FACTORS AFFECTING THE INVESTMENT BEHAVIOUR OF WOMEN

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ABSTRACT

The study is an attempt to understand the investment paradigms of working women with savings from their earnings. Aspects like knowledge of financial avenues for investment, risks associated with the investment options, demographic, economic and social factors that govern the investment decisions of women have been probed into. Influence of family and friends on the investment decision of women also was a part of the study. Women professionals from different sectors, at different positions have been administered with a structured questionnaire. The responses were subject to suitable statistical analysis and results discussed. The scope of future studies can also include the behavioural biases that affect the investment decisions of women.

Keywords : Financial Literacy, Investment Behaviour, Investment Options, Risks, Source of Information.

FACTORS AFFECTING THE INVESTMENT BEHAVIOUR OF WOMEN

A detailed global study Barclays Wealth (2009) on "Understanding the Female Economy: The Role of Gender in Financial Decision Making and Succession Planning for the Next Generation" reveals that Women across the globe account for up to 80 per cent of purchasing decisions. The Economist (30th Dec, 2009), wrote that "Women's Economic Empowerment is arguably the biggest social change of our time."

Modern Women have changing needs and expectations. They expect customised services from their advisors. For a long time now, investment decisions were men's forte. Of late, women are getting involved in the household financial decision making. Globally there is an increase in the number of single women (unmarried or divorced). Women in some cases are donning the role of primary breadwinners. A variety of reasons has put women in the role of financial managers of their households. The number of employed women continues to rise, as does their pay.

In developing countries the husband continues to be the dominant decision maker for household matters, be it finances or any other domestic issue. Women in developed countries, have access to information and finances. It has been observed that many women are now making their own decisions about financial matters. A leading Indian newspaper's survey of 2000 women (half of them working) revealed that income in working women households is 19 percent higher than non-working women households. The average household expenditure of working women households was also 15 percent higher than non-working women households. Narrowing the existing gender gap in employment could increase income per capita by as much as 10%–14% in BRICs and other key emerging markets by 2020, according to the report "Women Hold up Half the Sky" by Goldman Sachs (Global Economic Paper 164). Given, the much higher presence of women in both professional and personal investing, it is very important to understand the role of women in investment decision making process.

REVIEW OF LITERATURE

Risk propensity refers to the notion that many decision makers have consistent tendencies to either take or avoid actions that they feel are risky (Kogan and Wallach, 1964; Harnett and Cummings, 1980; Sitkin and Pablo, 1992)

Although a considerable amount of research has been done on attitudes toward risk (Cohn et al, 1975; Monti & Suarez, 1983; Riley & Chow, 1992), relatively little has been done on gender differences and their implications for investment behavior. The work that has been done, however, seems to point to greater risk aversion on the part of women investors and, correspondingly, to more conservative investment choices. Cohn, Lewellen et.al found risky asset fraction of the portfolio to be positively correlated with income and age and negatively correlated with marital status.

Morin and Suarez found evidence of increasing risk aversion with age although the households appear to become less risk averse as their wealth increases. Horvath and Zuckerman (1993) suggested that one's biological, demographic and socioeconomic characteristics; together with his/her psychological makeup affects one's risk tolerance level.

Yoo (1994) found that the change in the risky asset holdings were not uniform. He found individuals to increase their investments in risky assets throughout their working life time, and decrease their risk exposure once they retire. Mittra (1995) discussed factors that were related to individuals risk tolerance, which included years until retirement, knowledge sophistication, income and net worth. Malkiel (1996) suggested that an individual's risk tolerance is related to his/her household situation, lifecycle stage and subjective factors.

Schooley and Worden (1996) found, however, that gender was not significant if life cycle and employment were held constant. In a study of defined contribution pension plans, Bajtelsmit and VanDerhei (1997) found that women were more likely to invest in fixed income alternatives and less likely to invest in stock. Similarly, Hinz et al. (1997) found that a large percentage of women invested in the minimum risk portfolio available when given a range of pension alternatives.

Using the 1989 Survey of Consumer Finances, Jianakoplos and Bernasek (1998) found that single women held a lower percentage of risky assets than single men or married couples. Similarly, using the 1992 and 1995 Surveys of Consumer Finances, Sunden and Surett (1998) found that both gender and marital status affected the ways in which individuals' allocated assets in defined contribution plans with women making more conservative choices than men. Also using the 1989 Survey of Consumer Finances, Bajtelsmit et al. (1999) found that women demonstrated greater relative risk aversion than men in their allocation of wealth into defined contribution pension plans.

Harrihan et al. (2000) found that, even controlling for differences in risk tolerance, women were more likely to invest in risk-free securities than men. Behavioral scientists such as Weber (1999), Shiller (2000) and Shefrin(2000) have conducted major research in the area of investors' behavior. Shiller (2000) strongly advocated that stock markets are governed by the market information which directly affects the investors behavior. The relationship between demographics such as gender, age and risk tolerance level of individuals was the focus of several research studies. Lewellen et.al while identifying the systematic patterns of investment behavior exhibited by individuals found age and expressed risk taking propensities to be inversely related with major shifts taking place at age 55 and beyond.

This paper identifies key factors that influence investment behavior and ways these key factors impact investment decision-making processes among employed women. It further explores types of educational processes and materials that can transform investment behaviour among women.

FEATURES OF THE STUDY

The features of this study are: (a) a randomly selected State level data set; (b) empirical evidence for the roles personal and environmental factors play in influencing the investment behaviour.
This paper inter alia seeks to
To analyse the profile of woman investors in terms of their demographics.
To identify the objective of investment plan of a woman investor.
To analyse the preferred investment avenues of the woman investor.
To know the extent of financial literacy of women investors
To identify the preferred sources of information influencing investment decisions.
To study the dependence/independence of the demographic factors

SAMPLE DESIGN

As per census 2011, literate women population residing in urban areas in Andhra Pradesh prior to June 2, 2014 stands at around 9.3 million. Of these approximately 4.8% (4, 53,520) women are employed in the organized sector in the state. Around 1% of the women employed are in the upper management category in various sectors i.e. about 4,535 women.

Based on the sample size table given by James E. Bartlett, Joe W. Kotrlikand, Chadwick C. Higgins (2001) in their paper “Organizational Research: Determining Appropriate Sample Size in Survey Research”, the sample size for a population size of 4000 stands at 83 at 3% margin of error and 10% alpha. The questionnaire was administered to 100 women professionals working in the top and middle management cadre in different organizations in Andhra Pradesh prior to June 2, 2014. 88 filled in questionnaires were returned.

DATA COLLECTION

This study is based on the responses of 88 women professionals whose average annual income is Rs.3,60,000. The data was collected through a structured questionnaire administered during a National Conference on "Diversity in Management - Development of Women Executives”. Information was collected on various aspects of respondents’ risk perceptions, investment behaviours, attitudes and beliefs.

STATISTICAL TOOLS

Various tools were used for analysing the responses. These tools were used as per the knowledge, skill and need of the data. Tests adopted include chi square, factor analysis, rotated component matrix and KMO & Bartlett’s test.

The chi-square test is a statistical test that can be used to determine whether observed frequencies are significantly different from expected frequencies. Factor analysis is a statistical method used to describe variability among observed, correlated variables in terms of a potentially lower number of unobserved variables called factors. Rotated Component Matrix maximizes high item loadings and minimizes low item loadings, thereby producing a more interpretable and simplified solution.

HYPOTHESES

HYPOTHESIS 1

H1: There is a significant difference between risk perceptions and investment choices of employed women.

H0: There is a no significant difference between risk perceptions and investment choices of employed women.

Table 1:Investment Options :: Null Hypothesis

Investment Option	Sig Chi Square Value	Null Hypothesis
Gold	0.019	Accepted
Equity Shares	0.028	Accepted
Mutual Funds	0.008	Accepted
Real Estate	0.198	Rejected
Postal Savings	0.445	Rejected
PPF	0.373	Rejected
FD	0.373	Rejected
RD	0.650	Rejected
Govt Bonds/Treasury Bills	0.882	Rejected
Corporate Bonds/Debentures	0.474	Rejected

Source: Compiled from SPSS Output Files

For investment choices – Gold, Equity Shares and Mutual Funds, as the value of Chi Square is less than 0.05, the null hypothesis is accepted which means that the employed women's investment choices are in line with her risk perceptions about the particular investment choice.

H0 is accepted. H1 is rejected. Therefore there is no significant difference.

For investment choices – Real Estate, Postal Savings, Public Provident Fund, Fixed Deposit, Recurring Deposit, Government Bonds (Treasury Bills) and Corporate Bonds/ Debentures, as the value of Chi Square is greater than 0.05, the null hypothesis is rejected which means that the employed women's investment choices are not in line with her risk perceptions about the particular investment choice. There is a significant difference between the risk perceptions and investment choices of employed women.

H1 is accepted. H0 is rejected. Therefore there is a significant difference.

HYPOTHESIS 2

H1: There is a significant difference in taking advice or assistance in the investment decision making.

H0: There is no significant difference in taking advice or assistance in the investment decision making.

Table 2 Sources of Investment Information :: Null Hypothesis

Source of Investment Information	Sig Chi Square Value	Null Hypothesis
Financial Advisor	0.0019	Accepted
Friends & Colleagues	0.0005	Accepted
Internet	0.0649	Rejected
Television Programs	0.0738	Rejected
Radio	0.0873	Rejected
Investment Seminars	0.1633	Rejected
Newspapers/Magazines	0.0940	Rejected

Source: Compiled from SPSS Output Files

For Sources of investment information – Financial Advisor and Friends/Colleagues, as the value of Chi Square is less than 0.05, the null hypothesis is accepted which means that the employed women's sources of investment information are in line with her risk perceptions given her age and marital status.

H0 is accepted. H1 is rejected. Therefore there is no significant difference.

For Sources of investment information – Internet, Television Programs, Radio, Investment Seminars and Newspapers/Magazines, as the value of Chi Square is greater than 0.05, the null hypothesis is rejected which means that the employed women's sources of investment information are not in line with her risk perceptions given her age and marital status.

H1 is accepted. H0 is rejected. Therefore there is a significant difference.

KEY FINDINGS

DEMOGRAPHIC AND ECONOMIC CHARACTERISTICS

INVESTOR PROFILE

The average participant was a highly educated woman, forty-five years old, married and with two dependents. She was employed full-time in a professional field. The average annual income of the participants wasRs.8,00,000 with an average annual savings of Rs. 3,50,000 and average financial obligations of Rs. 4,50,000.

Respondent Age Group – Educational Qualification
The respondents were grouped based on their age and educational qualification as mentioned below

Table 3 Respondent Age : Educational Qualification

Age::Qualification	Bachelors	%	Masters	%	Doctorate	%	Total	Grand Total
21-30Y	6	50%	5	8%	1	42%	**12**	**100%**
31-40Y	9	39%	12	4%	1	57%	**22**	**100%**
41-50Y	16	43%	21	0%		57%	**37**	**100%**
>50Y	6	38%	11	0%		63%	**17**	**100%**
Grand Total	**37**	**42%**	**49**	**2%**	**2**	**56%**	**88**	**100%**

Source: SPSS Output File

In the overall sample, more than 56% women were holders of a post graduate degree. It was also observed that majority of the women in the age group 31-50 were holders of a Masters Degree. 8% of the total sample reported additional qualifications pertinent to their field of work. On average the respondents to our questionnaire were highly educated, employed in professional fields and had good salaries and large asset bases.

AGE

It is evident from the information presented in Table 4 that a majority of the respondents (68%) were aged between thirty and fifty years. Almost 18% of the respondents were above the age of fifty.

MARITAL STATUS

To indicate their marital status, participants could choose among the following options: Married, Divorced, Widowed, Single, never married. Overall, the majority of the respondents were married (84%). Around 50% of the respondents in the age group 21-30 reported to be married, while 100% in the age group 0f 31-40 were married and 86% of the respondents in the age group 41-50 reported to be married. Around 8% of the total sample reported being "Single and never married".

DEPENDENTS

Majority of the respondents (40%) had 2 dependents to support. 8% respondents reported having 4 or more dependents.

Table 4 Respondent Age : Dependents

Age:: Dependents	0	1	2	3	4 & More	Grand Total
20-30Y	3	2	3	3	1	12
30-40Y	2	7	9	3	2	23
40-50Y	3	7	16	7	4	37
>50Y	1	5	7	3		16
Grand Total	9	21	35	16	7	88

Source: SPSS Output File

Respondent Income Vs Savings

65% of the total respondents reported having savings in the range of Rs. 50,000 – Rs. 2,50,000. 23% of the total respondents reported having savings in the range of Rs. 2,50,001 – Rs. 4,50,000.

Table 5 Respondent Annual Income : Savings

Annual Income vs Savings	Rs. 3,60,000 - Rs.4,00,000	%	Rs. 4,00,001 - Rs.6,00,000	%	Rs. 6,00,001 - Rs.8,00,000	%	Rs. 8,00,001 - Rs.10,00,000	%	Above Rs.10,00,000	%	Grand Total	%
Rs.50,000 - Rs.2,50,000	4	7%	22	39%	19	33%	9	16%	3	5%	57	65%
Rs.2,50,001 - Rs. 4,50,000	0	0%	3	15%	4	20%	5	25%	8	40%	20	23%
Rs.4,50,001 - Rs.6,50,000	0	0%	0	0%	1	17%	0	0%	5	83%	6	7%
Rs.6,50,001 - Rs.8,50,000	0	0%	0	0%	1	50%	0	0%	1	50%	2	2%
Above Rs.8,00,000	0	0%	0	0%	0	0%	1	33%	2	67%	3	3%
Grand Total	4	5%	25	28%	25	28%	15	17%	19	22%	88	100%

Source: SPSS Output File

Family Influence, Of the 45 respondents who reported that their family often discussed money matters when they were young, 65% reported that their families were financially secure in their young age.

Table 6 Respondent Family Financial Security

Family Financial Security vs Family Discussion	Neither secure nor insecure	%	Not at all secure	%	Not secure	%	Secure	%	Very secure	%	Grand Total	%
Never	4	22%	1	6%	2	11%	10	56%	1	6%	18	100%
Often	5	20%		0%	2	8%	14	56%	4	16%	25	100%
Sometimes	4	9%	2	4%	10	22%	22	49%	7	16%	45	100%
Grand Total	**13**	**15%**	**3**	**3%**	**14**	**16%**	**46**	**52%**	**12**	**14%**	**88**	**100%**

Source: SPSS Output File

Majority of the respondents (70%), irrespective of their marital status expressed being influenced by the parents in their investment decision making process. Friends (19%) were observed to be the second most influencing persons in the investment decision making process.

Table 7 Financial Advice

Marital Status	Parents	%	Friends	%	Siblings	%	Husband	%	Grand Total	%
Divorced	2	67%	1	33%		0%		0%	3	100%
Married	52	70%	14	19%	3	4%	5	7%	74	100%
Single Never married	5	71%	1	14%	1	14%		0%	7	100%
Widowed	3	75%	1	25%		0%		0%	4	100%
Grand Total	62	70%	17	19%	4	5%	5	6%	88	100%

Source: SPSS Output File

INVESTMENT OBJECTIVES -Table 8 Investment Objectives

Investment Objectives	Yes	%	Total	Rank
For future financial security	50	56.82%	88	1
For children education	36	40.91%	88	2
Savings for retirement	33	37.50%	88	3
To meet health expenditure in old age.	28	31.82%	88	4
For tax exemption purposes.	26	29.55%	88	5
Not to become a financial burden	25	28.41%	88	6
To provide for my dependents	21	23.86%	88	7
To meet Household expenses	17	19.32%	88	8
Long term wealth accumulation	16	18.18%	88	9
Want to be financially secure if outlive spouse	11	12.50%	88	10
Being the sole bread winner to cater to family future needs	10	11.36%	88	11
For Capital Appreciation.	8	9.09%	88	12
To clear Household debt	5	5.68%	88	13
To fund a large purchase in future	2	2.27%	88	14
As I do not enjoy job security	1	1.14%	88	15

Source: SPSS Output File

Future financial Security (57%) and saving for Children Education (41%) were indicated by majority women as the objective for their investment decisions. Around 33% selected Savings for retirement as the reason for their investment decisions. Long term Wealth accumulation (18%), Capital Appreciation (9%) and large future purchases (2%) were found to be ranked lower as compared to other reasons for investment decisions.

Conclusion: Thus, it is observed, women are found to place family and child related finance needs above all other objectives. Second priority is given to savings for retirement followed by motives for wealth accumulation.

INVESTMENT BEHAVIOUR

An important objective of this study was to understand the varied aspects of respondents' investment behaviour. The paper explored respondents' attitudes toward risk, including their willingness to take risks when making investments. This section also explored their involvement in making investment changes during the twelve months prior to the interviews and their plans to make investment changes during the next six months. Finally, this section includes detailed information on the types of assets respondents chose for their investments.

WILLINGNESS TO TAKE INVESTMENT RISK

A review of investment literature clearly shows that one of the significant determinants of investment behaviour is risk tolerance level. In our effort to better understand the behaviour of this sample we included a question to determine their risk tolerance level.

93% of the married women expressed that they require 'moderate guidance' to take 'Above average financial risks to earn above average returns'. 33% of the single never married women expressed that they require 'moderate guidance' to take 'average financial risks to earn average returns'. 100% of the divorced women expressed that they needed 'moderate guidance' to take 'average risks to earn average returns'. Majority of the respondents mentioned that they needed 'Moderate Guidance' (70%) irrespective of their attitude towards risk.

Table 9 Respondent Risk Appetite and Marital Status

Risk Appetite	Above average risks for above average returns		Average risks for average returns					Below average risks for below average returns	
Marital Status	Married	Total	Divorced	Married	Single Never married	Widowed	Total	Married	Total
Full guidance	7%	**7%**	0%	14%	67%	0%	**16%**	0%	**0%**
Moderate guidance	93%	**93%**	100%	75%	33%	0%	**72%**	75%	**75%**
No guidance	0%	**0%**	0%	11%	0%	100%	**12%**	25%	**25%**
Grand Total	100%	**100%**	100%	100%	100%	100%	**100%**	100%	**100%**

Risk Appetite	No financial risks at all				Substantial financial risks to earn substantial returns				Grand Total
Marital Status	Married	Single Never married	Widowed	Total	Married	Single Never married	Widowed	Total	
Full guidance	50%	33%	50%	**47%**	33%	0%	0%	**25%**	**22%**
Moderate guidance	50%	33%	50%	**47%**	67%	100%	100%	**75%**	**70%**
No guidance	0%	33%	0%	**5%**	0%	0%	0%	**0%**	**8%**
Grand Total	100%	100%	100%	**100%**	100%	100%	100%	**100%**	**100%**

Source: SPSS Output File

INVESTMENT CORRECTION PREFERENCES

Based on the framework of the Tran theoretical Model of Change (Prochaska, Redding, and Evers 2002) to assess respondents' level of investment sophistication, we inquired about investment action steps taken by participants over the twelve months prior to the survey and planned for the next six months.

Participants were asked to think about the past twelve months and then asked if, during these twelve months, they: (a) increased the amount they invested, (b) reviewed their investment performance, (c) changed their investment mix, (d) consulted with a financial advisor, or (e) learned about a new investment concept or product. They could respond as 'yes' or 'no' to these questions.

As can be observed from table 10, the respondents showed interest in revising their investment mix, consulting a financial advisor and to learn about new investment concepts or products. A small percentage of the respondents were not keen on either reviewing their investment performance or increasing the investment amount.

Table 10 Respondent Investment Review

Investment Correction Preferences	During last 1 year	%	During next 6 months	%
Change in the investment mix	5	6%	9	10%
Consult a financial advisor	5	6%	11	13%
Increased investment amount	33	38%	27	31%
Learn about a new investment concept or product	12	14%	12	14%
Review my investment performance	33	38%	29	33%
Grand Total	88	100%	88	100%

Source: Excel File

SOURCES OF INVESTMENT INFORMATION

Preferred Investment Avenues

The matrix displayed below suggests that the respondents based on their risk preferences tend to choose gold, followed by corporate bonds and real estate as their chosen investment options.

Rotated Component Matrix[a]

	Component		
	1	2	3
Gold	.896	.326	.210
Real Estate(Land/House)	.419	.207	.820
Postal Savings	.467	.713	.243
Public Provident Fund	.412	.748	.456
Fixed Deposit	.156	.503	.737
Recurring Deposit	.431	.766	.373
Govt Bonds/ Treasury Bills	.594	.392	.380
Equity Shares	.890	.282	.273
Corporate Bonds/Debentures	.276	.834	.223
Mutual Funds	.767	.448	.237

Source: SPSS Output File

Table 11 Investment Choices Ranking

Investment Avenues	Yes	%	Total	Rank
Gold	52	59.09%	88	1
Public Provident Fund	50	56.82%	88	2
Fixed Deposit	49	55.68%	88	3
Real Estate (Land/House)	35	39.77%	88	4
Recurring Deposit	32	36.36%	88	5
Postal Savings	25	28.41%	88	6
Government Bonds/Treasury Bills	10	11.36%	88	7
Mutual Funds	10	11.36%	88	8
Corporate Bonds/Debentures	9	10.23%	88	9
Equity Shares	7	7.95%	88	10

Source: SPSS Output File

The table above (Table11) indicates that women are conservative in their investment preferences. They prefer investing in less risk or no risk assets than the riskier ones. Accordingly investments in gold are ranked the highest and equity investments are least ranked.

SOURCES OF FINANCIAL INFORMATION

The Rotated Component Matrix suggests that Newspapers, Magazines followed by Friends and Colleagues are the most preferred sources of information for the respondents.

Rotated Component Matrix[a]

	Component	
	1	2
Financial Advisor	0.59	-0.01
Internet	0.68	0.444
Television Programs	0.51	0.405
Radio Programs	0.53	0.414
Investment Seminars	0.55	0.334
Newspapers, Magazines	0.87	0.457
Newsletters/books(Library)	0.54	0.366
Friends/Colleagues	0.13	0.929
Any other place	0.24	0.219

Source: SPSS Output File

The table below suggests that women seek and rely on the financial advice from their friends and colleagues (75%). They prefer Newspapers and Investment Magazines (32%) as their second source of information for investment decisions.

Table 12 Investment Sources Ranking

Financial Information Source	Friends/Colleagues	Newspapers, Magazines	Internet	Financial Advisor	Newsletters/books(Library)	Television Programs	Radio Programs	Investment Seminars
Total	88	88	88	88	88	88	88	88
Yes	66	28	14	11	11	10	4	3
%	75%	32%	16%	13%	13%	11%	5%	3%
Rank	1	2	3	4	5	6	8	9

Source: SPSS Output File

INVESTMENT LEARNING PREFERENCES

In this section the learning modes of the participants were explored. In order to gather this information, the respondents were asked to respond to the following four statements: (i)I enjoy learning new things about investing. (ii)For investment information, I prefer to talk to a person rather than read about it. (iii)When I don't understand about investments, I stay away from it. (iv)I am not really interested in learning more about investing. Their responses were recorded on a five-point scale ranging from 1=strongly disagree to 5=strongly agree.

The majority of participants in this study indicated that they enjoyed learning new things about investing (86.5%) and preferably by talking with knowledgeable people one-on-one (87.1%).

USE OF COMPUTER AND INTERNET

While reluctance to use personal computers and the Internet has been reported in the literature, our study is unique in exploring the reasons for these preferences. We learned that people do not use computers or the Internet because they have security concerns and find web sites confusing. In addition, some simply prefer working with people rather than working with machines.

SUGGESTIONS AND CONCLUSIONS

Investment decision making process is considered to be a critical decision for every individual and more so for women. While choosing a particular investment different attributes influence the women's decision making process. The most preferred investments were identified and ranked based on their frequency. Risk perceptions of women investors for different investment options were also gathered and ranked accordingly. The current study has identified that family financial status, financial literacy and sources of financial information to be the factors influencing the investment behaviour of employed women. Further empirical studies on the different behavioural biases that affect the women's investment decision making can give deeper insights into additional factors that spur investment behaviour of women.

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