Study of Impact of Decision and Economic Variables on Preference for Stocks (High Risk Investment) Using Regression Analysis: An Empirical Study of Punjab

Kanika Marwaha[a*] and Sangeeta Arora[b]

[a]Department of Commerce, SSSS College of Commerce for Women, Amritsar, Punjab (India)
Email: kanikamarwaha85@yahoo.com
[b]Department of Commerce, GNDU, Amritsar, Punjab (India)
Email: sukhsangeet@yahoo.com

Abstract

Purpose: *The present study is an exploratory attempt to analyze the impact of decision and economic variables on overall preference for stocks (high risk investments).*

Design/Methodology/Approach: *For aforesaid purpose, the data have been collected through primary survey by framing a questionnaire answered by 607 respondents from three districts of Punjab i.e. Amritsar, Jalandhar and Ludhiana. For collecting the data, simple random sampling has been employed. Factor analysis and multiple regression analysis have been used to analyze the data. Factor analysis revealed ten factors i.e. credibility factor , general recommendation factor, anticipated benefits factor, personal financial needs factor, pre- investment analysis factor, market information factor, expert recommendation factor, low volatility influences factor, pocket friendly factor and social influences factor.*

Findings: *Findings of multiple regressions analysis revealed that Credibility factor has highest positive impact and lead to overall preference for high risk investments followed by pre- investment analysis factor as the second most impacting factor followed by anticipated benefits factor as third most impacting factor and market information factor as the fourth most impacting factor having significant and positive impact on the overall preference for stocks i.e. high risk investment. Expert recommendation factor and general recommendations factor have positive but less impact on preferences of investors.*

Practical implications: *The study provides implications to financial service providers in understanding the variables impacting the preferences of individual investors of Punjab and designs the marketing activities according to the needs of the investors.*

Originality/value: *As no such study has already been conducted in Punjab, India (to the best of researcher's knowledge), this study potentially helps in abridging gaps in literature.*

Keywords: *Individual stock investors, financial psychology, investment behavior, factor analysis, investment decisions, multiple regression analysis.*

*Corresponding Author

1. INTRODUCTION

If asked, a dream of every investor would be to get returns without risk. But the financial market is not a place for dreamers. In order to get higher returns, mankind has always been persuaded to develop more and more avenues of investments. The establishment of the company form of organization and the subsequent trading in their shares and derivatives based on them are all efforts in this direction **(Gupta and Chander, 2010)**. Today, financial services and the economic sector generally are more highly diversified than ever. This diversification means that individual investors have a wider range of investment instruments and greater choice of how to invest their money **(Warren et.al, 1990)**. Investments can range from simple bank savings accounts to complex stock and bond portfolios. After the introduction of Liberalization, Privatization and Globalization (LPG) in 1991 and robust growth in Indian economy, the general trend of Indian investors have moved away from fixed return avenues to more of other investment avenues due to extraordinary returns. The amount of information available for investing in various investment opportunities is continually growing. This has led to emergence of many new companies and also many existing public and private companies spreading their hands in providing new and innovative financial instruments to the investors.

The securities market occupies an important position in the national economy of a country. It facilitates the mobilization of the savings of individuals and pools them into reservoir of capital which can be deployed for the economic development of a country. Efficient stock markets are key to raising of capital by the corporate sector of the economy and the protection of interest of the investors. In the last decade, far reaching developments have taken place in the working of the stock market which has influenced the operations of all the players of the stock market **(Gurunathan, 2007)**.

In recent years, it has become more and more obvious that psychology plays an even more important role in financial markets and also drives back the influence on the rational actions of the stock market participants. In finance research, there has been increasing interest in how the stock prices of companies are formed and in the underlying investment behavior and psychology of individual investors, including their irrationality and emotionality **Shefrin and Statman (2003), Shleifer (2000)**. However, most research on stock market psychology and individuals' investment behavior has treated individual investors as if they were a separate species, neglecting the fact that the same individuals who engage in investment behavior and trading of certain company stocks also engage in other economic behavior, notably the consumption of products **(Aspara and Tikkanen, 2009)**.

Behavioral finance (BF) is a new and growing academic discipline that merges finance and psychology and studies investor behavior. It represents a collection of alternative approaches to refine the classical definition of economic rationality. Within behavioral finance it is assumed that the information structure and the characteristics of the market participants systematically influence individual investment decisions as well as the market outcomes **(Al-Tamimi, 2006)**. It attempts to explain the what, how and why of finance and investing from a human perspective **(Riciardi and Simon, 2000)**.

2. REVIEW OF LITERATURE

Nagy and Obenberger (1994) examined the factors influencing investor behavior. A questionnaire that included 34 items represented in seven categories i.e. neutral information, accounting information, self image/firm image coincidence, classic information, social relevance advocate recommendation and personal financial needs was developed to assess the behavior of investors. The questionnaires were mailed to 500 experienced shareholders whose names were obtained from a proprietary source involved in financial marketing research and 137 usable responses were received. Classical wealth maximization criteria were found as most important to investors, even though investors employed diverse criteria while choosing stock. The firm's ethical posture and other concerns such as local or international operations, environmental track record was found to be given only cursory consideration. The recommendations of brokerage houses, individual stockbrokers, family members and co-workers did not influenced the investor's decisions.

Merikas and Vozikis (2004) examined the factors that influenced the investment decisions of Greek investors in the Athens Stock Exchange. The authors made survey with the use of questionnaire that included 26 variables represented in 5 categories i.e. accounting information, personal information, neutral information, advocate recommendations and personal financial needs. Factor analysis was used to identify similarities among variables and group them into identifiable categories. The authors analyzed not only those variables investigated in previous studies but also those generated through personal interviews that had been found to have influence on Greek investors. The results revealed that there existed certain degree of correlation between the factors that behavioral finance theory and previous studies identified as influencing factors for average investor and the investors in the Athens Stock Exchange. Expected corporate earnings, condition of financial statements and firm status in the industry were found as the most influencing factors.

Al-Tamimi (2006) studied the factors influencing the UAE investor behavior in Dubai Securities Market and Abu Dhabi Securities Market. The author used a modified questionnaire with reference to the one used by **Nagy and Obenberger (1994)**. The questionnaire included 34 items represented in 5 categories i.e. self-image/firm image, coincidence, accounting information, neutral information, advocate recommendations and personal financial needs. Six factors were found as the most influencing factors on the UAE investor behavior i.e. expected corporate earnings, get rich quick, stock marketability, past performance of firm's stock, govt. holdings and creation of the organized financial markets. The factors such as expected losses in other local investments, minimizing risk expected losses in international financial markets, family member opinions and gut feelings on economy were found to be the least influencing factors. It was also found that religious reasons and family opinions were not of much importance for UAE investor.

Al-Tamimi and Kalli (2009) focused on identifying the relationship between the financial literacy and the investment decisions of the UAE individual investors. A modified questionnaire was employed by the researchers from that used by the **Al-Tamimi (2006)** and by the Monetary

Authority of Singapore (2005). The questionnaire was divided into two parts. The first part identified the demographic variables i.e. age, gender, employment status, workplace activity, monthly income and education level of UAE investors. The Logistic regression was applied to measure the effect of the demographic/ independent variables on the financial literacy. The results revealed a partial positive relationship between demographic and financial literacy. However, ANOVA was applied to determine significant difference between the financial literacy and demographic variables. It was concluded that there was no significant difference in financial literacy on the basis of their age, employment and monthly income but there was a significant difference between financial literacy on the basis of gender, work activity and education level. The second part determined 37 factors affecting the investment decisions using a 5 point likert scale. The most influencing factor was found to be religious reasons which were a contradiction to the findings of **Al-Tamimi (2006)** while the least influencing factor was rumors. The third part identified the relationship between financial literacy level and the investment factors. The results revealed that financial literacy had a negative effect on all factors categorized in five categories, with the exception to the accounting information category.

Iqbal, A. (2009) aimed at analyzing the behavior of in shareholders/ individual investors who purchase and sell high risk investments (stocks) in the Karachi Stock Exchange. Convenience sampling was used in which respondents were selected based on convenience. A list of 33 variables was prepared with be help of previous researches and respondents rated variables on a 3-point scale of "Act On", "Consider" and "No Influence". Data was collected through a questionnaire and 153 questionnaires were distributed to individual investors who invested in Karachi stock exchange and the response rate achieved was 100%. The study found seven factors influencing investor decisions i.e. Social relevance & Image, Accounting Information, Stock Performance, Friend/Co-worker Influence, Evaluation, Classic and Stock Broker Influence. The authors concluded that the recommendations of family members, friends and co-workers go largely unheeded, recommendations of Stock Brokers are considered, but 86% of the sample investors are self reliant and make purchase decisions on their own without any ones influence.

Singh et.al. (2010) gauged the investment preferences of share market investors of Gurgaon, India. The authors analysed the preferences for various investment options available in the market along with the factors like fundamentals of company, strong promoters, past records and quarterly results, goodwill dividends etc. that influence them to invest. Their awareness and satisfaction toward investments was also studied. A sample of 250 investors was selected with help of brokerage houses and data was collected with help of structured questionnaire consisting of 11 questions. Statistical techniques like frequencies, percentages, paired comparison test were used for data analysis. Mutual funds were found as highly preferred investment, followed by shares as second preferred investment and gold as third preference. Real estate was found as fourth preference while Insurance, Bank FD and Bank came as 5th, 6th and 7th preferred investment. Most of the investors were found to have ten high risk investments (stocks) in their portfolio. Most of the investors gave medium weightage to risk associated with shares before investing in share market.

Selvam et.al (2011) identified the factors influencing the retail investor's attitude. A modified questionnaire was used. The respondents formed a sample size of 200 retail investors from Tamil Nadu were contacted using purposive sampling method 26 variables were retrieved from literature and responses were sought on these variables. Factor Analysis was applied to the data. Nine factors were formed influencing investor behavior out of which, five top highly influential factors found were Investors' tolerance for risk, strength of the Indian economy, media focus on the stock market, political stability and finally government policy towards business. Other four factors had low influence on the attitude of the retail investors investing in equity high risk investments (stocks) including Stories of successful investors was considered to be the lowest influencing factors among the other variables i.e. get rich quick philosophy, information available on internet and cost cutting by companies.

3. NEED OF THE STUDY AND OBJECTIVES

The decision variables and economic variables have great influence for individual investors when making stock purchase decisions as well as other investment decisions. The need for the study arises, as in Punjab; the research focusing on identifying the relationship between decision and economic variables and overall preference of stocks (high risk investments) has not been researched so far. So, the present study aims to fulfill the gap with the following objective:

- To analyze the impact of decision and economic variables on overall preference for high risk investments i.e. stocks.

4. DATABASE AND RESEARCH METHODOLOGY

The present study is mainly based on primary data collected from 607 individual stock market investors from three major cities of Punjab viz. Amritsar, Jallandhar and Ludhiana. These investors were interviewed through a pre-tested, well structured questionnaire which was administered personally. Convenience Sampling Technique has been used to select Stock Broking Houses in three Districts of Punjab. To select the respondents', list of regular investors were taken from broking houses and investors were selected from the list provided with the help of simple random sampling. The lists included the name and contact number of the individuals. It is worthwhile to mention here that the individual stock investors were residents of the cities surveyed and the study is confined to the octroi limits of the mentioned cities.

5. RESEARCH INSTRUMENT (QUESTIONNAIRE)

Twenty eight variables influencing stock purchase decisions were retrieved from the review of literature. The responses of the respondents were sought on a five point likert scale ranging from Most Important to Least Important. To analyze these responses, weights were assigned to these responses (5 for Most Important, 4 for important, 3 for Indifferent, 2 for Unimportant and 1 for Least Important).The list of variables studied and analysed have been shown in Table 1 along with their description. However, to identify the overall preference for stocks (high risk investment), respondents were asked to rate on a five point likert scale of Most Preferred to Least Preferred (5 for most preferred, 4 for preferred, 3 for neutral, 2 for not much preferred, 5 for least preferred).

Table 1: Variables influencing investment decisions and respective labels assigned to variables

S.No.	Variables	Label	Description
1.	High Returns	V_1	Maximum returns expected in future from an investment.
2.	Liquidity	V_2	Converted into cash without delay at short notice of time and the investment is easily realizable, saleable or marketable.
3.	Convenience	V_3	Easy to invest in.
4.	Tax Benefit	V_4	The return is exempted from tax. So, the net return does not decrease.
5	Safety of Principal	V_5	Protection mechanism against loss under reasonable conditions that is principal amount and expected rate of return protection.
6	Capital Growth	V_6	Appreciation in the capital value.
7	Future Security	V_7	Protection mechanism against loss in future.
8	Flexibility	V_8	Funds are easily convertible and managed as per need.
9	Concealability	V_9	To be safe from social disorders and government confiscation.
10	Diversification Needs	V_{10}	Need to diversify to various investments.
11	Stability of Income	V_{11}	Uniform, assured and constant return to meet the investor needs.
12	Low Transaction Cost	V_{12}	Minimal cost of making an investment.
13	Associated Risk	V_{13}	Level of risk involved in investment
14	Professional management	V_{14}	Investment involving expert advice.
15	Legality	V_{15}	Within the applicable laws of the country.
16	Rumors	V_{16}	The gossips of the market about investments.
17	Competing financial needs	V_{17}	Personal financial needs of an investor.
18	Terms and conditions	V_{28}	Level of terms and conditions involved in an investment.
19	Current economic indicators	V_{29}	Market indicators for an investment.
20	Religious reasons	V_{20}	Religious and social concerns influencing investment.
21	Inflation Resistance	V_{21}	The return from the investment beats the prevailing country's inflation.
22	Financial analyst and advisor recommendation	V_{22}	Advice of personnel like financial service providers, consultant, brokers, chartered accountant, etc.
23	Past performance of the portfolio	V_{23}	The performance or returns achieved from previous investments made.
24	Coverage in financial	V_{24}	The financial news about various investment

25	Family member opinion	V_{25}	options. Opinions and preferences of family members.
26	Friend or Peer recommendation	V_{26}	Opinions of friends and colleagues.
27	General trend of investment in public	V_{27}	The trend of investments in public.
28	Fluctuations in stock index	V_{28}	The daily fluctuations of BSE and NSE index.

5.1 Grouping variables influencing stock purchase decisions into identifiable categories

The first focus is to identify whether the variables form homogeneous groups. As, there did not appear to be a single set of variables investors use to make stock investment decisions, factor analysis technique has been used to determine whether there are underlying constructs that represent a synthesis of investment concerns. More specifically Factor Analysis is used to identify the similarities among the variables and group them into identifiable categories.

The data was checked for reliability and for the aforesaid purpose, Cronbach's alpha is estimated which came out to be 0.8019 for all 28 variables which is very good. The overall KMO statistics is found to be 0.701 (greater than the required 0.50) depicting that the factor analysis is feasible on the basis of sampling adequacy.

Orthogonal rotation with varimax is applied to the construct. The latent root criterion is used for extraction of factors. According to this, the factors with Eigen values greater than one are considered significant and the factors with Eigen values less than one are considered insignificant and disregarded **(Malhotra, 2002)**. In interpreting factors, a decision must be made regarding which factor loadings are worth considering. The criterion given by Hair et.al 2010 where factor loading based on sample size is taken as the basis for decision about significant factor loading was adopted. All the variables with factor loading of 0.40 have been considered.

Table 2 depicts the construct that can be represented by 10 factors (Eigen values>1) with their respective factor loadings, Eigen values and cumulative percentage of variance explained. Ten factors explained 8.958, 8.028, 7.919, 7.544, 7.316, 6.644, 6.618, 6.476, 5.179 and 4.132 percent of variance. In total, all the factors explained are 68.815 percent of variance.

Table 2: Factors Summary of Variables influencing investors to invest in stocks

Factor Number	Factor Name	Factor Loading	Constituent Variables included in the Factor
F_1	Credibility Factor	0.944	Legality
		0.928	Concealability
		0.517	Associated Risk
		0.501	Professional management
F_2	Family/ Friend Recommendation Factor	0.889	Family member opinion
		0.886	Friend or peer recommendation
		0.600	Safety of Principal

F_3	Benefits Factor	**0.807**	Liquidity
		0.673	High returns
		0.643	Diversification needs
		0.571	Inflation resistance
F_4	Personal Financial Needs Factor	**0.928**	Competing financial needs
		0.903	General trend of investments in public
F_5	Pre- Investment Analysis Factor	**0.779**	Convenience
		0.728	Current Economic indicators
		0.523	Past performance of the portfolio
F_6	Market Information Factor	**0.774**	Coverage in financial news
		0.605	Fluctuation in stock index
		0.554	Terms and conditions
		0.489	Rumors
F_7	Expert Advice Factor	**0.838**	Financial Analyst and advisory recommendation
		0.759	Tax benefit
F_8	Low Volatility Influence Factor	**0.652**	Flexibility
		0.627	Stability of income
		0.573	Capital Growth
F_9	Pocket Friendly Factor	**0.849**	Low transaction cost
		0.604	Future Security
F_{10}	Religious Beliefs Factor	**0.884**	Religious reasons

5.2 Impact of Factors on Preference for Stocks (high risk investment)

The technique of multiple regressions has been used to analyze the impact of decision and economic variables on overall preference for stocks (high risk investment). Table 3 below provides the list of variables used in multiple regression analysis.

Table 3: Variables for Multiple Regression Analysis

	Name of the variable	Definition	Label
Dependent Variable	Overall preference for high risk investments (stocks)	Decision and economic variables lead to overall preference for high risk investments.	Y_1
	REGR Factor score 1	Credibility Factor	F_1
	REGR Factor score 2	Family/ Friend Recommendation Factor	F_2
Independent Variables	REGR Factor score 3	Benefits Factor	F_3
	REGR Factor score 4	Personal Financial Needs Factor	F_4
	REGR Factor score 5	Pre- Investment Analysis factor	F_5
	REGR Factor score 6	Market Information Factor	F_6
	REGR Factor score 7	Expert Advice Factor	F_7
	REGR Factor score 8	Low Volatility Influence Factor	F_8
	REGR Factor score 9	Pocket Friendly Factor	F_9
	REGR Factor score 10	Religious Beliefs Factor	F_{10}

5.3 Dependent Variable

Dependent variable is the overall preference for stocks (high risk investment) which was rated on a five point likert scale by the respondents.

5.4 Independent Variable

As far as the independent variables are concerned, these are the factor scores of the factors extracted out of 28 decision and economic variables with the help of factor analysis.

Following are the hypotheses set for the purpose:

H_{01}: Credibility Factor has no significant impact on the overall preference for stocks (high risk investment)

H_{02}: Family/ Friend Recommendation Factor has no significant impact on the overall preference for stocks (high risk investment)

H_{03}: Benefits Factor has no significant impact on the overall preference for stocks (high risk investment)

H_{04}: Personal Financial Needs Factor has no significant impact on the overall preference for stocks (high risk investment)

H_{05}: Pre- Investment Analysis factor has no significant impact on the overall preference for stocks (high risk investment)

H_{06}: Market Information Factor has no significant impact on the overall preference for stocks (high risk investment)

H_{07}: Expert Advice Factor has no significant impact on the overall preference for stocks (high risk investment)

H_{08}: Low Volatility Influence Factor has no significant impact on the overall preference for stocks (high risk investment)

H_{09}: Pocket Friendly Factor has no significant impact on the overall preference for stocks (high risk investment)

H_{010}: Religious Beliefs Factor has no significant impact on the overall preference for stocks (high risk investment)

5.5 Model Formulation

To analyze the impact of decision and economic variables on the overall preference for stocks (high risk investment), following model was used to study the relationship between the dependent and independent variables.

$$Y_1 = \alpha + \beta_1 F_1 + \beta_2 F_2 + \beta_3 F_3 + \beta_4 F_4 + \beta_5 F_5 + \beta_6 F_6 + \beta_7 F_7 + \beta_8 F_8 + \beta_9 F_9 + \beta_{10} F_{10} + Ut.$$

Where, Y_1= Dependent Variable;

α =Intercept term

β_1, β_2, β_3, β_4, β_5, β_6, β_7, β_8, β_9, β_{10} are Regression coefficients

F_1, F_2, F_3, F_4, F_5, F_6, F_7, F_8, F_9 and F_{10} represent Independent variables;

Ut= Error term.

The model has been summarized in the table 4 given below

Table 4: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.705	.497	.489	.696	1.943

The value of R in the model shows a marked degree of correlation. The value of adjusted R Square is 0.489 which indicates that all the variables extracted could explain 48.9% of the variation in the dependent variable i.e. overall preference for stocks (high risk investment). The value of adjusted R^2 tells how well the model generalizes. As in the model, the difference between R^2 and adjusted R^2 is also satisfactory (0.497- 0.489 = 0.008) which is interpreted as the 0.08% less variation in the outcome if it is derived from the actual population rather than the sample. One of other important assumptions of the regression analysis is that the errors are independent. To check, whether the model fulfills the assumption of independent errors, **Durbin-Watson test** is applied. The result of Durbin-Watson test is 1.943 which is closer to 2 and considered to be significant. So, the data meets the assumption of independent errors.

It is necessary to validate the data by checking whether the multi-collinearity exists between data. For this purpose, estimated partial correlation between dependent and independent variables was calculated which measures the correlation among overall preference for stocks (high risk investment) and the factors affecting the preference for stocks (high risk investment). Moreover, the Pearson correlation **matrix** also indicates the non-existence of collinearity as no correlation was found to be too high. It is necessary to validate the data by checking whether the multi-collinearity exists between data. In order to obtain accurate results, tests such as Variance Inflation Factor (VIF) and Tolerance level (I/VIF) were measured to test the multi-collinearity. VIF equivalent or below 10 is said to be acceptable as it reflects that the data is free from multicollinearity. In this case, the value of VIF and Tolerance level came out to be 1.000 (Table 5) for each independent variable. The multi-collinearity diagnostics statistics show that tolerance value is not below 0.10 and VIF does not exceed the recommended limit of 10; hence it can be accepted from the analysis that there exists no collinearity among the data. Therefore, the relationship of independent variables does not create problems in explaining overall preference for stocks.

Table 5: Tolerance level and VIF

Tolerance	VIF
1.000	1.000
1.000	1.000
1.000	1.000
1.000	1.000
1.000	1.000
1.000	1.000
1.000	1.000
1.000	1.000
1.000	1.000
1.000	1.000

To cross check the assumption of normal distribution of the standard errors, it is confirmed through normal probability curve and histogram. Further, in order to test the overall significance of the model, ANOVA (Analysis of Variance) was applied to test the following null hypotheses:

H0: $\beta_1=\beta_2=\beta_3=\beta_4=\beta_5=\beta_6=\beta_7=\beta_8=\beta_9=\beta_{10}= 0$

The significant F ratio is strong evidence against the null hypotheses. It shows that at least one or more partial regression coefficients have a value other than zero. Table 6 reveals that the F statistics is highly significant. So, results reveal that the model is significantly good in predicting outcomes.

Table 6: ANOVA (Analysis of Variance)

Model	Sum of Square	DF	Mean Square	F	Sig.
Regression	285.376	10	28.538	58.916	.000
Residual	288.690	596	.484		
Total	574.066	606			

6. REGRESSION EQUATION

The estimated equation is as follows:

$$Y=3.198 + 0.503\, F_1+ 0.149\, F_2 +0.219\, F_3 +0.265\, F_5 + 0.223\, F_6 + 0.162\, F_7$$

This equation can be used to know whether the decision and economic variables are instrumental in influencing the overall preference for high risk investments given the values of the factors determining the impact of such variables on preference of respondents. The equation has been obtained by capturing the values of beta co-efficient through Table 7 below.

Table 7 below reveals the coefficient for regression variables. The beta value coefficient allows us to test the strength of relationship between overall preference for stocks (high risk investment) and the impact of factors explaining decision and economic variables on their preference for stocks. Independent variables i.e., F_1, F_2, F_3, F_5, F_6 and F_7 have positive and significant values at 5 per cent level of significance. F_4, F_8, F_9 and F_{10} have been eliminated for the purpose of interpretation as well as from regression model as these have insignificant values at 5 percent level of significance.

The significant t-value corresponding to each variable confirms the significant contribution of each independent variable to the model. The factors F_1, F_2, F_3, F_5, F_6 and F_7 have positive and significant values. Four factors i.e. F_4, F_8, F_9 and F_{10} are found to be insignificant and hence these are excluded while formulating equation.

Religious Beliefs (F_{10}) has an insignificant impact on preference for stocks. This finding is in line with the finding of **Al-Tamimi (2006)**.

Table 7: Factors influencing the overall preference for stocks (high risk investment)

Label	Model 1	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Null Hypotheses
		B	S.E.	Beta			
Y_1	Constant	3.198	.028		135.184	.000	Rejected
F_1	Credibility Factor	.503	.028	.517	17.788	.000	Rejected
F_2	Family/ Friend Recommendation Factor	.149	.028	.153	5.284	.000	Rejected
F_3	Benefits Factor	.219	.028	.225	7.741	.000	Rejected
F_4	Personal Financial Needs Factor	.034	.028	.035	1.204	.229	Accepted
F_5	Pre- Investment Analysis factor	.265	.028	.272	9.356	.000	Rejected
F_6	Market Information Factor	.223	.028	.229	7.881	.000	Rejected
F_7	Expert Advice Factor	.162	.028	.166	5.730	.000	Rejected
F_8	Low Volatility Influence Factor	.025	.028	.026	.878	.380	Accepted
F_9	Pocket Friendly Factor	-.006	.028	-.006	-.216	.829	Accepted
F_{10}	Religious Beliefs Factor	-.011	.028	-.011	-.382	.702	Accepted

Significant at 5% level

Larger the value of t statistics, the contribution of the respective variable is known to be greater. The same fact has been shown through beta values. The value of Beta coefficients is highest in case of Factor 1 i.e. F_1 (Credibility factor) revealing that 51.7 % of the variation in the overall preference for stocks (high risk investment) can be explained by this variable. It reveals that Credibility factor which includes variables like Legality, Concealability, Professional management and Associated Risk. This factor has highest positive and significant impact for individual stock investor of Punjab towards overall preference for stocks (high risk investment). It indicates that investors rely and emphasize on trustworthiness, integrity and legal aspects when choosing stocks. The reason can be explained by the fact that the lack of confidence, loss averse behaviour and low expert advice experience lead investors to be more considerate in legal confiscations in order to avoid risk of loss when investing in a particular stock.

Pre-Investment Analysis Factor, F_5 including variables i.e. convenience, current economic indicators and past performance of the portfolio is the second most impacting factor explaining 27.2% of the variation towards the overall preference for stocks. This may be because of the fact that the pre-investment analysis involves analyzing the technical aspect, leading to increase in the demand for stocks among investors and decline in demand for other investments.

Market Information factor, F_6 is found as the third most impacting factor contributing 22.9 % of the variation in the overall preference for stocks revealing that information from market, other

investors influencing the preferences of investors which can be due to the herd effect in behaviour of investors.

Benefits factor, F_3 is found as the fourth most impacting factor with beta value of 22.5 % of positive impact on the overall preference for high risk investment i.e. stocks.

After these variables, the fifth contributing factor towards overall preference for stocks (high risk investment) is Expert advice factor, F_7 signifying low impact of opinions of investment advisors, on overall preference for stocks (high risk investment). The result is supported by findings of previous researchers viz. **Merikas and Vozikis (2004), Sharma and Sharma (2004), Nagpal and Bodla (2007)**.

Family/ Friend Recommendation factor is sixth impacting factor signifying low impact of family, peers and friends on overall preference for stocks (high risk investment). Similar finding is reported by research conducted by researchers' viz. **Al-Tamimi (2006) and Al-Tamimi and Kalli (2009).**

Lastly, Personal Financial Needs Factor, F_4; Low Volatility Influence Factor, F_8,; Pocket Friendly Factor, F_9 and Religious Beliefs Factor , F_{10} are found to have insignificant impact on overall preference for stocks revealing that these four factors don't play role in influencing the preferences of individual investors of Punjab towards investing in stocks.

7.   DISCUSSION, IMPLICATIONS AND CONCLUSION

In the current era of diversified investments, it is imperative to identify the variables that appear to exercise the highest impact on the preferences of the individual investors towards investing in stocks (high risk investment). The present study is aimed at identifying the decision factors that have positive impact on the preference for stocks by individual stock investors of Punjab. The financial advisors providing advice to the growing market of individual stock investors need to understand client's attitude towards investment. Factor analysis revealed ten factors i.e. credibility factor, general recommendation factor, anticipated benefits factor, personal financial needs factor, pre-investment analysis factor, market information factor, expert recommendation factor, low volatility influences factor, pocket friendly factor and social influences factor. Findings of multiple regressions analysis revealed that Credibility factor has highest positive impact and lead to overall preference for high risk investments followed by pre- investment analysis factor as the second most impacting factor followed by anticipated benefits factor as third most impacting factor and market information factor as the fourth most impacting factor having significant and positive impact on the overall preference for stocks i.e. high risk investment. Expert recommendation factor and general recommendations factor have positive but less impact on preferences of investors. The study provides implications to financial service providers in understanding the variables impacting the preferences of high risk investment of individual investors of Punjab in order to help marketers understand the need of investors and design the marketing activities according to their needs. The financial service providers armed with such information will be able to anticipate investor behavior and offer them more effective advice.

8.   LIMITATIONS AND SUGGESTIONS FOR FUTURE RESEARCH

The study is confined to Punjab only which may somewhat limit the generalizability of the findings. Also, the present study has been conducted through a questionnaire and survey based

techniques are known to be associated with their own limitations. Future studies can be done by extending the subject nation-wide so that the results of this study can better be generalized. Besides the measured variables used in this study, various other variables can affect the decisions of the investors, and future research can focus on them in more detail.

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