Decoding The Psychological Drivers of Real Estate Decisions - A Behavioural Finance Perspective

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Abstract
Understanding the financial behaviour of investors is very important because it is the underlying factor which showcases the financial wellness and wealth accumulated by the public. Individual Impulsive beliefs stimulate psychological factors which in turn affect behaviour (Azjen, 1980) Aim of this research is to test the complex relationship between financial attitude, financial knowledge, and their combined influence on financial behaviour related to real estate investments. With a growing emphasis on financial well-being, understanding the factors that shape individuals' financial decisions is of paramount importance. The study reviews existing literature provides a conceptual framework, and offers insights into how positive financial attitudes and enhanced financial knowledge can lead to responsible financial behaviours. Data was collected from the southern part of India, using Partial Least Square-Structural Equation Modeling relationship between the variables were analysed. Through an analysis of empirical studies, this article highlights the significant role psychological and cognitive factors play in shaping financial outcomes. The findings of this study help the real estate promoters to understand the decision-making style and mentality of investors towards real estate investments.

Keywords: Financial Attitude, Financial Knowledge, Financial Self-Efficacy, Financial Behaviour

Introduction

Human financial behaviour is a complex process which is not easy to understand due to the irrational thinking of the behaviour of investors, still, it is quite significant in today's context to study the factors behind the unbounded decision and implementation. Since rational factors play a predominant role in financial decisions, the emergence of financial behaviour portrayed a different perception to financial analysts to quantify the value of personal and psychological factors in financial determinations. Financial behaviour talks about individuals' planning on their income, expenditure, savings and investment actions, moreover, this financial behaviour aims to analyse using psychological aspects and express the facts of financial markets (Olsen, 1988). This study focuses on individual financial behaviour, especially in Real estate investment decisions towards their savings, investments, expenses, pension planning, paying bills, etc. It has been taken as an endogenous variable, and other latent factors such as financial attitude, financial knowledge and financial self-efficacy were the exogenous variables. The relationship between these attributes explains the effect of direct and indirect effects of independent variables on dependent variables.

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Objectives

- To identify the constructs which influence financial behaviour.
- To explore the relationship between financial attitude, financial knowledge, and financial behaviour.
- To examine the mediation effect of financial efficacy between exogenous variables and endogenous variables.

Review of Literature

Behavioural finance threw a light on finance viewed in different aspects i-e it proved that financial decisions were influenced by psychological factors (Barberis and Thaler, 2003; Shefrin, 2000). In general common people believe that there is a high chance of capital appreciation in real estate investments. Investor collects a large volume of clumsy information about real estate, by heuristic decision-making method, the human mind analyses this complex information, to avoid the risk with the support of other behavioural variables and they conclude their decision (Jagongo and Mutswenje, 2014; Causi, 2017). Garay (2016) studied the potential advantages of real estate investments i-e absolute returns, diversification, hedge against inflation, stable cash inflow and income tax benefits also his study figured out, that heterogeneity, prevention of optimal portfolios and illiquidity were the demerits. The involvement of investors in investment decisions highly influences investment behaviour (Alexandra Bernasek, 2002).

Financial Knowledge (FK) and Financial behaviour (FB)
As per Lind et al., (2020), Individuals who have financial knowledge are more positive about the significance of sound financial management and aware of the future welfare. Financial Prosperity can be improved by financial education which influences financial management (Sabri & Falahati, 2012). Individuals with high financial knowledge also have high debt because of weak attitudes and financial behaviour (Idris et. al., 2015). Lack of financial knowledge and financial literacy, poor attitude, and credit management cause financial disaster (Murugiah, 2016), hence it is important to educate the people and train them to improve their skills to make optimized financial decisions. Individuals, with a poor understanding in the basic concept of finance and a lack of financial knowledge will affect their financial decisions (Arceo-Gómez & Villagómez, 2017). Financial knowledge improves the financial capacity of an individual which helps to study and analyze financial data and make appropriate financial decisions (Lusardi & Mitchell, 2017). Financial knowledge has crucial effects on financial decisions but there is a deficiency observed in research work carried out by developing countries related to financial literacy and knowledge (Goyal and Kumar, 2021). Hence the hypothesis frames as:

H_1: Financial Knowledge effect on Financial behaviour
Financial Attitude (FA) & Financial behaviour (FB)
As per the theory of planned behaviour, financial attitude can ignite an individual's financial behaviour. Financial attitudes play a key role in deciding whether an individual gives way or success while managing finance (Dalziel & Çoşkun, 2020). The strengthening financial attitude makes investors think more, have their perceptions, and assess finance were employed to finance attitudes (Rai et al., 2019). Understanding the importance of managing finance can be done in an easy manner using a financial attitude. Herdjiono & Damanik (2016) and Abbas et. al., (2020), discovered that financial behaviour was influenced by financial attitude. W. Mendes-da-silva also found that financial attitude has a direct relationship with financial behaviour. The following hypothesis was framed as:

H_2: Financial Attitude effect on Financial behaviour
Financial Self-Efficacy (FSE) & Financial behaviour (FB)
Financial self-efficacy is deemed as a positive challenging factor which changes individual behaviour and stimulates them to take valuable financial decisions (Sheza Riaz, et. al., 2022). A person who believes he can manage his finances is said to have financial self-efficacy. Since self-efficacy and self-confidence are related, someone who is confident in their ability to handle their finances would approach that task with the appropriate mindset. One indication of financial self-efficacy is the motivation to manage funds. To study this relationship following hypothesis was framed.

H_3: Financial Self-Efficacy effect on Financial behaviour
Interrelationship between FA, FK, FSE & FB
The study carried out by Ibrahim & Alqaydi (2013) states that people with robust financial attitudes were likely to use less their credit cards. Fathin Ahmad Faique et.al., (2017) examine the relationship between financial attitude, financial self-efficacy, and financial behaviour. The results show that financial attitude acts as a mediates between financial self-efficacy on financial behaviour, partially and simultaneously allowing the financial self-efficacy to directly affect on outcome variable. The accumulation of information regarding grasping financial concepts and financial products is referred to as financial attitude, which is impacted by financial knowledge (Huston, 2010). The relationship between financial knowledge and financial behaviour is completely mediated by financial attitude According to this study, a person's level of financial knowledge will influence their attitude toward money, and a person's level of attitude will influence their level of financial behaviour. A person will have the proper attitude toward managing his funds the more motivated he is to do so (Wirawan ED Radianto, et. al., 2020). This study backs up numerous earlier investigations. Financial attitude, according to Dalziel and Ozkun (2020), acts as a mediator in the interaction between financial knowledge and financial behaviour. This implies that changing one's financial mindset improves the relationship. Financial knowledge, according to Yong et al. (2018), cannot immediately change a person's financial behaviour; instead, it must first affect that person's attitude towards money.

H_4: Financial Self-Efficacy mediates the relationship between Financial Attitude and Financial behaviour
H_5: Financial Self-Efficacy mediates the relationship between Financial Knowledge and Financial behaviour

Methodology
The boom in IT industries, automobile, retail, hospitals and education institutions was the driving force for real estate growth (Sayali Sandbhor, et al., 2013). This study was carried out in the Southern part of India. Data has been collected from investors who invested in real estate recently which means invested in the last five years. This study examined the financial behaviour of working people in the southern part of India. Questionnaires were adopted from the earlier research

and slightly modified for the suitability of this study. The following table details the research instrument adopted in this study.

Table 1. Measurement of Scales

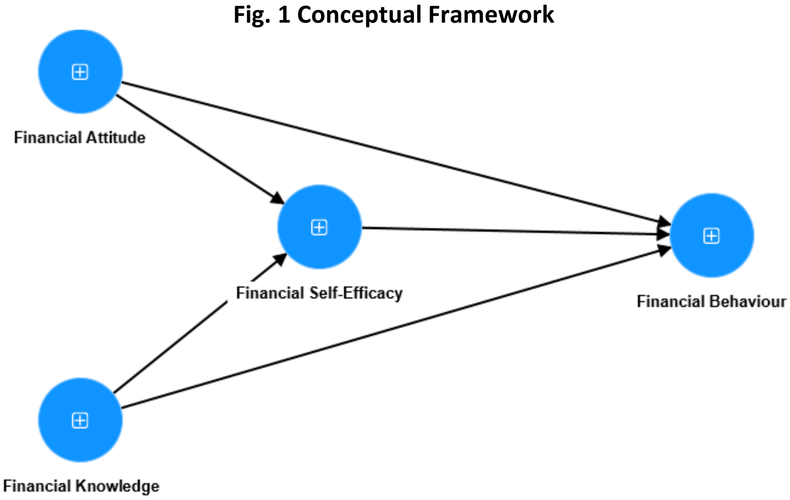
Construct	Variables	Reference
Financial behaviour	Planning to invest or buy properties, working on income and expenditure, managing debts and emergencies.	Potrich et al. (2015).
Financial Attitude	Thinking about regular savings habits, financial objectives, maintaining budget, spending priorities, concern about paying off the debt, monthly payments, planning forward for financial success	Rajna, A., et.al., (2011) Agus Zainul Arifin (2018)
Financial Self-Efficacy	Ability to find solution when a financial crisis arises, to manage credits, to handle money, concerned about retirement period, to manage bills, to stick with the budget	Lown, J.M. (2011) Shafinar Ismail (2017)
Financial Knowledge	Knowledge about savings, investment, interest rate, inflation, risk and returns.	Van Rooij et al. (2012) Potrich et al. (2015).

Well well-defined questionnaire has been deployed to collect the data. Anokye M. Adam (2020) suggested that for the population above 10 lakhs, with a 95% confidence level, a 267 sample size is advisable. Based on this research input, the sample size of 300 has been précised in this study. The survey method was used to collect the data. Samples have been selected using purposive sampling techniques, since the study focuses on individual investors those who invested huge amounts in real estate, lumpsum investment in shares, buying precious metals etc.

Conceptual Framework

Financial attitudes express the views of investors related to their investment. The beliefs of investors induced their financial attitude. Experience and gathered information give clarity which in turn improves the financial knowledge of investors. The self-confidence of investors gives them the courage to make robust financial decisions. All these attributes were gathered from earlier research and the proposed research model was framed to study the relationship between financial attitude, and financial knowledge towards financial behaviour. Financial self-efficacy has been taken as a mediating factor and indirect effect on financial behaviour also analyzed in the following sections.

Fig. 1 Conceptual Framework



Structural Model Validation

To validate the model some of the crucial parameters (Hair et. al., 2014) are cronbach's alpha, composite reliability, outer loadings, average variance explained, and variance inflation factor were tested using the structural equation modelling the results were displayed in the following table.

Table 2. Model Validation

Variables	Outer loadings	Cronbach's alpha	CR	AVE	VIF
ATT1	0.808	0.864	0.898	0.597	2.304
ATT2	0.811				2.226
ATT3	0.836				2.239
ATT4	0.750				1.791
ATT5	0.713				1.546
ATT6	0.708				1.587
FIN1	0.746	0.818	0.873	0.579	1.525
FIN2	0.733				1.533
FIN5	0.750				1.691
FIN6	0.808				1.892
FIN7	0.765				1.836
INT2	0.792	0.804	0.866	0.567	1.545
INT3	0.764				1.515
INT4	0.727				1.394
INT5	0.776				1.463
SE1	0.768	0.764	0.850	0.586	1.793
SE2	0.825				2.022
SE3	0.774				1.712
SE4	0.800				1.797
SE6	0.568				1.239

To find out the sample sufficiency, a Posthoc test was conducted the above table portrayed that the sample collected for this study was adequate to prove the conceptual model. To ensure the reliability and validity of the scales, each construct underwent the composite reliability (CR) test, majority of the variable's CR value ranges from 0.76 to 0.86, which is in the accepted range. A few variable's CR values were less than 0.7 those variables (FIN3, FIN4, INT1, INT6, SE5, SE7) were removed from the further process. Next, Cronbach's Alpha value lies between 0.76 and 0.86, which was above the minimum value of 0.70 as indicated by Hair et. al., (2014). Fornell & Larker (1981) suggested that the Average Variance Explained should be a minimum 0.5 level which indicates the convergent validity of the construct.

In this study, AVE values are above 0.5 for all constructs. Moreover, to test the multicollinearity issue Variance Inflation Factor (VIF) was calculated, with financial attitude at 1.949, financial knowledge at 1.695, financial intention has 1.479 and finally financial behaviour at 1.712. The thumb rule for VIF was the value should be less than <3, it was clear that all the constructs VIF was less than 3 which means the multicollinearity issue was overruled. Hence it was clear that the outer model indicators indicate the study instruments have good reliability, discriminant validity and convergent validity.

The proposed conceptual model consists of two endogenous (Financial self-efficacy and financial behaviour) and two exogenous variables (Financial attitude, and financial knowledge). The following hypotheses represent the causal relationship between the constructs.

H_1 is denoted as $FA \longrightarrow FB$
H_2 is denoted as $FK \longrightarrow FB$
H_4 is denoted as $FA \longrightarrow FSE \longrightarrow FB$
H_5 is denoted as $FK \longrightarrow FSE \longrightarrow FB$

According to Spearman's Correlation, all the construct's values are significant in this study, the below given diagonal values show the dimension of each construct and its relationship with other constructs are positive. Correlation between the financial knowledge and financial self-efficacy portrayed a high relationship.

Table 3. Relationship between Constructs

Constructs	FA	FB	FK	FSE
FA	1.000	0.364	0.368	0.399
FB	0.364	1.000	0.631	0.482
FK	0.368	0.631	1.000	0.529
FSE	0.399	0.482	0.529	1.000

Finally, discriminant validity was checked using the correlation value, the relationship between financial self-efficacy and financial attitude shows a low correlation of .399, financial self-efficacy with financial knowledge shows a medium correlation of 0.529, and financial knowledge and financial behaviour shows a high correlation of 0.631 when compared with other paths.

Using the SMARTPLS the intention of testing the hypothesis was highlighted in the below given fig.

Fig. 2 Hypotheses Testing

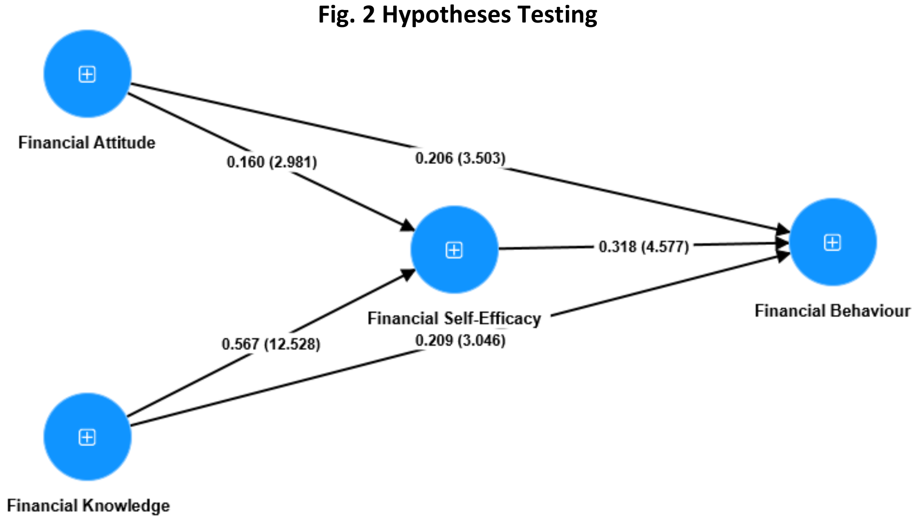


Table 4. Summary of Hypothesized Results

Hypothesis	β	*C.R./t-value*	P values	*Results*
H_1 *FA→FB*	0.206	3.503	0.000	*Accepted*
H_2 *FK→FB*	0.209	3.046	0.002	*Accepted*
H_3 FA→FSE	0.160	2.981	0.003	*Accepted*
H_4 FK→FSE	0.567	12.528	0.000	*Accepted*
H_5 *FA, FK→FSE→FB*	0.318	4.577	0.000	*Accepted*

*Note: β – standardized path coefficient, C.R. – critical ratio. * β is significant at .001 level.*

The above given identical regression values disclose the causal relationship between the selected constructs. The connection between financial attitude and financial behaviour is significant with a t-value of 3.503 and $p < 0.05$, hence hypothesis H_1 is accepted. The relationship between financial knowledge and financial behaviour t-value is 3.046 with $p < 0.05$ which shows a significant impact so H_2 is also accepted. Out of the five paths, an association between financial attitude and financial self-efficacy shows a low relationship when compared with other paths with a t-value of 2.981 & p-value is 0.003 which is significant well, H_3 is accepted.

Theoretical Implications

Exogenous variables (i-e) financial attitude and financial knowledge have positive and significant effects on the financial self-efficacy of the investor. If the individual has a positive attitude then it results in the behaviour of the individual, likewise, if the investor has good knowledge of the financial products and services it stimulates the financial behaviour. These results were supported in the earlier studies, by Agus Zainul Arifin (2017); Perry and Morri (2005); Scott, (2010). Along with these variables, financial self-efficacy has been taken as a mediating variable, test results show that this effect strengthens the relationship of exogenous and endogenous variables. Hence it is clear that FSE plays a crucial role, it means if the individual has self-confidence in financial matters it reflects positively in the financial behaviour. This prediction was similar to the earlier findings of Jeffrey (2004); Povey et al.,(2000).

Practical Implications

If an individual investor can be able to realize the importance of psychological factors which impact their financial behaviour then it will help them to improve their financial well-being. This study has authenticated that financial attitude and financial knowledge play a key role in the financial behaviour of an individual and it aids the investor in understanding, to what extent these factors impact their financial behaviours. This study guides investors to understand their financial planning and verify whether their savings, investment and buying behaviour will coincide with their future financial goals in a logical way.

This study aids in predicting the behaviour of investors and guides the investors in a better way which in turn will increase the greater level of satisfaction with their investment. Moreover, it helps investors, families, and other groups to organize and manage their finances, enable saving, and minimize defaults by realizing the attributes impact on financial behaviour, the public will benefit from the findings of this study.

Limitations of the study

Few limitations were pointed out that this study quantified the psychological factors, which may change at any time according to the situation faced by the individuals, hence it restricted the generalized results. Various irrational factors stimulate financial behaviour, in this proposed conceptual model only three exogenous variables only studied. While increasing the number of constructs the results will be more accurate. Moreover, this study used a verified questionnaire which had been already deployed in this field of investigation, adding new questions will be helpful to get another dimension of investors.

Conclusions

The relationship between financial attitude, financial knowledge, financial self-efficacy, and financial behaviour is complex and intertwined. Positive financial attitudes combined with sufficient financial knowledge and the effect of financial self-efficacy tend to result in responsible financial behaviour of real estate investors, such as saving, investing, and effective debt management. The intervention of financial self-efficacy strengthens the effect of the other two exogenous variables on the endogenous variable. To promote healthy financial behaviour, it's essential to provide education and resources that enhance financial knowledge, foster positive financial attitudes, and boost financial self-efficacy. By addressing these factors, individuals can develop the skills and confidence needed to make informed financial decisions and work towards achieving their long-term financial goals.

References

1. Ajzen, Icek dan Fishbein. 1980. Theory of Reasoned Action.
2. Alexandra Bernasek, Vickie L. Bajtelsmit. Predictors of Women's Involvement In Household Financial Decision-Making Financial Counseling and Planning Volume 13(2).
3. Agus Zainul Arifin1 (2017). The Influence of Financial Knowledge, Control and Income on Individual Financial Behaviour. European Research Studies Journal Volume XX, Issue 3A, 2017, pp 635-648.
4. Agus Zainul Arifin (2018). Influence of financial attitude, financial behaviour, financial capability on financial satisfaction. Advances in Social Science, Education and Humanities Research (ASSEHR), volume 186. 15th International Symposium on Management (INSYMA 2018).
5. Barberis, N. and R. Thaler, 2003. A survey of behavioral finance. Handbook of the Economics of Finance, 1: 1053-1128
6. Causi, G.L., 2017. Theories of investor behaviour: From the efficient market hypothesis to behavioural finance. Tallinn University of Technology.
7. Dalziel, N., & Çoşkun, A. (2020). Mediation effect of financial attitude on financial knowledge and financial behaviour. International Journal of Research in Business and Social Science (2147-4478), 9(2), 01-08. doi:10.20525/ijrbs.v9i2.647
8. Fathin Ahmad Faique1, Shafinar Ismail1 , Mohammed Hariri Bakri2 , Nur Hafidzah Idris1 , Zarinah Abu Yazid1 , Shahreena Daud1 , Norraeffa Md Taib. Testing the Financial Attitude as a Mediator for the Relationship between Financial Self-Efficacy with Financial Behaviour. Journal of Computational and Theoretical Nanoscience · August 2017 DOI: 10.1166/asl.2017.9632
9. Fornell, C., & Larcker, D. F. (1981). Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics. Journal of Marketing Research, 18, 382-388. https://doi.org/10.2307/3150980
10. Garay, U. "Real Estate as an Investment." In Kazemi, H.; Black, K.; and D. Chambers (Editors), Alternative Investments: CAIA Level II, Chapter 14, Wiley Finance, 3rd Edition, 2016: pp. 343-358
11. Hair, J. F. et al. (2014). Partial Least Squares Structural Equation Modeling (PLS-SEM): An Emerging Tool in Business Research. European Business Review, 26, 106-121. https://doi.org/10.1108/EBR-10-2013-0128
12. Herdjiono, I., & Damanik, L. A. (2016). Pengaruh financial attitude, financial knowledge, parental income terhadap financial management behaviour. Jurnal Manajemen Teori dan Terapan.

Journal of Theory and Applied Management, 9(3), 226-232
13. Huston, S. J. (2010). Measuring financial literacy. Journal of Consumer Affairs, 44(2), 296-316.
14. Jagongo, A. and V.S. Mutswenje, 2014. A survey of the factors influencing investment decisions: The case of individual investors at the NSE. International Journal of Humanities and Social Science, 4(4): 92-102
15. Lind, T., Ahmed, A., Skagerlund, K., Strömbäck, C., Västfjäll, D., & Tinghög, G. (2020). Competence, Confidence, and Gender: The Role of Objective and Subjective Financial Knowledge in Household Finance. Journal of Family and Economic Issues. doi:10.1007/s10834-020- 09678-9 [29]
16. Lown, J.M. (2011). Development and Validation of a Financial Self-Efficacy Scale. Journal of Financial Counseling and Planning, 22(2), 54-63
17. Jean M. Lown, Ph.D., Family, Consumer, and Human Development Department, 2905 Old Main Hill, Utah State University, Logan, UT 84322-2905,(435) 797-1569, jean.lown@usu.edu
(PDF) Development and Validation of a Financial Self-Efficacy Scale. Available from: https://www.researchgate.net/publication/228293306_Development_and_Validation_of_a_Financial_Self-Efficacy_Scale [accessed Oct 12 2022].
18. Jeffery J Martin and Pamela Hodges Kulinna. (2004). Self-Efficacy Theory and Theory of Planned behaviour: Teaching Physically Active Physical Education Classes. Research Quarterly for Exercise and Sports. 2004.
19. M. Sabri, & L. Falahati, "Estimating a model of subjective financial well-being among college students". International Journal of Humanities and Social Science, 2(18), 191-199,2012
20. N. H. Idris, Z. A. Yazid, F. A. Faique, S. Daud, M. H. Bakri, and S. Ismail, "Financial Literacy and Debt Burden Among Malay Muslim Youth Workers in Malaysia.," pp. 2–5, 2015.
21. L. Murugiah, "The Level of Understanding and Strategies to Enhance Financial Literacy among Malaysian," vol. 6, pp. 130– 139, 2016.
22. M. E. Ibrahim and F. R. Alqaydi, "Financial literacy, personal financial attitude, and forms of personal debt among residents of the UAE," Int. J. Econ. Financ., vol. 5, no. 7, pp. 126–138, 2013.
23. W. Mendes-da-silva, "Development of a financial literacy model for university students," 2016.
24. Olsen, R.A. 1998. Behavioural finance and its implications for stock-price volatility. Financial Analysis Journal, 54.
25. Povey, R., Conner, M., Sparks, P., James, R., & Sheperd, R. (2000). Application of the Theory of Planned behaviour to two dietary behaviours: Roles of perceived control and self-efficacy.British Journal of Health Psychology, 5, 121-139.
26. Rajna, A., Ezat, W.P.S., Junid, S.A., Moshiri, H. 2011. Financial Management Attitude and Practice among the Medical Practitioners in Public and Private Medical Service in Malaysia. International Journal of Business and Management 6(8): 105-113.
27. Rai, K., Dua, S., & Yadav, M. (2019). Association of Financial Attitude, Financial behaviour and Financial Knowledge Towards Financial Literacy: A Structural Equation Modeling Approach. FIIB Business Review, 8(1), 51-60. doi:10.1177/2319714519826651.
28. Sayali Sandbhor , Rohan Botre. (2013). A Systematic Approach Towards Restoration of Heritage Buildings- A Case Study. IJRET: International Journal of Research in Engineering and Technology ISSN: 2319-1163
29. Scott, R. H., III. (2010). Credit card ownership among American high school seniors: 1997-2008. Journal of Family and Economic Issues, 31(2), 151-160.
30. Shafinar Ismail, Fathin Ahmad Faique, Mohammed Hariri Bakri, Norraeffa MD Taib (2017). The Role of Financial Self-Efficacy Scale in Predicting Financial Behaviour. Journal of Computational and Theoretical Nanoscience 23(5):4635-39.
31. Shefrin, H., 2000. Beyond greed and fear. Boston: Harvard University Press.
32. Sheza Riaz, Hadi Hassan Khan, Bilal Sarwar, Wahab Ahmed, Noor Muhammad, Sajjida Reza , Sheikh Muhammad Nabeel Ul Haq (2022). Influence of Financial Social Agents and Attitude Toward Money on Financial Literacy: The Mediating Role of Financial Self-Efficacy and Moderating Role of Mindfulness. S AGE Open July-September 2022: 1–16. DOI: 10.1177/21582440221117140.
33. Vanessa G. Perry And Marlene D. Morris. (2005) Who Is in Control? The Role of Self-Perception, Knowledge, and Income in Explaining Consumer Financial Behaviour. The Journal of Consumer Affairs, Vol. 39, No. 2, 2005 ISSN 0022-0078.
34. Wirawan ED Radianto, Tommy Chrisitan Efrata, Fulgentius Danardana Murwani, Liliana Dewi (2020). The Role of Financial Attitude in The Relationship Between Financial Knowledge and Financial Behaviour. Journal of Xi'an University of Architecture & Technology. Volume XII, Issue XII, 2020. ISSN No : 1006-7930.