Relationship of the Big Five Personality Traits and Risk Aversion with Investment Intention of Individual Investors

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Abstract

This empirical research is aimed at testing the relationship of the big five personality traits namely openness to experience, extraversion, consciousness, agreeableness, neuroticism, and risk aversion with the investment intention of individual investors belonging to Balochistan, Pakistan. The primary data is collected through a self-administered questionnaire (a structured form that consists of a series of closed-ended and open-ended questions) from a sample of 397 active individual investors belonging to different districts of the province. The data is empirically analyzed by applying the Partial Least Square (PLS) path modeling technique by using the estimation package available in Smart-PLS. The findings of this study suggest that all the variables are statistically significant with investors’ investment intention with risk aversion as the strongest predictor. Moreover, openness to experience, extraversion, consciousness, agreeableness, and risk are significantly and positively related to an investor’s investment intention, whereas neuroticism is negatively related to an investor’s investment intention. The results extended by this study can be used by financial planners and investment bankers to channelize the available financial resources in diversified portfolios. The results will help financial planners to make available diverse investment alternatives for investors in Balochistan, thus catering to their unique needs. Academia must offer courses on contemporary finance paradigm based on behavioral finance to enable future business graduates to make wise financial decisions.

Keywords: Disjoint Two-Stage Analysis, Investment Intention, Personality Traits, PLS Path Modeling

JEL Classification Code: G41, C83, C88
1. Introduction

Balochistan is the largest province of Pakistan (area-wise) but less developed in comparison to other provinces of the country. There are limited investment opportunities available to investors in the province due to the limited access to the stock market, industries, and investment options. Real estate is the most preferred choice of investment as well as investing with the Directorate of National Savings to receive a guaranteed return with minimum risk. The current economic growth as a result of globalization has uplifted the resources of families and has simultaneously framed numerous investment prospects which significantly differ with regard to investment horizon as well as in risk-return (Pellinen et al., 2011).

Traditional finance theories consider the postulation of rationality, profit maximization, and effect market. Traditional financial paradigm grounded on the postulation that investors are rational when they face ambiguity and uncertainty in decision-making, used cognitive biases to make decisions (Nga & Ken Yien, 2013). The traditional financial paradigm is opposed by behavioral finance which has evolved as a new finance paradigm which states that the investors’ investment decisions are influenced by personal and situational factors.

Behavioral finance proposes that a blend of affective and cognitive dimensions are involved in human decision making (Olsen & Cox, 2001). Investors’ insight regarding his/her financial decision-making abilities is affected by personality traits, personal values, emotions, and society. Empirical studies have proven that factors such as personality traits, personal values, emotions, and society are more significant in comparison to the movements in share price and economic conditions (Shiller, 2002; Smith & Harvey, 2011).

Psychographic conditions play a significant part in determining the investment behavior of people and inseparable risks are involved in their investment decisions. An individual’s understanding of risk depends on different variables; most important is the personality traits that individuals possess. Besides, every individual is different from each other; therefore, they have diverse financial goals. The decisions investors make regarding their financial goals are influenced by their personality and rationality; therefore, it is pertinent for financial planners to understand these traits of investors. Furthermore, the connection between investment intentions and personality traits will assist the financial planners in modifying products along with services to suit their potential client’s desires (DeBondt et al., 2010).

Financial decision-making becomes difficult if investment alternatives are scarce as is the case in Balochistan where current and prospective investors have limited investment options, while investment decision is the most important in financial management. Compared to other provinces of Pakistan, Balochistan lacks the facility of a stock exchange, limited opportunities in the tourism industry, and the absence of a dry port. The recommended investment areas for Balochistan are limited to real estate investments, livestock, and agriculture. Therefore, this study aims to test the relationship of the five-factor theory (openness to experience, extraversion, consciousness, agreeableness, and neuroticism) and risk aversion with the investment intention of individual investors in Balochistan.

The current empirical research contributes to contemporary literature concerning the investment intention of current and prospective investors. This is the first attempt to investigate the determinants significant in an investor’s behavior concerning their investment intention. Furthermore, this study applied the PLS path modeling technique which is widely acknowledged and applied in the study of social sciences (Hair Jr, Ringle, & Sarstedt, 2011; Hair Jr et al., 2012; Kura, 2016; Kura, Shamsudin, & Chauhan, 2015; Roldán & Sanchez-Franco, 2012).

2. Literature Review

Financial decision making is an outcome of an individual’s intention to invest and is largely influenced by an individual’s personality and their inclination towards financial risk. The investment horizon is the term used to describe the total length of time that an investor expects to hold an investment. The intentions to invest can be categorized as short-term or long-term subject to the duration of the investment horizon. Short-term investment intention refers to an individual having a short-term investment horizon for investment to meet the need which may arise soon. Long-term investment intention refers to an individual having a long-term time investment horizon for investment to meet the need which may arise in the distant future.

This study is underpinned by the big five personality theory which is a hierarchical model of personality traits that are categorized into five factors (known as the ‘big five’) that were derived empirically (Costa, McCrae, & Holland, 1984; Digman, 1990). Earlier, trait theorists attempted to discover and define several personality traits that existed. Allport (1937) suggested 4000 personality traits and Cattell (1943) listed 16 personality traits. However, these theories were criticized for being too complicated and the five-factor theory that emerged serves as building blocks of personality traits and describes essential traits.

The five-factor theory is one of the dominant approaches to represent human personality traits. For many years, the theory is being developed, beginning with the work of Fiske (1949), later several personality theorists had worked on traits’ development (McCrae & Costa, 1987). The five-factor theory is a theory of personality traits that identifies five distinct factors that
are also referred to as OCEAN (Openness to Experience, Conscientiousness, Extraversion, Agreeableness, and Neuroticism). The traits represent a range of two extremes such as; extraversion represents two extremes, extroverts, and introverts. This model has been applied extensively by researchers in diverse contexts to study individual differences, for example, in organizations (Bozionelos, 2004; Erdheim, Wang, & Zickar, 2006; Scott & Colquitt, 2007; Udin & Yuniawan, 2020), in educational institutions (Busato et al., 1998; Komarraju & Karau, 2005; Vorkapic, 2012), in clinical studies (Muris, 2006; Nigg et al., 2002), and leisure experiences (Han, 2020). Nguyen and Nguyen (2020) analyzed the impact of operating cash flow on individual investor’s decision making for listed firms on Vietnam’s stock market exchange by applying a T-test.

Numerous studies have been carried out on diverse traits of personality, nevertheless, OCEAN traits developed by Allport (1937) is the best. Personality traits comprise motivational, cognitive, and emotional characteristics that influence several decisions of individuals (Dolan et al., 2012). One of the decisions is, the financial decision (Crysel, Crosier, & Webster, 2013), and an investor’s personality is related to investment choices and outcomes. (Durand, Newby, & Sanghani, 2008).

2.1. Variables and Hypotheses Development

2.1.1. Extraversion and Investment Intention

McCrae and Costa Jr (1997) and Leary, Reilly, and Brown (2009) defined an extrovert as a person who is active, optimistic, excitement seeking and socializes in big crowds. “Extraversion deliberate only positive information, which influences their assessment of the probability of success and instigated overconfidence in financial decision making” (Pan & Statman, 2013). Mayfield, Perdue, and Wooten (2008) concluded that extraversion often creates a trade-off and tends to capitalize on the money more in the stock market. Durand et al. (2008) revealed that people with a greater tendency towards extraversion are risk-takers and eventually they attain higher returns. Brown and Taylor (2014) empirically examined the relationship of personality traits of households and their financial decision making and that “extraversion is connected with financial assets and unsecured debts”.

\( H_1: \) Extraversion has a positive relationship with an investor’s decision making.

2.1.2. Openness to Experience and Investment Intention

As defined by Martins (2002), individuals with an attribute of openness to experience are broad-minded, resourceful, and creative. They have an appeal towards new thoughts, aesthetics, and novelty (Gunkel et al., 2010). Mayfield et al. (2008) directed a study among business school undergraduates and revealed that extraversion trade frequently and tend to invest more money in the stock market. “Openness in individuals promotes greater willingness to embrace unconventional rules of thumb prescribed in financial decision making”. Investors possessing this trait have a positive association with risk tolerance and prefer investing in stock (Nga & Ken Yien, 2013). Nandan and Saurabh (2016) described that investors having the “openness to experience” trait tend to take a higher risk than their counterparts.

\( H_2: \) Openness to experience and investment intention are positively related.

2.1.3. Agreeableness and Investment Intention

Agreeableness refers to cooperation, helpfulness, personal warmth, altruism, and sympathy toward others (Mayfield et al., 2008). According to Costa Jr and McCrae (1992), agreeable individuals rely on the financial analyst’s judgment and feel hard to make personal financial decisions. Agreeable persons tend to avoid conflicts with others and positively consider the information provided by others without any critical assessment (McCrae & Costa Jr, 1997).

\( H_3: \) Agreeableness is positively related to an investor’s investment intention.

2.1.4. Conscientiousness and Investment Intention

Conscientiousness individuals possessing are punctual, persistent, determined, reliable, and well-organized and are not high risk-takers (Mayfield et al., 2008). Conscientiousness investors avoid depending on misconceptions and sensibly make their investment decisions. Gunkel et al. (2010) stated that “conscientious individuals are actively involved in decision making”. Conscientious investors do not rely on delusions and prudently make their investment decisions. This ability makes them more particular about the choice of investment and risk tolerance (Sadi et al., 2011). Durand et al. (2013) stated that individuals with conscience personality have a positive relationship with their trading behavior.

\( H_4: \) Conscientiousness and investment intention of investors are positively related.

2.1.5. Neuroticism and Investment Intention

Neurotic people lack conceptual understanding, critical thinking, cognitive abilities, and analytical skills.
These shortcomings make neurotic individuals anxious and afraid while taking risky decisions (McCrae & Costa Jr, 1997; Young et al., 2012). Neurotic investors avoid indecision, are hostile towards risk, and avoid debt securities and foreign equities. As such, neurotic individuals approve portfolios with a low-risk appetite (Gambetti & Giusberti, 2012). Moreover, Niszczota (2014) found that neurotic individuals avoid investment in foreign securities and avoid uncertainty. Pak and Mahmood (2015) stated that neuroticism has a negative relation to risky behavior.

\( H_1: \) Neuroticism is negatively related to an investor’s investment intention.

\subsection*{2.1.6. Risk Aversion and Investment Intention}

Risk is well-thought-out as a significant aspect of investment behavior (Kiev, 2003). According to Grable and Lytton (2003), investors with a low-risk attitude invest not only in saving accounts but also prefer holding cash and investment in bonds. Likewise, those with a high-risk attitude choose trading more in derivatives and investments in stocks, contrary to low-risk ones (Wood & Zaichkowsky, 2004). According to Fellner and Maciejovsky (2007) “Individuals risk behavior determine their investment style”. Yet, many aspects influence an individual’s risk behavior such as their past experiences (Hunter & Kemp, 2004), financial knowledge (Young et al., 2012), market volatility (Diacon, 2004), emotions (Grable & Lytton, 2003), personal traits (Corter & Chen, 2006), and love for money (Tang, 2007).

\( H_2: \) The investor’s risk aversion is significantly related to an investor’s investment intention.

\section*{3. Research Methodology}

The population of the study includes the current and prospective investors from all districts of Balochistan. The sampling frame consisted of literate individuals in government jobs, private jobs, and businessmen, categorized as young adults, middle-aged, and old-aged investors. The Drop-off and Pick-up (DOPU) self-administered method was used to get responses from the participants because it increases the response rate (Riley & Kiger, 2002). The questionnaires were distributed to the participants and were collected when it was completed.

The sample size for the study was 397 which is greater than the minimum sample size of 254 respondents derived from G-power used for statistical tests as a power analysis program and which is used in social and behavioral research (Erdfelder, Faul, & Buchner, 1996). In the present study, the minimum sample size was calculated by taking the effect size (\( f^2 \)) as 0.1, probability of type-I (\( \alpha \)) error as 0.05, and power as 0.99 which gives the minimum sample size of 254.

The construct of long terms investment intention (5-items) and the predictors of the study namely, extraversion (4-items), openness to experience (5-items), agreeableness (4-items), conscientiousness (5-items), neuroticism (5-items), and risk aversion (4-items) was measured using a five-point Likert scale in which responders specify their level of agreement to a statement in 5 points: (1) strongly disagree (2) disagree (3) neither agree nor disagree (4) agree (5) strongly agree (Mayfield et al., 2008). The theoretical model was tested by applying the PLS path modeling in the current empirical work using SmartPLS 3 (Ringle, Wende, & Becker, 2015). The higher-order construct was measured by applying the disjoint two-stage approach (Sarstedt et al., 2019).

\section*{4. Results and Discussion}

The questionnaires with missing data were excluded from the analysis, hence no missing value issue was encountered by the researcher. While data screening, the responses were detected as outliers by the software, wherein, the condition of value outside three standard deviations (3\( \sigma \)) was dropped from the analysis.

\subsection*{4.1. PLS Analysis}

PLS path modeling technique is widely acknowledged and applied in the study of social sciences (Hair Jr et al., 2011, 2012; Kura, 2016; Kura et al., 2015; Roldán & Sanchez-Francisco, 2012). The primary aim of this empirical study was to predict the individual investor’s intention to invest (dependent variable). For this, the researcher found PLS path modeling to be the most suitable analysis technique (Hair Jr et al., 2011). This empirical research evaluated and reported PLS-SEM results based on the measurement model (Table 1) and the structural model (Table 3) assessment (Hair Jr et al., 2010, 2016; Henseler, Ringle, & Sinkovics, 2009).

\subsection*{4.1.1. Assessment of the Measurement Model}

Researchers use the measurement model assessment by calculating the loading of every single item, Cronbach’s Alpha, content validity, convergent validity, and finally the discriminant validity (Hair Jr et al., 2010, 2016; Henseler et al., 2009). The consistency of a questionnaire is measured by reliability analysis (Field, 2009). The assessment of individual items can be evaluated from indicator reliability. The reliability of each latent variable is examined by its internal consistency.
The indicator reliability of each item is assessed by reviewing the outer loadings of every item of every construct (Duarte & Raposo, 2010; Hair Jr et al., 2012, 2016; Hulland, 1999). The indicator reliability explains that each item is a good measurement of the latent construct. To retain individual items, a rule of thumb is provided by researchers that for retention, a loading between 0.40 to 0.70 is deemed acceptable (Hair Jr et al., 2016). Table 1 reports the outer loading for every latent variable which lies in the acceptable range and thus satisfies the criteria for retention as per the rule of thumb, implying that the criteria for individual item reliability are met.

Table 1: Measurement Model

| First-Order Measurement Model | Variables               | Loadings | CR    | AVE    | Variables               | Loadings | CR    | AVE    |
|------------------------------|-------------------------|----------|-------|--------|-------------------------|----------|-------|--------|
| Long Term Investment Intention | LT1                     | 0.904    | 0.656 |        | Extraversion            | 0.824    | 0.551 |        |
|                              | LT2                     | 0.778    |       |        | EXTRA1                  | 0.445    |       |        |
|                              | LT3                     | 0.838    |       |        | EXTRA 2                 | 0.768    |       |        |
|                              | LT4                     | 0.863    |       |        | EXTRA 3                 | 0.855    |       |        |
|                              | LT5                     | 0.679    |       |        | EXTRA 4                 | 0.827    |       |        |
| Short Term Investment Intention | ST1                     | 0.696    |       |        | NEU1                    | 0.747    |       |        |
|                              | ST2                     | 0.691    |       |        | NEU 2                   | 0.760    |       |        |
|                              | ST3                     | 0.787    |       |        | NEU 3                   | 0.796    |       |        |
|                              | ST4                     | 0.814    |       |        | NEU 4                   | 0.826    |       |        |
|                              | ST5                     | 0.816    |       |        | NEU 5                   | 0.738    |       |        |
| Agreeableness               | AGREE1                  | 0.901    |       |        | OE1                     | 0.877    |       |        |
|                              | AGREE2                  | 0.828    |       |        | OE 2                    | 0.871    |       |        |
|                              | AGREE 3                 | 0.889    |       |        | OE 3                    | 0.892    |       |        |
|                              | AGREE 4                 | 0.806    |       |        | OE 4                    | 0.882    |       |        |
| Conscientiousness           | CON1                    | 0.888    |       |        | Risk Aversion           | 0.896    | 0.682 |        |
|                              | CON 2                   | 0.874    |       |        | RA1                     | 0.766    |       |        |
|                              | CON 3                   | 0.927    |       |        | RA 2                    | 0.839    |       |        |
|                              | CON 4                   | 0.859    |       |        | RA 3                    | 0.868    |       |        |
|                              | CON 5                   | 0.761    |       |        | RA 4                    | 0.829    |       |        |

| Second-Order Measurement Model | Variables               | Loadings | CR    | AVE    |
|-------------------------------|-------------------------|----------|-------|--------|
| Investment Intention         | LTI                     | 0.743    |       | 0.555  |
| Stti                          | STI                     | 0.747    |       |        |
Composite Reliability (CR) is used as a widespread method for internal consistency assessment. Werts, Linn, and Joreskog (1974) developed CR, and CR is given preference over Cronbach’s alpha because CR may result in a better estimate. A rule of thumb was determined for the interpretation of a coefficient’s composite reliability where an upper cap of 0.7 or more was set as a benchmark (Bagozzi & Yi, 1988; Hair Jr et al., 2011; Henseler et al., 2009). Table 1 exhibits the coefficient’s CR for every latent variable used in the present empirical work, which lies between 0.816 to 0.936, implying that the values of the construct are higher than the cut-off of 0.70. These measures exhibit satisfactory internal consistency reliability (Hair Jr et al., 2011).

The use of Average Variance Extracted (AVE) for assessing the convergent validity of every construct was suggested (Fornell & Larcker, 1981). The value of AVE should be 0.50 or more to exhibit sufficient convergent validity (Chin, 1998; Henseler et al., 2009). The values of AVE (Table 1) indicate a value of 0.656 for long-term investment intention and 0.582 for short-term investment intention in the first-order measurement model. The personality trait variables taken as predictors in the study, namely, openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism have an AVE of 0.733, 0.746, 0.551, 0.734, and 0.599 respectively, whereas, risk aversion has an AVE of 0.682. In the second-order measurement model, the AVE of investment intention is 0.555. The AVE values imply that the empirical work demonstrates a satisfactory convergent validity (Chin, 1998; Henseler et al., 2009).

Discriminant validity indicates that the two conceptually significant concepts used in the model are distinct (Joseph et al., 2010). Fornell’s and Larcker’s (1981) criteria were used in the current empirical work to assess discriminant validity. As a rule of thumb, the use of AVE with 0.5 value or higher is suggested as well as the square root of AVE must be greater than the correlations between latent variables. Table 1 indicates that the AVE of all constructs is more than the cut-off value of 0.50, while Table 2 indicates the square root of AVE is greater than the correlations between variables, implying that the empirical work demonstrates satisfactory discriminant validity.

A new method of assessing discriminant validity, the Heterotrait-Monotrait (HTMT) ratio of correlations is proposed by Henseler, Ringle, and Sarstedt (2015) which is a multitrait-multimethod matrix. If the value of the HTMT ratio is higher than the threshold value, it shows a lack of discriminant validity. Gold, Malhotra, and Segars (2001) proposed a threshold value of 0.90 for the HTMT ratio. The values should be lower than 0.90 or it should not be close to 1. The lower the value, the higher is the discriminant validity. Table 5 summarizes the new criteria for assessing discriminant validity. The values indicate that the discriminant validity has no issues as the threshold value is less than 0.9.

Table 2: Discriminant Validity

| Fornell and Larcker Criterion | AGREE | ATR | CON | EXTRA | LTI | NEU | OE | STI |
|------------------------------|-------|-----|-----|-------|-----|-----|----|-----|
| AGREE                        | 0.857 |     |     |       |     |     |    |     |
| ATR                          | 0.357 | 0.826 |     |       |     |     |    |     |
| CON                          | 0.182 | 0.508 | 0.864 |       |     |     |    |     |
| EXTRA                        | 0.087 | 0.285 | 0.251 | 0.742 |     |     |    |     |
| LTI                          | 0.345 | 0.661 | 0.307 | 0.209 | 0.810 |     |    |    |
| NEU                          | -0.206 | -0.476 | -0.544 | -0.239 | -0.420 | 0.774 |    |    |
| OE                           | 0.108 | 0.396 | 0.488 | 0.064 | 0.240 | -0.419 | 0.856 |    |
| STI                          | 0.214 | 0.453 | 0.415 | 0.301 | 0.110 | -0.331 | 0.353 | 0.763 |

| Heterotrait-Monotrait Ratio of Correlations Criterion |
|---------------------------------------------|
| AGREE                        | 0.407 |     |     |       |     |     |    |     |
| ATR                          | 0.197 | 0.578 |     |       |     |     |    |     |
| CON                          | 0.194 | 0.297 | 0.270 |       |     |     |    |     |
| EXTRA                        | 0.377 | 0.621 | 0.333 | 0.229 |     |     |    |     |
| LTI                          | 0.232 | 0.566 | 0.621 | 0.256 | 0.489 |     |    |    |
| NEU                          | 0.120 | 0.449 | 0.533 | 0.119 | 0.259 | 0.476 |    |    |
| OE                           | 0.245 | 0.525 | 0.470 | 0.321 | 0.138 | 0.392 | 0.402 |    |
| STI                          |       |     |     |       |     |     |    |     |
4.1.2. Structural Model

The current empirical research applied the standard bootstrapping procedure (500 bootstraps samples) and 397 respondents to assess the statistical significance of pathway coefficients (Hair Jr et al., 2011, 2012, 2016; Henseler et al., 2009). Table 3 reveals the complete structural model estimates of the current study.

Hypothesis 1 \((H_1)\) is formulated to test the relationship between extraversion and investment intention; it is a one-tail hypothesis and a positive relationship is hypothesized. The results shown in Table 3 indicate a significant positive relationship between extraversion and the investment intention of an individual investor \((\beta_x = 0.151; \text{p-value} = .000)\) at a 1% percent level implying that \(H_1\) is supported.

Hypothesis 2 \((H_2)\) is formulated to test the relationship between openness to experience and investment intention; it is a one-tail hypothesis and a positive relationship is hypothesized. The results shown in Table 3 indicate a significant positive relationship between openness to experience and the investment intention of an individual investor \((\beta_o = 0.105; \text{p-value} = .007)\) at a 1% percent level implying that \(H_2\) is supported.

Hypothesis 3 \((H_3)\) is formulated to test the relationship between agreeableness and investment intention of an individual investor; it is a one-tail hypothesis and a positive relationship is hypothesized. The results shown in Table 3 confirm a positive relationship between agreeableness and the investment intention of an individual investor \((\beta_a = 0.162; \text{p-value} = .000)\) at a 1% percent level implying that \(H_3\) is supported.

Hypothesis 4 \((H_4)\) is formulated to test the relationship between conscientiousness and investment intention; it is a one-tail hypothesis and a positive relationship is hypothesized. The results shown in Table 3 confirm a positive relationship between conscientiousness and the investment intention of an individual investor \((\beta_c = 0.066; \text{p-value} = .093)\) at a 10% percent level implying that \(H_4\) is supported.

Hypothesis 5 \((H_5)\) is formulated to test the relationship between neuroticism and investment intention; it is a one-tail hypothesis and a negative relationship is hypothesized. The results shown in Table 3 indicate a negative relationship between neuroticism and the investment intention of an individual investor \((\beta_n = -0.162; \text{p-value} = .000)\) at a 1% percent level implying that \(H_5\) is supported.

Hypothesis 6 \((H_6)\) is formulated as a two-tailed hypothesis to test the relationship between risk aversion and investment intention. The results shown in Table 3 indicate that there is a positive relationship between risk aversion and the investment intention of an individual investor \((\beta_r = 0.408; \text{p-value} = .000)\).

Several researchers have explained the variance in the model by using the value of R-Square (Elliott & Woodward, 2007; Hair Jr et al., 2010, 2006). \(R^2\) is a statistical measure that represents the proportion of the variance for a dependent variable that’s explained by the independent variables in the current empirical work.

The coefficient of determination, \(R^2\) is shown in Table 4. The \(R^2\) of 0.539 indicates that the independent variables altogether explain about 54% of the variance in the dependent variable (investment intention of individual investors). The \(R^2\) value is moderate in the current study (Chin, 2010).

Q-square (\(Q^2\)) is an indicator of the model’s predictive relevance known as the criterion of predictive accuracy. It is also known as Stone-Geisser’s \(Q^2\) (Geisser, 1974; Stone, 1974). If the value of \(Q^2\) is less than 0, it indicates that the model is not a good fit and all independent variables cannot explain the dependent variable, hence providing no predictive relevance among exogenous and endogenous variables (Hair Jr et al., 2016; Henseler et al., 2009). Table 4 indicates that the value \(Q^2 = 0.283\) is greater than 0 and is a good indicator of predictive relevance in this study.

### Table 3: Structural Model

| Hypothesis | Relationship                          | \(\beta\) | S.E. | \(t\)-value | \(p\)-value | Decision | \(f\)-square |
|------------|--------------------------------------|----------|------|-------------|-------------|----------|-------------|
| 1          | Extraversion → Investment Intention  | 0.151    | 0.039| 3.859       | 0.000       | Supported| 0.073       |
| 2          | Openness to Experience → Investment Intention | 0.105    | 0.043| 2.451       | 0.007       | Supported| 0.039       |
| 3          | Agreeableness → Investment Intention | 0.162    | 0.040| 4.046       | 0.000       | Supported| 0.112       |
| 4          | Conscientiousness → Investment Intention | 0.066    | 0.050| 1.323       | 0.093       | Supported| 0.073       |
| 5          | Neuroticism → Investment Intention   | -0.162   | 0.049| 3.325       | 0.000       | Supported| 0.064       |
| 6          | Risk Aversion → Investment Intention | 0.408    | 0.057| 7.124       | 0.000       | Supported| 0.214       |

**Table 4: Construct Cross-Validated Redundancy**

| Construct                  | R-Square \((R^2)\) | Q-Square \((Q^2)\) |
|----------------------------|-----------------|-----------------|
| Investment Intention       | 0.539           | 0.283           |
4.2. Discussion

According to McCrae and Costa Jr (1997), an extravert is defined as an individual who is active, optimistic, excitement seeking, and socializes in big crowds. The results of this study found a positive relationship between extraversion and investment intention which supports the conclusions given by Pan and Statman (2013). Extraversion often creates a trade-off and tends to capitalize on the money more in the stock market. As defined by Martins (2002), individuals with an attribute of openness to experience are broad-minded, resourceful, and creative. They have an appeal towards new thoughts, aesthetics, and novelty (Gunkel et al., 2010). The results of this study confirm a significant positive association between openness to experience and investment intention and the results are consistent with that of Mayfield et al. (2008) who found a positive relationship between openness to experience and investment intention.

Agreeable persons tend to avoid conflicts and positively consider the information provided by others without any critical assessment (McCrae & Costa Jr, 1997). The results of this study confirm a positive relationship between agreeableness and investment intention. Gunkel et al. (2010) stated that “conscientious individuals are actively involved in decision making”. Conscientious investors avoid depending on misconceptions and this ability makes them more particular about the choice of investment and risk tolerance (Sadi et al., 2011). The results of this study confirm a positive association between conscientiousness and investment intention.

Neurotic investors avoid indecision, are hostile towards risk, and avoid debt securities and foreign equities (Niszczota, 2014). Moreover, neurotic people lack conceptual understanding, analytical ability, cognitive skills, and critical thinking. These shortcomings make neurotic individuals anxious and afraid while taking risky decisions (McCrae & Costa Jr, 1997; Young et al., 2012). Pak & Mahmood (2015) have stated that neuroticism has a negative relation to risky behavior. The results confirm a negative relationship between neuroticism and investment intention as hypothesized. Finally, the present study found a positive relationship of risk aversion and investment intention of individual investors which is contradictory to the findings of Mayfield et al. (2008) who found a negative connection between risk aversion and investment intention.

5. Conclusions and Recommendations

With limited investment opportunities, investors in Balochistan are more inclined to invest in real estate, agricultural extension, and livestock management. Globalization has increased the resources families hold and increased investment prospects in terms of their investment horizon and varying behavior to foresee risk and return (Pellinen et al., 2011). This study reveals that personality traits lead the way for a specific individual’s preference concerning their investment choice. According to Keil, Depledge, and Rai (2007), investors most of the time while dealing with uncertainty and ambiguity count on their cognitive inclinations in the time of taking their financial decisions.

This empirical work aims to test the relationship of personality traits and risk attitude with investment intention of investors in Balochistan by applying the PLS path modeling technique which is widely acknowledged and applied in the study of social sciences (Hair Jr et al., 2011, 2012; Kura, 2016; Kura et al., 2015; Roldan & Sanchez-Franco, 2012) and is the pioneer study in Balochistan to explore the determinants significant in an investor’s investment intention.

The current research tested 6 hypotheses derived from the five-factor theory and risk attitude, and all the alternative hypotheses were accepted in the study. The findings indicate that all the predictors taken in the study are statistically significant with investors’ investment intention with risk aversion as the strongest predictor. Openness to experience, extraversion, consciousness, agreeableness, and risk aversion have a positive significant relationship with an individual’s investment intention, while neuroticism has a negative relationship with an investor’s investment intention.

5.1. Future Research and Policy Implications

It is suggested that studies in the future may focus on the entire country by assessing the similarities and differences among investors of Pakistan based on their cultural differences and the availability of diverse investment alternatives. Future research may also be based on the youth of Balochistan (Generation Y) as they make most of the total population of Pakistan. Additionally, the investment behavior of retired individuals can be evaluated by extending the present study with a diverse sampling frame.

The results of the present study will help financial planners to make available diverse investment alternatives for investors in Balochistan, thus catering to their unique needs. Academia must offer courses on contemporary finance paradigm based on behavioral finance to enable future business graduates to make wise financial decisions.

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