

Factors Effecting the Investment Decision of Individual Investor in Developing Countries: An Empirical Analysis in Pakistan

Hafiz Muhammad Naveed¹; Rehana Fayyaz²; Yao Hongxing^{1*}

¹School of Finance and Economics, Jiangsu University

301 Xuefu Road, Zhenjiang 212013, Jiangsu Province, China

²School of Management, National College of Business Administration & Economics

Model Town-A, Sarwar Shaheed Road, Bahawalpur, Pakistan

IJMSSSR 2020

VOLUME 2

ISSUE 5 SEPTEMBER – OCTOBER

ISSN: 2582 - 0265

Abstract: The present research study executes to identifying the factors effecting the investment decision of individual investor. For this key purpose, we have used primary data by collected five hundred respondents via adopted five-point scale based questions. We have applied multiple linear regression models to examine the association among investment decision of individual investor and risk taking, regret, trust, education, gender. The result indicates that there have negative relationships between regret and investment decision of individual investor. Similarly, investment decision of individual investor and education, risk taking, trust, gender have positively and significantly associated but belief on luck neither positive nor negative relationship with investment decision of individual investment. In the developing countries, local and federal government reciprocally consideration on worthy investment decision of individual investor for promoting their economy.

Keywords: Investment decision of individual investor; risk taking; trust; belief on luck; education; gender; regret; multiple linear regression model

1. Introduction

Investment is dominant in all walks of life. But the way of investment vary by person to person. Investors are investing their money into Stock Market, commodity market, Financial Market, Forex Market and others. All the investment decisions of investors depends on their needs and circumstances of the markets (P. Grover, 2015). Behavioural finance has made advances in clarifying the behaviour of business sectors. It concentrates on the awkward behaviour of the people in the economy. Borodacheva, Goloborodov, Guseva, Drozdova, and Glyzina (2016), have determined that culture and beliefs impact how people settle on financial choices and also assumption choices. One specific viewpoint that has gotten a considerable measure of consideration as of late is the essentialness of contrast in risk taking behaviour by gender orientation as a determinant of family unit assumptions (Kipping, Campbell, MacArthur, Gunnell, & Hickman, 2012).

On the other side, Graham, Stendardi, Myers, and Graham (2002), have addressed that the females are more risks averse than men. It also shows that there is a positive connection between females age and risk avoidance. Essentially, females hold less unsafe assumption as their age increased than men. Female are broader in data handling than men and tend to give more emphasized to negative information than positive information as compare to men. The men's have a tendency to be more careless than females that can be connected to females risk avoidance behavior (Collins et al., 2016). Moreover, Alesina and La Ferrara (2002) examines that there is no huge impact of religious beliefs and ethnic foundations on trust. Subsequently, it realized that what relationship exists in Malaysia inside its multi-racial individuals alongside different religious beliefs. Arruñada (2010), exposed that the religion has huge effect on the monetary options which people makes. In fact, in numerous circumstance individuals settle on assumption choice by depending on their luck.

Moreover, this research study are going to examine whether there is any critical divergence amongst male and female regarding risk taking, ability, good fortune, Happiness, expansion, lament, and trust. We at that point look at whether individual from various religion foundation are essentially unique as far as risk taking, aptitude, having confidence in good fortune, Happiness, amplification, lament, and trust. Additionally, we attempt to recognize

whether individuals from various ethnic birthplaces are essentially unique in risk taking, expertise, luckiness, Happiness, augmentation, lament and trust. Ultimately, the connection between these factors will be investigated whether comes about sustain past outcomes or veer off in light of the way of life and religion (Mohamed Albaity & Mahfuzur Rahman, 2012). How females are not quite the same as men in risk avoidance. Females hold less riskiness assumption as their age increment than men. Females are more far reaching in data preparing than men and tend to give more weight to negative data thusly driving them to be more risk loath than men (Mohamed Albaity & Mahfuzur Rahman, 2012).

Risk could be several types among the business project but it's vary on nature of business. Be that as it may, the method for risk differs from individual to individual. A few people need to put their money in the Stock Market, some of in item advertise, some in gold settled stores and some of in land. But every one of the priorities of assumption of financial specialists rely upon their requirements and time (A. Grover & Singh, 2015). Conduct back which depends on mental elements fights with advertises proficiency and financial specialist's discernment. The behavioural Finance is a moderately new territory of research, is the investigation of how human brain science, our musings, sentiments and demeanours as like impact budgetary choices. As per conduct back, it is the investigation of the impact of brain research on the conduct of budgetary experts and the consequent impact on market (A. Grover & Singh, 2015)

In developing countries essentially the several factors are effecting the investment decision of individual investors 'probably for stakeholders including public sectors, financial institutions, industrial sectors, educational institutions. The investments have been sharply declined in the last few years in Pakistan as compared others develop countries. Moreover, the national economies are directly hit by investment decision of investors. Additionally, economic deficiency creates by the numerous financial diseases. So the key objectives of present research study to diagnose the factors effecting of investment decision of individual investor. This study will spread the information about the investment decision making of people belonging to different age group, different financial sectors, and their investment preferences. Furthermore, it will determining whether the more experienced of investor that only make good investment decision and it leave the future guideline for scholars. The remaining parts of this research study are summarized as follows: 2nd section is consist on empirical literature by relevant study; 3rd section is contain on empirical research methodology; 4th section is contain on results and discussion; 5th section is contain on conclusion of the study.

2. Empirical Literature

2.1 Gender and Investment Risk Tolerance

Mohamed Albaity and Mahfuzur Rahman (2012), have identified exact inclinations and how it corresponds with gender orientation predispositions in making better customer profile. Pompian and Longo (2004), have examined the phenomenon regarding investment decision by gender differences along hundred investors' survey data. They found that numerous identity writes and the gender orientations are arranged to behavioural back inclinations. In case females are 33% more risks opposed than men. Besides, the most risk tolerant men joined with their identity write-ought to put 100% in value base instruments, while the slightest risk tolerant females joined with their identity compose to put 100% in settled wage instruments. Similarly, Audretsch, Lehmann, Meoli, and Vismara (2016), had found whether female are not the same as men in risk avoidance. Utilizing overview of purchaser back 1989, they demonstrate the relative risk avoidance on different factors as like riches, race, age, training and different factors. In view of the hypothetical connection that recommend that risk avoidance will diminish as the riches expands, it is found in this investigation that female risk avoidance is not contrarily identified with riches. They found that females are more risk averse than men prompting lower interest in unsafe resources than chance free resources. Moreover, female will probably have encountered an adjustment in their contribution in putting because of a change in conjugal status. Men will probably expand their association because of retirement or sudden monetary profit. For female, separate is an essential factor in achieving expanded money related contribution for men, then again, separate is the most improbable occasion to change their venture association (Nelson, 2016).

H1: There is a significant and positive relationship between gender and investment based risk tolerance in developing countries

2.2 Regret

Regret/depressing circumstance is one of most related with risk taking concerning financial behaviour phenomenon. Depressing situations could prompt either risk avoidance or risk chasing. Mohamed Albaity and Mahfuzur Rahman (2012); Connolly and Reb (2012); Diecidue, Rudi, and Tang (2012), have addressed the depressing situations associated with core leadership. This would happen if the individual is looked with two choices or more where one is more risky than the others and there is dependably input on the result of the less secure choice. In this way, if an individual looked with two decisions where one is more risky and two is less risky that choice prompt depressing situations if the more dangerous alternative ended up being superior to the less unsafe choice (Khan, 2017).

H2: There is a significant and negative relationship between Regret and investment decision of individual investor in developing countries

2.3 Trust

Sharma, Chalise, and Dangol (2017), have precise the association among trust and risk taking concerning investment for business purpose. Moreover, trusting is considered probably equivalent to investment risk taking (Alesina & Giuliano, 2016). Hassan, Saleem, Anwar, and Hussain (2020), have recommended that risk must exist for trust to happen and when trust happen more risks will be alluring. Olsen (2008), was found that apparent risk is contrarily related with trust, as it were, the lesser the trust the more noteworthy the apparent risk. Osili and Paulson (2008), demonstrate that foreigners in the United States, confronting a similar target dissemination of profits, contrast in their securities exchange interest rate as an element of the nature of foundations in their nation of starting point. Both, individual and social qualities are probably going to impact relational trust. We research this utilizing the data gave by the General Social Survey for the United States which in 1974–2009 inquired as to whether they surmise that great many people can be trusted. As we talk about beneath one must be careful in finished deciphering discoveries in view of a study question that might be seen distinctively by different respondents (Glaeser, Rosenthal, & Strange, 2010)

H3: There is a significant and positive relationship between Trust and investment decision of individual investor in developing countries

2.4 Belief on Luck

Van den Steen (2002); Freeman (2000); Zimmerman, Fiske, and Scogin (2011); Baumeister (2009); Duval, Silvia, and Lalwani (2012) examines that individuals tend to ascribe accomplishment to their own aptitudes and disappointments to misfortune. Blaine and Crocker (1993), found that people with high confidence trust they are fortunate and have a tendency to misrepresent their control over occasions, particularly effective occasions. Brown, Camerer, and Lovallo (2013), have examines lower level of fortunes when expertise is not represented. Armor and Taylor (2003), demonstrated that more prominent vulnerability can actuate more noteworthy good faith with the end goal that individuals progress toward becoming daring person. Surely, the consideration of an ability segment may expand risk taking. Put in an unexpected way, if expertise does not help in progress, fortunes can light hopeful convictions.

H4: There is neither positive nor negative relationship between luck and investment decision of individual investor in developing countries

2.5 Risk Taking

Chou-Shyan (2010), has exposed risky project for inclinations proposed that the individual enthusiasm for the risks taking since investors may lessen their vulnerability by means of more noteworthy comprehension of organizations' budgetary status. It expressed that because of absence of comprehension for different dangerous ventures, financial specialists want guidance from proficient persons. Hanson, Shleifer, Stein, and Vishny (2015), were determined that the components of financial specialist that conduct by directing a review. They discovered that traditional riches augmentation criteria are important to financial specialists, despite the fact that investors utilize diverse criteria while picking stocks for venture. They endeavoured to clarify the value changes because of the six theory discretionary essential factors. Their evaluation shows that the factors other than prime factors

might be all the more effective and material to give a clarification the offer value deviation in Pakistan.

H5: There is a significant and positive association among Risk taking and investment decision of individual investors in developing countries

In section two, we have hypothetical studied the several relevant research studies and also visualized the association among the variables. Now we execute the comprehension theoretical phenomenon into single main conceptual model as follows:

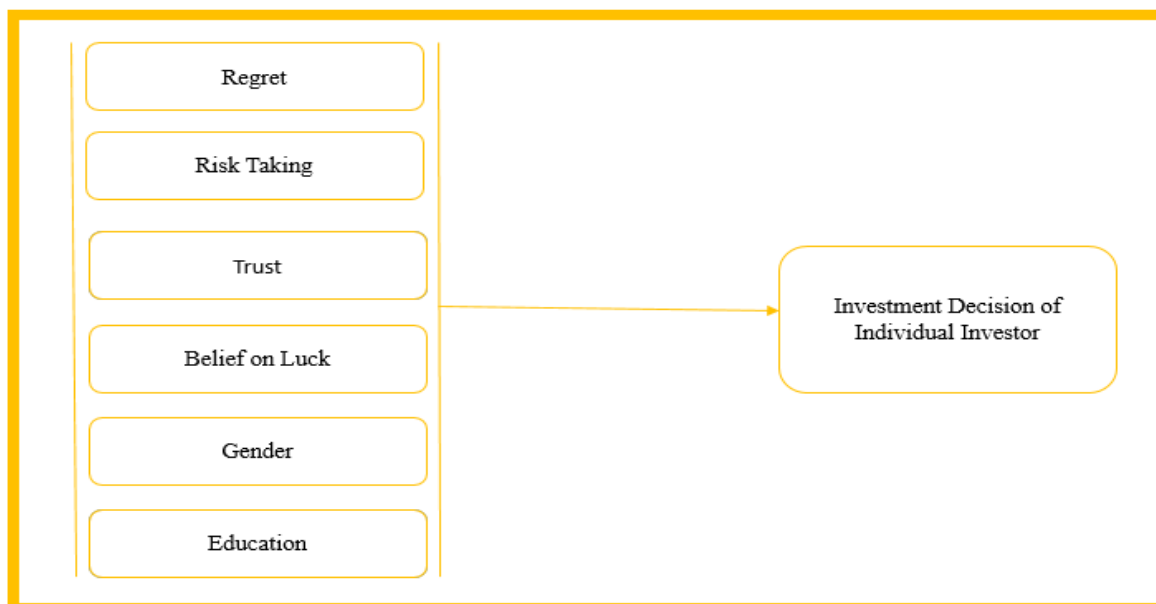


Figure 1. Conceptual Model

3. Empirical Methodology

3.1 Research Design

This research study is summarize based on descriptive and quantitative study. The descriptive research probably refers to the type of research question, sample size and data collection(Keloharju, Knüpfer, & Linnainmaa, 2012). Present research study is going to examine the factors effecting of the IDII typically in developing countries. For this key purposed, questionnaire based variables RR, RT, TT, LK, GR and EN incorporated in this study.Mohamed Albaity and Mahfuz Rahman (2012), have determined that how gender, religion, and cultural differences influence to individual investment behaviour. After standardized form of data, Scholars have applied multiple linear regression approach on randomized data to test the variables association.

3.2 Population & Sampling

This research study focuses on investment decisions of individual investor typically into developing country. For this key purpose, the populations of current study have entrepreneurs of whole business-sectors. Pearson and Mundform (2010), have prescribed the sample size criteria as follows:50 is considered very weak; 100 is weak, 200 is fair, 300 is good, 500 is very good, and 1,000 or more is excellent. The adopted questionnaire circulated among respondents via email to grab their response. The entire research study has been 500 sample size to forecast the research object.

3.3 Data Collection Techniques

Five point Likert scale based questionnaire was distributed among respondents via E-mail. Five-point scale has in between “Strongly Disagree to Strongly Agree” that is an appropriate and validated way to collect the respond of

respondents (Johns, 2005). Guiteras, Levinsohn, and Mobarak (2015), have addressed that randomized data collection technique is a quite reliable for data collection measurement.

3.4 Reliability Test

Reliability measurement is a sign of the stableness and consistency of the adopted questions and enables to assess the goodness of a degree. Reliability test is required when questionnaire has adopted or self-administrative. Reliability test precise the homogeneity among research objectives and underlying questionnaire (Aigbogun, Ghazali, & Razali, 2017; Dikko, 2016). So reliability is measured by following formula:

$$R = \frac{n}{n - 1} \left[1 - \frac{\sum pq}{\sigma_x^2} \right]$$

Where;

n = number of items in the test

P = $\frac{\text{Number of persons answering item correctly}}{\text{Number of persons taking the test}}$

q = $\frac{\text{Number of persons answering item wrongly}}{\text{Number of persons taking the test}}$

\sum = Summation sign indicating pq is summated over

σ_x^2 = Variance of the total test

R = reliability of the test

3.4 Pearson Correlation Matrix

Pearson correlation coefficient matrix diagnose the relationship between underlying rows and columns. Additionally, it represents the pairwise coefficient association among the variables. The utilization of Pearson correlation coefficient matrix has excessive. We can determine the variables association as following:

$$r_{x,y} = \frac{\sum dx * dy}{\sqrt{\sum dx^2 * \sum dy^2}} \text{ or } \frac{\sum dx \cdot dy}{n \cdot \delta x \cdot \delta y}$$

3.5 Multiple Linear Regression Model

Multiple linear regression model is quite useful technique to quantify the association among the variables. This model could be expressed the multiple independent variables among the model simultaneously. This model has characterized as indicate per-unit and overall change and goodness of fit of the model with single swap. Multiple Linear Regression equation is given below

$$IDII_i = \beta_0 + \beta_1 RR_1 + \beta_2 RT_2 + \beta_3 TT_3 + \beta_4 LK_4 + \beta_5 EN_5 + \beta_6 EN_6 + \epsilon_i$$

Here, IDII is representing the dependent variable, $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ & β_6 are the coefficients of the predicted variables and β_0 is the constant, $RR_1, RT_2, TT_3, LK_4, EN_5$ & EN_6 are predicted variables; ϵ_i is the stochastic error.

The least squares approach chooses β_0 and β_1 to minimize the Residual Sum of Square. If the coefficient value has higher while RSS value would be lower. We can execute to β_1 & β_0 with following formulas:

$$\hat{\beta}_1 = \frac{\sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})}{\sum_{i=1}^n (x_i - \bar{x})^2}$$

$$\hat{\beta}_0 = \bar{y} - \hat{\beta}_1 \bar{x}$$

4. Results & Discussion

Table 1 Descriptive Statistic

Model	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
RG	0.56	1.56	1.2178	0.22159	-0.759	0.172	0.645	0.342
RT	0.34	1.53	1.1441	0.26009	-0.827	0.172	1.105	0.342
GR	0.22	1.56	1.106	0.28793	-1.211	0.172	2.08	0.342
TT	0.34	1.48	1.1286	0.25508	-0.86	0.172	1.024	0.342
BLK	0.56	1.56	1.2169	0.22078	-0.766	0.172	0.672	0.342
EN	0.00	1.39	0.9609	0.33113	-1.216	0.172	1.228	0.342
IDII	0.34	1.48	1.1296	0.25739	-0.865	0.172	0.98	0.342

Table 1 are precise the summary of the data and normality of underlying data. The above table contains on minimum, maximum, mean, std. deviation, skewness and kurtosis statistics. Consequently, minimum and maximum values are circulating around 0.50 and 1.5 respectively. Similarly, the mean values are around 1.15 as well as std. deviation values around 0.25. (Gamst, Meyers, & Guarino, 2008) have addressed that data normality would be accepted when the skewness & kurtosis statistics laying in between ± 1 and ± 3 respectively otherwise rejected. With due respect above evidence, table 1 indicates that our data has been normalized. Thus, we will reject null hypothesis and accept alternative hypothesis.

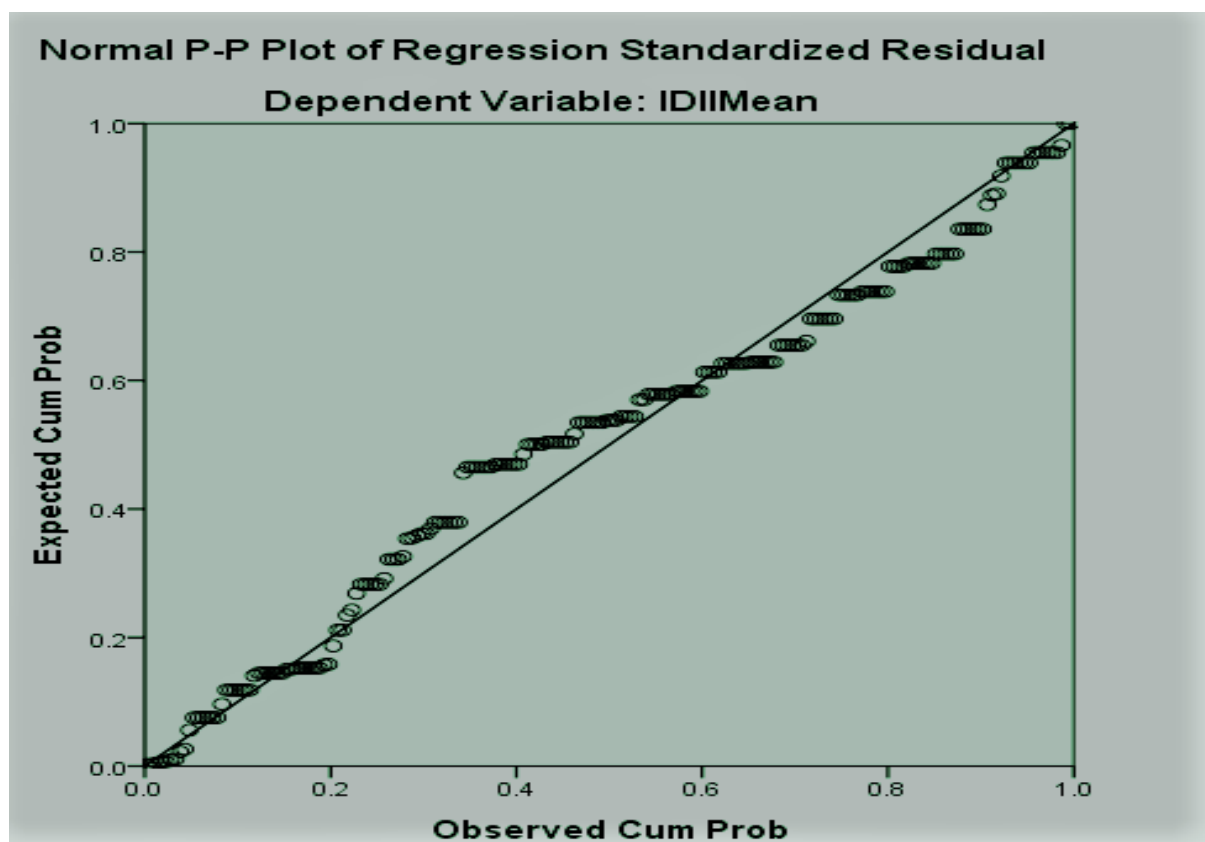


Figure 2. PP Plot of regression Standardized Residual

Fig.2 shows the robustness check of data normality. There are several methods to calculate the data normality and pp-plot of regression standardized residual is one from them. By this approach, we can quantify inclusive data normality. The above figure precise that the certain underlying data is fold around the mean-line. The variance between observations and mean values have quite-bit that sign of accepted normality.

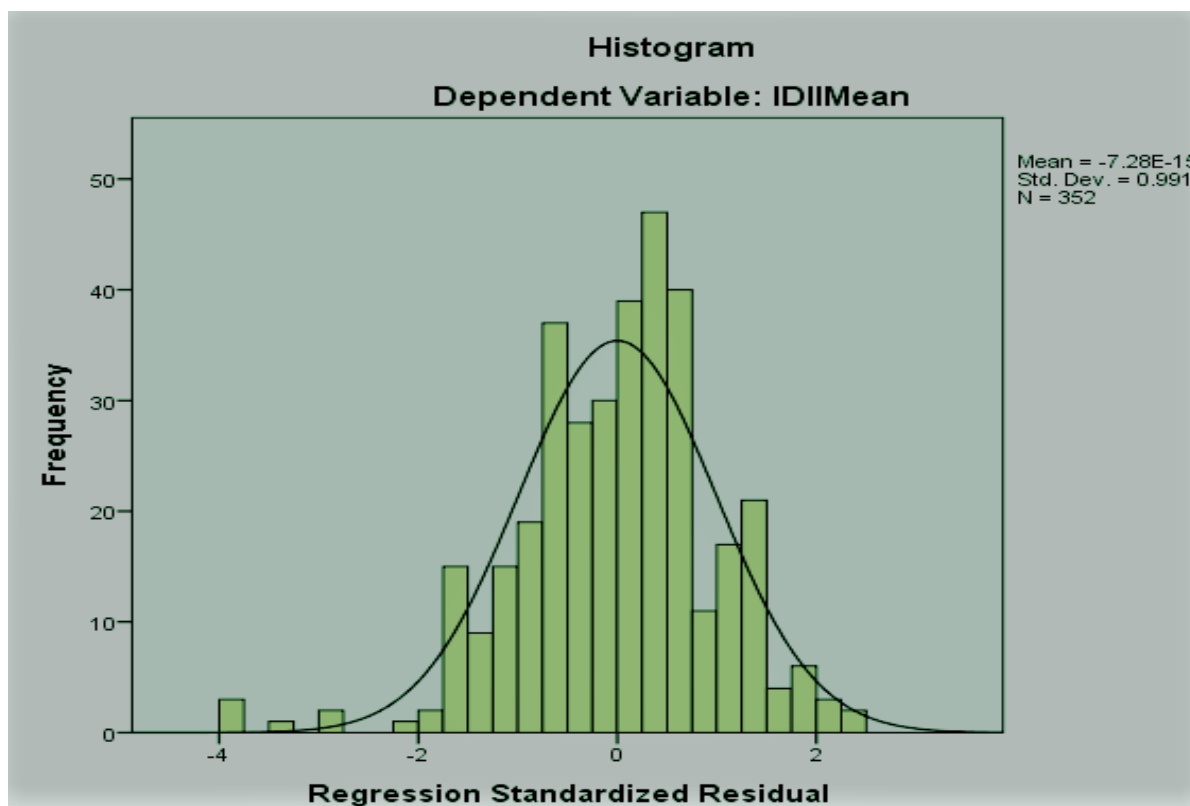


Fig. 3 Histogram for Robustness check of data Normality

Figure 3 represents the distribution of numerical data by using histogram approach. This approach is well known and quite useful to examine the nature of the data. Essentially, bins inside the histogram for exclusive variable indicates that whether numerical data has normal distributed or not. The above figure shows that our underlying data has been normalized because data distribution neither positive skewed nor negative skewed as well as neither more heightens nor flatness.

Table 2 Factor Wise Reliability Statistics

Name of the Factor	Cronbach Alpha	No of Items
RT	.732	4
RG	.775	5
GR	.798	4
TT	.725	5
BLK	.732	4
EN	.685	4
IDII	.735	5

In table 2, we are addressing the reliability of adopted questionnaire. Hair, Black, Babin, Anderson, and Tatham (1998), have concluded that if $\alpha \geq 0.65$ then consistency could be acceptable otherwise rejected. Similarly, Kuder and Richardson (1937), were also defined the reliability selection criteria. According to them if the $\alpha \geq 0.6$ while questions would be considered reliable otherwise unreliable. In table 2, has given three columns as

respect: 1st is contained on variable list; 2nd is contained on cronbach alpha statistic and 3rd is contained in no. of items. The outcome shows that the cronbach alpha values have greater than 0.65 of all variables. The desirability level concerning questionnaire has been fulfilled because the alpha value greater than above given criteria.

Table 3 Correlation Matrix

Variables	Model	RT	RG	GR	TT	LK	EN	IDII
RT	P E A R S O N C O R R E L A T I O N	1						
RG		.946**	1					
GR		.236**	.453**	1				
TT		.953**	.965**	.341**	1			
LK		-.202**	-.162*	-0.016	-.178*	1		
EN		.738**	.686**	0.094	.745**	-0.061	1	
IDII		.973**	-0.971**	.370**	.989**	.174	.760**	1

** . Correlation is significant at the 0.01 level - 2-tailed

* . Correlation is significant at the 0.05 level -2-tailed

Table 3 prescribes the bidirectional causality among the underlying variables. All coefficients values have stitched with single * or double **. In addition, single * shows that variables have whether positively or negatively associated at 5% level. Similarly, double ** shows that the variables have been positively or negatively interconnected at 10% level. Meanwhile, the confidence-interval was 95% and 90% respectively. Moreover, RR has been positively associated with RT at ** level. Likewise, GR has been positively associated with RR and RT at ** level. Similarly, we can identify the relationship of the variables. Empirically, the dependent variables IDII has been positively and negatively interconnected with all independent variables RT, RR, GR, TT, LK,& EN.

Table 5 Multiple Linear Regression Model

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	MultiColinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
Constant	-0.49	0.038	-	-12.951	0.000	-	-
RT	0.468	0.024	0.445	19.861	0.000	0.515	9.421
RG	-0.104	0.028	-0.107	-3.763	0.000	0.32	10.215
GR	0.101	0.007	0.105	13.531	0.000	0.428	2.334
TT	0.601	0.024	0.596	25.24	0.000	0.346	8.546
BLK	0.009	0.006	0.009	1.702	0.096	0.928	1.077
EN	0.05	0.008	0.051	6.269	0.000	0.397	2.517

DV=IDII; R = .887; R square = .825; adjusted R square = .845; DW=2.769

Table 4 indicates that the multiple linear regression model for the significance of the model. Furthermore, the T and P are considered power of the model. In addition, the probability values of all variables have been <0.05 and t-statistic have >2 instead of LK. Similarly, all variables without LK have significant positively associated with IDII instead RR because RR negatively associated. The coefficient values prescribed the per-unit change in dependent

variable due to independent variables. Moreover, $R\text{-square} = 0.825$ that showed 82.5% total variation in IDDI due to RT, RR, GR, TT and EN. Furthermore, Durban-Watson is 2.769 which precise that this model has been free from autocorrelation model. Similarly, multicollinearity is a phenomenon to describes the highly connectivity of independent variables. For the purpose of detected the multicollinearity problem, variance inflation factor and tolerance are significantly used. Tolerance and VIF values should be >2 and ≤ 10 respectively.

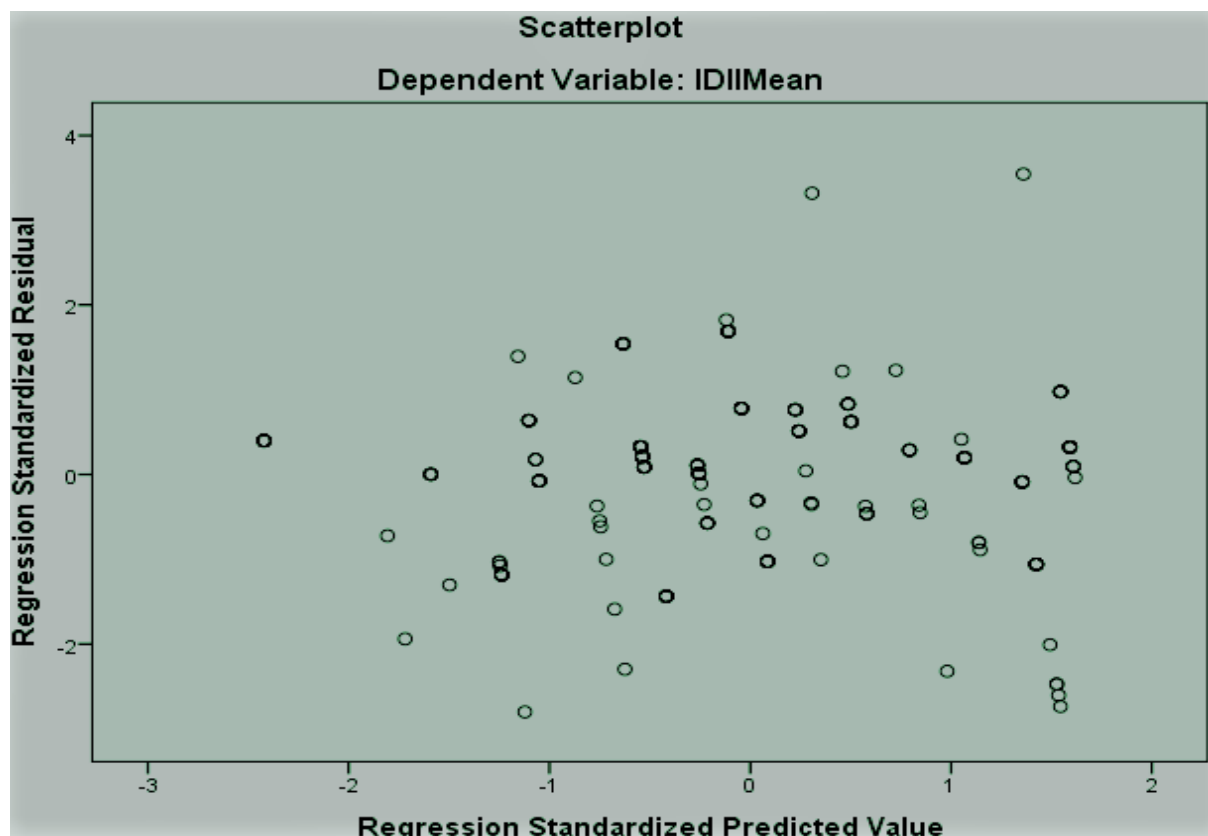


Fig. 4: Scatter Plot for Heteroskedasticity Error

Figure 4 determines that whether the heteroskedasticity or not among the exclusive model. In the MLRM, the scatter Plot is one way to diagnose the problem of heteroskedasticity by using $*z\text{pred}$ and $*z\text{resid}$ residuals. Noteworthy, if the scatter plots have in systematic pattern that indicate our model suffering from the problem of Heteroskedasticity. Similarly, if the scatter plots have come without systematic pattern then the model suffering from homoskedasticity. In figure 4, the plots have laying with random/without systematic pattern that shows that our model has free from Heteroskedasticity problem.

5. Conclusions

The key objective of the present research study to examine the factors effecting of investment decision of individual investor typically in developing countries. The previous literatures have executed the education and investment decision of individual investor have positively associated. However, education achievements are necessary to gain the maximum level of investment decision of individual investor in hometown. So the government of Pakistan should to be provide a lot of advantages to education department, increase the budget level, free education and recruitment of new and competent faculty. Furthermore, Zhang et al. (2009); Hicks (1989) have addressed that more risk more profit, while investors make more risk lover and less risk averse. The local and national government should be to do financial support to our investors and also reduce the tax level. Trust and investment decision of individual investor is significantly and positive associated. Trust is like a blood in every business. While trust is earlier for any kind of business, we can enhance the economic level of our country through to make sure fulfil the criteria of trust. In Pakistan, the trust ratio is very low, the question is that how to change the trust environment from the society. Being a Muslims, we should fulfilled promises and agreements and contracts that have done in past with other persons and business men's. Moreover, the

government of Pakistan does not change the policies without any meaningful objective like taxation and also provide peaceful environment. Moreover, Pakistan is a developing country where has several economic and non-economic problems. By the evidence of our outcome, the investment decision of individual investor can be well perform to diminish the economic problems. Thus the investment decision of individual investor would be excellent performed by controlling their factors as follows: regret. Risk taking, education, trust luck and gender.

Abbreviations

IDII: Investment decision of individual investor; RG: Regret; RT: Risk Taking; BTK: Belief on luck; EN: Education; TT: Trust; GR: Gender; MLRM: Multiple linear regression model; RSS: Residual Sum of Square.

Competing interests

The authors declare that they have no competing interests.

Authors' Contributions

Conceptualization: H.M.N.; methodology: H.M.N.; software: H.M.N.; validation: H.M.N. and H.Y.; formal analysis: H.M.N.; resources: H.M.N. and S.A.; data collection: R.F.; write-up: H.M.N. and R.F.; original draft preparation: H.M.N. and R.F.; writing-review and editing, H.M.N., R.F. and H.Y.

Funding

This study received no specific financial support.

Acknowledgments

We are indebted to all anonymous reviewers for significantly improved our quality of work via valuable comments and suggestions. We are appreciating and thankful for their commentarial contributions.

References

1. Aigbogun, O., Ghazali, Z., & Razali, R. (2017). The Impact of regulatory function on supply chain resilience: Reliability of measurement scales. *Global Business and Management Research*, 9(1s), 524.
2. Albaity, M., & Rahman, M. (2012). Behavioural finance and Malaysian culture. *International Business Research*, 5(11), 65.
3. Albaity, M., & Rahman, M. (2012). Gender, ethnicity, and religion and investment decisions: Malaysian evidence. *Journal of Sociological Research*, 3(2), 502-519.
4. Alesina, A., & Giuliano, P. (2016). Culture and Institutions. Part II. *Voprosy ekonomiki*(11), 24-56.
5. Alesina, A., & La Ferrara, E. (2002). Who trusts others? *Journal of Public Economics*, 85(2), 207-234.
6. Armor, D. A., & Taylor, S. E. (2003). The effects of mindset on behavior: Self-regulation in deliberative and implemental frames of mind. *Personality and social psychology bulletin*, 29(1), 86-95.
7. Arruñada, B. (2010). Protestants and Catholics: Similar work ethic, different social ethic. *The Economic Journal*, 120(547), 890-918.
8. Audretsch, D., Lehmann, E., Meoli, M., & Vismara, S. (2016). *University evolution, entrepreneurial activity and regional competitiveness*: Springer.
9. Baumeister, R. F. (2009). Identity.
10. Blaine, B., & Crocker, J. (1993). Self-esteem and self-serving biases in reactions to positive and negative events: An integrative review *Self-esteem* (pp. 55-85): Springer.
11. Borodacheva, L. V., Goloborodov, A. F., Guseva, A. I., Drozdova, A. A., & Glyzina, M. P. (2016). The impact of the global financial crisis on the banking system of Russia. *International Journal of Economics and Financial Issues*, 6(1S).
12. Brown, A. L., Camerer, C. F., & Lovallo, D. (2013). Estimating structural models of equilibrium and cognitive hierarchy thinking in the field: The case of withheld movie critic reviews. *Management Science*, 59(3), 733-747.
13. Chou-Shyan, R. (2010). Investor Attitudes and Behavior towards Inherent Risk and Potential Returns in Financial Products. *International Research Journal of Finance and Economics*, Euro Journals Publishing, Inc.
14. Collins, P., Webb, C. M., De Villiers, T., Stevenson, J., Panay, N., & Baber, R. (2016). Cardiovascular risk assessment in women—an update. *Climacteric*, 19(4), 329-336.
15. Connolly, T., & Reb, J. (2012). Regret aversion in reason-based choice. *Theory and Decision*, 73(1), 35-51.

16. Diecidue, E., Rudi, N., & Tang, W. (2012). Dynamic purchase decisions under regret: Price and availability. *Decision Analysis*, 9(1), 22-30.
17. Dikko, M. (2016). Establishing Construct Validity and Reliability: Pilot Testing of a Qualitative Interview for Research in Takaful (Islamic Insurance). *Qualitative Report*, 21(3).
18. Duval, T. S., Silvia, P. J., & Lalwani, N. (2012). *Self-awareness & causal attribution: A dual systems theory*: Springer Science & Business Media.
19. Freeman, C. M., Nick Ross, Marnie. (2000). The impact of individual philosophies of teamwork on multi-professional practice and the implications for education. *Journal of interprofessional care*, 14(3), 237-247.
20. Gamst, G., Meyers, L. S., & Guarino, A. (2008). *Analysis of variance designs: A conceptual and computational approach with SPSS and SAS*: Cambridge University Press.
21. Glaeser, E. L., Rosenthal, S. S., & Strange, W. C. (2010). Urban economics and entrepreneurship. *Journal of urban economics*, 67(1), 1-14.
22. Graham, J. F., Stendardi, E. J., Myers, J. K., & Graham, M. J. (2002). Gender differences in investment strategies: an information processing perspective. *International journal of bank marketing*.
23. Grover, A., & Singh, R. B. (2015). Analysis of urban heat island (UHI) in relation to normalized difference vegetation index (NDVI): A comparative study of Delhi and Mumbai. *Environments*, 2(2), 125-138.
24. Grover, P. (2015). Study on behavioural factors influencing investment decision in real estate: a case study of Udham Singh Nagar (Uttarakhand). *International Journal of Engineering Technology, Management and Applied*, 150-158.
25. Guiteras, R., Levinsohn, J., & Mobarak, A. M. (2015). Encouraging sanitation investment in the developing world: a cluster-randomized trial. *Science*, 348(6237), 903-906.
26. Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (1998). *Multivariate data analysis* (Vol. 5): Prentice hall Upper Saddle River, NJ.
27. Hanson, S. G., Shleifer, A., Stein, J. C., & Vishny, R. W. (2015). Banks as patient fixed-income investors. *Journal of Financial Economics*, 117(3), 449-469.
28. Hassan, A., Saleem, I., Anwar, I., & Hussain, S. A. (2020). Entrepreneurial intention of Indian university students: the role of opportunity recognition and entrepreneurship education. *Education+ Training*.
29. Hicks, J. R. (1989). A suggestion for simplifying the theory of money *General Equilibrium Models of Monetary Economics* (pp. 7-23): Elsevier.
30. Johns, R. (2005). One size doesn't fit all: Selecting response scales for attitude items. *Journal of Elections, Public Opinion & Parties*, 15(2), 237-264.
31. Keloharju, M., Knüpfner, S., & Linnainmaa, J. (2012). Do investors buy what they know? Product market choices and investment decisions. *The Review of Financial Studies*, 25(10), 2921-2958.
32. Khan, S. N. (2017). Financial Risk Tolerance: An Analysis of Investor's Cognitive, Decision-Making Styles and Cultural Effects. *Journal of Finance, Accounting & Management*, 8(1).
33. Kipping, R., Campbell, R. M., MacArthur, G., Gunnell, D., & Hickman, M. (2012). Multiple risk behaviour in adolescence. *Journal of Public Health*, 34(suppl_1), i1-i2.
34. Kuder, G. F., & Richardson, M. W. (1937). The theory of the estimation of test reliability. *Psychometrika*, 2(3), 151-160.
35. Nelson, J. A. (2016). Are Women Really More Risk-Averse than Men. *GLOBAL DEVELOPMENT AND ENVIRONMENT INSTITUTE WORKING PAPER NO. 12-05*
36. Olsen, R. A. (2008). Trust as risk and the foundation of investment value. *The Journal of Socio-Economics*, 37(6), 2189-2200.
37. Osili, U. O., & Paulson, A. L. (2008). Institutions and financial development: Evidence from international migrants in the United States. *The Review of Economics and Statistics*, 90(3), 498-517.
38. Pearson, R. H., & Mundform, D. J. (2010). Recommended sample size for conducting exploratory factor analysis on dichotomous data. *Journal of Modern Applied Statistical Methods*, 9(2), 5.
39. Pompian, M. M., & Longo, J. M. (2004). A new paradigm for practical application of behavioral finance: creating investment programs based on personality type and gender to produce better investment outcomes. *The Journal of Wealth Management*, 7(2), 9-15.
40. Sharma, D. R., Chalise, M., & Dangol, J. (2017). RISK TOLERANCE BEHAVIOUR OF INDIVIDUAL NEPALESE INVESTORS. *Global Management Review*, 11(2), 63-70.
41. Van den Steen, E. (2002). Skill or luck? Biases of rational agents.

42. Zhang, Y., Sieuwerts, A. M., McGreevy, M., Casey, G., Cufer, T., Paradiso, A., . . . Crowe, J. (2009). The 76-gene signature defines high-risk patients that benefit from adjuvant tamoxifen therapy. *Breast cancer research and treatment, 116*(2), 303-309.
43. Zimmerman, J. A., Fiske, A., & Scogin, F. (2011). Mentoring in clinical geropsychology: Across the stages of professional development. *Educational gerontology, 37*(5), 355-369.