PATH ANALYSIS TO DEMONSTRATE THE RELATIONSHIP BETWEEN DIFFERENT DIMENSIONS OF REGULAR INVESTMENT AND INVESTMENT SATISFACTION USING VISUAL PLS

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Abstract :

The aim of this paper is to investigate the determinants of regular Investment pattern and its association with the satisfaction towards Investments made. Structural Equation Modeling has been utilized with information provided by a survey conducted in Coimbatore city. Results indicate that there is significant association between regular investment and its determinants - past profitable investments, financial dependency, knowledge about financial need, sole responsibility for investment and family aware of investment details. Moreover, there is a strong positive relationship between regular investment and satisfaction towards Investments. Findings provide more evidence on important determinants of Investment pattern and results of investor satisfaction.

Keywords: *Investment Satisfaction, Regular Investment Pattern, Structural Equation Modeling, Financial dependency, Financial Need*

1. INTRODUCTION

Structural Equation modeling (SEM) is a multiple regression model with more than one dependent variable and independent variables. SEM is fitted by ordinary least square method (OLS) or partial least square method (PLS). Structural Equation Modeling Software (Visual PLS) is similar to regression and components based structural equation modeling technique. This simultaneously models the structural paths (i.e., the theoretical relationships among latent variables and measurement paths (i.e., relationships between a latent variable and its indicators). In PLS approach the latent variables are estimated as exact linear combinations of the observed measures. The focus of PLS is on the explanation of variance expressed by the independent variable on the dependent variable. For the current research study, Visual PLS was used to reinforce the relationship between latent variables (constructs), namely (i) past profitable investment, (ii) sole responsibility for investment, (iii) financial dependency on family, (iv) family aware on iInvestment and (v) knowledge on financial need on regular investment.

2. REVIEW OF LITERATURE

Ajzen (1975) argues that a person's intention to perform a particular behavior was influenced by two basic determinants, namely, attitudes and social influence. Tversky and Kahneman (1981), found the experimental evidence on financial decision making under uncertainty that shows the people do not behave as in traditional models because the investors do not always behave as decrypted in traditional models. Fornell (1992) added that favorable word-of-mouth and repurchasing are the results of customer satisfaction. Anderson et al. (1997) pointed out that companies should consider customer satisfaction and productivity together in order to gain business growth, positive word-of-mouth and increase overall profitability and image. Anderson et al. (1994) viewed customer satisfaction as customers overall experience while buying or consuming products or services. According to Anton (1996) customer satisfaction is customer's state of mind when his/her expectations met or exceeds the perception and result in post-purchase decision of loyalty. Baker and Crompton (2000) suggested that Customer Satisfaction is a personal experience derived

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from differences between personal expectations and actual receives. Boshoff and Gray (2004) Stated that products and Services do not contain customer satisfaction inherently but, instead, customer satisfaction is included in perception of every customer about the product and service attributes. Alleyne and Broome (2010), in their research, stated that attitude, the reference group, the confidence, and the opportunity had a significant effect on the willingness to invest.

2.1 THE NEED FULFILLMENT MODEL OF SATISFACTION

There are two reasons which force customers to attempt to satisfy a need. The first reason is restoration which gives the customer a sense of relief. The second one is enhancement which leads to feel pleasure. Oliver (1997) divided need fulfillment attributes into three parts:

- Lower- need fulfillment attributes which are known as monovalent dissatisfies and cause dissatisfaction when flowed.
- Higher- need fulfillment attributes which are known as nonviolent satisfiers and they will satisfy the customer when present but will not cause dissatisfaction if absent.
- Bivalent satisfiers which affect satisfaction and dissatisfaction similarly depending on their presence or absence.

2.2 THE THREE FACTOR THEORY

Matzler and Sauerwein (2002) distinguished three factors of satisfaction.

Basic factors (dis-satisfiers) are minimum requirements that lead to dissatisfaction if not fulfilled, but by fulfilling them customer satisfaction will not be created. In these kinds of factors low performance has greater effect on overall satisfaction than high performance. The relationship between factor-level performance and overall satisfaction is symmetrical.

Excitement factors (satisfiers) are factors by whose delivering the service provider could increase satisfaction but don't lead to dissatisfaction if they are not delivered Excitement factors are not in expectation list of customers; instead they could surprise costumers and generate delight for them. The relationship between factor-level performance and overall satisfaction is symmetric.

Performance factors (hybrids) could bring about satisfaction if performance is high and dissatisfaction, if performance is low. There is a linear and symmetric relation ship between performance and overall satisfaction.

2.3 EXPECTANCY- DISCONFIRMATION THEORY

Brooks (1995) defined this theory as comparison of expectations and performance and using a better- than, worse- than heuristic. Positive disconfirmation will occur if the product and service is better than expected and negative disconfirmation will happen if the product and service is worse than expected. The more the positive disconfirmation, the more the customer satisfaction (Liljander and Strandvik,1997).

Two concepts are involved in disconfirmation theory: assimilation effects and contrast effects. According to assimilation theory a consumer's perception about the product's performance will be drawn toward his/ her expectations and customer satisfaction will be determined by customer's level of expectation. However, under contrast effect, there would be exaggeration in perceiving the results. It means that a favorable result will be perceived as more favorable one and an unfavorable result will be perceived as less favorable. Positive disconfirmation will cause customer satisfaction and future purchase decisions. But negative disconfirmation will lead to searching for another product to satisfy our need.

3. OBJECTIVES OF THE STUDY

1. To evaluate the various dimensions of factors influencing Investment
2. To study the relationship between the factors influencing Investment decisions and regular Investment.

3. To study the influence of Investment decisions on the level of Satisfaction towards Investment.
4. To develop Path Model for the determinants of Investment of Investors' and their Satisfaction towards Investment

4. RESEARCH METHODOLOGY

This study is descriptive in nature because this study describes the characteristics of Investors. The Data collection is done mainly through primary sources and also secondary sources such as journal, magazines, text books and website. The primary data was collected through structured questionnaire method. The field work of the study was conducted in Coimbatore city and the data collection process took place during the period December 2012 to May 2013. Multistage sampling is used for this research. In the first stage, Coimbatore city is selected for the study. In the second stage salaried class individuals were considered. In the third stage, Services sector was selected and in the fourth stage Bank, an NBFC, Mutual Fund, Insurance companies, IT, ITES Company, or Educational Institutions were selected from the Service Industry. Among the Banks, NBFC & Insurance companies, private players were alone considered, among educational institutions, B-Schools teaching faculties were considered, IT, ITES, Mutual Fund companies are selected based on the location ease and the approval from their administration to conduct such market survey. Thus respondents were selected in a multistage random sampling method. In this study, 405 samples were considered based on the Krejcie & Morgan (1970) sampling table.

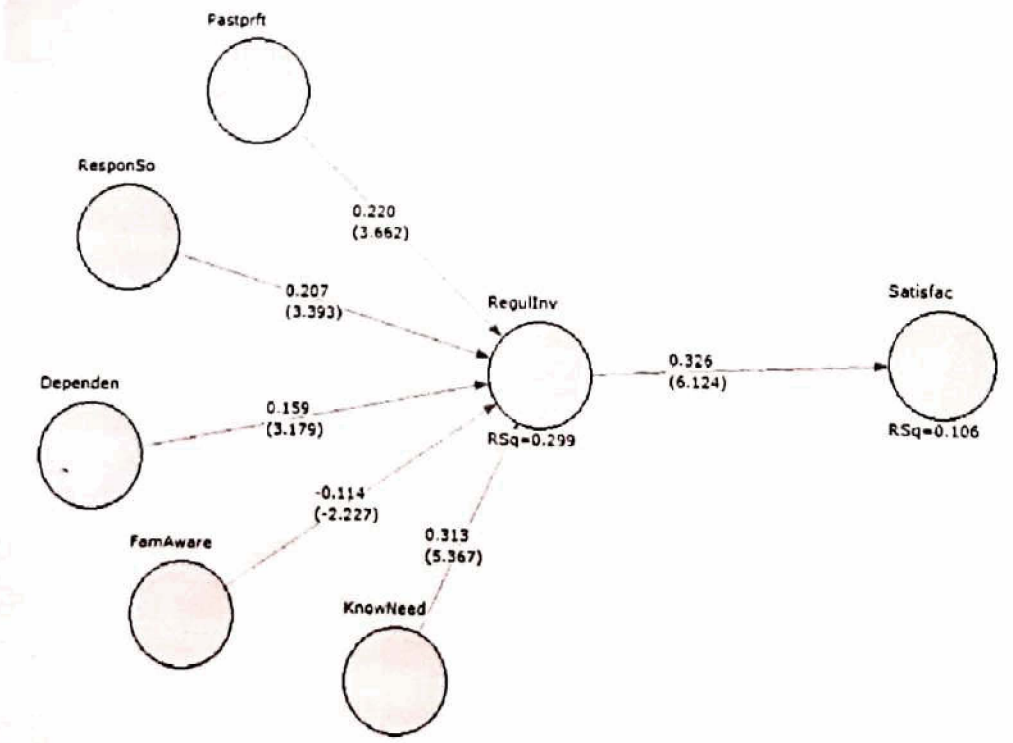
5. PLS PATH MODELLING

The PLS approach to structural equation modeling (Wold 1966, 1982, Fornell & Cha 1994) studies a system of linear relationships between latent variables by solving blocks (combinations of theoretical constructs and measurements) one at a time.

6. ANALYSIS AND INTERPRETATION

H0: There is no significant relationship between the various dimensions of factors influencing Investment and regular Investment.

Ha: There is significant relationship between the various dimensions of factors influencing Investment and regular Investment.



From the above model, it is evident that Past profitable investment, Sole responsibility for investment, Financial Dependency on family and Knowledge on financial need on regular Investment are significantly related with regular investment in positive direction, except for family members aware on Investment, since all T values are greater than table value of T at 5% level of significance (2.00). Similarly regular investment has a positive significant relationship with the satisfaction. From the above analysis, past profitable investment has an influence of 0.220 levels on regular investment (22% increases in regular investment). Similarly Sole responsibility for investment has the influence of 0.207, Financial Dependency on family 0.159, Knowledge on financial need 0.313 levels. From all these independent variable, Knowledge on financial need shows more influence on regular investment by use of interdependent OLS simple and/or multiple regressions.

Table regarding the measurement mode-Bootstrap showing the T statistics

Correlation of Latent Variables							
	Past profitable Investment	Sole Responsibility in Investment Decision Making	Dependent on family for Financial Stability	Family Aware of Investment details	Regular Investment pattern	Satisfaction towards Investment	Knowledge about Investment Need
Past profitable Investment	1.000						
Sole Responsibility in Investment Decision Making	0.387	1.000					
Dependent on family for Financial Stability	0.086	-0.112	1.000				
Family Aware of Investment details	0.265	0.197	0.279	1.000			
Regular Investment pattern	0.402	0.355	0.132	0.148	1.000		
Satisfaction towards Investment	0.385	0.154	0.193	0.201	0.326	1.000	
Knowledge about Investment Need	0.378	0.328	0.030	0.379	0.426	0.242	1.000

Structural Model—Boot Strap					
		Entire Sample estimate	Mean of Sub samples	Standard error	T-Statistic
	Pastprft->RegulInv	0.2200	0.2272	0.0601	3.6623
	ResponSo->RegulInv	0.2070	0.2009	0.0610	3.3934
	Dependen->RegulInv	0.1590	0.1586	0.0500	3.1790
	FamAware->RegulInv	-0.1140	-0.1141	0.0512	-2.2268
	KnowNeed->RegulInv	0.3130	0.3150	0.0583	5.3672
	RegulInv->Satisfac	0.3260	0.3284	0.0532	6.1238

Source: Computed from Primary data

Overall contribution of all independent variables of regular investment is 29.9% (R2 = 0.299). The rest of independent variables influencing on regular investment behaviour (almost 70%) may have come from various unknown factors which are not studied in this study. Regular Investment influence over satisfaction on Investment is 0.326. The contribution in percentage in the satisfaction level is 10.6 (R2 = 0.106).

The other factors like investment decision making process influencing the level of satisfaction on Investment is also studied using Chi Square test.

Table regarding Chi Square test of Investment Decision making process and Investment Satisfaction level.

Satisfaction on Investment		Investment decision making process			
		Encouraging factor for Investment	Actions before Investment	Household investment decision-maker	Liquid Investment for Contingency management
I depend on my spouse/children for my financial stability	Sig Value	0.484	0.061	0.489	0.778
	Chi Sq value	4.471	10.550	4.435	1.770
I am satisfied with my current financial situation	Sig Value	0.479	0.026*	0.755	0.005*
	Chi Sq value	4.507	12.747	2.642	14.745
I am fully responsible for the results of my investment decisions	Sig Value	0.003*	0.002*	0.004*	0.452
	Chi Sq value	18.296	19.361	17.073	3.673
I have a clear idea about my financial needs during retirement	Sig Value	0.162	0.004*	0.009*	0.083
	Chi Sq value	7.896	17.257	15.239	8.260
My spouse/Children are aware of the details my investments	Sig Value	0.484	0.235	0.000*	0.587
	Chi Sq value	4.471	6.817	22.750	2.827
My past profitable investments were mainly due to my specific investment skills	Sig Value	0.191	0.058	0.536	0.046*
	Chi Sq value	7.416	10.697	4.095	9.690

Source: Computed from Primary data

* denotes significant relationship between two variables

The Chi Square test results are depicted in the above table. Since the p value is lesser than 0.05 (5% level of significance), it is inferred that there is significant relationship between the following factors:

- Past profitable investments and Liquid Investment for Contingency management.
- Sole responsibility on the investment decision results and (i) the factors

encouraging the investment, (ii) actions before investment, (iii) household investment decision-maker.

- Current financial situation and (i) actions before investment, (ii) Liquid Investment for Contingency management, (iii) Household investment decision-maker

- Family members' awareness on the investment and Household investment decision-maker.

- Financial needs during retirement and (i) Household investment decision-maker, (ii) actions before investment.

6. CONCLUSION AND IMPLICATION

It can be generalized that the attitude of investors is rational. The Knowledge of financial need significantly effect on the investor regular investment pattern. Financial dependency on the family members also determines the regular investment pattern. It is inferred that individuals who take sole responsibility on their investment decisions plan and execute for their investment regularly. It implies that the fundamental analysis was still considered to be the key success by the investors before they made a decision to invest. Besides that, the model clearly depicts the facts that regular investments have a positive association on the satisfaction of investment decisions. Hence there has to be efforts taken by financial institutions to create and develop attractive investment schemes. Continual investors education programs through various advertisements in different media can be conducted by financial institutions which develop regular investment pattern and for wise investment decisions.

7. SUGGESTIONS

This study aims to determine the factors influencing the satisfaction level towards investment. The study on regular Investment pattern, financial dependency, awareness on financial need, self investment decision making, memories about past investment gives the insight on the customers' intention, attitude, expectations, need for Investment. In depth study on various other factors influencing the investment decisions and also their satisfaction level towards Investment can be probed in detail as a scope for future study. Some of such factors could be demographic factors, Social status; economic factors be considered for future study. The target respondents could also be at national level, which could be from rural and urban areas, to understand the Investment decisions.

8. LIMITATIONS

- Samples of the study are salaried educated Investors in Coimbatore city and it may not represent the national market.

- This study has not been conducted for a longer time horizon covering market ups and downs. The state of market has a significant influence on the buying patterns and preferences of Investors. The study was conducted during a particular period of time and hence it will not be applicable for all periods.

- The study being based on a survey of Investors, it includes all limitations inherent in the questionnaire form of research.

9. REFERENCES

- Ajzen, Icek, (1975), 'The Theory of Planned Behavior', Journal of Organizational Behavior and Human Decision Processes 50, pp. 179-211.
- Akhtar, ME, (2011), 'Determinants of Short Term Investment Decision Making', Journal of Actual Problem in Economics, no 11.
- Albadvi, A, Chaharsoghi, SK, Esfahanipour, A, (2006), 'Decision Making in Stock Trading: An Application of Prometiiee', European Journal of Operational Research 177 (2007), pp. 637-683.
- Anderson, E.W., Fornell, C and Lehmann, D. R. (1994), "Customer Satisfaction, Market Share, and Profitability: Findings from Sweden. Journal of Marketing", 58, 53-66.
- Anton, J. (1996), "Customer Relationship Management: Making Hard Decisions With Soft Numbers", Upper Saddle River, New Jersey: Prentice Hall, Inc.
- Baker, D. A and Crompton, J. L. (2000), "Quality Satisfaction and Behavioral Intentions. Annals Of Tourism Research", 27 (3),785-804
- Boshoff, C. and Gray, B (2004), "The Relationships between Service Quality, Customer Satisfaction and Buying Intentions In The Private Hospital Industry", South African Journal of Business Management, 35(4), 27–37.
- Brookes, D. and Stodin, N (1995), "The New Service Relationship", Canadian Business Review.
- Dr. M. Munirąju, Joychen Manuel, (2013), "A Study on Investor's Perception towards Various Avenues of Investment", Intercontinental Journal of Finance Resource Research Review, Volume 1, Issue 9, pp 14-22
- Eipstein, MJ and Pava, M, (1994), "Individual Investor's Perceptions on the Summary Annual Report: A Survey Approach", Journal of Applied Business Research, vol. 10, number 3, pp. 60-67.
- Fornell, C, (1992), "A National Customer Satisfaction Barometer: The Swedish Experience", Journal of Marketing, 56(1), 1–21.
- Kadariya, S, (2012), "Factors Affecting Investor Decision Making: A Case of Nepalese Capital Market", Journal of Research in Economics and International Finance (JREIF), vol. 1 (1), pp. 16-30.
- Liljander, V and Strandvik, T., (1997), "Emotions in Service Satisfaction. International Journal of Service Industry Management", 8 (2), 148-69.
- Mandeep Kaur and Tina Vohra, (2012), "Understanding Individual Investor's Behavior: A Review of Empirical Evidences" Pacific Business Review International, Vol.2, Issue 6.
- Mittal M and Vyas R K (2007), "Demographics and Investment Choice among Indian Investors", The IUP Journal of Behavioral Finance, Vol. 4, No. 4, pp. 51-65.
- Oliver, R. L (1997), "Satisfaction A Behavioral Perspective of the Consumer", New York:Mcgraw-Hill.
- Tversky, A and Kahneman, D (1981), "The Framing of Decisions and the Psychology of Choice", Science, new series, vol 211, no. 4481, pp. 453-458.
- Tversky, A and Thaler, RH, (1990), "Anomalies: Preference Reversal", The Journal of Economic Perspectives, vol 4, no 2, pp. 201-211.