Portfolio Investment Bahaviour of Households.
Evidence from Eastern Part of Sri Lanka

Retnam Uthayakumar

Senior Lecturer, Department of Commerce, Faculty of Commerce and Management, Eastern University, Sri Lanka

uthayakumar27@yahoo.com

ABSTRACT: *Portfolio investment behaviour is defined as how the investors judge, predict, analyse and review the procedures for decision making, which includes deciding on the size of investments and choosing the combination of investment portfolios. The investment strategies of one investor are quite different from that of another. The motivation of an investor to invest is complex and depends upon a number of factors.This study examined the Portfolio Investment Bahaviour of Households in the Eastern parts of Sri Lanka in terms their portfolio investment decision on the portfolio choice and size and identified their demographic, economic, and psychological characteristics. The study further investigated any significant association between the portfolio investment decision and those characteristics and any significant variation in the portfolio bahaviour caused by such personal variables. The study was carried out among the sample of 500 households distributed all parts of the Eastern Province of Sri Lanka. All variables were measured using an instrument designed by the researcher and descriptive and bivariate analyses were done. Data were collected through self-administered questionnaires which were distributed both by hands and email, and analyzed using the software SPSS version 22.0 and MS Excel. From the data analysis, it is found that the portfolio investment bahavioural variables are significantly varied by the demographic, economic, and psychological factors of households. The demographic, economic and psychological factors such as gender, age level, educational level, income level, risk averse, return preference significantly influence their decision on portfolio investment size and choice. Hence, it is recommended that the demographic, economic and psychological aspects shall be considered by the corporate managers in devising investment vehicles for households in Eastern part of Sri Lanka.*
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Key words: Portfolio Investment, Households, Demographic, Economic, Psychological factors.

1. INTRODUCTION

Financial stability has always been a major consideration of every person. Those who have their own families would definitely work hard just to provide well for the family. Their hard earned money is usually spent on basic needs and other important expenses in the household. But for those who want to secure their financial standing in the future, they would have to make the necessary investments. Relying alone on salaries would not suffice. And although it is good to have saving accounts in the banks, it is highly preferred to invest the money since the rate of return is much higher.

Unfortunately, few people know about the importance of investments. Most often, they associate investments with high risks where they have high chances of losing money instead of gaining profits. This kind of perception holds some truth to it. But in order to get higher profits, one must learn how to calculate risks. In this era of free information because of the Internet, it is now much easier to make sound financial judgment. It is just a matter of finding the right kind of investment.

An investment is a commitment of money for a period of time with the expectation or hope of receiving returns that will cover any inflation and compensate the investor for the time that the funds are committed and the uncertainty of any future return. An investment may be made by any person or entity, including corporations, pension funds, or a government, and be made in land, equipment, stocks, bonds, commodities, or any other financial instrument.

The term portfolio refers to any collection of financial assets such as cash. It is the combination of more than one investment asset, such as stocks, bonds, cash, real estate, precious metals and international investments. It is a generally accepted principle that a portfolio is designed according to the investor's risk tolerance, time frame and investment objectives. The monetary value of each asset may influence the risk/reward ratio of the portfolio and is referred to as the asset allocation of the portfolio. When determining a proper asset allocation one aims at maximizing the expected return and minimizing the risk.

Portfolio investment behaviour is defined as how the investors judge, predict, analyze and review the procedures for decision making, which includes deciding on the size of investments and choosing the combination of investment portfolios.

The investment strategies of one investor are quite different from that of another. The motivation of an investor to invest is complex and depends upon

a number of factors. Investors can be classified as institutional investors and household investors.

A household consists of one or more people who live in the same dwelling and also share at meals or living accommodation, and may consist of a single family or some other grouping of people. A single dwelling will be considered to contain multiple households if either meals or living space are not shared. The household is the basic unit of analysis in many social, microeconomic and government models, and is important to the fields of economics and inheritance. Households have different behaviours towards investing their wealth on financial assets and the behaviour can be varied due to some factors.

Households are behaving differently when they are allocating their wealth for the investment purpose. Some are investing more of their wealth than others. Households are investing with the purpose of being stable in their social status or for meeting their needs in future. Therefore, the households living in the Eastern part of Sri Lanka are used as study population to investigate the impact of several factors falling under the categories of demographic, economic, and psychological domains.

This study aims to fill the gap in empirical evidences that explain the variations in the portfolio investment behaviour of households and its association with demographic, economic, and psychological characteristics of the household investors from the Sri Lankan context.

1.1 Problem Statement

From the background described above, the problem of the study was identified as “what are the factors significantly influencing the portfolio investment behaviour of households in Eastern Part of Sri Lanka?

1.2 Research Questions

The following research questions covered the scope of the research problem identified above:

1. What is the present status of the demographic, economic, and psychological variables of households in the Eastern part of Sri Lanka, and their average level of portfolio investment size and choice?
2. Are the demographic, economic, and psychological variables of households significantly associated with their portfolio investment size and choice?
3. To what extent do the demographic, economic, and psychological variables of households have significant influence on their portfolio investment size and choice?

1.3 Objectives of the Study

The following objectives were formulated for the study based on the research questions raised above.

1. To describe the present status of the demographic, economic, and psychological variables of households in the Eastern part of Sri Lanka, and their average level of portfolio investment size and choice.
2. To find out that the demographic, economic, and psychological variables of households are significantly associated with their portfolio investment size and choice.
3. To evaluate the extent to which the demographic, economic, and psychological variables of households have significant influence on their portfolio investment size and choice.

1.4 Literature Review

The major decision of an investor regarding his/her portfolio is to choose the allocation between different asset classes, especially between equity investments and interest-bearing investments. Strategic asset allocation determines the ultimate expected rate of return and risk of an investor's portfolio Blake et al. (1999). For individuals and institutional investors alike, it is usually a long-term decision and its analysis should include all financial aspects such as wealth, current and future cash flows, financial goals, inflation, and liquidity considerations.

The study of household investment behaviour, i.e. how households use financial instruments to attain their objective is known as household finance. This topic has attracted a lot of research attention recently. Researchers have been studying household finance from different vantage points. Even though previous researches often provided conflicting results, certain demographics and psychological factors are found to be key indicators that are influential when household investors make their investment decisions. They also found a wide variation in investment behaviour in different countries. A vast literature has been developed on the relationships between household investment decisions and other factors. McCarthy (2004) presents a good survey of household finance studies.

The first and most important demographic factor is undoubtedly household wealth. Wealthier households are more willingly to participate in equity investment and hold a much higher proportion of their portfolios in risky investment (Carroll, 2002). Bertaut and Starr-McCluer (2002) report that the proportion of households with equity investment increases from 4.4 percent in the bottom quartile to 86.7 percent in the top quartile and over 93 percent in the top 5 percent of the financial wealth distribution. However, Hallahan et al. (2004) argue that wealthy people may be more conservative with their money and people with low levels of personal wealth may be more willing to bear risks just like troubled firms prefer and seek risk.

Among other demographic factors gender is the first effective differentiating and classifying factor (Bernasek et al. 1996) Because of the role of emotional Variables Risk attitudes differ between men and women (Loewenstein et al.2001) As compared to male investor female investors have wider risk aversion in different activities like financial decision making (Stendardi et al. 2002). Male's investors are more confident in their investment decisions, they have more financial knowledge and wealth and ability to take risks (Bruce, 1995) (Barber and Odean 2001: 261).When males are investing in their assets due to large income they take greater risks (Parker, and Terry 2002).Some studies shown that there is no significant effect of gender on risk tolerance during financial decisions (Schubert et al. 1999: 384-385).

Investment performance or decision making process of individual investor is also based on his /her age. It is explored by researcher risk aversion relatively decreased with the age of people when other variable are held constant (Wang, H. & S. Hanna, 1997). Older people tolerate more risk as compare to the young investors (Grable and Lytton, 1999b: 7) Young investor can not accurately assess about his work performance as compare to older one. Old people gain investment knowledge and experience, and make better investment Choices (Kumar, and Korniotis, 2011).

In contrast some researchers found that increasing age of investors caused decrease in risk tolerance (Jiankopolos and Bernasek 2006).Further some researchers explored that investors age and financial risk tolerance have no significant relationship (Al-Ajmi, 2008: 21) (Anbar and Eker 2010: 505) Gumede (2009).

Third demographic factor which caused a higher financial risk tolerance during decision making process is education i.e. formal attained academic training (sung, Hanna, 1996). Level of education obtained and risk tolerance have a positive relationship (Kimball et al 2007: 20) (Graham et al. 2009). Contradictory results are also shown by some researchers, which are exploring that no significant relationship is exist between education and risk tolerance whilst the Strydom et al (2009) Gumede (2009: 27).

Marital status is also an effective factor influencing the decision making of investor. Single individuals are more risk taker than married because married individuals have responsibilities for themselves and dependents (Roszkowski et al. 1993) (Lazzarone, 1996) Barber and Odean (2001: 285).

Some studies failed to find significance association between marital status and financial risk tolerance (McInish, 1982). Income Level Income level of investor is also affects its behaviour toward investment. A person with greater wealth

takes greater risk (Terry, and Parker, 2002). Persons with upper level of income and millionaires tend to take higher risk as than individual with lower level of income (MacCrimmon, and Wehrung, 1986).

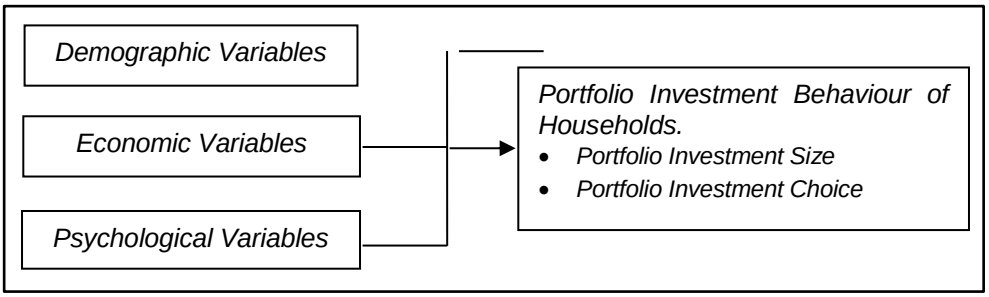
Researcher explored that level of risk tolerance increase with the increasing level of income (Blume et al.1994)Investors invest their funds in more volatile portfolio composed of more volatile stocks when they have higher level of income (Barber, and Odean , 2001).

Higher level of income creates the ability of bearing the losses, so wealthier people preferred higher level of risk (bernheim et al, 2001). In contrast some researchers shown income level has no relationship with financial risk tolerance (Strydom et al (2009: 18). Occupation Occupation means the activity in which people engaged for pay. Those people who generate their income directly from their own business, trade, or profession leads to higher levels of risk taking as compare to the people of straight salary work for others (MacCrimmon & Wehrung, 1985).

Occupational status is also affecting the level of risk taking ability; people with higher ranking occupational status are more risk seeker as compare to low ranking occupational status (Roszkowski et al., 1993).People having low risk taking ability choose low ranked professions (Barnewall, 1988). Family Size Investor's family size is also effects their financial risk taking behaviour. Investors having small family size are more risk taker, where increase in family size caused risk aversion (Lease, Lewellen, and Schlarbaum, 1977).

1.5 Conceptualization and operationalization of Variables

This study was a cross sectional explanatory study. The main concepts of the study are the demographic, economic, and psychological variables of households and the portfolio investment behaviour. This study was a cross sectional explanatory study. The main concepts and variables of the study are the Portfolio Investment Behaviour of Households, Demographic Variables, Economic variables, and Psychological Variables. The conceptual framework is presented in the figure 1.



***Source**: Developed by the researcher for the research purpose*

Figure 1. Conceptual Frameworks

The demographic variables included is indicated gender, age, educational level, and occupation. The economic variables are income level, savings level, and consumption level. The psychological aspects include risk attitude, and return preference.

The portfolio investment behaviour is indicated by the investment decision on the value of portfolio investment ranging from small (less than Rs.2mn), medium (Rs.2mn – Rs.5mn), and large size (more than Rs.5mn) and choice of portfolio investments bundles ranging from "Lower risk portfolio investments only" (Savings Deposits, Term Deposits, Savings Certificates, Treasury bills, Government bonds, Real Assets including property, machines, motor vehicles, gold and diamond), "Moderate risk portfolio investments only" (Mutual funds, Unit trusts, ETF, Life insurance, Corporate debentures), "Higher risk portfolio investment only"(Equity share market, Commodity market, FOREX market)., "Lower and Moderate risk portfolio investments", and "Lower and Higher risk portfolio investments", and "Moderate and Higher risk portfolio investments" the household prefers.

The variables were measured by perceived responses of the household respondents for the self-administrated questionnaire.

1.6 Hypotheses

To answer the research questions of this study, the following hypotheses were formulated based on the literature review:

H1: The portfolio investment behaviour of households is significantly varying by their demographic characteristics.
H2: The portfolio investment behaviour of households is significantly varying by their Economic characteristics.
H3: The portfolio investment behaviour of households is significantly influenced by their Psychological characteristics.

2. METHODOLOGY

The study was carried out among the study population of households living in the Eastern Province of Sri Lanka for the purpose of obtaining empirical evidence for answering the research questions. This was a cross sectional study design. The required sample was selected from the cross section of the study population at cross section in time horizon. The unit of analysis is individual person. This study investigated the demographic, economic, and psychological profile of individual household and

his/her perceived responses on measurement of all variables. The data required for this study were collected through self-administered questionnaire which was prepared based on the operationalization of variables.

2.1 Sample

As this study has scope of investigating the variables using the data collected from the study population located in the Batticaloa, Ampara and Trincomalee districts in the Eastern part of Sri Lanka, the sample was selected from the target study population who are living in the areas. The sample was distributed among the districts. The Disproportionate Stratified Random Sampling method, being the stratum is divisional secretariat division, was applied for selecting the sampling unit. The sample size was 500 households.

2.2 Method of Data Analysis

The cross tab bivariate analysis was applied as the techniques to analyze and evaluate the data collected using the software SPSS version 22.0. The cross tab frequency distribution analysis was done to find out the frequency distribution for relevant variables.

3. DISCUSSION AND RESULTS

A frequency distribution analysis was done on the data collected on the demographic, economic, and psychological variables of households and their portfolio investment behaviour in relation to portfolio investment size and portfolio investment choices among the given categories as summarized in the table 1. From the analysis it is found the significant variations are observed in the portfolio investment behavioural variables by the demographic, economic, and psychological variables of households taken into the study.

Table 1. Summary of Cross Tabulation Frequency Distribution Analysis

Variables	**Portfolio Investment Size**				**Portfolio Investment Choice**						
	Small	Medium	Large	**Total**	Lower Risk Portfolio Only	Moderate Risk Portfolio Only	High Risk Portfolio Only	Lower & Moderate Risk Portfolio	Lower & Higher Risk Portfolio	Moderate & Higher Risk Portfolio	**Total**
Demographic Variables											
Gender:											
Male	150	150	50	**350**	230	70	20	15	10	05	**350**
Female	120	20	10	**150**	110	20	10	10	00	00	**150**
Total	**270**	**170**	**60**	**500**	**340**	**90**	**30**	**25**	**10**	**05**	**500**
Age:											
Young	45	12	03	**60**	35	20	02	03	00	00	**60**
Middle	165	125	30	**320**	150	120	20	15	10	05	**320**
Old	85	30	05	**120**	80	22	10	06	02	00	**120**
Total	**295**	**167**	**38**	**500**	**265**	**162**	**32**	**24**	**12**	**05**	**500**
Education:											
Primary	18	05	02	**25**	10	08	05	02	00	00	**25**
Secondary	30	14	06	**50**	28	12	07	02	01	00	**50**
Tertiary	175	42	13	**230**	147	45	21	12	05	00	**230**
Graduation	78	36	06	**120**	74	30	12	02	01	01	**120**
Post-graduation	20	20	15	**55**	20	24	06	02	02	01	**55**
				500							**500**

Economic Variables											
Income Level:											
Lower	45	05	00	**50**	48	02	00	00	00	00	**50**
Middle	170	130	25	**325**	150	140	22	10	02	01	**325**
Higher	25	80	20	**125**	52	50	10	06	05	02	**125**
	240	**215**	**45**	**500**	**265**	**162**	**32**	**24**	**12**	**05**	**500**
Savings Level:											
Lower	85	15	00	**100**	88	12	00	00	00	00	**100**
Middle	150	105	23	**278**	130	70	22	05	01	00	**228**
Higher	22	78	22	**122**	82	30	35	15	08	02	**172**
	257	**198**	**45**	**500**	**300**	**112**	**57**	**20**	**09**	**02**	**500**
Psychological Variables											
Risk Averse:											
Lower	35	15	00	**50**	10	10	13	15	01	01	**50**
Moderate	42	13	05	**60**	20	20	12	07	01	00	**60**
Higher	165	170	55	**390**	200	150	30	10	00	00	**390**
	242	**198**	**60**	**500**	**230**	**180**	**55**	**32**	**02**	**01**	**500**
Return Preference:											
Lower	15	05	00	**20**	15	04	01	00	00	00	**20**
Moderate	22	06	02	**30**	20	07	02	01	00	00	**30**
Higher	210	185	55	**450**	166	185	54	28	12	05	**450**
	247	**196**	**57**	**500**	**201**	**196**	**57**	**29**	**12**	**05**	**500**

Source: Output of SPSS Analysis

Table 2. Summary of Cross Tabulation Analysis by Percentage (%)

Variables	**Portfolio Investment Size**				**Portfolio Investment Choice**						
	Small	Medium	Large	**Total**	Lower Risk Portfolio Only	Moderate Risk Portfolio Only	High Risk Portfolio Only	Lower & Moderate Risk Portfolio	Lower & Higher Risk Portfolio	Moderate & Higher Risk Portfolio	**Total**
Demographic Variables											
Gender:											
Male	43	43	14	**100**	66	20	06	04	03	01	**100**
Female	80	13	07	**100**	73	13	07	07	00	00	**100**
Age:											
Young	75	20	05	**100**	58	34	03	05	00	00	**100**
Middle	52	39	09	**100**	46	38	06	05	03	02	**100**
Old	71	25	04	**100**	67	18	08	05	02	00	**100**
Education:											
Primary	72	20	08	**100**	40	32	20	08	00	00	**100**
Secondary	60	28	12	**100**	56	24	14	04	02	00	**100**
Tertiary	76	18	06	**100**	64	20	09	05	02	00	**100**
Graduation	65	30	05	**100**	62	24	10	02	01	01	**100**
Post-graduation	36	36	28	**100**	36	44	10	04	04	02	**100**
Economic Variables											
Income Level:											
Lower	90	10	00	**100**	96	04	00	00	00	00	**100**
Middle	52	40	08	**100**	46	43	07	03	01	00	**100**
Higher	20	64	16	**100**	41	40	08	05	04	02	**100**
Savings Level:											
Lower	85	15	00	**100**	88	12	00	00	00	00	**100**
Middle	54	38	08	**100**	56	31	10	02	00	01	**100**

Higher	18	64	18	**100**	48	17	20	09	05	01	**100**
Psychological Variables											
Risk Averse:											
Lower	70	30	00	**100**	20	20	26	30	02	02	**100**
Moderate	70	22	08	**100**	33	33	20	12	02	00	**100**
Higher	42	44	14	**100**	51	38	08	03	00	00	**100**
Return Preference:											
Lower	75	25	00	**100**	75	20	05	00	00	00	**100**
Moderate	73	20	07	**100**	67	23	07	03	00	00	**100**
Higher	47	41	12	**100**	37	41	12	06	03	01	**100**

Source: Output of SPSS Analysis

According to results of cross tabulation analysis summarized in the table 2. it is found that the portfolio investment sizes and portfolio investment choices are significantly varying by the all independent variables.

4. CONCLUSION

It is concluded that the portfolio investment behaviour of households in the Eastern Province of Sri Lanka is influenced by their demographical, economic, and psychological characteristics. It is therefore recommended that companies can design their investment vehicles by considering such characteristics of households in the province.

5. REFERENCES

Anbar, A. and Eker, M. (2010). 'An Empirical Investigation for Determining of the Relationship Between Personal Financial Risk Tolerance and Demographic Characteristic', Ege Academic Review. Vol. 10(2), 503- 523.

Al-Ajmi, J. Y. (2008). 'Risk Tolerance of Individual Investors in an Emerging Market' International Research Journal of Finance and Economics. Vol. 17, 15-26.

Barberis, N., and Thaler, R. (2003). "A survey of behavioral finance", in Constantinides, G.M., Harris, M. and Stulz, R. (Eds), Handbook of the Economics of Finance, Elsevier Science BV, Amsterdam, pp. 1051-121.

Barber, B. M., and Odean, T. (2001). Boys Will be Boys: Gender, Overconfidence, and Common Stock Investment, Quarterly Journal of Economics, 116 (1), 261-292.

Barnewall, M. M. (1988). Examining the psychological traits of passive and active affluent investors. The Journal of Financial Planning, 1 (1), 70-74.

Bhandari, G., and R. Deaves, 2006, Demographic of Overconfidence, The Journal of Behavioral Finance, Vol. 7, No. 1: 5–11.

DeBondt, W.F.M. and R.H. Thaler, 2008. Financial Decision-Making in Markets and Firms: A Behavioral The Effect of Demographic Factors on the Behavior of Investors during the Choice of Investment: Evidence from Twin Cities of Pakistan 56 © 2014 Global Journals Inc. (US) Global Journal of Management and Business Research Volume XIV Issue III Version I Year 2014 ( ) C Perspective. Handbooks in Operations Research and Management Science, 9(13): 385-41.

Grable, J. E. and Lytton, R. H. (1999b). 'Assessing Financial Risk Tolerance: Do Demographic, Socioeconomic, And Attitudinal Factors Work?' Family Relations and Human Development /Family Economics and Resource Management Biennial. 1-9.

Gumede, V. (2009). 'Demographic Determinants of Financial Risk Tolerance: A South.

Graham, J. F., Stendardi Jr., E. J., Myers, J. K., & Graham, M. J. (2002). Gender differences in investment strategies: An information processing perspective. International Journal of Bank Marketing, 20(1), 17-26.

Gumede, V. (2009). 'Demographic Determinants of Financial Risk Tolerance: A South African Perspective', Unpublished B.Com. Hon. Thesis. Pietermaritzburg: University of KwaZulu-Natal.

Lewellen, Wilbur, Ronald C Lease and Gary G. Schlarbaum, 1977, Pattern of Investment Strategy and Behavior among Individual Investors, the Journal of Business: 296-332.

Roszkowski, M. J., Snelbecker, G. E., & Leimberg, S. R. (1993). Risk-tolerance and risk aversion. In S. R. Leimberg, M. J. Satinsky, R. T. LeClair, & R. J. Doyle, Jr. (eds.), the tools and techniques of financial planning (4th ed., pp. 213-225). Cincinnati, OH: National Underwriter.