a conceptual framework of investment intentions by including the moderating effect of perceived risk on the relationship between risk avoidance, uncertainty avoidance, and investment intentions. This study provides an avenue and opportunity for future research studies to develop this research further. Future research may empirically examine this proposed framework to confirm the effect of perceived risk or add more variables to extend the explanation on investment intentions of individual investors.

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