

## CHAPTER 4

### Causal Analysis among Investment Intention and Its Determinants

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#### Preview

*The analysis of numerous factors that affect the agrarian class's intention to invest is shown in this chapter. The current chapter discusses statistical validation of an empirical model explaining the mindset of investors and their intention to invest of the agrarian class in Punjab and offers the findings of data analysis. Therefore, this chapter renders valuable insights regarding the determinants and provides empirical results along with their key interpretations, findings and conclusions. Section 4.1 presents the descriptive statistics of the respondents' demographic profile and the financial investment situations and products. Section 4.2 pertains to the determinants of the attitude toward money of agrarian class. Section 4.3 presents the analysis through partial least squares (PLS) following the two-step process to analysis the proposed model. The first stage analyzes the measurement model of the latent variables by confirmatory factors analysis (CFA), for checking the suitability of the standardized questionnaire and reliability and validity of the constructs is verified. The second part of this section elaborates the results of the structural model. For the purpose of data analysis SPSS (statistical package for social sciences) and for confirmatory factors analysis PLS SEM were used.*

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#### Introduction

Icek Ajzen (1985, 1991) proposed the theory of planned behavior (TPB) model, which explained and was used to forecast the behavior that posits the behavior that is determined by intention and, in some cases, perceived control behavior. Ajzen's work was published in the years 1985 and 1991. According to Ajzen's research from 1985, the formation of an intention is primarily influenced by three factors: the individual's attitude, their subjective norms, and their perceived level of behavioral control. Studies (Gopi and Ramayah, 2007; O'Connor and White, 2010; Phan and Zhou, 2014) have shown that

if an individual develops a positive attitude toward a specific behavior, then they generally develop an optimistic intention to carry out that behavior. If a person cultivates a bad attitude toward certain behavior, it is typical for that person to also cultivate a negative intention to engage in the behavior in question. According to this idea, investors' attitudes and intentions can be separated up into more manageable chunks for visualization purposes. The present study utilizes the idea of TPB and puts forward the hypothesis relating to the attitude of agrarian class investors in India towards the intention to invest based on research in the prior literature on behavior and associated theories on environment psychology like TPB theory.

The present research therefore presupposes that behavioral beliefs and control, which are characteristics of attitudinal behavior, have a fundamental functionality in determining the future intention of agrarian investors in India. This is because behavioral beliefs and control are characteristics of attitudinal behavior. This study consequently makes an effort to utilize TPB as groundwork in its methodology.

#### **4.1 Demographic profile**

The demographic profile is imperative where the respondents are central source of information in research. Demographics of a sample elucidate the characteristics of the population. This includes age, marital status, gender, education qualification, income and experience of the people considered in the sample. Table 4.1 characterizes the detailed profile of sample taken into consideration in the research.

A total of 400 questionnaires returned complete in all respect out of total distributed 830 questionnaires, which became sample of the study. Out of 400 questionnaires collected the sample, males consisted of 61% (242) and females consisted of 39% (158) of the total respondent group. The distribution of age group was categorized in five different groups. The age group of less than 25 years consisted of 18% of the respondents (73) in India. The age group of 26-35 years constituted 41% of the total respondents, whereas age bracket of 36-45 years comprised of 23%, age group of 46-55 years comprised of 11% and age group of above 55 years comprised of 7% of the total respondents. Analysis of marital status of the respondents showed that 65% (259) of the respondents were married and 35% (141) were unmarried.

In addition, the analysis of qualification of the respondents illustrated that undergraduates were 51% of the respondents and graduate represented the 26% of the sample. Post-graduate and doctorates comprised 21% and 3% respectively. Moreover, the income was divided in to sub groups; income from agriculture and income from non-agriculture Income from agriculture groups were divided into five stratum. Twenty-two percent of respondents fall into the low-income category. 5 lakhs. The majority of respondents, 49 percent, fell into the income range of Rs. 5 million to Rs. 10 lakhs, and the minimum number of respondents must be in the upper income range of Rs. 20,000 as 4%.

On the other hand, apart from income from non-agriculture, people were also having income from non-agriculture. There were five strata in this group. The majority of respondents, 52 percent, fell into the lower income category, 5 lakhs and required a minimum number of respondents with incomes above Rs. 20,000 as 4%.

In India, 69% of respondents from the agrarian class knew that bank deposits were a kind of investment. Only 12% and 14% of the respondents were also aware about postal savings and insurance respectively. Moreover, very few respondents were aware about bonds/debentures, mutual funds, share market, pension schemes and commodities asoption to invest.

It was also asked from the respondents that whose advice they take before proceeding for investing decision. 60% of the respondents responded that they generally ask their family members for any financial concerns. 14% said friend and 10% said colleagues. It was only 9% of the respondents who said that they consulted financial advisors' opinion before taking any financial decision. Also, 7% followed media (business channels/ newspapers) for financial decision matters.

**Table 4.1: Demographic Profile**

| <b>Measure</b> | <b>Items</b>       | <b>Frequency</b> | <b>Percentage</b> |
|----------------|--------------------|------------------|-------------------|
| <b>Gender</b>  | Male               | 242              | 61                |
|                | Female             | 158              | 39                |
| <b>Age</b>     | Less than 25 years | 73               | 18                |
|                | 26-35 years        | 163              | 41                |
|                | 36-45 years        | 93               | 23                |
|                | 46 – 55 years      | 45               | 11                |

|                                     |                                        |     |    |
|-------------------------------------|----------------------------------------|-----|----|
|                                     | 55 years and above                     | 26  | 7  |
| <b>Marital Status</b>               | Single/Unmarried                       | 141 | 35 |
|                                     | Married                                | 259 | 65 |
| <b>Qualification</b>                | High School (10 <sup>th</sup> )        | 117 | 29 |
|                                     | Senior Secondary School (10+2/Diploma) | 89  | 22 |
|                                     | Graduate                               | 102 | 26 |
|                                     | Post Graduate                          | 82  | 21 |
|                                     | Doctorate                              | 10  | 3  |
|                                     | Others                                 | 0   | 0  |
| <b>Income from Agriculture</b>      | Less than 5 Lakh                       | 88  | 22 |
|                                     | 5-10 Lakh                              | 196 | 49 |
|                                     | 10-15 Lakh                             | 80  | 20 |
|                                     | 15-20 Lakh                             | 19  | 5  |
|                                     | 20 Lakh and above                      | 17  | 4  |
| <b>Income from Non-Agriculture</b>  | Less than 5 Lakh                       | 206 | 52 |
|                                     | 5-10 Lakh                              | 84  | 21 |
|                                     | 10-15 Lakh                             | 58  | 15 |
|                                     | 15-20 Lakh                             | 37  | 9  |
|                                     | 20 Lakh and above                      | 15  | 4  |
| <b>House ownership</b>              | Own                                    | 344 | 86 |
|                                     | Rented                                 | 56  | 14 |
| <b>Financial Products awareness</b> | Bank deposits                          | 275 | 69 |
|                                     | Postal savings                         | 46  | 12 |
|                                     | Insurance                              | 54  | 14 |
|                                     | Bonds/Debentures                       | 5   | 1  |
|                                     | Mutual funds                           | 6   | 2  |
|                                     | Share market                           | 3   | 1  |
|                                     | Pension Schemes                        | 10  | 3  |
|                                     | Commodities                            | 1   | 0  |

|                                                 |                                          |     |    |
|-------------------------------------------------|------------------------------------------|-----|----|
| <b>Current financial investments</b>            | Bank Deposits                            | 265 | 66 |
|                                                 | Equity (shares)                          | 12  | 3  |
|                                                 | Mutual Funds                             | 10  | 3  |
|                                                 | Postal Savings                           | 44  | 11 |
|                                                 | Life Insurance                           | 51  | 13 |
|                                                 | Chit funds (specify)                     | 0   | 0  |
|                                                 | Bonds/Debentures                         | 7   | 2  |
|                                                 | Provident fund                           | 11  | 3  |
| <b>Financial advice taken before investment</b> | Family members                           | 241 | 60 |
|                                                 | Friends                                  | 54  | 14 |
|                                                 | Colleagues                               | 40  | 10 |
|                                                 | Financial Advisors                       | 37  | 9  |
|                                                 | Media (Business Channels/<br>Newspapers) | 28  | 7  |

*Source: Descriptive statistics output in SPSS*

## **4.2 Determinants of attitude of investors towards intention to invest**

### **Objective 1**

**To examine the determinants of attitude of investors towards investment intention of agrarian class.**

This goal focuses on determining the factors that shape investors' attitudes toward agrarian class investment intentions. The extensive literature review discussed in chapter 2 identifies the study's attitude determinants. Descriptive statistics, reliability, and validity testing of the investor attitude scale accomplish the study's first objective. Cronbach's alpha is used to test the scale's reliability, and CFA is used to test the scale's validity.

Before assessing the various aspect of investor's attitude towards intention to invest, it is imperative to comprehend the meaning of attitude, so as to understand the model clearly. The new dictionary of psychology by Harriman, Attitudes denote basis perceptions, convictions feelings and emotions hope and fears. The researchers' of

psychological view towards attitude identifies that in order to create and maintain social order it is imperative to have social structure. They also claim that to change behavior, first attitude must change (Dollard, 1949; Kutner, Wilkins, & Yarrow, 1970; Lewin, 1999).

"A psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor" is how Eagly and Chaiken (1993) defined attitude in their book. An attitude can be defined as "an enduring organization of motivational, emotional, perceptual, and cognitive processes with respect to some aspect of the individual's world," according to Krech and Crutchfield (1948). According to Fishbein and Ajzen (1975), "one's positive or negative evaluation of a specific behavior" is the definition of attitude. Positive or negative perspectives on a person, place, thing, or event are commonly used to define attitude. Further, Sears et al (1991) suggested that attitude includes three factors. These are emotion, behavior, and cognition. The prior studies on financial literature have recognized the prominence of attitude of individuals towards money and in the investment behavior (*Kidwell et al. 2003; Kidwell and Turrisi 2004; Ali et al. 2015; Castro-Gonzalez et al. 2020*).

According to Jodi & Phyllis (1998) when analyzing financial management practices that is recommended by the level of deal or no deal, is expressed as financial attitude that builds the psychological tendency. Pankow (2012) defined financial attitude as a state of mind, opinion, and judgment about finance.

Studies have found that attitude of investors to money is determined by lot many factors, which are financial knowledge, financial self-efficacy, social influence and personal traits. These determinants have substantial impact on investment intention and financial behavior. The academic literature on individuals' attitude and financial intention influences the financial behavior especially of agrarian class in the field of finance suggested very few linkages in Indian context. Therefore, there is a gap in the available literature regarding the relationship between the factors affecting formation of attitude. The study aims at overcoming the gap by studying the antecedents of attitude towards intention to invest.

According to the detailed review of literature, discussed in chapter 2, the key antecedents of attitude in relation to investment to invest are:

1. Financial knowledge
2. Financial Self Efficacy
3. Social influence
4. Personal traits

These determinants of attitude, in the study, are estimated using the descriptive statistics. Further, to measure the internal consistency based on reliability statistical measure of Cronbach alpha is applied. The results of the descriptive statistics and internal consistency reliability for each factor are illustrated.

#### 4.2.1 Financial Knowledge

Financial knowledge is "information that is acquired through learning, organizing, representing, and storing in the memory," according to Wang, 2009. People are able to make informed financial decisions with the assistance of financial knowledge and decision-making skills. The significance of financial knowledge has grown over time and awareness. The statements "Investment in different financial investment avenues simultaneously enhances liquidity" and "I like investing my money into multiple investment avenues" receive the highest mean scores in the descriptive results for financial knowledge. This demonstrates that investors are concerned about their financial knowledge and benefit from risk diversification by investing in multiple avenues. (Refer Table 4.2).

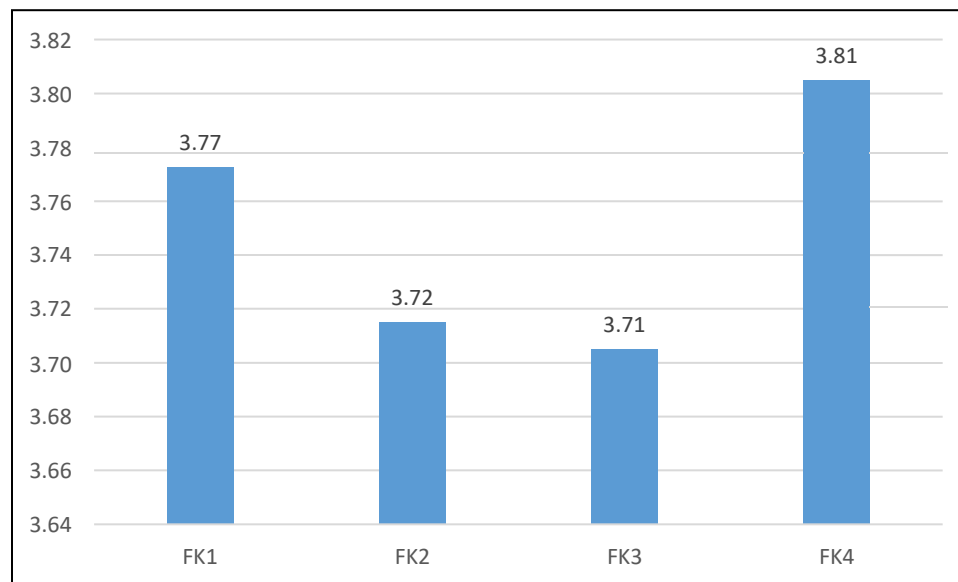
**Table 4.2: Descriptive Statistics of Financial Knowledge**

| Statements                                                                                                  | Descriptive Statistics |                |          |          | Reliability Analysis<br>Cronbach Alpha |
|-------------------------------------------------------------------------------------------------------------|------------------------|----------------|----------|----------|----------------------------------------|
|                                                                                                             | Mean                   | Std. Deviation | Skewness | Kurtosis |                                        |
| I like investing my money into multiple investments avenues                                                 | 3.77                   | 1.060          | -.931    | .267     | 0.905                                  |
| Investment in different financial investment avenues simultaneously helps in reducing chances of bankruptcy | 3.72                   | 1.103          | -.971    | .319     |                                        |
| Investment in different financial investment avenues simultaneously                                         | 3.71                   | 1.087          | -.877    | .206     |                                        |

|                                                                                            |      |       |       |       |  |
|--------------------------------------------------------------------------------------------|------|-------|-------|-------|--|
| helps in increasing the return                                                             |      |       |       |       |  |
| Investment in different financial investment avenues simultaneously enhances the liquidity | 3.81 | 1.100 | -.822 | -.082 |  |

*Source: Descriptive statistics output in SPSS*

Followed by the statements, “Investment in different financial investment avenues simultaneously helps in reducing chances of bankruptcy” (mean score 3.72), and “Investment in different financial investment avenues simultaneously helps in increasing the return” (mean score 3.71), also demonstrates financial knowledge helps in investment in multiple investment options. The reason behind such behavior may be financial knowledge has a close relationship with financial education. Further, skewness and kurtosis indicate the responses of the distribution. Negatively skewed distribution with negligible skewness is revealed by the results. According to George & Mallery (2010), an acceptable asymmetry and kurtosis value range of -2 to +2 is required for a normal univariate distribution. The distribution's kurtosis, on the other hand, is found to be positive. This indicates that the responses are sufficiently diverse. The mean score of statements representing patriotism is shown in figure 4.1.



**Figure 4.1 Mean score of financial knowledge**



### 4.2.2 Financial Self Efficacy

The descriptive statistics of one's own financial self-efficacy are presented in table 4.3. Financial self-efficacy is one of the crucial variables to consider while making decisions about one's finances (Mindra and Moya, 2017; Ismail et al., 2017; Asebedo and Payne, 2018; Tang et al, 2019). According to Maslow (1943), individuals who possess a high level of financial self-efficacy are able to educate themselves on the rights and duties associated with utilizing financial services, effectively manage risk and return, and make more informed economic judgements. According to the findings of the research, the statement that received the highest mean score was "When unexpected expenses emerge,I typically have to utilize credit." It received a score of 3.70. The mean score of 3.63 was given to the statements "It is difficult to make progress toward my financial goals" and "Itis difficult to stick to my spending plan when unexpected expenses come. “This indicates that investors view self-sufficiency in terms of one's financial situation as an essential criterion. This is followed by "I consider investment as an important aspect of my life," which has a mean score of 3.62, and "When faced with a financial challenge, I do notfind it hard to figure out a solution," which has a mean score of 3.60. Each of these statements has a higher mean score than the previous statement. The statement that "Financial investing offers me a sense of financial independence" received the lowest mean score. Despite the fact that the differences are almost negligible.

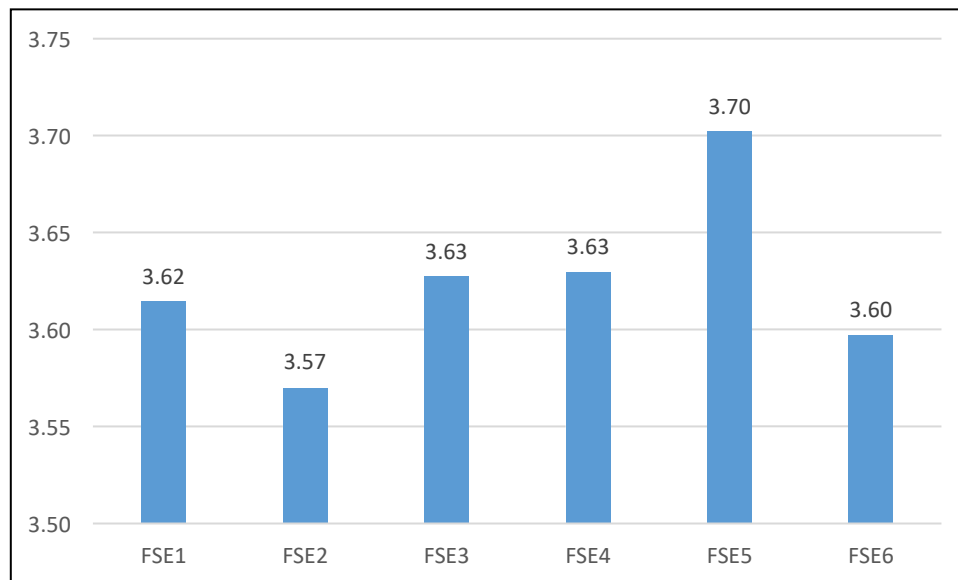
**Table 4.3: Descriptive Statistics of Financial Self Efficacy**

| Statements                                                    | Descriptive Statistics |                |          |          | Reliability Analysis<br>Cronbach Alpha |
|---------------------------------------------------------------|------------------------|----------------|----------|----------|----------------------------------------|
|                                                               | Mean                   | Std. Deviation | Skewness | Kurtosis |                                        |
| I consider investment as an important aspect of my life       | 3.62                   | 1.091          | -.914    | .259     | 0.883                                  |
| Financial investment gives me sense of financial independence | 3.57                   | 1.078          | -.778    | -.083    |                                        |
| It is challenging to make progress toward my financial goals  | 3.63                   | 1.085          | -.899    | .196     |                                        |
| It is hard to stick to my spending plan                       | 3.63                   | 1.049          | -.916    | .269     |                                        |

|                                                                                    |      |       |       |       |
|------------------------------------------------------------------------------------|------|-------|-------|-------|
| when unexpected expenses arise                                                     |      |       |       |       |
| When unexpected expenses occur, I usually have to use credit                       | 3.70 | 1.087 | -.928 | .237  |
| When faced with a financial challenge, I do not find hard to figure out a solution | 3.60 | 1.120 | -.859 | -.081 |

*Source: Descriptive statistics output in SPSS*

The skewness and kurtosis are found to be in acceptable range. The results indicate that the distribution is negatively skewed. On the other hand, the kurtosis of the distribution is found to be leptokurtic which indicates sufficient variation in the responses received by investors. Also, the internal reliability is found to be acceptable at 0.883. Figure 4.2 presents the mean score of different statements of financial self-efficacy.



**Figure 4.2 Mean Score of Financial Self Efficacy**

### 4.2.3 Social Influence

According to Gass (2015), social influence can be defined as both intentional and unintentional efforts to alter another person's beliefs, attitudes, or behavior. The investors' interactions and social influence cause them to act irrationally. According to Nofsinger's (2005) research, social factors are external forces that influence individual decision-making. Investors generally follow friends, media, family members and neighbors, for their investment decisions. Sometimes this leads to common mistakes in the influence by group (Shanmugam and Ramya, 2012).

The results for descriptive statistics are reported in Table 4.4. According to the results “Investment gives me social recognition in society” has highest mean score with 3.73 followed by “My colleagues and friends are investing various schemes” with mean score of 3.70.

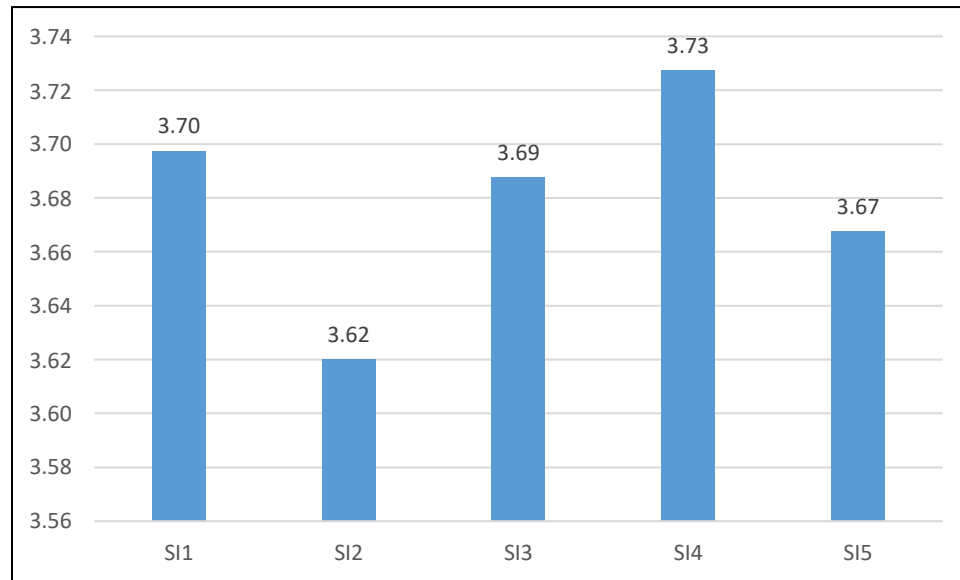
**Table 4.4: Descriptive Statistics of Social Influence**

| Statements                                                                       | Descriptive Statistics |                |          |          | Reliability Analysis Cronbach Alpha |
|----------------------------------------------------------------------------------|------------------------|----------------|----------|----------|-------------------------------------|
|                                                                                  | Mean                   | Std. Deviation | Skewness | Kurtosis |                                     |
| My colleagues and friends are investing various schemes                          | 3.70                   | 1.017          | -.992    | .680     | 0.865                               |
| Those who have important influence on me, think that I should invest regularly   | 3.62                   | 1.038          | -.930    | .378     |                                     |
| People whose opinion I value would prefer that I should invest regularly         | 3.69                   | 1.071          | -.999    | .453     |                                     |
| Investment gives me social recognition in society.                               | 3.73                   | 1.025          | -1.006   | .643     |                                     |
| A major reason to invest was that my friends, family and colleagues suggested me | 3.67                   | 1.041          | -.974    | .456     |                                     |

*Source: Descriptive statistics output in SPSS*

The investors believed that they were investing on the basis of the opinions of close friends. This is demonstrated by the mean scores of 3.69 for the statements "People whose opinions I value would prefer that I should invest regularly," 3.67 for "A major reason to invest was that my friends, family, and colleagues suggested me," and 3.62 for "Those who have important influence on me, think that I should invest regularly." The skewness and kurtosis statistics show the distribution. According to George & Mallery (2010), the findings indicate that the distribution falls within the acceptable ranges of -2 and +2. Cronbach's alpha was used to measure the internal consistency, and the result

was 0.865. The results of mean score of the statements representing social influence is depicted in graphical form in figure 4.3.



**Figure 4.3 Mean Score of Social Influence**

#### **4.2.4 Personal Traits**

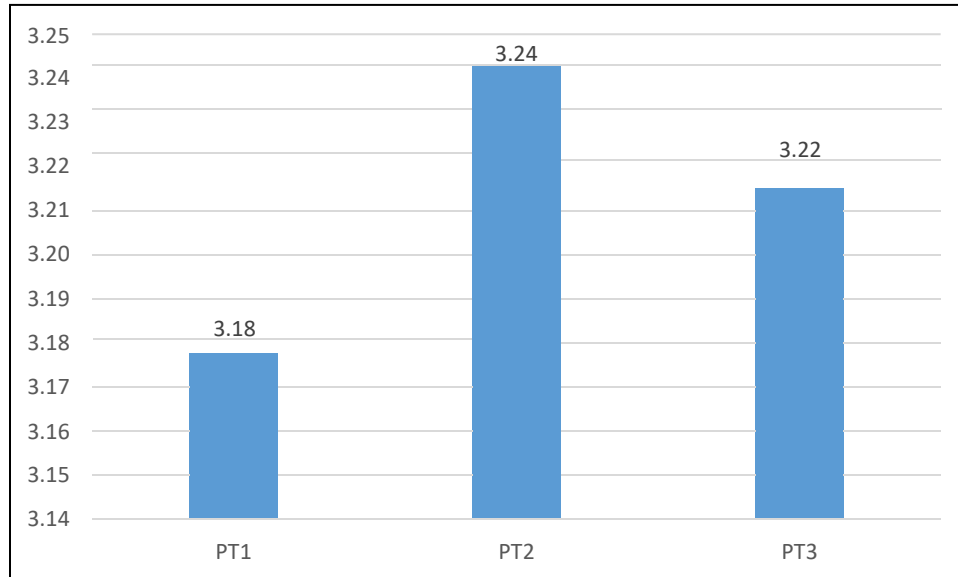
Personality is one of the important fundamental psychological factors that helps in forming the human behavior (Raheja and Dhiman, 2017). In the area of behavioral finance, personality has been part of research and has highlighted that personal characteristics have impact on financial decision making (Durand et al., 2008). The result of mean score of personal traits are depicted in the table 4.5. The highest score is of the statement “People usually ask me for assistance for investment” with 3.24 and “I always think of original ways of performing a task” with mean score of 3.22.

**Table 4.5: Descriptive statistics of personal traits**

| Statements                                                                                                                                   | Descriptive Statistics |                |          |          | Reliability Analysis Cronbach Alpha |
|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------|----------------|----------|----------|-------------------------------------|
|                                                                                                                                              | Mean                   | Std. Deviation | Skewness | Kurtosis |                                     |
| Doing regular investment build up belief of other people in me and they give weightage to my advice before doing their financial investment. | 3.18                   | 1.1830         | -.384    | -.752    | 0.896                               |
| People usually ask me for assistance for investment                                                                                          | 3.24                   | 1.1405         | -.389    | -.687    |                                     |
| I always think of original ways of performing a task                                                                                         | 3.22                   | 1.1671         | -.406    | -.808    |                                     |

*Source: Descriptive statistics output in SPSS*

This is followed by “Doing regular investment build up belief of other people in me and they give weightage to my advice before doing their financial investment” with the mean score of 3.18. It is clear with the results that personality traits help in shaping the belief, attitude and feelings of an individual. The distribution of the responses received is indicated by skewness and kurtosis statistics. The results show that the distribution lies within the acceptable limits i.e., -2 and +2 (George & Mallery, 2010). The internal consistency is measured by cronbach alpha and it is found be 0.896. The results of mean score of the statements representing personal traits is depicted in graphical form in figure 4.4.



**Figure 4.4 Mean Score of Personal Traits**

#### **4.2.5 Attitude**

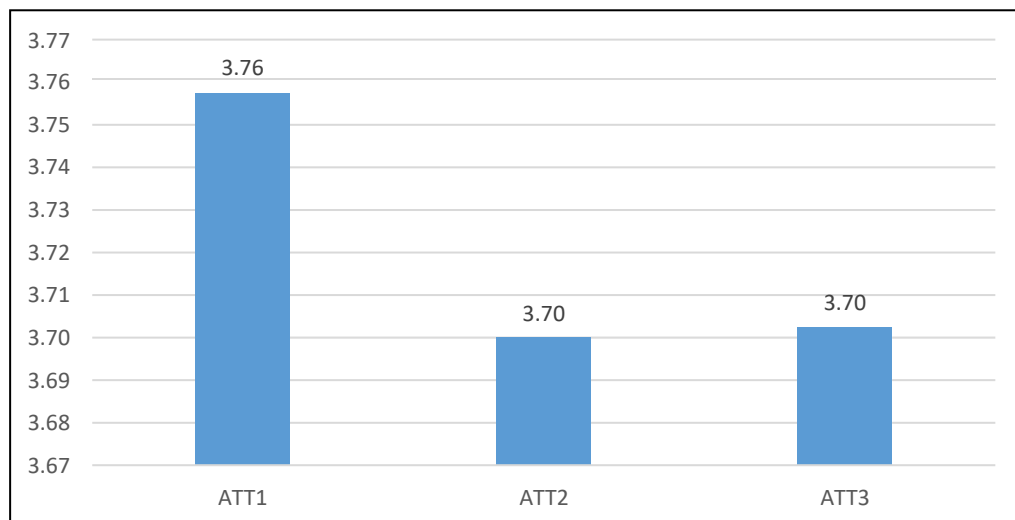
According to Fishbein and Ajzen (1975), attitude is "one's favorable or unfavorable assessment of a particular behavior. Table 4.6 depicts the descriptive statistics of attitude of investors. The mean score is highest for the statement "Regular investment gives me enough experience to give advice to others in society for investment" with 3.76. This is followed by the statement "I think I should invest in financial instruments frequently" and "Investment in multiple financial products is a good idea" both the statements having same mean score of 3.70.

**Table 4.6: Descriptive statistics of attitude**

| Statements                                                                                        | Descriptive Statistics |                |          |          | Reliability Analysis<br>Cronbach Alpha |
|---------------------------------------------------------------------------------------------------|------------------------|----------------|----------|----------|----------------------------------------|
|                                                                                                   | Mean                   | Std. Deviation | Skewness | Kurtosis |                                        |
| Regular investment gives me enough experience to give advice to others in society for investment. | 3.76                   | 1.1388         | -1.018   | .326     | 0.849                                  |
| I think I should invest in financial instruments frequently                                       | 3.70                   | 1.1082         | -.996    | .311     |                                        |
| Investment in multiple financial products is a good idea                                          | 3.70                   | 1.0132         | -.990    | .487     |                                        |

*Source: Descriptive statistics output in SPSS*

The skewness and kurtosis statistics show how the responses were distributed. According to George & Mallery (2010), the findings indicate that the distribution falls within the acceptable ranges of -2 and +2. Cronbach's alpha was used to measure the internal consistency, and the result was 0.849. In figure 4.5, the graphical representation of the results of the mean score for the statements that represented attitude is provided. Prior studies have demonstrated that intention is significantly influenced by attitude. (Gopi and Ramayah, 2007; Ramayah et al., 2009; Phan and Zhou, 2014; Amanah, et al., 2016; Dwiastanti, 2017).



**Figure 4.5 Mean Score of Attitude**

**4.2.6 Financial Risk Propensity**

Risk propensity, as defined by Sitkin and Pablo (p. 12), is "the tendency of a decision maker either to take or to avoid risks." The five-factor personality model and risk-taking behavior are linked, according to research (Costa & McCrae, 1991; 1997, Kowert and Hermann). Table 4.7 displays the financial risk propensity descriptive statistics. The statements "Investing in secure investment with low return is a wise choice" and "If return is very high, I would not hesitate to put my money where chance of loss is high" receive the highest mean scores of 3.65 and 3.63, respectively. The statements "I would prefer to invest money in safer investment avenues" and "Investing in risky investment avenues with high return is a wise choice" follow with a mean score of 3.60.

**Table 4.7: Descriptive statistics of financial risk propensity**

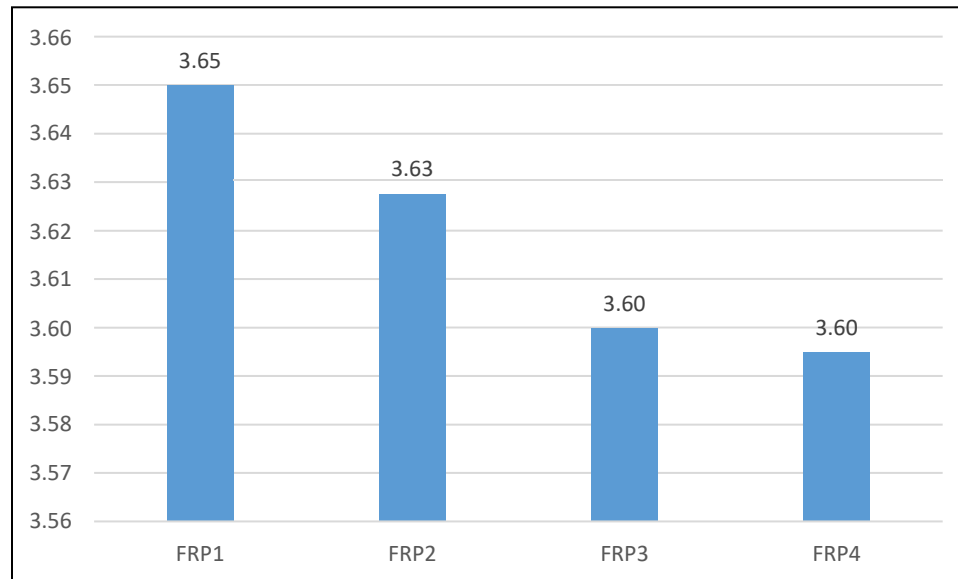
| Statements                                                                                | Descriptive Statistics |                |          |          | Reliability Analysis<br>Cronbach Alpha |
|-------------------------------------------------------------------------------------------|------------------------|----------------|----------|----------|----------------------------------------|
|                                                                                           | Mean                   | Std. Deviation | Skewness | Kurtosis |                                        |
| If return is very high, I would not hesitate to put my money where chance of loss is high | 3.65                   | 1.1272         | -.884    | .006     | 0.914                                  |
| Investing in secure investment with low return is a wise choice                           | 3.63                   | 1.1542         | -.839    | -.153    |                                        |
| Investing in risky investment avenues with high return is a wise choice                   | 3.60                   | 1.1677         | -.908    | -.069    |                                        |
| I would prefer to invest money in safer investment avenues.                               | 3.60                   | 1.1595         | -.901    | -.067    |                                        |

*Source: Descriptive statistics output in SPSS*

The study's mean score demonstrates that investors are wary of taking risks and seek out safer investment opportunities. The skewness and kurtosis statistics show how the responses were distributed. According to George & Mallery (2010), the findings indicate that the distribution falls within the acceptable ranges of -2 and +2. Cronbach's alpha was



used to calculate the internal consistency, and the result was 0.914. The results of mean score of the statements representing financial risk propensity is depicted in graphical form in figure 4.6.



**Figure 4.6 Mean Score of Financial Risk Propensity**

#### **4.2.7 Financial Planning**

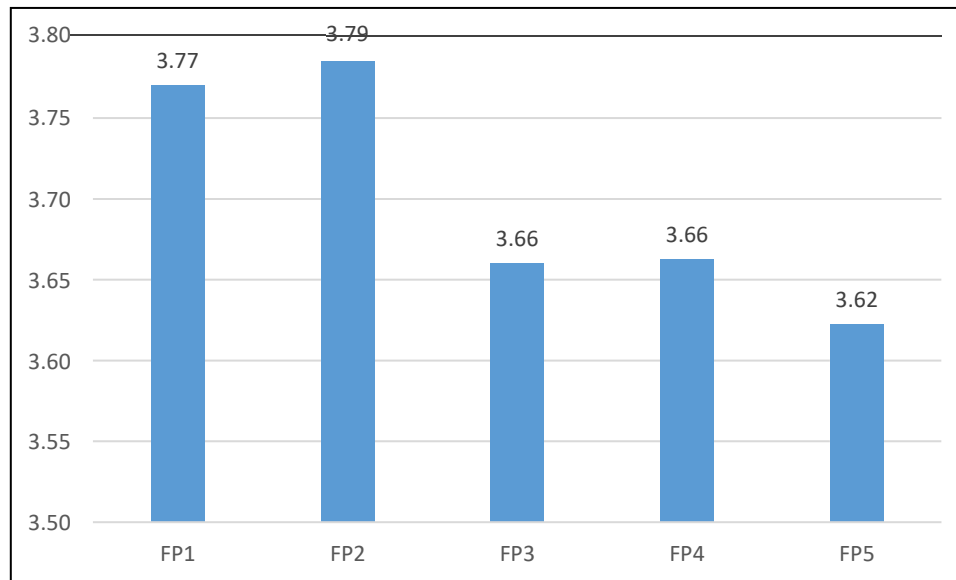
Technically, a sound financial behavior is depicted by good financial planning. An attitude of a person in managing money particularly outflow, savings, investment and managing credit generally are indicators of good financial behavior (Hilgert and Hogart,2003). The descriptive statistics of financial planning has been presented in table 4.8. The mean score is found to be highest with 3.79 for the statement “Proper planning helps me in enhancing better return utilization of my savings” and “Planning for finances helps me in providing luxuries of life to family” with the mean score of 3.77. This is followed by the statement “Financial Planning enables me to support various social welfare schemes” and “Financial investment raises my standard of living in society” both having mean score of 3.66.

**Table 4.8: Descriptive Statistics of Financial Planning**

| Statements                                                                    | Descriptive Statistics |                |          |          | Reliability Analysis Cronbach Alpha |
|-------------------------------------------------------------------------------|------------------------|----------------|----------|----------|-------------------------------------|
|                                                                               | Mean                   | Std. Deviation | Skewness | Kurtosis |                                     |
| Planning for finances helps me in providing luxuries of life to family        | 3.77                   | 0.9641         | -1.128   | 1.183    | 0.854                               |
| Proper planning helps me in enhancing better return utilization of my savings | 3.79                   | 1.0156         | -1.132   | 1.039    |                                     |
| Financial Planning enables me to support various social welfare schemes       | 3.66                   | 1.0281         | -1.020   | .565     |                                     |
| Financial investment raises my standard of living in society                  | 3.66                   | 1.0590         | -1.087   | .583     |                                     |
| Financial investment helps in strengthening the image of women in society.    | 3.62                   | 1.0830         | -.931    | .165     |                                     |

*Source: Descriptive statistics output in SPSS*

The results of the mean score of the study shows that the investors are motivated to do financial planning for having better life for family and increasing standard of living. The distribution of the responses received is indicated by skewness and kurtosis statistics. The results show that the distribution lies within the acceptable limits i.e., -2 and +2 (George & Mallery, 2010). The internal consistency is measured by Cronbach alpha and it is found be 0.854. The results of mean score of the statements representing financial planning is depicted in graphical form in figure 4.7.



**Figure 4.7 Mean Score of Financial Planning**

#### 4.2.8 Investment Intention

After discussing the determinants of attitude of investors of agrarian class it is imperative to study the future intention to invest. Table 4.9 depicts the descriptive statistics of intention to invest. The mean score is highest for the statement “I will invest in financial instruments frequently” with 3.30 and “I would encourage my friend and family to invest in different financial investment avenues” with score of 3.24. This is followed by the statement “I will invest in financial instruments in near future” with mean score of 3.21 and “I tend to live for today and let tomorrow take care of itself” with mean score of 3.16.

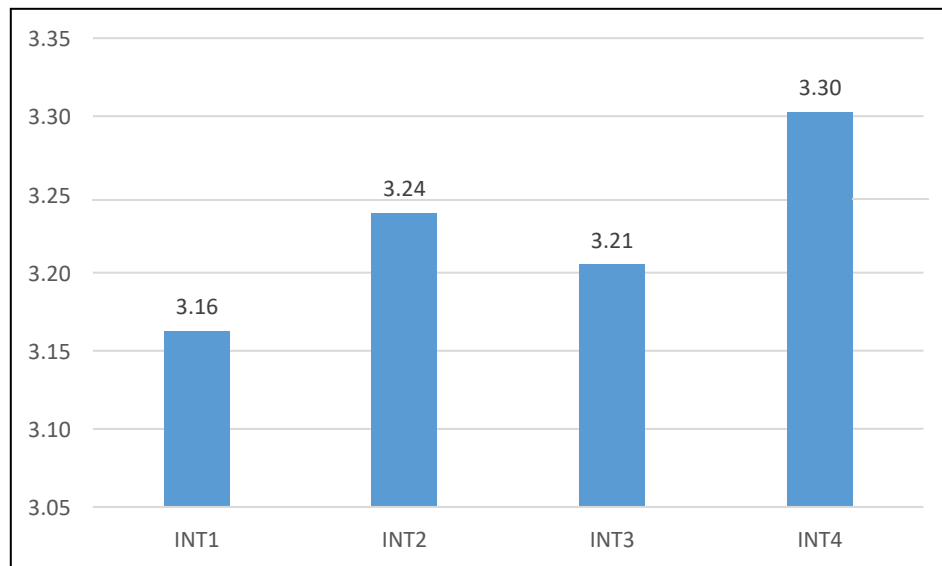
**Table 4.9: Descriptive Statistics of Investment Intention**

| Statements                                                                                 | Descriptive Statistics |                |          |          | Reliability Analysis Cronbach Alpha |
|--------------------------------------------------------------------------------------------|------------------------|----------------|----------|----------|-------------------------------------|
|                                                                                            | Mean                   | Std. Deviation | Skewness | Kurtosis |                                     |
| I tend to live for today and let tomorrow take care of itself                              | 3.16                   | 1.1222         | -.463    | -.613    | 0.849                               |
| I would encourage my friend and family to invest in different financial investment avenues | 3.24                   | 1.1355         | -.507    | -.590    |                                     |

|                                                       |      |        |       |       |  |
|-------------------------------------------------------|------|--------|-------|-------|--|
| I will invest in financial instruments in near future | 3.21 | 1.1140 | -.466 | -.551 |  |
| I will invest in financial instruments frequently     | 3.30 | 1.1442 | -.491 | -.532 |  |

*Source: Descriptive statistics output in SPSS*

The distribution of the responses received is indicated by skewness and kurtosis statistics. The results show that the distribution lies within the acceptable limits i.e., -2 and +2 (George & Mallery, 2010). The internal consistency is measured by cronbach alpha and it is found be 0.849. The results of mean score of the statements representing intention to invest is depicted in graphical form in figure 4.8. The researchers have found positive impact on future intention to invest if people have positive money attitude (Ali et al, 2015; Brügggen et al., 2017). The results have been found to be consistent with these researchers.



**Figure 4.8 Mean Score of Investment Intention**

#### **4.2.9 Investment Behavior**

According to Akhtar and Das (2018) investment behavior of individual investors is influenced by the intentions to invest. Table 4.10 depicts the descriptive statistics of investment behavior. The mean score is highest for the statement “I prefer to do investment in schemes of financial institution which is in the vicinity of my home or

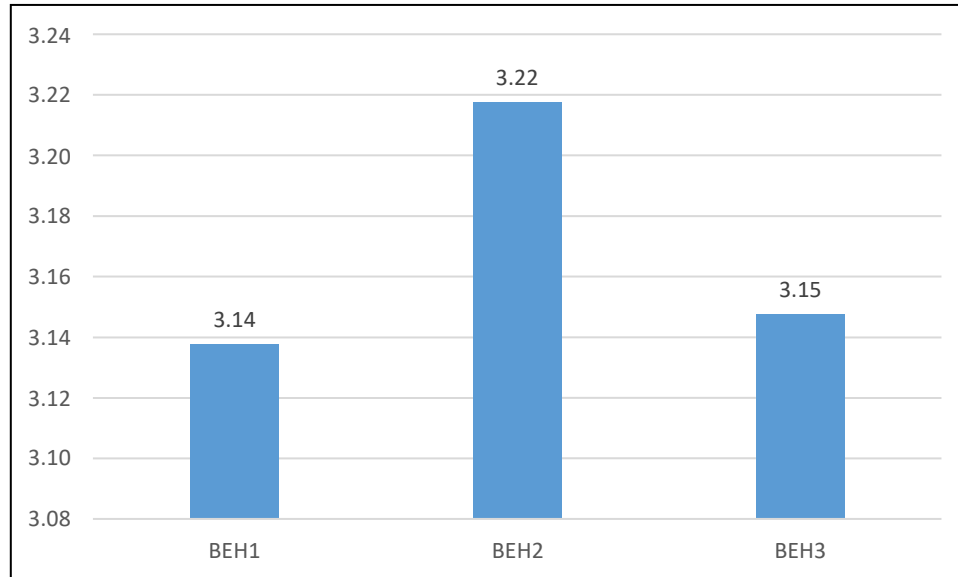
village” with 3.22. This is followed by the statement “I prefer to invest in private banks and other financial institutes as they provide better and fast customer services” with mean score of 3.15 and “I prefer to do investment without considering time and day” with mean score of 3.14.

**Table 4.10: Descriptive Statistics of Investment Behavior**

| Statements                                                                                                           | Descriptive Statistics |                |          |          | Reliability Analysis Cronbach Alpha |
|----------------------------------------------------------------------------------------------------------------------|------------------------|----------------|----------|----------|-------------------------------------|
|                                                                                                                      | Mean                   | Std. Deviation | Skewness | Kurtosis |                                     |
| I prefer to do investment without considering time and day                                                           | 3.14                   | 1.0590         | -.341    | -.545    | 0.871                               |
| I prefer to do investment in schemes of financial institution which is in the vicinity of my home or village         | 3.22                   | 1.0877         | -.382    | -.606    |                                     |
| I prefer to invest in private banks and other financial institutes as they provide better and fast customer services | 3.15                   | 1.0336         | -.463    | -.520    |                                     |

*Source: Descriptive statistics output in SPSS*

The distribution of the responses received is indicated by skewness and kurtosis statistics. The results show that the distribution lies within the acceptable limits i.e., -2 and +2 (George & Mallery, 2010). The internal consistency is measured by cronbach alpha and it is found be 0.871. The results of mean score of the statements representing investment behavior is depicted in graphical form in figure 4.9. Studies have highlighted, a favorable attitude of an individual towards a specific behavior generally leads to building of positive intention to endure that behavior (O’Connor and White, 2010). The results have been found to be consistent with these studies.



**Figure 4.9 Mean Score of Investment Behavior**

### 4.3 Evaluation of Measurement Model

Covariance-based SEM (CB-SEM) and partial least squares SEM (PLS-SEM) are typically the two types of structural equation modeling (SEM); likewise known as PLS path modeling. CB-SEM is suitable for confirmatory studies and is one of the maximum-likelihood modeling or factor-based techniques. It relies on the overall fit of the proposed model as determined by goodness-of-fit tests. PLS-SEM is one of the multiple linear regression modeling techniques that is suitable for exploratory studies and relies on the maximization of the explained variance of the dependent variables.

Anderson & Gerbing used PLS-SEM and subsequent two-stage analytical procedures to estimate our proposed model (1988). PLS-SEM was chosen over Covariance-based Structural Equation Modeling (CB-SEM) due to its versatility and reliability as a composite-based estimator for structural models (Henseler, 2018). One of the most well-known software tools for partial least squares structural equation modeling, Smart PLS 3.3.2, was utilized (Ringle et al., 2015).

PLS-SEM does not have a minimum requirement for restrictive assumptions like measurement scale, distribution, and sample size, unlike CB-SEM. Due to the following justifications, the study chooses PLS-SEM over CB-SEM as the technique of choice: 1) The focus of this study is on predicting and explaining the variance in key target constructs, such as respondents' investment intentions and investment behavior; 2) the

research model's intricate structure, which includes eight series of direct relationships and a level of multidimensionality; 3) The relationship between investors' financial self-efficacy, financial knowledge, social influence, and personal traits, as well as their overall investment behavior, is still in the early stages of theory development. This raises the possibility that novel occurrences of new phenomena, such as how financial risk propensity and financial planning can influence the aforementioned intentions and behavior, will emerge.

#### **4.3.1 Reliability and Validity**

Cronbach's alpha, Dillion Goldstein's rho (rho\_A), and the average variance extracted (AVE), composite reliability (CR), and factor loadings of each item were used to determine the convergent validity of our measurement model. The study utilized confirmatory composite analysis in the partial least square structural equation modeling to investigate the outer model specifications in order to assess the model's convergent validity and reliability.

The most important criteria are AVE, which, with a minimum threshold value of 0.50, determines the model's variation or volatility. All factor loadings have ideal values greater than 0.7, as shown in table 4.11. All of these items will be retained in the model as both values of AVE and CR are also sufficient (Hair et al, 2017) as shown in table 4.12.

**Table 4.11: Outer loadings of Constructs**

| <b>Constructs</b> | <b>Attitude</b> | <b>Financial Knowledge</b> | <b>Financial Planning</b> | <b>Financial Risk Propensity</b> | <b>Financial Self-Efficacy</b> | <b>Investment Behavior</b> | <b>Investment Intention</b> | <b>Personal Traits</b> | <b>Social Influence</b> |
|-------------------|-----------------|----------------------------|---------------------------|----------------------------------|--------------------------------|----------------------------|-----------------------------|------------------------|-------------------------|
| <b>Attitude1</b>  | 0.909           |                            |                           |                                  |                                |                            |                             |                        |                         |
| <b>Attitude2</b>  | 0.913           |                            |                           |                                  |                                |                            |                             |                        |                         |
| <b>Attitude3</b>  | 0.803           |                            |                           |                                  |                                |                            |                             |                        |                         |
| <b>Beh1</b>       |                 |                            |                           |                                  |                                | 0.855                      |                             |                        |                         |
| <b>Beh2</b>       |                 |                            |                           |                                  |                                | 0.915                      |                             |                        |                         |
| <b>Beh3</b>       |                 |                            |                           |                                  |                                | 0.903                      |                             |                        |                         |
| <b>FK1</b>        |                 | 0.869                      |                           |                                  |                                |                            |                             |                        |                         |
| <b>FK2</b>        |                 | 0.891                      |                           |                                  |                                |                            |                             |                        |                         |
| <b>FK3</b>        |                 | 0.904                      |                           |                                  |                                |                            |                             |                        |                         |
| <b>FK4</b>        |                 | 0.865                      |                           |                                  |                                |                            |                             |                        |                         |
| <b>FP1</b>        |                 |                            | 0.722                     |                                  |                                |                            |                             |                        |                         |
| <b>FP2</b>        |                 |                            | 0.846                     |                                  |                                |                            |                             |                        |                         |
| <b>FP3</b>        |                 |                            | 0.809                     |                                  |                                |                            |                             |                        |                         |
| <b>FP4</b>        |                 |                            | 0.818                     |                                  |                                |                            |                             |                        |                         |
| <b>FP5</b>        |                 |                            | 0.774                     |                                  |                                |                            |                             |                        |                         |
| <b>FRP1</b>       |                 |                            |                           | 0.883                            |                                |                            |                             |                        |                         |
| <b>FRP2</b>       |                 |                            |                           | 0.908                            |                                |                            |                             |                        |                         |
| <b>FRP3</b>       |                 |                            |                           | 0.902                            |                                |                            |                             |                        |                         |
| <b>FRP4</b>       |                 |                            |                           | 0.871                            |                                |                            |                             |                        |                         |
| <b>FSE1</b>       |                 |                            |                           |                                  | 0.744                          |                            |                             |                        |                         |
| <b>FSE2</b>       |                 |                            |                           |                                  | 0.841                          |                            |                             |                        |                         |
| <b>FSE3</b>       |                 |                            |                           |                                  | 0.787                          |                            |                             |                        |                         |



|                   |  |  |  |  |       |  |       |       |       |
|-------------------|--|--|--|--|-------|--|-------|-------|-------|
| <b>FSE4</b>       |  |  |  |  | 0.84  |  |       |       |       |
| <b>FSE5</b>       |  |  |  |  | 0.791 |  |       |       |       |
| <b>FSE6</b>       |  |  |  |  | 0.723 |  |       |       |       |
| <b>Intention1</b> |  |  |  |  |       |  | 0.855 |       |       |
| <b>Intention2</b> |  |  |  |  |       |  | 0.871 |       |       |
| <b>Intention3</b> |  |  |  |  |       |  | 0.833 |       |       |
| <b>Intention4</b> |  |  |  |  |       |  | 0.758 |       |       |
| <b>PT1</b>        |  |  |  |  |       |  |       | 0.913 |       |
| <b>PT2</b>        |  |  |  |  |       |  |       | 0.915 |       |
| <b>PT3</b>        |  |  |  |  |       |  |       | 0.902 |       |
| <b>SI1</b>        |  |  |  |  |       |  |       |       | 0.785 |
| <b>SI2</b>        |  |  |  |  |       |  |       |       | 0.799 |
| <b>SI3</b>        |  |  |  |  |       |  |       |       | 0.853 |
| <b>SI4</b>        |  |  |  |  |       |  |       |       | 0.795 |
| <b>SI5</b>        |  |  |  |  |       |  |       |       | 0.794 |

*Source: Confirmatory component analysis output in Smart PLS*

Cronbach's alpha and Rho\_A are both above the threshold value of 0.7, indicating that internal reliability is met. Cronbach's alpha is used to measure internal consistency reliability. According to Hair et al., Cronbach's alpha "provides an estimate of reliability based on the inter-correlations of the observed indicator variables." 2014, p.101). Cronbach's alpha must be at least 0.7 for it to be considered a minimum acceptable value. However, the Cronbach alpha frequently underestimates internal consistency reliability by assuming equal reliability for all indicators (Hair et al.). 2014). PLS-SEM, on the other hand, prioritizes based on 47 distinct reliability indicators. Since Cronbach's alpha has some limitations, composite reliability is another way to measure internal consistency reliability. The fact that there is a range of outer loading for composite reliability between zero and one is its foundation. Reliability is reflected in higher values. When the values are greater than 0.7, composite reliability is generally acceptable. However, a value greater than 0.6 is acceptable for exploratory research. (Hair et al., 2014).

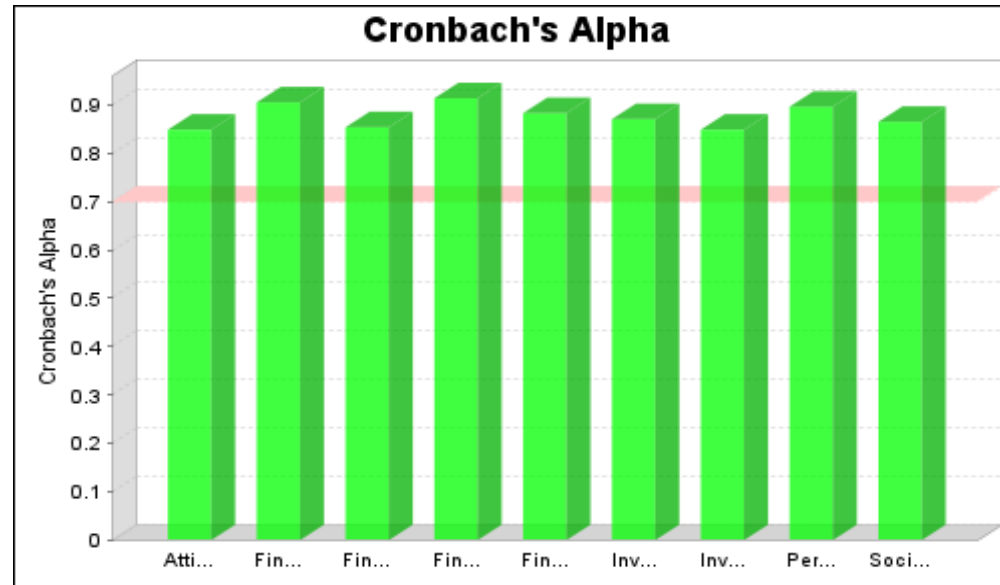
According to Hair et al., 2014 "the extent to which a measure correlates positively with alternative measures of the same construct" is referred to as convergent validity. The indicators' outer loadings are taken into account, and indicators with high loadings share a lot in common. To be acceptable, an outer loading should be greater than 0.7. However, indicators with values between 0.4 and 0.7 should also be kept if removing them does not improve Composite reliability. Always discard indicators with loadings below 0.4 (Hair et al.). 2014). The level of convergent validity of the constructs is measured using AVE. According to Hair et al., an AVE value of 0.5 or higher indicates that the construct will be explained by the indicator's variance at least 50% of the time. 2014). Since there will only be one indicator for a single-item construct, reliability measures will not be useful. The measurement model's reliability and validity cannot be evaluated for single-item constructs (Hair et al. 2014). Our model also achieves convergent validity because the AVE of all constructs is greater than 0.50 (Hair et al., 2017).

**Table 4.12**  
**Results of measurement model**

| <b>Constructs</b>         | <b>Cronbach's Alpha</b> | <b>rho_A</b> | <b>Composite Reliability</b> | <b>Average Variance Extracted (AVE)</b> |
|---------------------------|-------------------------|--------------|------------------------------|-----------------------------------------|
| Attitude                  | 0.849                   | 0.87         | 0.908                        | 0.768                                   |
| Financial Knowledge       | 0.905                   | 0.905        | 0.934                        | 0.779                                   |
| Financial Planning        | 0.854                   | 0.858        | 0.896                        | 0.632                                   |
| Financial Risk Propensity | 0.914                   | 0.916        | 0.939                        | 0.794                                   |
| Financial Self Efficacy   | 0.883                   | 0.925        | 0.908                        | 0.622                                   |
| Investment Behavior       | 0.871                   | 0.879        | 0.921                        | 0.794                                   |
| Investment Intention      | 0.849                   | 0.855        | 0.898                        | 0.689                                   |
| Personal Traits           | 0.896                   | 0.898        | 0.935                        | 0.828                                   |
| Social Influence          | 0.865                   | 0.871        | 0.902                        | 0.649                                   |

*Source: Confirmatory component analysis output in Smart PLS*

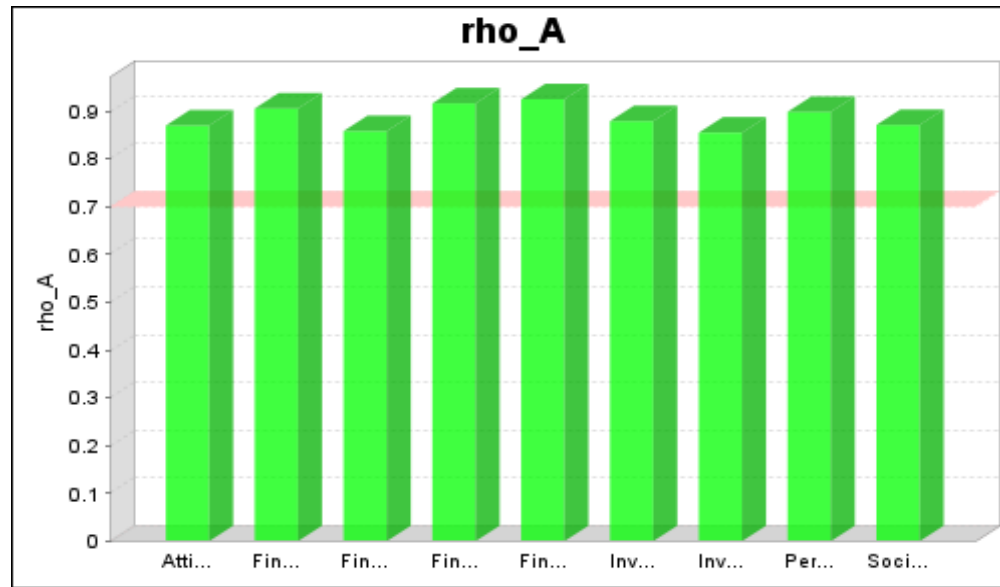
Figure 4.10 shows the graph of Cronbach's alpha all above 0.7 displaying the acceptable reliability of all the constructs.



**Figure 4.10**

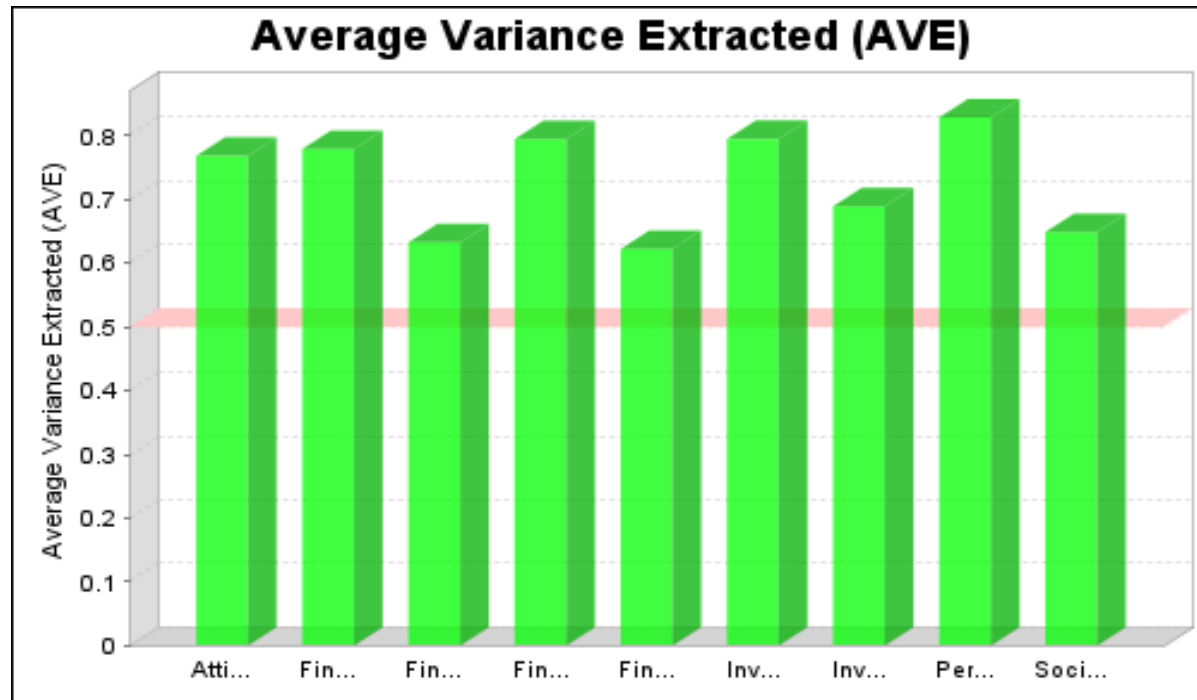
**Graph of Cronbach's Alpha**

Figure 4.11 below shows the bar graph of rh0\_A whose values should be more than 0.7 which depicts the good internal reliability of all the constructs.



**Figure 4.11**  
**Graph of rho\_A**

The extracted average variance is a crucial metric for verifying the constructs' convergent validity. In order to proceed with further analysis of the model, its value needs to be greater than 0.50 because it is the average of the squared loadings of all the items of a particular construct. All of the constructs' AVE values are above the threshold, as depicted in figure 4.12 below, confirming the proposed model's convergent validity.



**Figure 4.12**

**Average variance extracted**

### 4.3.2 Discriminant Validity

According to Hair et al.,2014, discriminant validity is the degree to which the constructs represent distinct phenomena and differ from one another in terms of empirical standards. The cross loadings are examined in one method, and the square root for the constructs AVE is compared in the other to measure discriminant validity. The first assumes that an indicator's outer loading should be greater than that of all other constructs. According to Hair et al., the Fornell-Larcker criterion, the second method requires that the square root of the AVE be greater than the construct's highest correlation with any other construct. 2014). The discriminant validity is examined using the Fornell–Larker criterion approach (Fornell & Larcker, 1981; (2015, Henseler et al.)

To demonstrate discriminant validity, the Fornell-Larcker criterion states that a construct's AVE must be greater than its squared correlations with all relevant constructs. The outcomes of the Fornell-Larcker criterion are shown in Table 3. Attitude (0.876), financial knowledge (0.883), financial planning (0.795), financial self-efficacy (0.789), investment behavior (0.891), investment intention (0.83), personal traits (0.91), and social influence (0.805) are the square roots of average variance extracted (AVE) of the constructs used in the study. These values are highlighted in bold in table 4.13. These numbers are higher than the correlation values between each construct and the other constructs in the appropriate rows and columns, which are depicted by an off diagonal. Because of this, the study is suitable for additional research because each construct is clearly distinct from the others. According to Hair et al., a latent construct must have a better variance of its own variables than that of other latent constructs. (2016).

**Table 4.13: Discriminant validity assessment by Fornell-Lacker**

| Constructs                       | Attitude     | Financial Knowledge | Financial Planning | Financial Risk Propensity | Financial Self Efficacy | Investment Behavior | Investment Intention | Personal Traits | Social Influence |
|----------------------------------|--------------|---------------------|--------------------|---------------------------|-------------------------|---------------------|----------------------|-----------------|------------------|
| <b>Attitude</b>                  | <b>0.876</b> |                     |                    |                           |                         |                     |                      |                 |                  |
| <b>Financial Knowledge</b>       | 0.469        | <b>0.883</b>        |                    |                           |                         |                     |                      |                 |                  |
| <b>Financial Planning</b>        | 0.47         | 0.206               | <b>0.795</b>       |                           |                         |                     |                      |                 |                  |
| <b>Financial Risk Propensity</b> | 0.679        | 0.533               | 0.41               | <b>0.891</b>              |                         |                     |                      |                 |                  |
| <b>Financial Self Efficacy</b>   | 0.409        | 0.437               | 0.432              | 0.464                     | <b>0.789</b>            |                     |                      |                 |                  |
| <b>Investment Behavior</b>       | 0.158        | 0.022               | 0.054              | 0.075                     | 0.059                   | <b>0.891</b>        |                      |                 |                  |
| <b>Investment Intention</b>      | 0.362        | 0.206               | 0.333              | 0.355                     | 0.152                   | 0.388               | <b>0.83</b>          |                 |                  |
| <b>Personal Traits</b>           | 0.239        | 0.106               | 0.135              | 0.152                     | 0.102                   | 0.292               | 0.398                | <b>0.91</b>     |                  |
| <b>Social Influence</b>          | 0.369        | 0.288               | 0.501              | 0.346                     | 0.616                   | -0.056              | 0.181                | 0.246           | <b>0.805</b>     |

Additionally, the Heterotrait Monotrait ratio of correlations (HTMT) was utilized in this investigation. According to the HTMT inference method, all values should be significantly lower than one, as suggested by the HTMT criterion. It has been demonstrated that a value of 0.85 or 0.9 provides sufficient evidence of discriminant validity as a suggested threshold (Henseler et al., 2015) The results of and the HTMT criterion are shown in Table 4.14. Financial self-efficacy with attitude is 0.423, financial risk propensity with financial knowledge is 0.585, financial self-efficacy with financial knowledge is 0.407, financial self-efficacy with financial planning is 0.495, and financial self-efficacy with financial risk propensity is 0.464 in this study. Attitude with financial knowledge has HTMT values of 0.458, financial knowledge with financial planning has HTMT values of 0.234, attitude with financial planning has HTMT With respect to each constraint, all of the other values of investment behavior, and investment intention, personal traits, and social influence fall below the threshold value of 0.9. The HTMT criterion's values are shown in Table 4.14. Figure 4.13 displays the values in the form of a graph below.



**Table 4.14: Discriminant validity assessment by HTMT Criterion**

| <b>Constructs</b>                | <b>Attitude</b> | <b>Financial Knowledge</b> | <b>Financial Planning</b> | <b>Financial Risk Propensity</b> | <b>Financial Self Efficacy</b> | <b>Investment Behavior</b> | <b>Investment Intention</b> | <b>Personal Traits</b> |
|----------------------------------|-----------------|----------------------------|---------------------------|----------------------------------|--------------------------------|----------------------------|-----------------------------|------------------------|
| <b>Attitude</b>                  |                 |                            |                           |                                  |                                |                            |                             |                        |
| <b>Financial Knowledge</b>       | 0.528           |                            |                           |                                  |                                |                            |                             |                        |
| <b>Financial Planning</b>        | 0.549           | 0.234                      |                           |                                  |                                |                            |                             |                        |
| <b>Financial Risk Propensity</b> | 0.755           | 0.585                      | 0.465                     |                                  |                                |                            |                             |                        |
| <b>Financial Self Efficacy</b>   | 0.423           | 0.407                      | 0.494                     | 0.464                            |                                |                            |                             |                        |
| <b>Investment Behavior</b>       | 0.187           | 0.04                       | 0.065                     | 0.085                            | 0.067                          |                            |                             |                        |
| <b>Investment Intention</b>      | 0.427           | 0.235                      | 0.388                     | 0.401                            | 0.156                          | 0.446                      |                             |                        |
| <b>Personal Traits</b>           | 0.279           | 0.118                      | 0.153                     | 0.168                            | 0.107                          | 0.329                      | 0.452                       |                        |
| <b>Social Influence</b>          | 0.426           | 0.325                      | 0.585                     | 0.385                            | 0.712                          | 0.072                      | 0.204                       | 0.277                  |

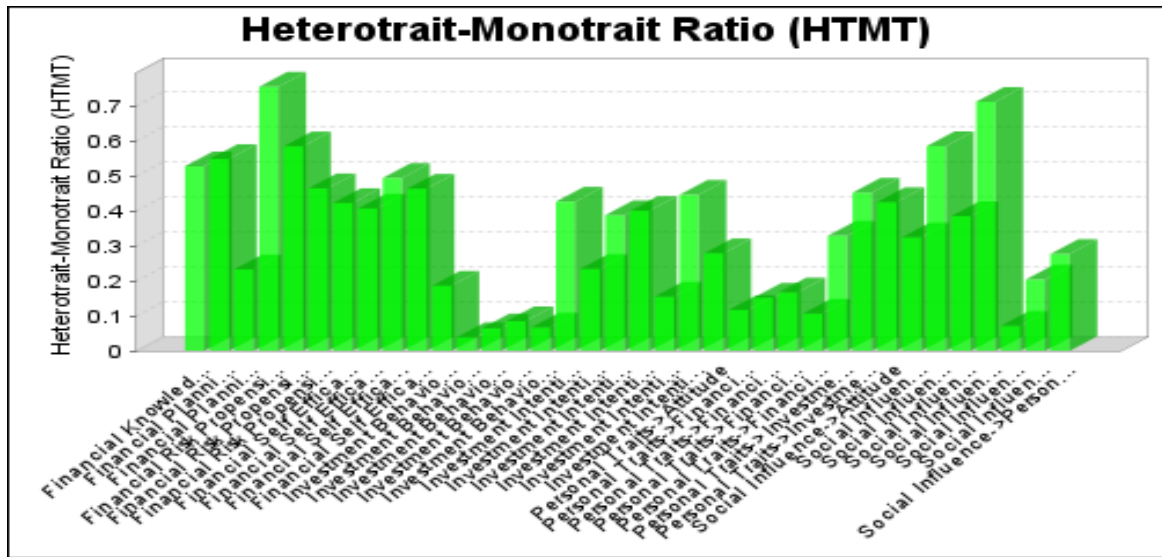


Figure 4.13

**HTMT ratio of Discriminant validity**

As a result, the measurement model exhibits both convergent and discriminant validity (Rasoolimanesh et al., 2018). In addition, the standardized root mean square residual (SRMR) value of 0.069 was below the threshold value of 0.08. Thus, an acceptable model fit was established (Hu & Bentley, 1999).

**4.4 Evaluation of the structural model**

The standard goodness of fit measures is not utilized in the PLS-SEM method. Following Hair et al., this study to figure out the structural model's value. The structural model's constructs' collinearity is evaluated. The structural model assessment investigated the significance of the relationships between the constructs for prediction. Hair and others, (2017) Using the bootstrap re-sampling method, 5000 samples were used to evaluate the proposed hypotheses at a 5% significance level. In the beginning, all of the predictor constructs were examined separately using the structural inner model's reflective measurement models (Cassel et al., 1999).

**4.4.1 Variance Inflation Factor (VIF)**

The value of the variance inflation factor (VIF) is the only result that can be used to evaluate problems with collinearity. The collinearity of two sets of predictor constructs is examined in this study. This was done by looking at the values of the variance inflation factor (VIF), all of which were below 3.33 (Diamantopoulos et al., 2008). Attitude on Investment Intention (2.019), Financial Planning (1.0), and Financial Risk Propensity

(1.0) were the inner VIFs that were below the threshold. In addition, the model did not have any collinearity issues because the VIF values for financial knowledge on attitude (1.241), financial risk propensity on attitude (1.838), personal traits on attitude (1.073), and social influence on attitude (1.703) were all within the acceptable range (Hair et al., 2017). Financial risk propensity on investment intention (1.891), investment intention on investment behavior (1.000), and financial planning on investment intention (1.309) all have inner VIF values below the threshold. Tables 4.15 and 4.16 display the inner VIF values of each construct and the outer VIF values of each item on the construct.

**Table 4.15: Inner VIF values**

| <b>Constructs</b>                | <b>Attitude</b> | <b>Financial Knowledge</b> | <b>Financial Planning</b> | <b>Financial Risk Propensity</b> | <b>Financial Self-Efficacy</b> | <b>Investment Behavior</b> | <b>Investment Intention</b> | <b>Personal Traits</b> | <b>Social Influence</b> |
|----------------------------------|-----------------|----------------------------|---------------------------|----------------------------------|--------------------------------|----------------------------|-----------------------------|------------------------|-------------------------|
| <b>Attitude</b>                  |                 |                            | 1                         | 1                                |                                |                            | 2.019                       |                        |                         |
| <b>Financial Knowledge</b>       | 1.241           |                            |                           |                                  |                                |                            |                             |                        |                         |
| <b>Financial Planning</b>        |                 |                            |                           |                                  |                                |                            | 1.309                       |                        |                         |
| <b>Financial Risk Propensity</b> |                 |                            |                           |                                  |                                |                            | 1.891                       |                        |                         |
| <b>Financial Self Efficacy</b>   | 1.838           |                            |                           |                                  |                                |                            |                             |                        |                         |
| <b>Investment Behavior</b>       |                 |                            |                           |                                  |                                |                            |                             |                        |                         |
| <b>Investment Intention</b>      |                 |                            |                           |                                  |                                | 1                          |                             |                        |                         |
| <b>Personal Traits</b>           | 1.073           |                            |                           |                                  |                                |                            |                             |                        |                         |
| <b>Social Influence</b>          | 1.703           |                            |                           |                                  |                                |                            |                             |                        |                         |

**Table 4.16: Outer VIF values**

| <b>Variable/Constructs</b> | <b>VIF</b> |
|----------------------------|------------|
| <b>Attitude1</b>           | 2.527      |
| <b>Attitude2</b>           | 2.606      |
| <b>Attitude3</b>           | 1.683      |
| <b>Beh1</b>                | 2.03       |
| <b>Beh2</b>                | 2.804      |
| <b>Beh3</b>                | 2.432      |
| <b>FK1</b>                 | 2.42       |
| <b>FK2</b>                 | 2.901      |
| <b>FK3</b>                 | 3.141      |
| <b>FK4</b>                 | 2.363      |
| <b>FP1</b>                 | 1.569      |
| <b>FP2</b>                 | 2.19       |
| <b>FP3</b>                 | 1.917      |
| <b>FP4</b>                 | 1.971      |
| <b>FP5</b>                 | 1.808      |
| <b>FRP1</b>                | 2.814      |
| <b>FRP2</b>                | 3.346      |
| <b>FRP3</b>                | 3.259      |
| <b>FRP4</b>                | 2.312      |
| <b>FSE1</b>                | 2.246      |
| <b>FSE2</b>                | 3.039      |
| <b>FSE3</b>                | 2.502      |
| <b>FSE4</b>                | 2.526      |
| <b>FSE5</b>                | 2.008      |
| <b>FSE6</b>                | 1.394      |
| <b>Intention1</b>          | 2.441      |
| <b>Intention2</b>          | 2.647      |

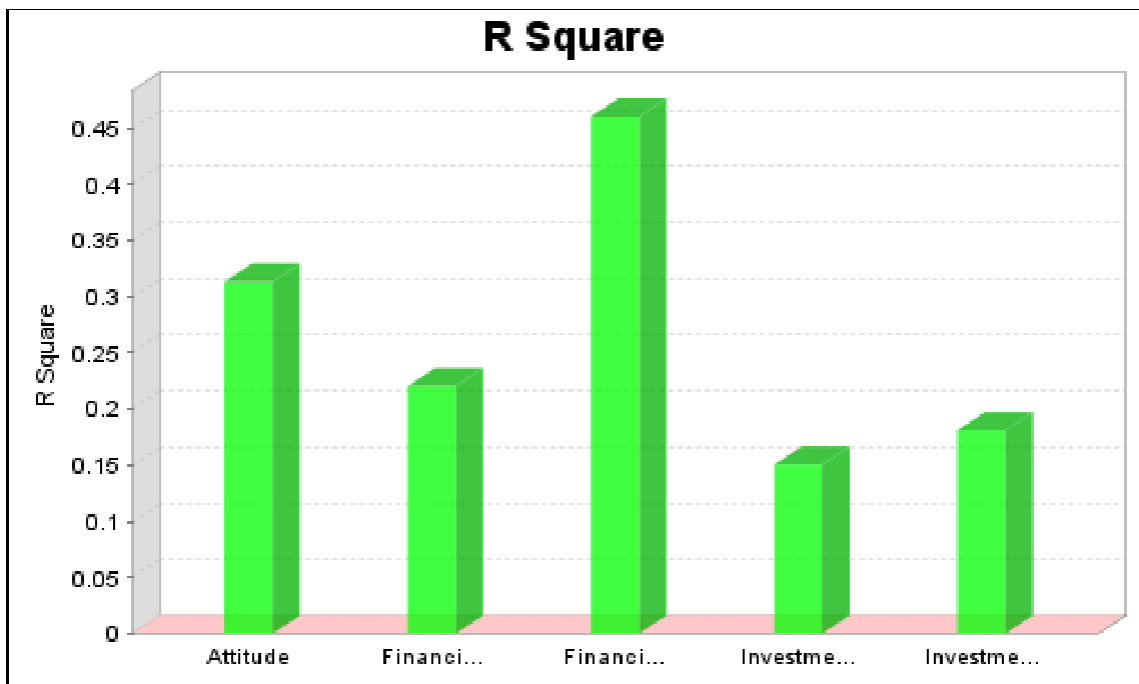
|                   |       |
|-------------------|-------|
| <b>Intention3</b> | 1.843 |
| <b>Intention4</b> | 1.602 |
| <b>PT1</b>        | 2.727 |
| <b>PT2</b>        | 2.798 |
| <b>PT3</b>        | 2.656 |
| <b>SI1</b>        | 1.802 |
| <b>SI2</b>        | 1.862 |
| <b>SI3</b>        | 2.402 |
| <b>SI4</b>        | 2.14  |
| <b>SI5</b>        | 2.044 |

#### **4.4.2 Predictive validity using coefficient of determination, R<sup>2</sup>**

In addition, the final endogenous construct's coefficient of determination R<sup>2</sup>, effect size (f<sup>2</sup>), and path coefficient values and signs must be considered when evaluating the structural model (Ali et al., 2018, Muller et al., 2018). After that, the dependent latent construct variance-explained R<sup>2</sup> values are used to calculate the structural model predictability. Depending on the research area, R<sup>2</sup> may vary. Any structural model's predictive power is determined by evaluating R<sup>2</sup>. In the behavioral sciences, significant predictability is indicated by a R<sup>2</sup> value above 0.15 (Rasoolimanesh et al., 2018). The R<sup>2</sup> values for investment intention and behavior in our study are 0.152 and 0.181, respectively. In addition, the R<sup>2</sup> values for financial risk propensity, attitude, and financial planning are 0.313, 0.221, and 0.461, respectively. The model's significant predictive power is demonstrated by the outcomes. Attitude's R<sup>2</sup> adjusted values are 0.306, financial planning's are 0.219, financial risk propensity's are 0.459, investment behavior's 0.148, and investment intention's 0.175. In addition, Table 4.17 displays all of the R<sup>2</sup> and Adjusted R<sup>2</sup> results.

**Table 4.17: Coefficient of determination ( $R^2$  and Adjusted  $R^2$ )**

| Constructs                       | R Square | R Square Adjusted |
|----------------------------------|----------|-------------------|
| <b>Attitude</b>                  | 0.313    | 0.306             |
| <b>Financial Planning</b>        | 0.221    | 0.219             |
| <b>Financial Risk Propensity</b> | 0.461    | 0.459             |
| <b>Investment Behavior</b>       | 0.152    | 0.148             |
| <b>Investment Intention</b>      | 0.181    | 0.175             |



**Figure 4.14**Graph displaying R-square

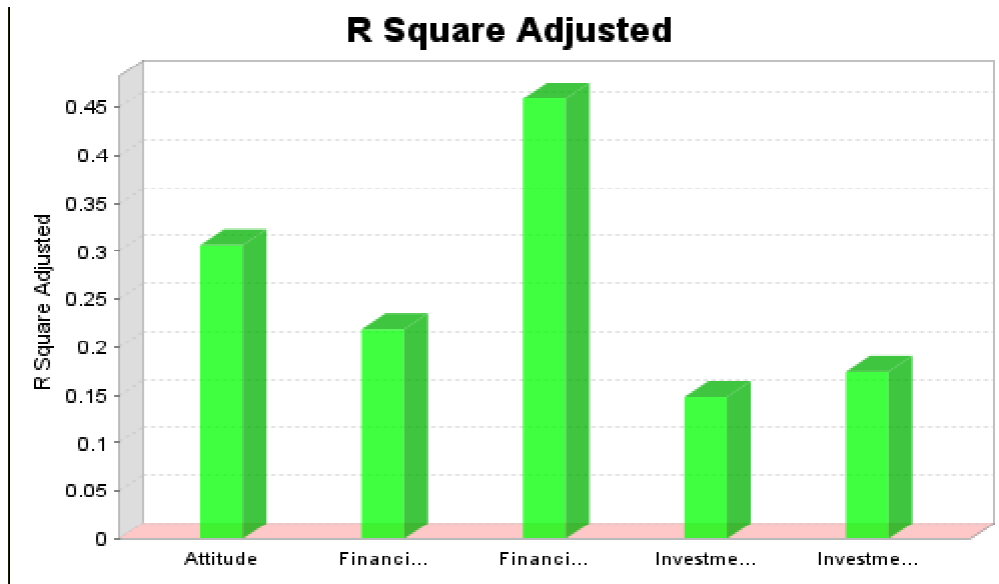


Figure 4.15: Graph displaying Adjusted R-square

The Model after running PLS displaying all outer loadings and r square is shown below in Figure 4.16

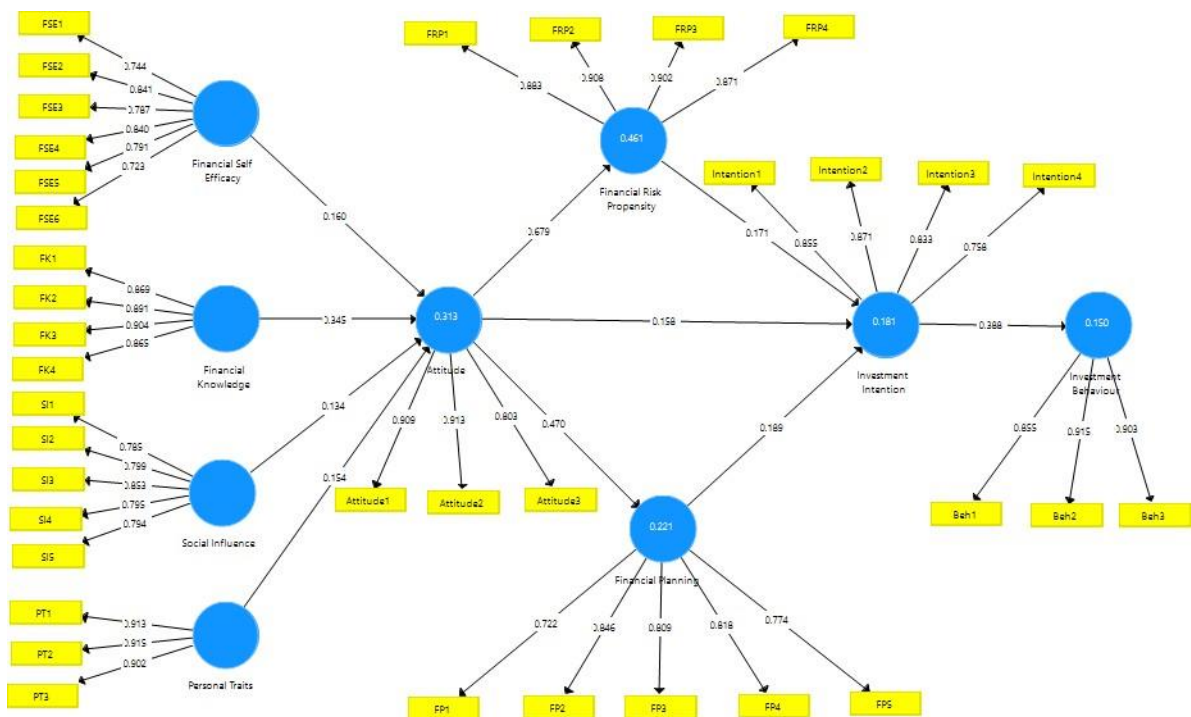


Figure 4.16: Model after PLS run

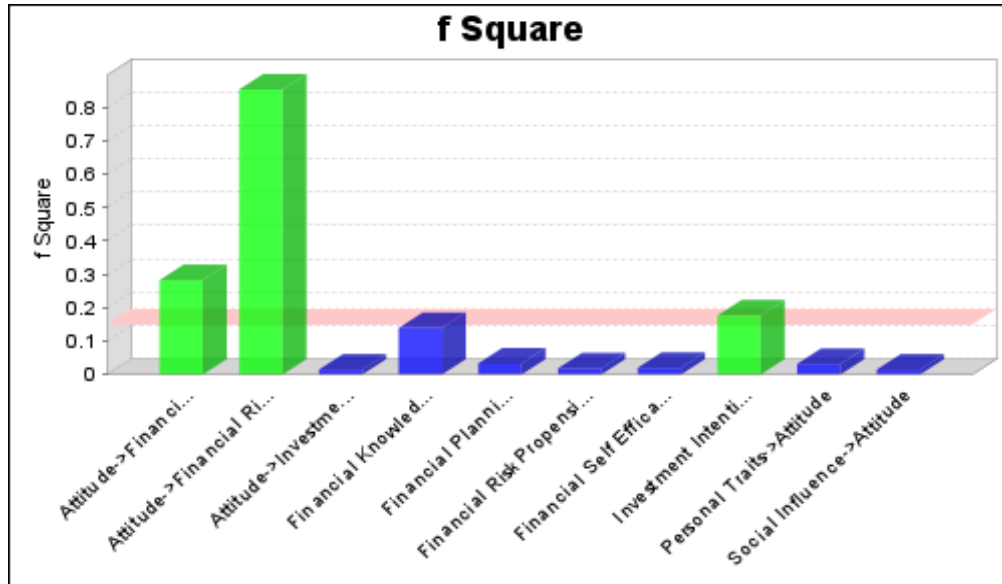


#### **4.4.3 Effect size (F-square)**

Path coefficient is influenced by numerous other explanatory constructs, it only provides a preliminary impression of the magnitude of the effect; however, it is not useful for comparing the magnitude of the effect across the models. Therefore, Cohen suggests figuring out the value of effect size ( $f^2$ ) as a solution. A measurement used to evaluate the relative impact of an explanatory construct on a dependent construct is called an effect size.  $f^2$  values of 0.02, 0.15, and 0.35 indicate effects of varying sizes. All constructs, Financial Knowledge (0.14), Financial Self-Efficacy (0.02), Personal Traits (0.032), and Social Influence (0.015), had relatively weak effects to explain the endogenous constructs Attitude. However, while the effect size of attitude on financial planning (0.283) and financial risk propensity (0.854) was relatively large, it was extremely small on investment intention (0.015). Additionally, the effect sizes of financial risk propensity and financial planning on investment intention were 0.033 and 0.019, indicating low effects. Last but not least, there was a 0.177 moderate relationship between investment behavior and investment intention. The outcomes of the  $f^2$  effect sizes with regard to each and every one of the structural model's relationships are presented in Table 4.18.

**Table 4.18: F-square results**

|                                  | <b>Attitude</b> | <b>Financial Knowledge</b> | <b>Financial Planning</b> | <b>Financial Risk Propensity</b> | <b>Financial Self-Efficacy</b> | <b>Investment Behavior</b> | <b>Investment Intention</b> | <b>Personal Traits</b> | <b>Social Influence</b> |
|----------------------------------|-----------------|----------------------------|---------------------------|----------------------------------|--------------------------------|----------------------------|-----------------------------|------------------------|-------------------------|
| <b>Attitude</b>                  |                 |                            | 0.283                     | 0.854                            |                                |                            | 0.015                       |                        |                         |
| <b>Financial Knowledge</b>       | 0.14            |                            |                           |                                  |                                |                            |                             |                        |                         |
| <b>Financial Planning</b>        |                 |                            |                           |                                  |                                |                            | 0.033                       |                        |                         |
| <b>Financial Risk Propensity</b> |                 |                            |                           |                                  |                                |                            | 0.019                       |                        |                         |
| <b>Financial Self Efficacy</b>   | 0.02            |                            |                           |                                  |                                |                            |                             |                        |                         |
| <b>Investment Behavior</b>       |                 |                            |                           |                                  |                                |                            |                             |                        |                         |
| <b>Investment Intention</b>      |                 |                            |                           |                                  |                                | 0.177                      |                             |                        |                         |
| <b>Personal Traits</b>           | 0.032           |                            |                           |                                  |                                |                            |                             |                        |                         |
| <b>Social Influence</b>          | 0.015           |                            |                           |                                  |                                |                            |                             |                        |                         |



**Figure 4.17: F-square results**

#### 4.4.4 Stone Giesser's $Q^2$

The predictive relevance was examined using Stone Giesser's  $Q^2$  (Geisser, 1975; Stone, 1974). The  $Q^2$  values are generated through the blindfolding procedure, which makes use of a sample re-use technique to omit a portion of the data matrix and uses model estimates to predict the missing portion. In the cross-validated redundancy report for PLS-SEM models, predictive relevance is indicated by a  $Q^2$  value greater than zero. The  $Q^2$  values for each of the dependent constructs are shown in Table 4.19. The fact that all  $Q^2$  values are significantly above zero lends credence to the model's predictive relevance for out-of-sample prediction. Investment Behavior's  $Q^2$  value of 0.117 and Investment Intention's  $Q^2$  value of 0.121 indicate moderate predictive relevance. Any value for  $Q^2$  greater than 0.02 indicates sufficient predictive power (Richter et al., 2016). In addition, the  $Q^2$  values for attitude were 0.233, financial planning was 0.137, and the propensity to take financial risks was 0.36. Because our findings proved that the proposed model took into account both independent composites, it is possible to apply our findings to other situations in the future

**Table 4.19: Stone Geisser's Q<sup>2</sup>**

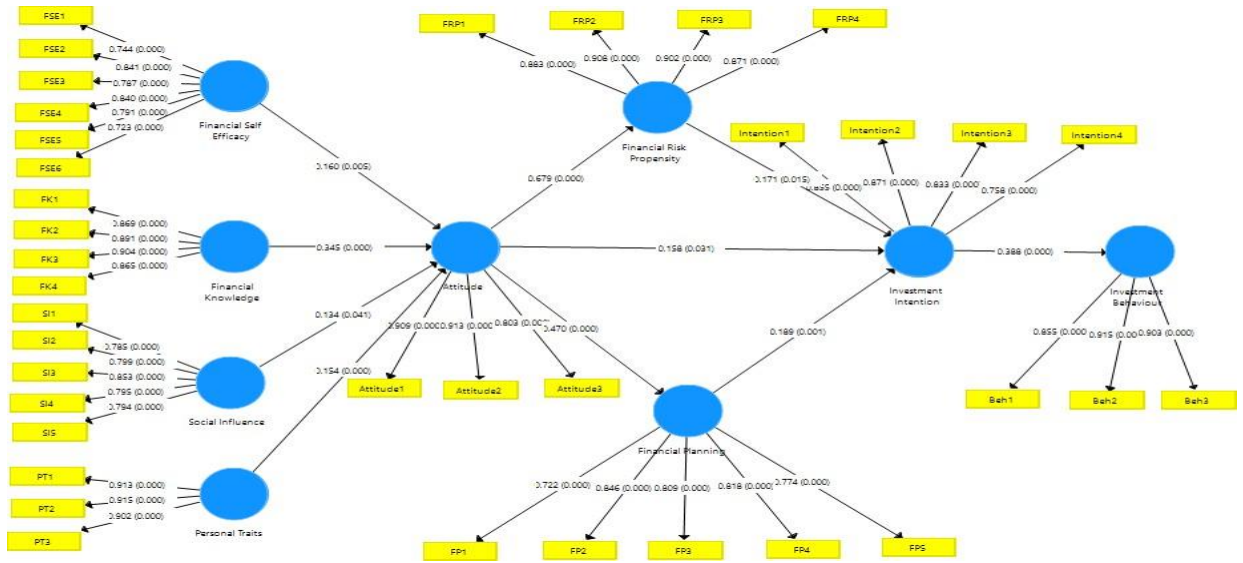
|                                  | <b>SSO</b> | <b>SSE</b> | <b>Q<sup>2</sup> = 1 - <math>\frac{SSE}{SSO}</math></b> |
|----------------------------------|------------|------------|---------------------------------------------------------|
| <b>Attitude</b>                  | 1200       | 919.898    | 0.233                                                   |
| <b>Financial Knowledge</b>       | 1600       | 1600       |                                                         |
| <b>Financial Planning</b>        | 2000       | 1726.826   | 0.137                                                   |
| <b>Financial Risk Propensity</b> | 1600       | 1024.747   | 0.36                                                    |
| <b>Financial Self Efficacy</b>   | 2400       | 2400       |                                                         |
| <b>Investment Behavior</b>       | 1200       | 1059.457   | 0.117                                                   |
| <b>Investment Intention</b>      | 1600       | 1405.79    | 0.121                                                   |
| <b>Personal Traits</b>           | 1200       | 1200       |                                                         |
| <b>Social Influence</b>          | 2000       | 2000       |                                                         |

*Source: Predictive relevance analysis output in PLS-SEM*

#### **4.4.5 Bootstrapping**

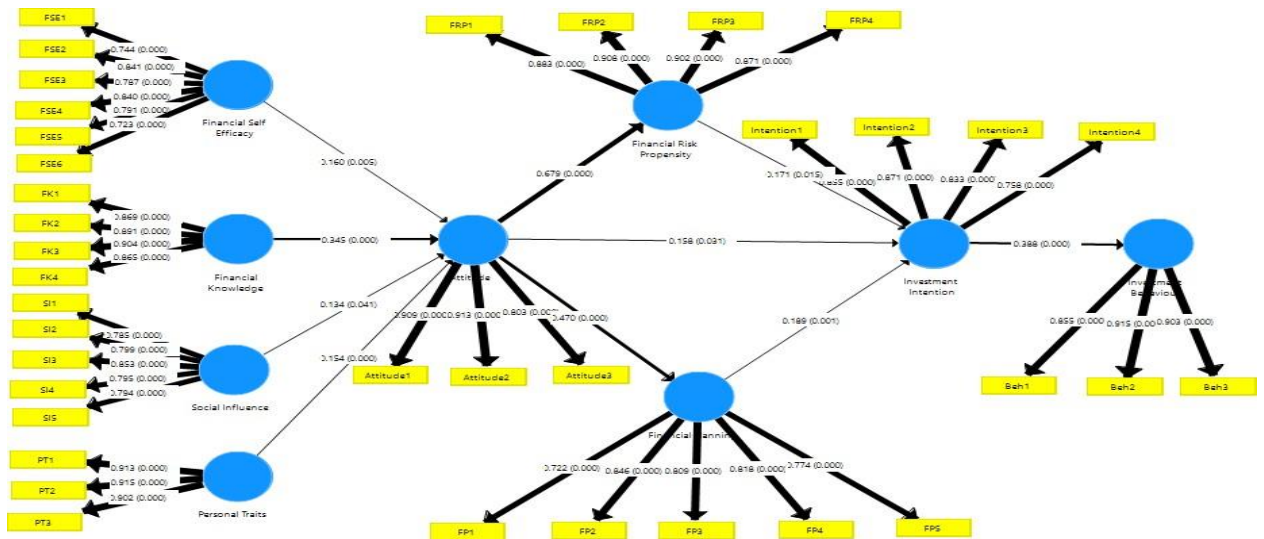
A technique for resampling the data is bootstrapping. There are two kinds of bootstrapping: parametric bootstrapping and nonparametric bootstrapping, according to Kline (2011). Because PLS-SEM does not assume that data are normally distributed (Hair et al., 2014), it uses nonparametric bootstrapping. Bootstrapping involves using replacements from the original data set to create a larger number of subsamples. It will return to the original population before a new sample is created (Hair et al., 2014), each bootstrap ought to have the same number of observations as the initial data set. The t-value will be used to determine the significance of the PLS path model results based on the bootstrapping results. It is reasonable to assume that the path coefficient is significant at a level of 5% if the t-value is greater than 1.96. A t-value greater than 1.65 is required for the 10% level (Hair et al., 2014).

The model after Bootstrapping with 5000 sample iterations is shown below in figure 4.18



**Figure 4.18: Model after Bootstrapping**

Moreover, Model after bootstrapping with highlighted paths with the absolute values of the beta of various constructs is shown below in the figure 4.19



**Figure 4.19: Model with highlighted paths with absolute values of Beta after Bootstrapping**

At the 1% significance level, all of the direct relationship hypotheses are supported. Based on the percentile bootstrap confidence interval, all of the path coefficients were statistically significant and in line with the associated hypothesis.

## 4.5 Objective-2

**To examine the relationship between financial self-efficacy, financial knowledge, social influence and personal traits and attitude towards investment of agrarian Class**

In order to study the impact of financial self-efficacy, financial knowledge, social influence and personal traits on attitude towards investment, PLS SEM bootstrapping results gave the path coefficients along with t- values and respective p values.

The hypothesis for the above-mentioned objectives are as follows:

*H<sub>1</sub>: There exists a significant positive relationship between financial self-efficacy and attitude towards investment.*

*H<sub>2</sub>: There exists a significant positive relationship between financial knowledge and attitude towards investment.*

*H<sub>3</sub>: There exists a significant positive relationship between social influence and attitude towards investment.*

*H<sub>4</sub>: There exists a significant positive relationship between personal traits and attitude towards investment.*

The estimates from the model are summarized in the following table 4.20.

**Table 4.20: Path coefficients and hypothesis testing for objective 2**

| Hypotheses and Relationship                   | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics ( O/STDEV ) | P Values     | Confidence Interval 2.5% | Confidence Interval 97.5% | Decision  |
|-----------------------------------------------|---------------------|-----------------|----------------------------|--------------------------|--------------|--------------------------|---------------------------|-----------|
| <b>H1: Financial Self Efficacy → Attitude</b> | <b>0.16</b>         | 0.163           | 0.056                      | 2.867                    | <b>0.004</b> | 0.058                    | 0.274                     | Supported |
| <b>H2: Financial Knowledge → Attitude</b>     | <b>0.345</b>        | 0.345           | 0.053                      | 6.558                    | <b>0</b>     | 0.24                     | 0.448                     | Supported |
| <b>H3: Social Influence → Attitude</b>        | <b>0.134</b>        | 0.134           | 0.065                      | 2.048                    | <b>0.041</b> | 0.007                    | 0.263                     | Supported |
| <b>H4: Personal Traits → Attitude</b>         | <b>0.154</b>        | 0.152           | 0.044                      | 3.513                    | <b>0</b>     | 0.067                    | 0.24                      | Supported |

*Source: Path coefficient analysis in PLS-SEM*

At the 5% significance level, all of the direct relationship hypotheses are supported. Based on the percentile bootstrap confidence interval (Aguirre-Urreta & Ronkko, 2018), all of the path coefficients were statistically significant and in line with the associate hypothesis. (SE = 0.16, tSE = 2.867, p = 0.004), our findings show that financial self-efficacy has a positive and significant effect on attitude. Additionally, self-efficacy and personal traits (PT = 0.154, tPT = 3.513, p = 0.00) follow self-efficacy and personal traits in positively influencing attitude (FK = 0.354, tFK = 6.558, p = 0.00). Last but not least, a positive attitude is also significantly influenced by social influence (SI = 0.134, tSI = 2.048, p = 0.041). Based on the statistical data, all four of the aforementioned Hypotheses are therefore accepted.

### 4.6 Objective-3

#### To investigate the relationship between attitude towards financial risk propensity and financial planning of agrarian class

In order to investigate the relationship between attitude and financial risk propensity as well as financial planning, following two hypotheses are made:

*H<sub>5</sub>: There exists a significant positive relationship between attitude towards investment and financial risk propensity.*

*H<sub>6</sub>: There exists a significant positive relationship between attitude towards investment and financial planning.*

The estimates for financial risk propensity and attitude as well as financial planning and attitude from the model are summarized in the following table 4.21.

**Table 4.21: Path coefficients and hypothesis testing for objective 3**

| Hypotheses and Relationship                     | Original      | Sample      | Standard             | T Statistics | P        | Confidence       | Confidence        | Decision  |
|-------------------------------------------------|---------------|-------------|----------------------|--------------|----------|------------------|-------------------|-----------|
|                                                 | Sample<br>(O) | Mean<br>(M) | Deviation<br>(STDEV) | ( O/STDEV )  | Values   | Interval<br>2.5% | Interval<br>97.5% |           |
| <b>H5: Attitude → Financial Planning</b>        | <b>0.47</b>   | 0.47        | 0.054                | 8.697        | <b>0</b> | 0.358            | 0.571             | Supported |
| <b>H6: Attitude → Financial Risk Propensity</b> | <b>0.679</b>  | 0.679       | 0.037                | 18.273       | <b>0</b> | 0.601            | 0.75              | Supported |

*Source: Path coefficient analysis in PLS-SEM*

At the 1% significance level, both hypotheses for direct relationships are supported. According to the percentile bootstrap confidence interval (Aguirre-Urreta & Ronkko, 2018), all of the path coefficients were statistically significant and in line with the associated hypothesis. According to our findings, an investor's financial planning is significantly influenced by their attitude toward investments (FP = 0.47, tFP = 8.697, p = 0.00). In addition, the results show that attitude has a positive and statistically significant effect on financial risk propensity (FRP = 0.679, tFRP = 18.237, p = 0.00), which is in line with the findings of other studies. Based on the statistical data, all but the two hypotheses listed above are therefore accepted.



#### 4.7 Objective-4

To examine the relationship between attitude towards investment, financial risk propensity and financial planning with investment intention and investment behavior of the agrarian class.

To investigate the final dependent variable, Investment behavior, the impact of attitude, financial risk propensity and financial knowledge is examined on investment intention first then further leading to investment behavior. So, the following four hypothesis are made:

*H<sub>7</sub>: There exists a significant positive relationship between attitude towards investment and Investment Intention.*

*H<sub>8</sub>: There exists a significant positive relationship between investment intention and Investment behavior.*

*H<sub>9</sub>: There exists a significant positive relationship between financial risk propensity and Investment Intention.*

*H<sub>10</sub>: There exists a significant positive relationship between financial planning and Investment Intention.*

The path coefficients and hypothesis testing are elaborated in table 4.22 below:

**Table 4.22: Path coefficients and hypothesis testing for objective 4**

| Hypothesis and relationship                                  | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics ( O/STDEV ) | P Values     | Confidence Interval 2.5% | Confidence Interval 97.5% | Decision  |
|--------------------------------------------------------------|---------------------|-----------------|----------------------------|--------------------------|--------------|--------------------------|---------------------------|-----------|
| <b>H7: Attitude → Investment Intention</b>                   | <b>0.158</b>        | 0.156           | 0.073                      | 2.149                    | <b>0.032</b> | 0.011                    | 0.303                     | Supported |
| <b>H8: Investment Intention → Investment Behavior</b>        | <b>0.388</b>        | 0.389           | 0.048                      | 8.138                    | <b>0</b>     | 0.294                    | 0.48                      | Supported |
| <b>H9: Financial Planning → Investment Intention</b>         | <b>0.189</b>        | 0.192           | 0.057                      | 3.3                      | <b>0.001</b> | 0.081                    | 0.306                     | Supported |
| <b>H10: Financial Risk Propensity → Investment Intention</b> | <b>0.171</b>        | 0.17            | 0.07                       | 2.42                     | <b>0.016</b> | 0.029                    | 0.307                     | Supported |

*Source: Path coefficient analysis in PLS-SEM*

At the 5% significance level, all four hypotheses for direct relationships are supported. According to the percentile bootstrap confidence interval (Aguirre-Urreta & Ronkko, 2018), all of the path coefficients were statistically significant and in line with the associated hypothesis. According to our findings ( $\text{Att} = 0.158$ ,  $t_{\text{Att}} = 2.149$ ,  $p = 0.032$ ), an investor's investment intention is significantly influenced by their attitude toward investing. In addition, the investor's investment intention is positively and significantly influenced by financial risk propensity ( $\text{FP} = 0.189$ ,  $t_{\text{FP}} = 3.3$ ,  $p = 0.00$ ) and financial planning ( $\text{FRP} = 0.171$ ,  $t_{\text{FRP}} = 2.42$ ,  $p = 0.00$ ), which is in line with the findings of previous research. Last but not least, statistical data analysis indicates that investment intention has a significant positive effect on investment behavior ( $\text{IB} = 0.388$ ,  $t_{\text{IB}} = 8.138$ ,  $p = 0.00$ ). As a result, the four hypotheses listed above are accepted.

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