Religiosity as a Moderator of the Relationship between Personality Trait and Perceived Risk: A Conceptual Framework

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Abstract: This paper proposes a conceptual framework that considers religiosity as a moderator of the relationship between personality trait and perceived risk. This paper also examines five dimensions of personality traits in exploring the relationship of personality trait and perceived risk. The review finds that perceived risks towards financial products are affected by personality traits and influence by moderating factor; religiosity. Such an extensive review of examining various personality traits to investigate the consumer perceived risk has not been done before. This paper will be useful to researchers, professionals and others concerned about understanding consumers’ perceived risk when introducing new financial products and services. The proposed framework would lead to operational efficiencies through effective marketing strategies and a better understanding of the religiosity and customer traits.

Keywords: Personality traits, Perceived risk, Religiosity, Financial behavior.

INTRODUCTION

Why do customers perceived the risks as they do? While risk perception studies have been a central part of the risk literature for more than two decades, Sjöberg (2000) stated that "risk perception is a phenomenon in the search for an explanation." Perceived risk is considered an uncertainty regarding the possible negative consequences of using a product or service (Srivastava & Sharma, 2011). The perceived risk affect consumers' behaviour, influencing their choices of products and other decisions such as new products adoption. Sjöberg et al. (2004) reported that various factors, such as human characteristics, psychological factors, social factors, structural factors, and cultural factors, affect risk perception. Recently, there is a several attempts to assess the influence of individuals' characteristics and cultural factors on the perception of risk but yet to find the impact of both on customers' perceived risk. With the growing interest in customer buying behavior in the finance context, some individuals' characteristics and culture on their perceived risk are missing. Therefore, there is a need to analyze and highlight the importance of these aspects conceptually.

Religion has a powerful influence on an individual's belief, personal identity and value systems, all of which have consumer implications. Religion provides people with a structured set of beliefs and values that serve as a code of conduct or guide to behavior (Delener, 1994). When it comes to Islamic financial products, Muslim consumers are affected by religion (Wan Ahmad et al., 2008; Marimuthu et al., 2010; Alam et al., 2012; Ali et al., 2017). However, according to Saroglou and Munoz-Garcia (2008), religiosity is influenced by personality traits. Interestingly, personality has been widely studied across the globe. It is broadly defined by the American Psychological Association (2017) as "individual differences in characteristic patterns of thinking, feeling and behaving." In other terms, personality is defined as an individual's innate propensity to react to various situations and events in a cognitive, affective and behavioural way (Pytlik Zillig, Hemenover, & Dienstbier, 2002). Daily behaviours have been long predicted accurately by personality traits, for example, communication style, social interaction, location, mood, and use of language (Mehl, Gosling, & Pennebaker, 2006).

There is a lack of literature in the finance context that assess the relationship between the customer's personality trait and perceived risk. To better understand customers' perceived risk, this paper reviews each personality trait behavior in finance. This research allows financial practitioners and marketers the ability of more effectiveness in the prediction of how different clients may tend to behave when a new product is introduced and how, as financial planners, should react to such behaviour. Consequently, the aim of this paper is two folds. First, to fill a gap in the finance literature by conceptually analyzing the relationship between personality trait and the perceived risk. Secondly, to review and recommend the moderating role of religiosity in the relationship between personality trait and perceived risk. Hence, two research questions were developed. First, does personality trait influence customers' perceived risk? Second, does customers' higher religiosity leads to a stronger relationship between personality trait and perceived risk?
LITERATURE REVIEW
A five-factor model of personality
Personality traits are important because they describe stable behavior patterns for extended periods (Casp, Roberts, & Shiner, 2005). Relevantly, these regular patterns can have complex consequences for many areas of our life (Roberts, Kuncel, Shiner, Caspi, & Goldberg, 2007). As such, researchers over the past years pay attention to personality traits. The most accepted taxonomy for personality definition is focused on the "Five-factor model of personality." This model has attracted interest in research across various fields, such as economics and behavioural decision-making (e.g., Borghans, Duckworth, Heckman, & Ter Weel, 2008).
Evidence of this model has been growing over the past 50 years, beginning with the research of Fiske (1949), and later expanded upon by other researchers, Goldberg et al. (1981), McCrae and Costa (1987), Costa et al. (2001, 2001a). Durand et al. (2008) note that in measuring personality, this model is effective. The five-factor model argues that personality is a theory of traits, unlike other personality attributes (Özer and Benet-Martínez, 2006). The model is also referred to as the "Five-Factor Model" or "FFM" and "Big Five-Factor Model". The model can be used to describe the most salient aspects of personality. It suggests that personality consists of five elements (openness to experience, conscientiousness, extraversion, agreeableness and neuroticism), which provide a meaningful taxonomy to study individual differences. Each of the FFM traits is like a bucket containing a set of characteristics that appear to occur together. Proof for the FFM encompasses significant cross-questionnaires and intercultural replication (McCrae et al., 2005a–2005b; Costa & McCrae 2006; Saucier, 2009). Different countries have been applying the five-factor model of personality to understand a variety of individual behavior. For example, Lai (2019) explored the influence of personality traits on the stock investment intentions of Taiwanese and found the impact of openness and agreeableness personalities. Also, Pinjasikikool (2018) studied the determinants of financial risk tolerance for the Dutch population and found that all five personality traits found to predict financial risk tolerance significantly. Table 1 shows the concept and characteristics of each personality trait.

Perceived Risk Theory
Risk is an essential and compound concept in decision-making processes among humans (Slovic et al., 2005). According to Oltedal et al. (2004), risks are linked to an activity's probability and effects. Khan and Bamber (2007) suggested that consumers' consuming behavior is risky because purchasing decision can cause unpredictable consequences or not beneficial. One of the factors that affect the decision of consumers is risk. Bauer (1960) discovered that understanding of consumer behaviour regarding risk perspective is difficult. Therefore, represented the concept of perceived risk to consumer behavior theories. Bauer (1960) described the perceived risk as a construct with two components: the possibility of failure and the subjective feeling of adverse effects resulting from product or service usage. In other words, the more risk consumers perceive, the less likely they will purchase or use a product or services. Bauer (1960) proposes;
"Consumer behavior involves risk in the sense that any action of a consumer will produce consequences which he cannot anticipate with anything approximating certainty, and some of which are likely to be unpleasant." (Bauer 1960, in Cox 1967a:24)
Since Bauer instigate scholars to employ perceived risk, as a psychological and hypothetical concept in consumer behavior research and since he agrees that the concept would enable both scholars and practitioners to understand better consumer behaviour, the theory of perceived risk has advanced and it's been embedded in the consumer behavior literature a variety of areas for over the past decades. For instance, the theory as been applied in high technology product adoption (Hirunyawipada & Audhesh, 2006), online banking usage (Aldás-Manzano et al., 2009) and green brand equity (Chang & Chen, 2014). However, perceived risk differs according to individuals or organizational levels (Loosemore et al., 2006), as different individuals can have different understandings of the composition, origin, probability, significance or outcome of such risks. Bouyer et al. (2001) divided the determinants that influence perceived risk into two categories. One category is related to the risk, and the other is related to the risk perceiver. Demographic determinants such as gender, age, educational level and personality trait are considered under the risk category's perceiver (Sjöberg, 2003; Machin and Sankey, 2008). Previous research on individuals' financial behavior finds it to be predicted by their personality traits. For instance, Durand et al. (2008) discovered that investors' personalities were associated with their decision-making regarding investment portfolios and results. Ben-Shahar and Golan (2014) provided empirical evidence that personality traits and individual inclinations were related to their characteristics in housing tenure, and investment behaviors in real estate.

Personality trait and perceived risk
Researchers have shown that personality traits could predict numerous scopes of human behaviors, preferences, and effects (Ben-Shahar & Golan, 2014). The personality type contributed to individuals' differences in perceived risk (Beus et al., 2015). The subjective perception of risk by the consumer is strongly determined by his or her personality. Therefore, the consumer seeks to reduce the risk associated with a specific behavioural
decision (Bauer et al., 2005). The FFM is appropriate and competent to measure risk perception (Nicholson et al., 2005; Pinjiasikikool, 2018) and explain investment decisions (Brown and Taylor, 2014; Jalilvanda et al., 2018). As a result, the relationship between personality trait and perceived risk have been discussed in various fields, for instance, tourism (Maritz et al., 2013), construction (Wang et al., 2016), medical (Beyer et al., 2015), transport (Fyhri & Backer-Grøndahl, 2012), food (Jang & Kim, 2015). To understand the relationship between the personality trait and perceived risk in financial products, this paper reviews each personality trait's financial behaviour, as below.

**Openness to experience**
The open-mindedness is correlated with essential features concepts; curiosity and intellectuality (Chauvin et al., 2007), imagination and broad-mindedness (McCrae and Costa, 2008). They are quick to learn new things, adventurous, and diversified interests (John et al., 2008). Low score for openness is related to being non-curious, not interested in exploring, preference to familiarity and exhibition to conventional behaviour (see table 1). The previous study stated that high score of openness is correlated with high-risk tolerance (Pan & Statman, 2013). Those who score high on this dimension can be more ready to consider new things and have more resistance to ambiguity. As a result, they are highly likely to engage in long-term investment (Mayfield et al., 2008) and stock market investment (Nabeshima, 2014; Rizvi & Fatima, 2015). Further, open-mindedness individuals are also less prudent about their money management behaviour (Troisi, Christopher, and Marek, 2006). According to Wang et al. (2016), individuals with elevated openness to experience would have lower levels perceived risk.

**Conscientiousness**
Conscientiousness reflects an ordered, regulated, determined and successful way, including dutifulness, vigilance, rationality and orderliness (Goldberg, 1999). Conscientious individuals effectively handle their money (Donnelly et al., 2012) and have constructive retirement planning and savings behaviour (Duckworth & Weir, 2010; Nabeshima & Seay, 2015). It has been documented that less compulsive buying and impulsive buying activity were correlated with a higher conscientious score (Gohary & Hanzaee, 2014). Conscientious individuals have shown significant improvement in net worth due to higher financial self-efficacy values (Asebedo, 2016). Therefore, individuals who score higher on conscientiousness perceive higher risks (Nicholson et al., 2005). According to Wang et al. (2016), conscientious individuals are likely to be careful and rational in risky circumstances and make sound decisions in extreme situations.

**Extraversion**
In most personal and social circumstances, the essence of extraversion seems to be related to the idea of being at ease (Chauvin et al., 2007). Extraversion promotes a positive outlook that affects one's evaluation of the likelihood of success and may lead to overconfidence in financial decision-making (Keil et al., 2007). Extraverts tend to be risk-averse and continue holding losing stocks with the hope of revival (Jamshidinavidi et al., 2012) and pay more for financial assets (Oehler et al., 2018). Higher extraversion score would be associated with fewer savings and more debt (Brown and Taylor, 2011). Introversion and social isolation are the opposite of extraversion. Guido et al. (2007) state that introverts are utilitarian in shopping behaviour, while extroverts are hedonic. It seems that perhaps extroverts can more readily tolerate deviant actions than introverts. Extraversion facets such as excitement seeking are theoretically tied to sensation seeking and certain types of risk-taking (Lauriola & Weller, 2018), which tends to be the purpose of risk-taking actions (Soane and Chmiel, 2005). Oehler & Wedlich (2018) has investigated the relationship of extraversion perceived risk on investment and found that more extraverted individuals are less risk averse.

**Agreeableness**
According to the personality model offered by Goldberg (1999), agreeableness has nine facets: understanding, warmth, morality, pleasantness, empathy, collaboration, sympathy, tenderness, and nurturance. It is closely linked to the concepts of non-violence, care for others and the environment (Chauvin et al., 2007). Individuals with a high degree of agreeableness have more compassion and sympathy towards others and prefer to see some of the risks as more dangerous and unwanted. Also, Nicholson et al. (2005) mentioned that high score of agreeableness individuals is less risk-taking. Thus, they find to be engaged in low risk or return investments (Jadlow & Mowen, 2010), have a lower probability of stock ownership (Nabeshima, 2014) and have lower levels of net worth (Nabeshima & Seay, 2015). Wang et al. (2016) have identified a high level of perceived risk in this dimension. Several studies has investigated the relationship between agreeableness and perceived risk. However, the results were inconclusive. For example, Fyhri & Backer-Grøndahl (2012) found that agreeableness was negatively correlated to perceived risk while Marafon et al., (2019) mentioned that agreeableness caused individuals to be prone to taking risks.
Neuroticism

Neuroticism refers to whether the individual has an emotional balance. The neurotics tend to experience negative emotions such as anger, anxiety, depression, self-consciousness, and vulnerability, typically associated with amplified perceptions of risk or danger (Chauvin et al., 2007). Individuals with this type of personality are unwilling to invest in the short term (Mayfield et al., 2008), have lower net value change over time (Asebedo, 2016a), and tend to have a negative attitude toward stock investment (Lai, 2019). Individuals who have low score neuroticism have confidence in themselves which means emotional stability. There are facets of emotional health, such as calmness, impulse control, cool-headedness, and peacefulness. The nature of the concept of fearlessness lies in many cases (Chauvin et al., 2007). They have higher lifetime earnings levels (Duckworth & Weir, 2010). In other words, because of the characteristics of stability and calmness, they will avoid more risks and thus perceive high levels of risk according to Wang et al. (2016). The relationship between neuroticism and perceived risk has been investigated in various studies (Oehler & Wedlich, 2018; Huang, Gursoy & Xu, 2014).

Table 1; Review of each personality trait definition and characteristics' scores*

<table>
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<tr>
<th>Personality trait</th>
<th>Definition</th>
<th>Characteristics</th>
<th>Low scores</th>
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<tr>
<td>Openness to experience</td>
<td>Individuals' degree of organization, persistence, and motivation in goal-directed behaviour (Costa &amp; McCrae, 1985).</td>
<td>High scores indicate imaginative, curious, and exploratory tendencies (McCrae &amp; Costa, 2008).</td>
<td>Low score tends to be quite conservative, having a limited mental level and behaviorally conventional (Shakaib &amp; Ali, 2018).</td>
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<td></td>
<td></td>
<td>Quick at learning new things, adventurous and need for variety (John et al., 2008).</td>
<td>Prefer familiarity (Costa &amp; McCrae, 1992).</td>
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<tr>
<td>Conscientiousness</td>
<td>Individuals' degree of organization, persistence, and motivation in goal-directed behaviour (Costa &amp; McCrae, 1985).</td>
<td>High scores indicate hard-working, achievement-oriented, persevering, careful, and responsible (McCrae &amp; Costa, 2008; Zhao and Seibert, 2006).</td>
<td>Low score tends to be easily distracted, disorganized, and unreliable (Shakaib &amp; Ali, 2018).</td>
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<tr>
<td>Extraversion</td>
<td>Individuals' degree of quantity and intensity of interpersonal interaction and activity level (Costa &amp; McCrae, 1985).</td>
<td>High scores indicate being warm, outgoing, and cheerful with reserved, solitary, and sombre (McCrae &amp; Costa, 2008).</td>
<td>A low score (introverts) tends to be not so friendly, independent and don't prefer to rely on other people (Shakaib &amp; Ali, 2018).</td>
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<td>Agreeableness</td>
<td>Individuals' degree of quality of interpersonal orientation continuum from compassion to antagonism in thoughts, feelings, and actions (Costa &amp; McCrae, 1985).</td>
<td>High scores indicate courteous, flexible, trusting, good-natured, cooperative, forgiving, soft-hearted, and tolerant (Shakaib &amp; Ali, 2018; Barrick &amp; Mount, 1991).</td>
<td>Low score tends to be critical, uncooperative and suspicious (Stidham et al., 2018), straightforwardness, altruism, modesty (McCrae &amp; Costa, 1990).</td>
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<td>Neuroticism</td>
<td>Individuals are prone to psychological distress, unrealistic ideas, excessive or urge, and maladaptive coping responses (Costa &amp; McCrae, 1985).</td>
<td>High scores indicate highly depressive, conscious, very impulsive, and defenceless (McCrae &amp; Costa, 2008).</td>
<td>A low score can adapt or adjust, relaxed, even-tempered, and calm—even when facing stressful situations (Stidham et al., 2018; Zhao and Seibert, 2006).</td>
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*Source; author’s own.
Religiosity as a moderator

Religiosity is defined as the degree level of individual commitment, involvement, and practices internally and externally to Islam’s fundamental principles (Zulkifli & Rosli, 2013). Religious people are dedicated to their system of beliefs and adhere to the principles defined in their faith (Mokhli, 2008). An individual with strong religious beliefs will be more likely to behave like a religious community member. All the “ceremonies” may serve as restraints on his or her judgment system and behavior. The strength of consumers’ religiosity affects certain aspects of an individual’s psychological and physical wellbeing (Moschis and Ong, 2011; Sandíkci, 2011). Mokhli (2009) stated that religiosity is an intricate concept and covers behaviours, attitudes, beliefs, feelings, and experiences. Religion has become an important determining factor of individuals’ overtime activity as it is linked with social culture and has become the foundation of one’s entire life (Livette, 2006). Moreover, religion has been demonstrated to affect consumer decision-making (Kennedy, 2010; Swimberger et al., 2011; Schneider et al., 2011), and a person’s level of religiosity can influence their preferences and choices when purchasing products and services (Choi et al., 2013; Minton et al., 2019). According to He, Park and Roehl (2013), the more religious a person is, the higher the risks they perceive. Lindridge (2005) claims that religiosity plays a primary role in shaping individual perceptions and intentions. However, while religion remains one of the critical sources of the norms and attitudes of customers (Abdelmajid and Hendauoi, 2012; Belwal and Belwal, 2014), the role of religion in the behaviour of customers and risk perceptions, in particular, requires considerable theoretical development (Vitell, 2009). This paper proposed religiosity as a moderator in the relationship between the personality trait and perceived risk.

An Islamic believer’s religiosity may be in the form of adherence to the Islamic religion’s knowledge, belief, application, and understanding. In other words, the religiosity of a Muslim can be seen from everyday activities, including economic activity success. Both banned economic practices such as gambling and applying an interest rate would be avoided by a religious Muslim. Pettinger et al. (2004) suggested that halal goods are associated with religion (Islam), religiosity as a moderator should be discussed in the future. Borzooei and Asgari (2013) indicated that a new field of studies is exploring religion’s moderation effect in the Halal brand context. Religiosity is expected to strengthen the personality trait and perceived risk relationship in the current study.

Determining how personality is associated with religious beliefs and practices has been an essential subject for spiritual, psychological research (Aghababaei et al. 2014; Henningsgaard and Arnau 2008). Results from observational studies investigating the relationship between personality and religiosity have mainly shown that personality traits appear to impact religiosity instead of the other way around (McCul-lough et al. 2005; Heaven and Ciarrrochi, 2007; Wink et al. 2007). For instance, Gebauer et al. (2014) stated that personality traits are connected to a common self-concept that induces assimilation into socio-cultural norms such as religiosity. According to Saroglou and Munoz-Garcia (2008), individuals with some specific personality traits prefer to remain or become religious when they “fulfil” religion as a cultural reality: religion would then be a characteristic cultural adaptation of these fundamental traits. Previous studies have shown that the characteristics of agreeableness and conscientiousness have the most reliable associations with religiosity (Lodi-Smith and Roberts, 2007; Saroglou, 2010; Lee et al., 2014). These traits indicate attitudes to think, feel and behave like everybody else, i.e., preferenceto integrate to socio-cultural norms (Gebauer et al., 2014). Thus, it is expected that high religiosity to increase the perceived risk for agreeableness and conscientiousness toward new financial products and services. Moreover, the openness for experience trait is found to have a potent form of religiosity correlated with low openness score (Saroglou, 2010) and not to a high score (Szczeniak, Sopinska and Kroplewski, 2019; Saroglou, 2010). High religiosity for fewer openness individuals is expected to increase their perceived risk toward new finance products as they tend to prefer familiarity and not interested in exploring. The Neuroticism individuals have a lack of relationship with religiosity (Szczeniak, Sopinska and Kroplewski, 2019; Saroglou, 2010; Saroglou, 2002). Religiosity is associated with low neuroticism, means the emotionally stable trait. Ano and Vasconcelles (2005) found that favorable ways of religious coping are positively related to positive psychological outcomes such as happiness and satisfaction in life, and negatively associated to negative consequences such as depression and anxiety. Emotional stability has been noticed to be an attribute of adult religiosity (Saroglou, 2010). Thus, the calmness and control of emotional stability trait with high religiosity can predict high perceived risk to new financial products or service. Furthermore, extraversion individuals show positive emotions and overconfidence in the decision. They encourage others to follow the socio-cultural tide (Gebauer et al., 2014). Studies showed that religiosity is related to this trait (Emmons, Barrett, & Schnitker, 2008; Ferrari et al., 2017). The religiosity is expected to let them perceive high risk toward new financial products or services.
The conceptual framework

Figure 1 illustrates the proposed relationships. The conceptual framework aims to fill a gap in the finance literature by conceptually analyzing the relationship between the independent variables of FFM (openness to experience, conscientiousness, extraversion, agreeableness, neuroticism) and the dependent variable of perceived risk. Also, it aims to review and recommend the moderating role of religiosity in the relationship between personality trait and perceived risk.

CONCLUSION

This paper proposes a conceptual framework to understand personality traits, religiosity better, and perceived risk relationships. To the best of the author's knowledge, this is the first paper to introduce the relationships between customers' personality trait and perceived risk with the role of religiosity as a moderator. The analysis of personality traits and religiosity give more insight into how customers perceive risk when new financial products are introduced. From a theoretical standpoint, these research results contribute to existing literature in several ways. First, this paper proposes a conceptual framework that considers religiosity as a moderator of the relationship between personality trait and perceived risk. Second, this paper distinguishing five dimensions of personality traits. This provides a better understanding of the specific factors that influence perceived risk, which benefits both future researchers and practitioners in structuring the theory and recognizing the most influential factors affecting perceived risk. The framework proposed is of relevance to marketers administrators of finance and marketing. The framework, which predicts perceived risk by the customer when selecting new products and services would lead to operational efficiencies through effective marketing strategies and a better understanding of each customer traits. The proposed relationship allows for future empirical examinations across multiple financial products and services contexts. Any future practical application of this proposed relationship should consider the financial products and services by considering the customers religiously.

As with any conceptual framework, this framework also has its limitations. Firstly, in the financial context, religiosity as a moderator can be applied to a culture that is financially influenced by religious principles, such as Muslim countries and countries with a majority of Muslims. Secondly, other vital aspects would moderate the relationship between personality trait and perceived risk, such as gender differences. Previous studies such as Weisberg, DeYoung & Hirsh (2011) and Kawamoto et al. (2015) found a significant gender difference appearing in each personality trait aspect. Finding the moderation role of gender would make this proposed conceptual framework more practicable. Finally, this framework is theoretical, based on previous studies, and not empirically tested. To validate the framework, an empirical analysis is needed. Notwithstanding the above limitations, this study contributes towards a better understanding of customers' personality trait, religiosity and perceived risk toward new financial products and services.
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