

# A study on Individuals behaviour and intention in stock market participation with reference to Chennai

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**Abstract** The stock market is one of the most vital and dynamic sectors in the financial system making an important contribution to the economic development of a country. Investors are the backbone of the market. As common people find it difficult to participate directly in the Stock market to a significant extent, SEBI encourages them to offer innovative products to suit the risk appetite of the small equity investors. This study is conducted to measure the Intention of common people in the participation of Stock market, In order to develop their intention into active participation in Stock Market To Study the individual's financial behaviour and Intention in Stock Market Participation. To find how consumer financial knowledge, Perceived Control and Financial Attitude influence stock market participation To know the individual's perception towards risk-return of investment To examine the influence of cultural values in financial decision making To suggest measures to overcome the problems for enhancing investor's participation in Indian Stock market there are no studies so far that have attempted to test the below participation linkages in a single study. This study attempts to find the Intention towards Stock Market Participation by using the below variables Subjective Financial Knowledge, Cultural Value, Financial Attitude, Risk Avoidance. Perceived Control, Financial Wellbeing The methods of research utilized in exploratory research are surveys and fact finding enquiries. for the collection of the primary data, a structured questionnaire with Likert Scale is used in Survey research. The Samples are collected from Salaried, Self Employed, Business Persons and Retired through purposive sampling the Sample Size is 155 with various levels of knowledge and experience. The data collection is conducted in Chennai city.

Use of structural equation model SEM is commonly justified in the social sciences because of its ability to input SEM to test their hypothesis using data gathered from people who took their intelligence. To test. With "intelligence" would be the latent variable and the test items would be the observed variables the relationships between unobserved constructs (latent variables) from observable variables. Hypothesis

**H1:** There are two routes that cultural value impacts financial behavior and intention:

(a) Cultural Value Positively impacts attitude and subsequently positively impacts intention to participate in Stock Market and (b) Cultural Value Positively impacts perceived control and subsequently impacts Financial Behaviour and Intention.

**H2:** Financial Attitude impacts in two Routes (a) Financial Attitude positively impacts Risk Avoidance, (b) Financial Attitude Positively impacts Financial Behavior and Intention

**H3:** There are three routes from financial knowledge to financial behavior: (a) financial knowledge directly and positively impacts intention to engage in Financial Behavior and Intention; (b) financial knowledge positively impacts attitude, and attitude, in turn, positively impacts intention to engage in Stock Market; and (c) financial knowledge positively impacts perceived control, and perceived control, in turn, positively impacts intention to engage in Stock Market.**H4:** Financial Wellbeing Positively impacts Financial behaviour and Intention

Final PIs Path Model we subjected the data to Factor analysis. Each of the 23 items loaded strongly on the construct it purported to measure. Main loadings for five of the factors were all above 0.7. SRMR value is 0.074 which is close to the standard value of 0.8 and thus the model is considered fit and acceptable. The p values for all stated hypothesis were lesser than 0.05 and thus all the hypothesis are accepted at 5% level of significance. Based on the overall response, it is inferred that all the 7 factors are the key potential contextual factors influencing Financial Behaviour and Intention towards Stock Market Participation with reference to Chennai. This research concludes that the Subjective Financial Knowledge, Financial Attitude, Cultural Value, Perceived Control, Risk Avoidance, Financial Wellbeing were strongly significant to Financial Behaviour and Intention. This states the factors effectively influencing Stock Market Participation which will lead to the growth and development of the Indian Stock Market

## 1 .INTRODUCTION

Behavioural finance is providing progress in exploring and defining the reasons behind investor heterogeneity. Many works in the field of behavioural finance have shown other factors also affect investment decisions according to . Barber and Odean (2001), Kamstra et al. (2003), Grinblatt et al. (2011)). Prior work on factors related to stock market participation include pecuniary costs (Vissing-Jørgensen (2003)), awareness (Guiso and Jappelli (2005)), and financial literacy (Van Rooij et al. (2011)). Being more social may lower the Investment cost and increase stock market participation (Hong et al. (2004)). The portfolio performance of one's social acquaintances is positively related to stock market participation (Kaustia and Knüpfer (2012)). Personal beliefs, such as trust in others (Guiso et al. (2008)) and political ideology (Kaustia and Torstila (2011)) affect stock market participation. Cognitive ability (Cole and Shastri (2009), Christelis et al. (2010), Grinblatt et al. (2011)) has a clear effect on stock market participation. Dimmock and Kouwenberg (2010) use loss aversion from prospect theory (Kahneman and Tversky (1979)) to show that individuals that are more loss averse are less likely to participate in the stock market.

In this study, We have applied TPB(Theory of Planned Behaviour); Ajzen's (1985, 1991) theory of planned behaviour is a development of the earlier theory of reasoned action (Ajzen and Fishbein 1980); Considerable thought and rumination precedes investment decisions which strongly suggest that the TPB (Figure 1) will be ideal as a theoretical framework.

## 2. OBJECTIVES

- To Study the individual's financial behaviour and Intention in Stock Market Participation.
- To find how consumer financial knowledge, Perceived Control and Financial Attitude influence stock market participation
- To know the individual's perception towards risk-return of investment
- To examine the influence of cultural values in financial decision making
- To suggest measures to overcome the problems for enhancing investor's participation in Indian Stock market.

## 3. REVIEW OF LITERATURE

### Subjective Financial Knowledge

Knowledge represents a major cognitive or rational component which plays a significant role in decision making (Loewenstein and Lerner, 2003). As a cognitive effort, financial knowledge directly impacts financial behavior, Financial knowledge impacts a consumer's risk-taking behavior (Wang, 2009). According to the authors Van Rooij, Lusardi, Alessie (2000), Literacy rate increase the Stock ownership sharply. Even when considering basic literacy that measures simple knowledge and ability to do calculations and found that those who score high on basic literacy are disproportionately more likely to participate in the stock market. Financial knowledge has two dimensions: Objective knowledge, defined as what a person actually knows and Subjective knowledge, defined as the degree of confidence a person has in his or her own knowledge (Robb and Woodyard, 2011). In this Study we used only Subjective Financial Knowledge since we are conducting this research among common people's

H1: There are three routes from Subjective Financial Knowledge

- (a) Subjective Financial Knowledge Positively impacts Financial Behaviour and Intention
- (b) Subjective Financial Knowledge Positively impacts Financial Attitude and subsequently it is impacting intention to engage in Stock Market
- (c) Subjective Financial Knowledge Positively impacts Perceived Control and subsequently it is impacting intention to engage in Stock Market

## Cultural Value

Cultural values are often investigated as antecedents to consumer decision making for services (e.g. Leo et al., 2005; Mattila, 1999). Cultural value is an affect and is an antecedent to attitude within the context of the theory of planned behavior (Ajzens, 2002). Affect differs from attitude in that affect is a subjective response while attitude is a summary evaluative judgment of an object (Malhotra, 2005). As a result, financial matters are often viewed as family matters that are influenced and supported by parents, grandparent and relatives (Lowrey and Taylor, 2014). As it is common in financial behavior research to view a family or household as a unit of measurement (Plath and Stevenson, 2005) In this study we referred the cultural values of Hispanic culture as source,

H2: There are two routes from Cultural Value to Financial Behaviour and Intention.

- a) Cultural Values positively impacts Financial Attitude and subsequently it impacts Financial Behaviour and Intention
- b) Cultural Values positively impacts Perceived Control and subsequently it impacts Financial Behaviour and Intention

## Financial Wellbeing

Derived from the definition of general wellbeing, Financial Wellbeing could mean a state of being financially healthy, happy, and free from worry and this could be the concept that should be addressed. This kind of concept is objective type wellbeing where as subjective Financial wellbeing refers to “how people evaluate their lives and includes variables such as life and marital satisfaction, lack of depression and anxiety, and positive moods and emotions” (Suh et al., 1998, p. 25) and Prawitz et al. (2006)

H3: Financial wellbeing positively impacts Financial Behaviour and Intention

## Financial Attitude

Individual's attitudes tend to result from learning acquired through interactions and from practices. The Subjective norm (or in this case, PISO) may have a direct influence on attitude (Kohler et al., 2011; Moschis and Moore, 1984; Shim, 1996). Financial knowledge is also an antecedent to attitude toward financial behavior. In other words, the impact of financial knowledge on financial behavior can be mediated through attitude (Xiao et al., 2011), with attitude being a major component of the Fishbein TPB model. In this Study Financial Attitude acted as an Mediator in the following two ways

H4: Financial Attitude positively impacts Financial Behaviour and Intention

- a) Mediate between cultural value and Financial Behaviour and Intention
- b) Mediate between Subjective Financial Knowledge and Financial Behaviour and Intention

## Risk Avoidance

The earliest definitions of risk tolerance which is used by researchers interested in consumer and personal finance stated that “risk tolerance is the willingness of an individual to engage in a behaviour where there is a desirable goal but attainment of the goal is uncertain and accompanied by the possibility of loss” (Kogan and Wallach, 1964). Choices regarding investment products, asset allocation plans, and portfolio accumulation strategies have been attributed to risk tolerance (Grable and Lytton, 1999). A study by Lim et al. (2013) conducted in the Singapore market indicates a negative relationship between stock market Investment Intention and Risk Avoidance.

In this Study, the level of Risk Avoidance is significant among common people but the previous research was conducted among investors who will acquire high return with high risk rate.\

H5: Risk Avoidance positively impacts Financial Behaviour and Intention

## Perceived Control

A person’s behaviour can be predicted by his/her perceived control of performing the desired task (Ajzen, 1991). Control is achieved through relevant resources for performing a given behaviour (Madden et al., 1992). As per the TPB (Ajzen, 2002), PBC influence both intentions and behavior. Armitage and Conner's (2001) metaanalysis showed that the subjective norm-intention correlation is significantly weaker than the attitude-intention and perceived behavioural control-intention relationships.

H6: Perceived control positively impacts Financial Behaviour and Intention

- a) Perceived Control acted as mediator from Cultural Value to Financial Behaviour and Intention
- b) Perceived Control acted as mediator from Subjective Financial knowledge to Financial Behaviour and Intention

## RESEARCH GAP:

Although several factors have been studied, there are no studies so far that have attempted to test the below participation linkages in a single study. This study attempts to find the Intention towards Stock Market Participation by using the below variables Subjective Financial Knowledge Cultural Value Financial Attitude Risk Avoidance Perceived Control Financial Wellbeing

There are so many studies conducted among Institutional Investors and small scale investors and there is no studies so far that have conducted among common people about stock market participation. These are the gaps in the body of knowledge of Stock market Participation which this study seeks to address.

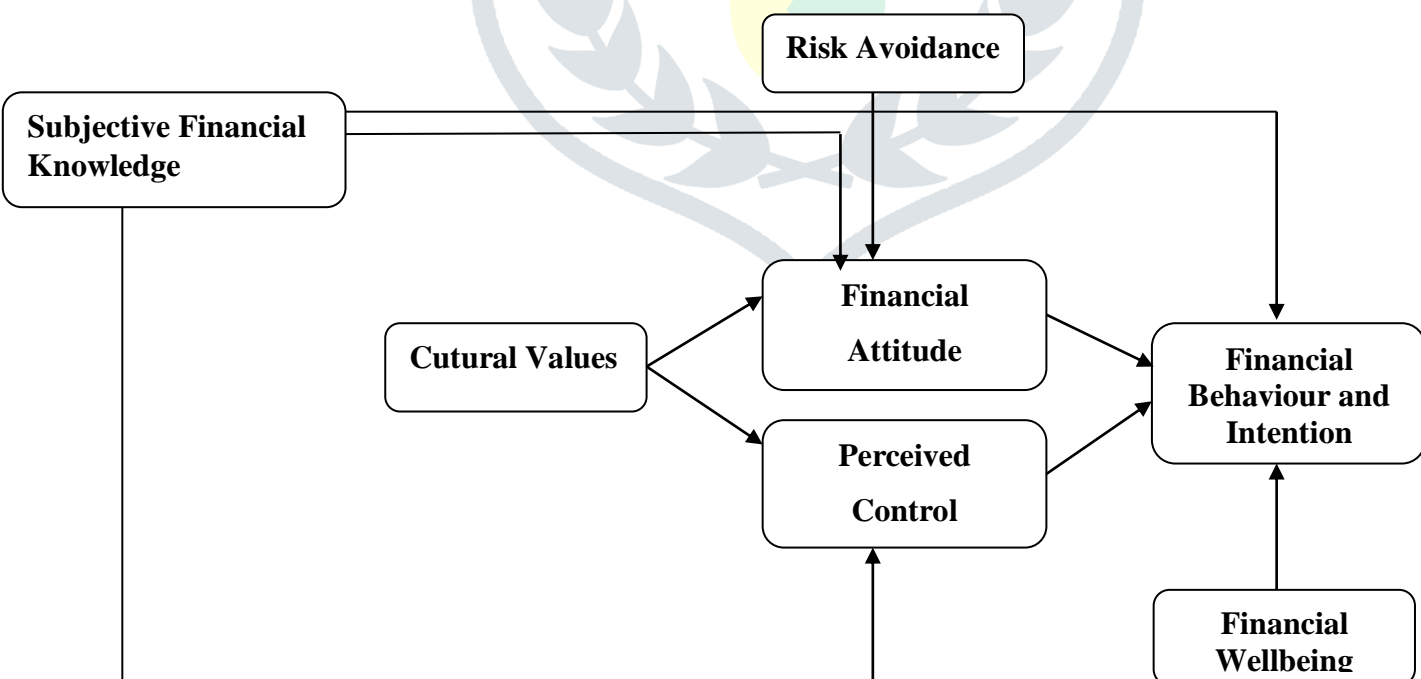
#### 4.METHODOLOGY

.Exploratory research helps determine the best research design, data-collection method and selection of subjects. It should draw definitive conclusions only with extreme caution. Given its fundamental nature. The methods of research utilized in exploratory research are surveys and fact finding enquiries. For the collection of the primary data, a structured questionnaire with Likert Scale is used in Survey research. The Samples are collected from Salaried, Self Employed, Business Persons and Retired through purposive sampling the Sample Size is 155 with various levels of knowledge and experience. The data collection is conducted in Chennai city.

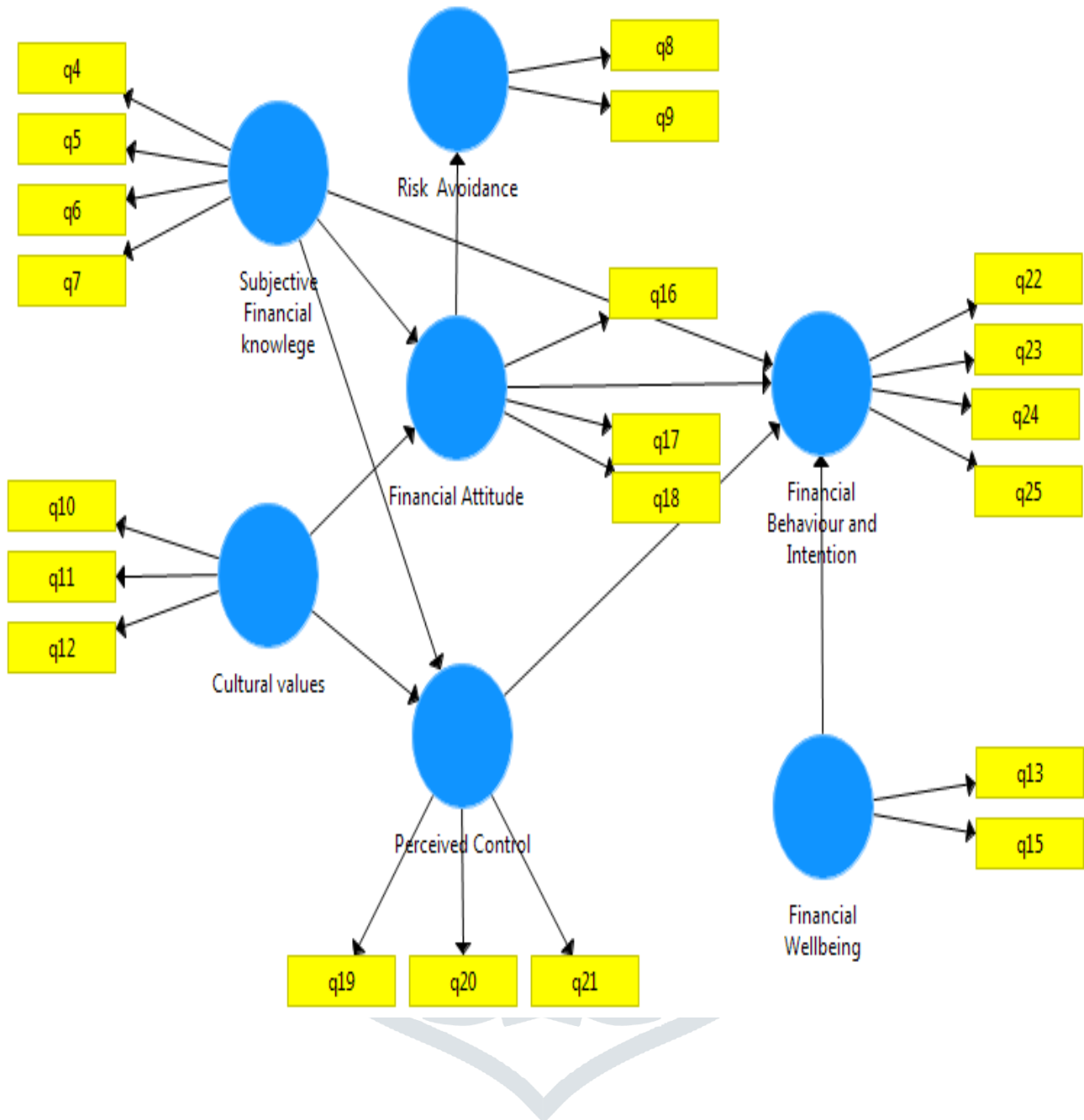
Use of structural equation model SEM is commonly justified in the social sciences because of its ability to impute relationships between unobserved constructs (latent variables) from observable variables. To provide a simple example, the concept of human intelligence cannot be measured directly as one could measure height or weight. Instead, psychologists develop a hypothesis of intelligence and write measurement instruments with items (questions) designed to measure intelligence according to their hypothesis. They would then use SEM to test their hypothesis using data gathered from people who took their intelligence test. With SEM, "intelligence" would be the latent variable and the test items would be the observed variables.

#### 5. DATA ANALYSIS AND INTERPRETATION

##### CONCEPTUAL FRAME WORK



## STRUCTURAL FRAME WORK IN SMART PLS



## Hypothesis

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**H4:** Financial Wellbeing Positively impacts Financial behaviour and Intention

## ANALYSIS AND INTERPRETATION

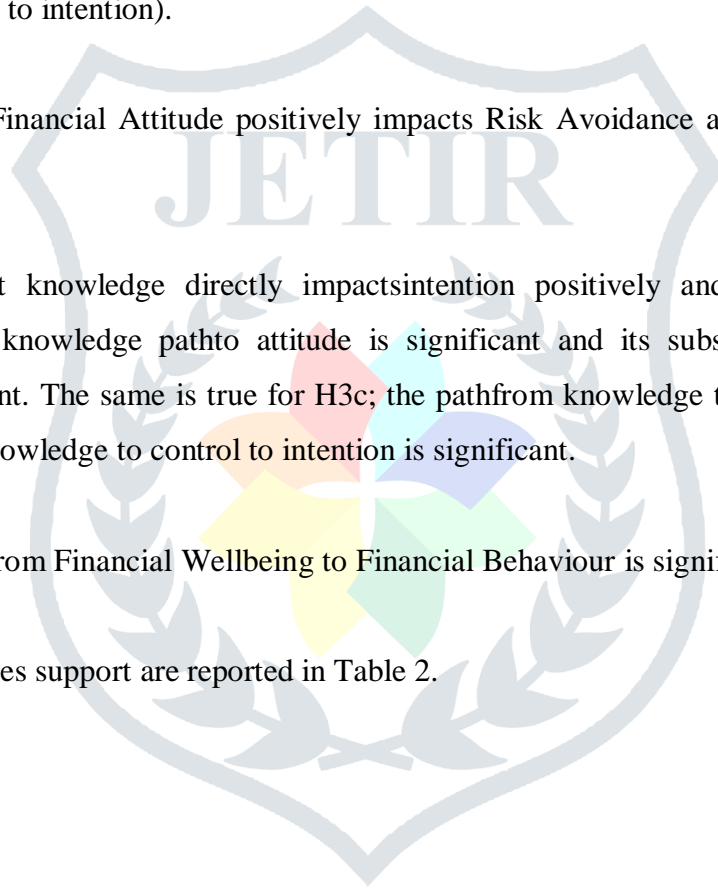
H1a is supported, meaning Cultural Values significantly impacts attitude (path from value to attitude) and subsequently impacts intention to participate in Stock Market (path from value to attitude to behavior and intention). This is also true for H1b in which value positively and significantly impacts control (path from value to control) and subsequently impacts intention (path from value to control to intention).

H2a is supported in that Financial Attitude positively impacts Risk Avoidance and H2b is also statistically significant.

H3a is supported in that knowledge directly impacts intention positively and significantly (path from knowledge to intention), knowledge path to attitude is significant and its subsequent path from attitude to intention is also significant. The same is true for H3c; the path from knowledge to control is significant and its subsequent path from knowledge to control to intention is significant.

H4 is supported, the path from Financial Wellbeing to Financial Behaviour is significant

These results and hypotheses support are reported in Table 2.





**Hypothesis Testing****Table 2: Structural Model Results**

	<b>Original Sample (O)</b>	<b>Sample Mean (M)</b>	<b>Standard Deviation (STDEV)</b>	<b>T Statistics ((O/STDEV))</b>	<b>P Values</b>
<b>Cultural values -&gt; Financial Attitude</b>	0.205	0.206	0.093	2.212	0.027
<b>Cultural values -&gt; Perceived Control</b>	0.203	0.206	0.084	2.404	0.016
<b>Financial Attitude -&gt; Financial Behaviour and Intention</b>	0.167	0.172	0.082	2.038	0.042
<b>Financial Attitude -&gt;Risk Avoidance</b>	0.256	0.260	0.092	2.770	0.006
<b>Financial Wellbeing -&gt; Financial Behaviour and Intention</b>	0.156	0.157	0.065	2.413	0.016
<b>Perceived Control -&gt; Financial Behaviour and Intention</b>	0.372	0.371	0.089	4.165	0.000
<b>Subjective Financial knowlege -&gt; Financial Attitude</b>	0.391	0.394	0.083	4.714	0.000
<b>Subjective Financial knowlege -&gt; Financial Behaviour and Intention</b>	0.190	0.190	0.062	3.056	0.002
<b>Subjective Financial knowlege -&gt; Perceived Control</b>	0.407	0.410	0.071	5.692	0.000

**INFERENCE:**

From the above table it is inferred that the p values is less than 0.05 and t value greater than 1.96 at 5% level of significance. This shows the significant level of each hypothesis and their value towards Stock Market Participation. Thus all stated hypothesis are accepted as shown in the Chart 1.

**Model Fit Analysis****Table 3: To Test The Effectiveness Of Model Fit**

	<b>Saturated Model</b>	<b>Estimated Model</b>
<b>SRMR</b>	<b>0.074</b>	<b>0.113</b>
<b>d_ULS</b>	<b>1.272</b>	<b>2.938</b>
<b>d_G1</b>	<b>0.862</b>	<b>0.955</b>
<b>d_G2</b>	<b>0.505</b>	<b>0.613</b>
<b>Chi-Square</b>	<b>483.768</b>	<b>546.964</b>
<b>NFI</b>	<b>0.738</b>	<b>0.703</b>

**INFERENCE:**

The model fit assessment is shown in above table. SRMR value less than 0.08 is considered a good fit. SRMR for the estimated model is 0.074 which is close to the standardized value and hence this model is considered as a good fit.

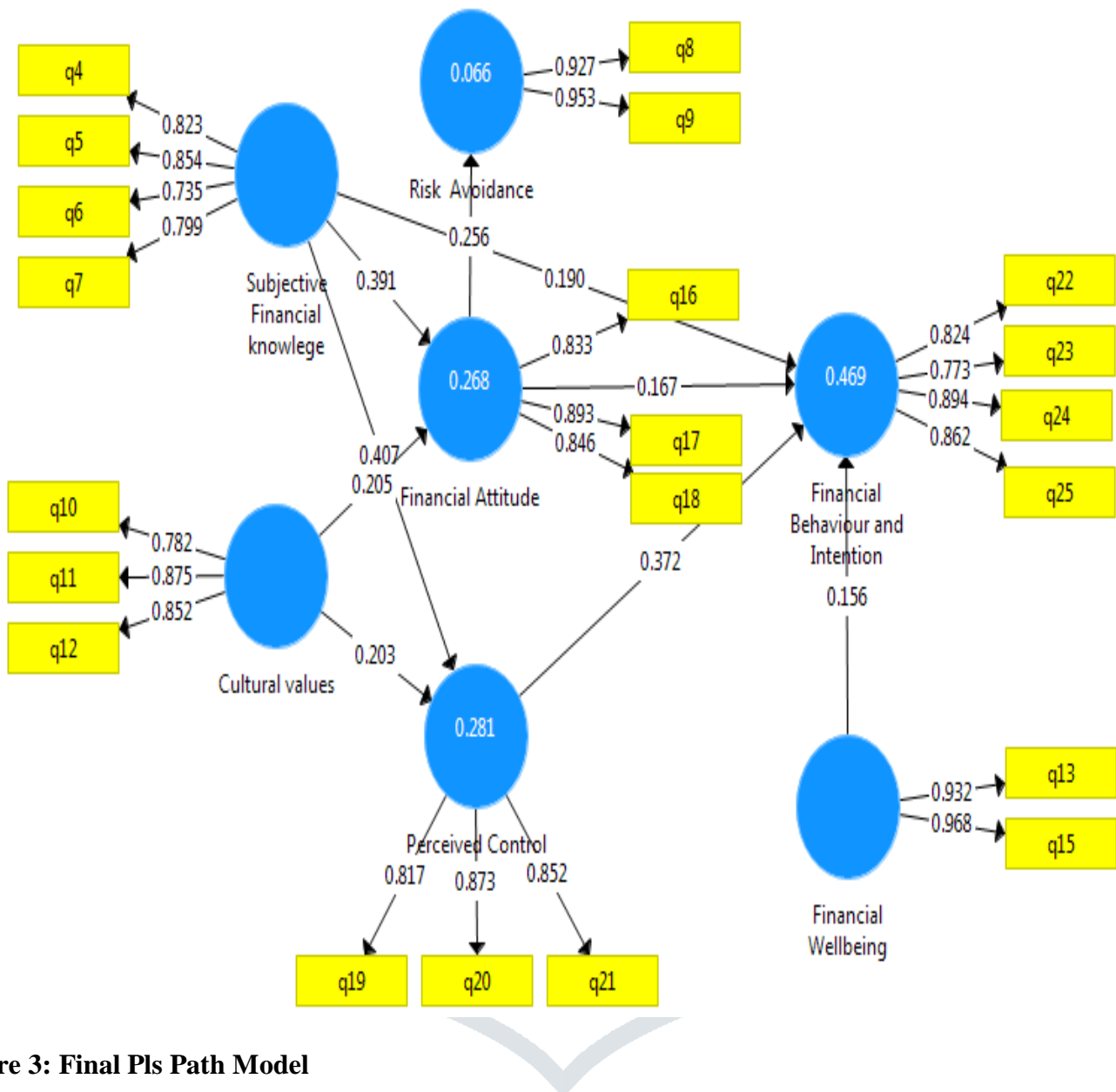
**INFERENCE:**

The discriminant validity was assessed using Fornel and Larcker (1971) by comparing the square root of each AVE in the diagonal with the correlation coefficients (off-diagonal) for each construct in the relevant rows and columns. The correlation coefficients for each construct was less than the square root of AVE (in the diagonal). Thus, discriminant validity can be accepted for this measurement model and supports the discriminant validity between the constructs.

**INFERENCE:**

Assessment of the reliability of each item was done by checking the outer-loadings and it was found that the values of factor loading was high on their respective constructs i.e. each factor loading was greater than the cut-off value of 0.70. This also shows that the reliability of each item was good and gives reinforcement to the allocation for each item on the specified latent construct. Indirectly, it supported for convergent validity. In other words, there is shared variance between the constructs and the items. Each factor loading was significant at 5% level of significance.

## FINDINGS



**Figure 3: Final PLS Path Model**

- 1) We subjected the data to Factor analysis. Each of the 23 items loaded strongly on the construct it purported to measure. Main loadings for five of the factors were all above 0.7.
- 2) SRMR value is 0.074 which is close to the standard value of 0.8 and thus the model is considered fit and acceptable.
- 3) The p values for all stated hypothesis were lesser than 0.05 and thus all the hypothesis are accepted at 5% level of significance.
- 4) Based on the overall response, it is inferred that all the 7 factors are the key potential contextual factors influencing Financial Behaviour and Intention towards Stock Market Participation with reference to Chennai.

## 6. CONCLUSIONS

This research concludes that the Subjective Financial Knowledge, Financial Attitude, Cultural Value, Perceived Control, Risk Avoidance, Financial Wellbeing were strongly significant to Financial Behaviour and Intension. This states the factors effectively influencing Stock Market Participation which will lead to the growth and development of the Indian Stock Market.

## APPENDIX

### – QUESTIONNAIRE

1. Name: \_\_\_\_\_ Age: \_\_\_\_\_  
Gender: \_\_\_\_\_ Occupation: \_Salaried/Self employed/Businessperson/Retired\_

2. What is your Annual Income?

1. Up to Rs 200000
2. 200000 to 400000
3. 400000 to 600000
4. 600000 to 800000
5. Above 800000

3. What is your Education qualification?

1. SSLC/ HSC
2. Diploma
3. Graduate
4. Post graduate
5. Professional

### Subjective Financial knowledge

4. Stocks are normally riskier than bonds

Strongly Disagree: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: Strongly Agree

1      2      3      4      5

5. Buying a stock mutual fund usually provides a safer return than a company stock

Strongly Disagree: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: \_\_\_\_\_: Strongly Agree

1      2      3      4      5

6. A loan with maturity of 15 years usually requires higher monthly payments than a 30-year loan, but the total amount of interest paid at the end of the loan will be lower.

Strongly Disagree: \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:Strongly Agree

1      2      3      4      5

7. An investment with high return rate will have high risk rate.

Strongly Disagree: \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:Strongly Agree

1      2      3      4      5

### **Risk Avoidance**

8. I never invest in something that I don't know about the risk of making a mistake

Strongly Disagree: \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:Strongly Agree

1      2      3      4      5

9. I invest only in financial products where I can predict the returns

Strongly Disagree: \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:Strongly Agree

1      2      3      4      5

### **Cultural Values**

10. I always help family members when they struggle financially

Strongly Disagree: \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:Strongly Agree

1      2      3      4      5

11. The welfare of the family is more important than my own

Strongly Disagree: \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:Strongly Agree

1      2      3      4      5

12. I would like to extend my support financially to my parents when they are older

Strongly Disagree: \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:Strongly Agree

1      2      3      4      5

**Financial Wellbeing**

13. What do you feel about your level of financial stress today?

Overwhelming Stress: \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : No Stress at all

1      2      3      4      5

14. How stressed do you feel about your personal finances in general?

Overwhelming Stress: \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : No Stress at all

1      2      3      4      5

**Financial Attitude**

15. Financial planning is one of my top priorities

Strongly Disagree: \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : Strongly disagree

1      2      3      4      5

16. I strongly believe that developing a financial plan will increase my success

Strongly Disagree: \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : Strongly Agree

1      2      3      4      5

17. I want to know more about how to plan for my financial future.

Strongly Disagree: \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : Strongly Agree

1      2      3      4      5

**Perceived Control**

18. I feel confident in selecting investment alternatives to meet my goals

Strongly Disagree: \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : Strongly Agree

1      2      3      4      5

19. I am doing a good job in preparing financial plan after my retirement

Strongly Disagree: \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : \_\_\_\_\_ : Strongly Agree

1      2      3      4      5

20. I wish my financial spends to be in control

Strongly Disagree: \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:Strongly Agree  
 1      2      3      4      5

### **Financial Behaviour and Intention**

21. I would like to invest in equities (stocks/shares)

Not at all Interested: \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:Highly Interested  
 1      2      3      4      5

22. I would like to invest in mutual Funds

Not at all Interested: \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:Highly Interested  
 1      2      3      4      5

23. I would like to invest in Commodities

Not at all Interested: \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:Highly Interested  
 1      2      3      4      5

24. I would like to invest in Debentures

Not at all Interested: \_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:\_\_\_\_\_:Highly Interested  
 1      2      3      4      5

### **REFERENCES**

Ajzen, I. (1991), "The Theory of Planned Behavior", *Organizational Behavior and Human Decision Processes*, Vol. 50, pp. 179–211.

Conner, M. and Armitage, C.J. (1998), "Extending the Theory of Planned Behavior: A Review and Avenues for Further Research", *Journal of Applied Social Psychology*, Blackwell Synergy, Vol. 28 No. 15, pp. 1429–1464.

East, R. (1993), "Investment decisions and the theory of planned behaviour", *Journal of Economic Psychology*, Vol. 14, pp. 337–375.

Douglas, M. and Wildavsky, A. (1982), "Risk and culture: an essay on the selection of technical and environmental dangers." Cal.: University of California Press.

Fernandes, D., Lynch, J. and Netemeyer, R.G. (2014), "Financial literacy, financial education, and downstream financial behaviors", *Management Science*, Vol. 60 No. 8, pp. 1861-1883.

Francis, J. and Eccles, M. (2004), "Constructing questionnaires based on the theory of planned behaviour", *A Manual for Health Services*, No. May.

Guiso, L. and Jappelli, T. (2005), "Awareness and Stock Market Participation", *Review of Finance*, Vol. 9 No. 4, pp. 537-567.

Hair, J.F.J., Black, W.C., Babin, B.J. and Anderson, R.E. (2014), *Multivariate Data Analysis*, 7th ed., Pearson, Edinburgh, Harlow.

Hilgert, M.A., Hogarth, J.M. and Beverly, S.G. (2003), "Household financial management: The connection between knowledge and behaviour", *Federal Reserve Bulletin*, Board of Governors of the Federal Reserve System (US), No. Jul, pp. 309-322.

Kabir, M., Shakur, S. and Liu, J. (2011), "Risk Aversion and Stockholding Behavior of US Households", *International Research Journal of Finance and Economics*, Vol. 81 No.81.

Kogan, N. and Wallach, M.A. (1964), *Risk Taking: A Study in Cognition and Personality*, Holt, New York, NY.

Leo, C., Bennett, R. and Hartel, C.E.J. (2005), "Cross-cultural differences in consumer decision-making styles", *Cross Cultural Management*, Vol. 12 No. 3, pp. 32-62.

Lim, K.L., Soutar, G.N. and Lee, J.A. (2013), "Factors affecting investment intentions: A consumer behaviour perspective", *Journal of Financial Services Marketing*, Nature Publishing Group, Vol. 18 No. 4, pp. 301-315.

Lusardi, A. and Mitchell, O. (2011), "Financial literacy and planning: Implications for retirement wellbeing", *NBER Working Papers*.

Madrian, B. and Shea, D. (2000), *Peer Effects and Savings Behaviour in Employer-Sponsored Savings Plans.*, University of Chicago Mimeo.



Mandell, L. (2006), "Financial Literacy: If It's so Important, Why isn't It Improving?",

Networks Financial Institute Policy Brief, No. 2006-NaN-8, available at:

[https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=923557](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=923557).

Meuser, M. and Nagel, U. (2009), "The expert interview and changes in knowledgeproduction", in Bogner, A., Littig, B. and Menz, W. (Eds.), *Interviewing Experts*, Palgrave Macmillan, Basingstoke, p. 281.

Prawitz, A., Garman, E.T., Sorhaindo, B., O'Neill, B., Kim, J. and Drentea, P. (2006),

"InCharge financial distress/financial well-being scale: Development, administration,

and score interpretation", *Financial Counseling and Planning*, Vol. 17 No. 1, pp. 34–50.

Sahni, A. (1994), "Incorporating Perceptions of Financial Control in Purchase Prediction: An empirical examination of the theory of planned behavior", *Advances in Consumer Research*, Vol. 21 No. 1988, pp. 442–448.

Van Rooij, M., Lusardi, A. and Alessie, R. (2011), "Financial literacy and stock market participation", *Journal of Financial Economics*, Elsevier, Vol. 101 No. 2, pp. 449–472.

Volpe, R., Kotel, J. and Chen, H. (2002), "A survey of investment literacy among online investors", *Financial Counseling and Planning*, Vol. 13 No. 1, pp. 1–13.