

The Fintech and Financial Literacy Impact on Investment Decision: As Mediating Role of Financial Behaviour

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Abstract: This research paper plays a role regarding investment decision making to the people impact of modern financial system in people's in itself-belief financial-literacy in defining the managing basic financial information and risk management. It is a leading research article to review the financial decision making. Financial literacy is an important skill to manage personal wealth and good economic health. The total 513 observation have been taken to conduct this study this is the pioneer to seek the task of fintech and financial behavior perspective. The results from our investigation examine the recent discovery of modern financial systems like financial technology confidence in the strong significant impact on investment decision making and mediating by the financial literacy

Keywords: Fintech, Financial Literacy, Financial Behavior, Investment Decision

1. INTRODUCTION

Behavioural Finance is one of the latest ways to make investment decisions that have changed in response to the challenges experienced by the standard model. Broadly speaking, it says some traders were completely unreasonable when making investment decisions (Raheja & Dhiman, 2019). Ethical finance also describes how various psychological behaviours affect investor behaviour and management behaviour during decision-making process (Van Raaij, 2012).

The morale of investors has remained at the heart of the investigators since the publication of Theory of Market (Nur Aini & Lutfi, 2019). There is a lot of criticism in the idea of investor behaviour as a rational understanding of investor behaviour is difficult to explain, because it often happens. Behavioural funds provide a signal that a person's unpredictable behaviour is reversed (Hussain et al., 2021). The many behavioural bias that investors indulge in during investing has been seen as important in providing a better understanding of the behaviour of individual investors. Most investor behaviour is influenced by overconfidence (Keswani et al., 2019).

Investors, influenced by overconfidence, exaggerate their skills and abilities, reduce risk and overstep their financial ability (Pradikasari & Isbanah, 2018). However, overconfident investors exaggerate the facts and figures they have collected, exaggerating their predictive skills, ignoring real facts and taking unreasonable risks, depending on the cause (Azouzi & Anis, 2012). Investors involved in affirmative bias confirm their existing beliefs and endorse previous views. Overconfidence and affirmative bias affect investor decision-making and change investor thinking. Religion is also one of the most important factors influencing the behaviour of investors (Mishra & Metilda, 2015). Although a number of factors have been studied in previous studies, no previous effort has been made to examine the impact of religion on self-reliance and to ensure investment and investment decisions, especially in the context of Pakistan (Joseph et al., 2015).

Investors' morale has remained at the heart of the investigators since the publication of Theory of Market (Afzali et al., 2021). There is a lot of criticism in the idea of investor behaviour as a rational understanding of investor behaviour is challenging to explain, because it often happens (Arora & Chakraborty, 2021). Behavioural funds provide a signal that a person's unpredictable behaviour is reversed (Hussain et al., 2021). The many behavioral biases that investors indulge in during investing have been seen as necessary in providing a better understanding of the behaviour of individual investors. Most investor behaviour is influenced by overconfidence (Betzer et al., 2021).

The next portion of the this study is discuss the literature review in which ail dependent and independent variable in details and further is methodology in which discuss about the data and measurement of the data sample techniques and last the test run to proof over hypothesis find the reliability of our data last paragraph is the conclusion remarks and future implementation of our study.

2. Literature review

Investment decision

Agreeing to Dewi&Purbawangsa (2018: 1876) investment decision making is the method of making conclusions and making choices on a few issues, making choices between two or more investment options or portion of changing inputs into yields.

The literature review focuses on dynamic and theoretical studies on ethical thinking and their impact on investment decisions considered in the current study. Moral finance assumes that a person's behaviour is influenced by emotions and cognitive errors when making an investment decision (Kalsum et al., 2018). These feelings and cognitive errors are behaviours that affect the behavior of investors. In the present study, we have tried to define the relationship between the two sides of the code, namely overconfidence, assurance bias and decision-making by investors

Investment decision making is the method of measuring the merits and demerits of a conclusion related to spending(Almenberg& Gerdes, 2012). Investment decision making is used as a dependent variable in this study. It is measured with four items by employing a 5-point Likert scale from the studies of Rosenboim et al. (2010). Where 1 denotes Strongly Disagree, and 5 denotes Strongly Agree.

Fintech

Financial technology (fintech) is recognized as one of the foremost vital developments within the financial industry and is advancing at a fast speed, driven in portion by the sharing economy, favourable direction, and data innovation. Fintech guarantees to reshape the financial industry by cutting costs, movingforward the quality of financial administrations,and making a more different and steady financial scene ('The FinTech Revolution,' 2015).

The development of speculation in fintech has been marvellous. Concurring to Accenture (2016a), worldwide venture in fintech wanders within the first quarter of 2016 come to \$5.3 billion, a 67% increment over the same period the past year, and the percentage of ventures planning to fintech companies in Europe and the Asia-Pacific about multiplied to 62%.

H1: The Fintech influence on investment decision

H2: The Fintech influence on investment behaviour

Financial literacy

Financial literacy gives massive capability advantages. For example, when persons are financially knowledgeable, they're regularly in a situation to shape sound financial decisions previously they might have. Confident choices may be likely to make trouble on financial savings, borrowings, investment, insurance, and retirement plans. Moreover, financial literacy provides a high-quality edge as financially informed people produce to be less economically fragile(Akpene Akakpo et al., 2022).

Current research does not show a range of causes from financial knowledge to complex financial literacy to improve financial risk tolerance to healthier financial results; however, the hunt for active financial learning is still ongoing(Santini et al., 2019). Consequently, this research thesis attempts to pursue sound decision-making for people who are measured to have better financial knowledge

The following hypotheses are be proposed

H3: The financial literacy influence on investment decision

H4: The financial literacy influence on investment behaviour

Financial Behaviour

Financial Behaviour could be a behaviour related to monetary applications. According to Ricciardi (2000), monetary behaviour may be a teach of science in which the inherent interaction of disciplines of science and continuously integrate so that the discourse isn't done separation. A individual who needs to memorize monetary behaviour must have an understanding of the mental, sociological, and budgetary viewpoints. Shefrin (2000) characterizes money related behaviour as a think about of how mental wonders influence their money related behaviour. Nofsinger (2001) characterizes the money related behaviour of learning how people really carry on in a budgetary setting. In specific, learn how brain research impacts budgetary, corporate and money related showcase decisions. H3: The financial literacy influence on investment decision

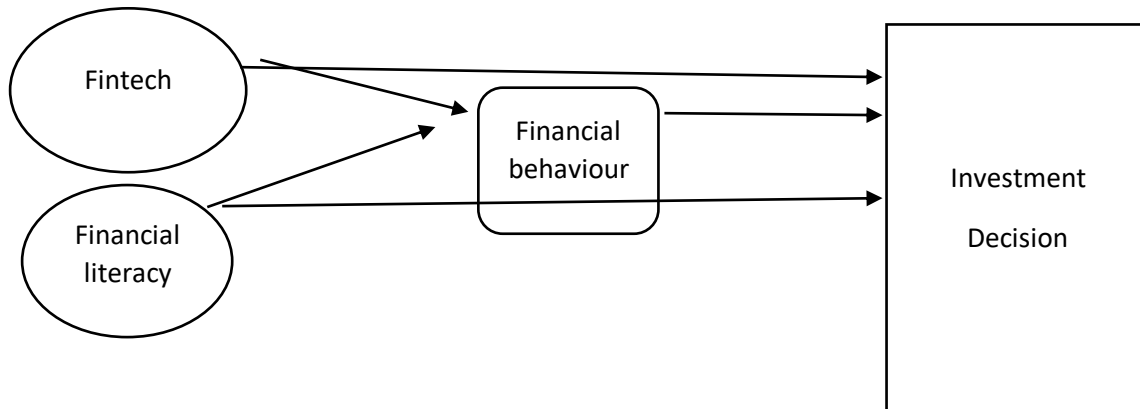
H5: The investment decision influence on investment behaviour

H6: The financial literacy mediates the effect of financial behaviour on investment decision

H7: The Fintech mediates the effect of financial behaviour on investment decision..

3. Methodology

This study focus only primary research the population of our research is the people have bank accounts and sufficient knowledge of finance we collected the data mostly PhD and MS students and way of collection data is questionnaire. Our sample size is 500 people which we collect the data in form of question are the primarily exploratory research quantitative in nature we can find out the fintech and financially literacy on investment decision and financial behaviour is an mediator factors the also descriptive analysis validity test and VAF analysis done



Econometrics Techniques and Equation

To study the structural relationships between variables, the Structural Equation Modeling (SEM) method is used. This method combines multiple regression analysis with confirmatory factor analysis. Partial least squares structural equation modelling was revealed to be extremely helpful for a complete evaluation of the research model (Perveen et al., 2020). Partially least squares structural equation modelling outcomes are typically separated into two categories: goodness of measurements and evaluating the research model. The multiple regression model equation was used to evaluate all hypotheses.

The study's initial goal is to look into the effects of financial technology, financial behaviour, and financial literacy on Investment decision. The following multiple regression model was used to assess the hypotheses proposed in this study (Anshika et al., 2021).

$$Financial\ Behavior_i = \beta_0 + \beta_1 * Fintech_i + \beta_2 * Financial\ Literacy_i + \beta_3 * GEN_i + \beta_4 * age_i + \beta_5 * Education_i + \beta_6 * Incom_i + \varepsilon_i. \quad (1)$$

Eq 1 Financial behaviour is dependent variable, Fintech and financial literacy is independent variable .the gender ,age, education and income are control variable

$$Investment\ Decision_i = \beta_0 + \beta_1 * FFintech_i + \beta_2 * Financial\ Literacy_i + \beta_3 * GEN_i + \beta_4 * age_i + \beta_5 * Education_i + \beta_6 * Incom_i + \varepsilon_i. \quad (2)$$

$$Investment\ Decision_i = \beta_0 + \beta_1 * Fintech_i + \beta_2 * Financial\ Literacy_i + \beta_3 * Financial\ Behavior_i + \beta_3 * GEN_i + \beta_4 * age_i + \beta_5 * Education_i + \beta_6 * Incom_i + \varepsilon_i. \quad (3)$$

Eq 3 the financial behaviour is an mediating role and investment decision is dependent variable the Eq 2 represent without mediating effect of financial behaviour on investment decision

Where I stands for the number of the participants

Financial Behavior_i is stand for the *Financial behaviour of the participants*

Fintech_i is stand for the *financial technooogy*

Financial Literacy_i is stands for the *financial litracyof the participants*

GEN_i is stands for the *gender of the participants*

age_i is stands for the *age of the participants*

Education_i is stands for the *education of the participants*

Incom_i is stands for the *income of the participants*

Demographic factors include questions about income and age

Variables	Definitions & Measurement Techniques
Control Variables	
Age	Age (1=less than 20 years, 2= 21- 30 years , 3= 31- 40 years, 4= 41-50 years, and 5= above 50 years)
Gender	Gender (1= male, 2= female, 3= prefer not to say)

Education Education (1= primary, 2= Secondary, 3= Graduation, 4= post-graduate, 5= Doctorate, 6= prefer not to say)

Income Income range per annum Pakistani Rupees (1= 0-500,000, 2=500,001-1000,000, 3= 1000,001-2000,000, 4= above 2000,000)

Occupation Occupation (1= businesses , 2=Job, 3= prefer not to say)

Other Variables

Financial Literacy The financial literacy scale includes knowledge of risk diversification, inflation, and compound interest (Klapper& Lusardi, 2020). By using a 5-points Likert scale

Fintech Financial technology refers to fintech services in the areas of payments, crowdfunding, wealth management, and lending (Brilianti&Lutfi, 2020; Hilgert et al., 2003). Which is measured by using a 7-points Likert scale*

Financial Behavior Financial behavior is an individual’s perception of financial management (Grable et al., 2009). Using 5-points Likert scale*

Investment decision People with better investment decision have sufficient resources to meet their expenses, feel satisfied with their lives, and live comfortably. The scale of investment decision is adopted from CPFBS-USA (2017). 5-points Likert scale*

*5-points Likert scale (1= Strongly Disagree, 2= Disagree, 3= Neutral, 4= Agree, 5= Strongly Agree)

Non-response bias

The chance of any potential non-response bias was assessed using the Mann-Whitney Utest among early and late participants (Weiss and Heide, 1993). Based on proportions and approximating the actual way in which surveys were returned, first 50 observations were taken as the early participants, and the last 50 were considered as the late participants. The findings demonstrate that the significance probability value of all variables was atleast0.05 (i.e. insignificant), thus there was no statistically significant difference among early and late participants

Among early and late participants

Multicollinearity

The amount of multicollinearity was examined through both the tolerance and the variance inflation factors (VIF). The tolerance values for all the independent constructs (three dimensions of OJ) were above the recommended level of 0.10 (Cohen et al., 2003).

	ID	FT	FB	FL	ED	AGE	IN	OC
ID_TOTAL	1	0.00492	0.0238	-0.0517	-0.1114	0.0716	-0.0548	-0.0585
FT_TOTAL	0.0049	1	0.0386	-0.0105	-0.0478	-0.0185	-0.0384	-0.0292
FB_TOTAL	0.0238	0.03864	1	-0.0202	0.07152	0.123	0.082	0.01282
FL	-0.052	-0.0105	-0.02	1	0.00019	0.0317	0.0234	0.04003
EDUCATION	-0.111	-0.0478	0.0715	0.00019	1	-0.0094	-0.0386	0.05375
AGE	0.0716	-0.0185	0.123	0.03174	-0.0094	1	-0.0466	0.05237
INCOME	-0.055	-0.0384	0.082	0.02343	-0.0386	-0.0466	1	-0.0814
OCCUPATION	-0.058	-0.0292	0.0128	0.04003	0.05375	0.0524	-0.0814	1

Data Analysis

Common method bias (CMB) According to Podsakoffetal(2003), when the data were self-reported and obtained through the same scale during the same period, this might affect the validity of results. Following the previous research, we used the several remedies to minimize the CMB (Podsakoff et al., 2003).First, each survey was escorted with a cover letter explaining the purpose of the study and ensuring about confidentiality of their responses. Second, the CMB was 747nalysed through Harman’s single factor test.

	ID	FT	FB	FL	ED	AGE	IN	OC
Mean	3.8504	4.5505	3.8091	3.13802	4.0339	3.2179	2.5617	1.5545
Median	3.86	4.57	3.86	3	4	3	2	2
Maximum	5	6.13	5	5	5	5	4	2
Minimum	1	2.48	1	1	2	1	1	1
Std. Dev.	0.7138	0.5632	0.6811	1.02296	0.83829	0.9404	1.4157	0.4976
Skewness	-0.623	-0.368	-0.5203	-0.1149	0.3075	-0.358	0.9125	-0.219
Kurtosis	3.4114	3.6765	3.3137	2.6341	2.84726	3.2536	3.3548	1.0481
Jarque-Bera	29.6	17.21	20.329	3.21201	6.9099	9.9229	59.485	68.873
Probability	0	0.0002	0.00003	0.0069	0.03159	0.007	0	0
Sum	1590.2	1879.3	1573.2	1296	1666	1329	1058	642
Sum Sq. Dev.	209.92	130.69	191.12	431.133	289.525	364.39	825.68	102.02
Observations	513	513	513	513	513	513	513	513

Table 3. Dependant Variable ID; Method: ordinal Least Square.

4. CONCLUSION CONCRETE FUTURE RECOMMENDATIONS

Model	Unstandardized		
	B	Std.Error	Sig
Constant	3.8521	3.317	0.000*
ID	-0.920	0.189	0.000*
FT	-21.925	4.715	0.000*
FL	-0.044	0.024	0.078***
FB	0.002	0.084	0.078***
AGE	0.159	0.079	0.047**
INCOME	-0.195	0.101	0.05

R-squared 0.34

F-stat 6.214

Prob (F-stat) 0.000

*Significance Level at 1%

**Significance Level at 5%

***Significance Level at 10%

The tables 3 shows the regression analysis with F-values. In this study, it is found that the Investment decision ($\beta = .920$, $p < 0.05$), fintech ($\beta = 21.92$, $p < 0.05$), financial literacy ($\beta = 0.159$, $p < 0.05$) and financial literacy ($\beta = .044$, $p < 0.10$) have significant positive impact on CG. Age ($\beta = 0.159$, $p < 0.05$), has significant positive impact on financial decision. However has Financial decision the significant impact on investment decision. The regression results also indicates that the predictors of investment decision explain 34.4 % of the variance ($R^2=0.344$, $F(6,124)$, $p < 0.05$) on investment decision an, the dependant variable of investment decision making and the result shows that all the hypotheses accept regarding this study coz of its significant positive result .

This study investigated the role of fintech in investor decision-making processes. In addition, the WITHcurrent research examines the role of financial behaviour as a mediating between fintech and the decision-making process for investors. The study focused on individual investors and have sufficient knowledge who used banking and other financial technology in Pakistan.

It has been suggested that psychological factors play an important role in investing in investment. Many affirmative biases improve investor decision-making accuracy (Reiter-Gavish et al., 2021). It helps the investor to make the right financial decision in the right way. However, fintech increase investment decision-making accuracy(Menyeh, 2021). Because of fintech , an investor may make the easy decision to invest (Menyeh, 2021). In addition, financial literacy is one of the most important factors affecting the accuracy of investment decisions(Auriol et al., 2021). Wlege about finance increases the decision-making accuracy of investors in Pakistan(Murad & Starmer, 2021).

Investigators are invited to examine various control factors that influence investment decisions as factors have a significant influence(Arora & Chakraborty, 2021). Therefore, the current model should be tested by adding more political elements.

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