Vol.12, No.3, pp.1-17, 2024

Print ISSN: 2052-6393(Print)

Online ISSN: 2052-6407(Online)

Website: https://www.eajournals.org/

Publication of the European Centre for Research Training and Development-UK

# Herding Bias and Financial Risk Tolerance On Individual Investment Performance in Nigeria: Moderated by Financial Literacy

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doi: https://doi.org/10.37745/ijbmr.2013/vol12n3117

Published February 24, 2024

**Citation**: Apochi J.G., Ahmed N.M., Okpanachi J. and Agbi S.E. (2024) Herding Bias and Financial Risk Tolerance On Individual Investment Performance in Nigeria: Moderated by Financial Literacy, *International Journal of Business and Management Review*, Vol.12, No.3, pp.1-17

**ABSTRACT:** Prior studies have shown that various individuals' behavioral traits such as herding bias and risk tolerance have an unfavorable effect on investors' decision-making. This paper examined the moderating role of financial literacy on herding bias and financial risk tolerance on individual investment performance in Nigeria. The population consisted of 460 active individual investors in Kaduna city as at the first quarter of 2023. A total of 460 copies of questionnaires were distributed, with 349 valid. A census method of sampling was used, and primary data was collected using a self-administered questionnaire and an online Google form. A 7-point Likert scale that ranged from '1' "Extremely Agree" to '7' "Extremely Disagree" was used. Smart-PLS version 4 was used to analyze the data. The study discovered that the herding bias has a positive and significant effect on investment performance, whereas financial risk tolerance has an insignificant negative effect on investment performance. Financial literacy has a positive but insignificant impact on investment performance. Furthermore, the moderating effect of financial literacy demonstrated that the herding bias has a significant and positive impact on investment performance. Risk tolerance has a significant negative influence on investment performance. This study concluded that herding bias helps investors make better investment decisions, Consequently, the study recommends that investors should reduce their risk tolerance levels while maintaining the herding behavioral bias.

**KEYWORDS:** herding bias, financial risk tolerance, financial literacy, individual investment performance, **Nigeria** 

International Journal of Business and Management Review Vol.12, No.3, pp.1-17, 2024 Print ISSN: 2052-6393(Print) Online ISSN: 2052-6407(Online) Website: <u>https://www.eajournals.org/</u> Publication of the European Centre for Research Training and Development-UK

# INTRODUCTION

Individual investment performance is described as an individual investor's self-analysis of the returns on stock investment (Hassan et al., 2017). Investment performance (IP) is determined by the rate of returns on stock in terms of volume, price and satisfaction of investment decisions by the individual investor. In addition, performance is evaluated by the level of individual investors satisfaction. According to Hamidon and Kehelwalatenna (2020) high investor satisfaction leads to increased interest and trading in the stock market, as well as market stability.

The market comprises two types of investors; rational investors who think in line with the expected utility framework, and irrational investors who assess risk as described by behavioral theory (Hassan, Bagh & Sadaf, 2017). Behavioral finance study the cognition, emotion, attitude and other psychological characteristics of people in the process of financial investment; as well as market inefficiency caused by it and challenges the standard finance with the premise of efficient market hypothesis and rationality. Behavioral finance assumptions negate the basic paradigm of traditional finance and believes that the psychological factors of people play an important role in the people's financial decision making. In real life, herd behavior exits everywhere.

Herding refers to the stock market behavior when a large number of investors act in the same way at the same time based on the action or decisions of a few individuals (Mahmood et al., 2016). Herd behavior plays a large role in the market movement. In the aftermath of several widespread financial crises, herd has again become a pejorative term in the financial lexicon. Investors and fund managers are portrayed as herds that charge into risky ventures without adequate information and appreciation of the risk-reward trade-offs and, at the first sign of trouble, flee to safer havens.

Furthermore, some observers express concern that herding by market participants exacerbates volatility, destabilizes markets, and increases the fragility of the financial system. For an investor to imitate others, he/she must be aware of and be influenced by others' actions. Intuitively, an individual can be said to herd if he/she would have made an investment decision without knowing other investors' decisions, but does not make that investment when he/she finds that others have decided not to do so. Alternatively, he/she herds when knowledge that others are investing changes their decision from not investing to making the investment

Financial risk tolerance is a subjective standard that a person defines as the accepted maximum amount of uncertainty when usually making a financial decision (Bayar et al., 2020) Risk tolerance is linked to individual characteristics such as gender, age, income, investor experience, assets, and financial self-efficacy (Sulaiman, 2012). Financial literacy is a personal trait that promotes financial and economic stability at the individual and household levels (Rabbani et al., 2018).

Generally, individual investors tend to neglect the personal information they have and rely on information the wider market has consensus on despite their level of financial knowledge. Thus, financial knowledge is the level of individual financial literacy. Bouzidi and Benmoussa (2019)

International Journal of Business and Management Review Vol.12, No.3, pp.1-17, 2024 Print ISSN: 2052-6393(Print) Online ISSN: 2052-6407(Online) Website: <u>https://www.eajournals.org/</u>

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explained that financial literacy is the ability to use knowledge and skills to manage one's financial resources effectively for lifetime financial security. More so, financial literacy is also defined by the Organization for Economic Cooperation and Development (OECD) as a combination of awareness, knowledge, skill, attitude, and behavior required to make sound financial decisions and ultimately achieve individual financial well-being. According to Agyei (2018), financial literacy is summarized into five key factors as: Knowledge of financial concepts; Ability to communicate about financial concepts; Aptitude in managing personal finances; Skill in making appropriate financial decisions; Confidence in planning effectively for future financial needs.

The motivation for this study stemmed from the importance of individual investment decisions and the desire to investigate how herding bias and risk tolerance influence investment performance in the Nigerian capital market. For instance, In April 2021, First Bank holdings, Nigeria's premier bank, has for years been plagued by "bad credit decisions, significant and non-performing insider loans and poor corporate governance practices" which affected the market value of the bank, and an investor (Mr. Mike Otedola) leveraged an opportunity to invest in the Bank. As at 6<sup>th</sup> December 2021, the investor acquired 2.5% stakes in First Bank Holdings Company Plc with 250 investors that traded 35,346,020 quantities of shares on the market. However, as at 10<sup>th</sup> December 2021, the investors increase to 338 with 364,030,356 quantities traded (NGX, 2021). This showed that a single investor decision in First Bank Plc caused a herding effect of investors in the market. As a result, other investors followed suit and purchased more shares. This empirical example demonstrated how an investors by 88 and also increase the quantity traded by 328684,336 within four days from (6<sup>th</sup> to 10<sup>th</sup> December, 2021). It is pertinent to state that Mr Mike Otedola currently has the highest shareholding in First Bank Holdings.

Awan et al. (2017) argued that the primary reason for studying herding bias is due to traditional finance limitations in explaining various antecedents of investors' financial decisions. This study seeks to analyze the influence of herding bias and financial risk tolerance on individual investment performance. Furthermore, prior literatures reviewed shows that, the majority of the studies focused largely on the developed world with few studies from the developing countries. For instance, the study of Alrabadi et al. (2018) in Jordan, Polat and Polat (2019) in Turkey, Momen et al. (2016) in Iran, Road et al., (2013) in Iran, Rockenbach, (2004) in Germany, Angelina and Batam (2020) in Indonesia, Babikir (2017) in Saudi Arabian, Cao et al. (2021) in Vietnam, Sabir, Mohammad and Shahar (2019)in Pakistan, Tin and Hii, (2020) in Malaysia. Existing empirical studies show that people's behavior differ from continent to continent, with few studies on western countries. As a result, individuals cannot generalize the behavior of Western countries on developing countries, necessitating this study in Nigeria.

The review of prior empirical studies such as the study of Rajeshwaran (2020), Ahmad, Mehboob, and Zain ul Abdin (2021), Rehan et al. (2021), Anum and Ameer (2017) and Kengatharan and Kengatharan, (2014) have revealed a divergent and mixed findings on the influence of herding bias and financial risk tolerance on investment performance, which necessitated this study.

International Journal of Business and Management Review Vol.12, No.3, pp.1-17, 2024 Print ISSN: 2052-6393(Print) Online ISSN: 2052-6407(Online) Website: https://www.eajournals.org/

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Therefore, these mixed findings by prior empirical studies necessitated the inclusion of financial literacy as a moderator, in order to fill the literature gap. According to Zain ul Abdin et al. (2022) financial literacy is a fundamental and critical factor of stock market participation, particularly the investors' proclivity to make investment decisions, and this can influence individual investment performance.

In light of the foregoing and an examination of relevant empirical studies, it is evident that little research has been conducted in Nigeria on the herding effect and financial risk tolerance on individual investment performance. As a result, this study examined the role of financial literacy in moderating herding bias and financial risk tolerance on individual investment performance. The following questions were addressed in this study based on the foregoing; Does herding effect and financial risk tolerance affect investment performance in Nigeria? Also, how does financial literacy as a moderator influence herding effect and financial risk tolerance on individual investment performance in Nigeria? The following objectives were considered in order to properly provide answers to the questions which are: to interrogate the effect of herding effect on individual investment performance, to examine the influence of risk tolerance on individual investment performance, to assess the impact of financial literacy on investment performance, and investigate the role of financial literacy in moderating the impact of herding effect and financial risk tolerance on individual investigate the role of financial literacy. While the hypotheses were developed, and tested in this study are;

 $H_{01}$ : Herding effect has no significant effect on investment performance,  $H_{02}$ : Financial risk tolerance has no significant effect on investment performance,  $H_{03}$ : Financial literacy has no significant effect on investment performance, and  $H_{04}$ : Financial literacy has no significant moderating effect on the influence of herding bias and financial risk tolerance on investment performance.

## LITERATURE REVIEW

Individual Investment performance is a measure of the degree to which individual investors are satisfied with the rate of return they receive on their stock investment in comparison to their expected returns. Individual Investment performance is the individual self-analysis of the returns on investment (Hassan et al., 2017). Accordingly, individual investors who make a higher amount of transactions might lead to greater returns on investment than individuals with fewer transactions (Hamidon & Kehelwalatenna, 2020). Investment performance is a measure of how satisfied individual investors are in their investments.

Individual Investment performance is determined by several factors that show the outcome of investment activities and measure an investment's success. Ibrahim and Umar (2017) stated that behavioral investment performance is measured mostly by investors' perception of the difference between the current real rate of return and both their expected return rates and the average security market return rate. It can also be viewed as the ability of an investment to yield favorable returns.

International Journal of Business and Management Review Vol.12, No.3, pp.1-17, 2024 Print ISSN: 2052-6393(Print) Online ISSN: 2052-6407(Online) Website: https://www.eajournals.org/

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Herding behavior is triggered by social influence in a process in which other people around the investors, typically skilled investors, are used as references in investment decisions (Rahayu et al., 2021). Also, Nair, Balasubramanian, and Yermal (2017) alluded that investors strongly consider the psychological factor, in addition to return on investment and risk when making an investment decision. Individual investors are sometimes affected by herding bias when getting information and analyzing financial issues. Financial risk tolerance is about the maximum degree or amount of uncertainty of an individual's willingness to accept risk or uncertainties when making financial or investment decisions(Chong et al., 2021). It is also the way by which an individual investor responds to and takes action regarding risks in investment. Kasoga, (2021) stated that risk tolerance is one of the characteristics that are mostly required by individual investors to succeed.

The herding theory as the classic by Grossman and Stiglitz (1976) showed that uninformed traders in a market context could become informed through the price in such a way that private information was aggregated correctly and efficiently. Herding effect in financial market is identified as tendency of investors to follow the others' actions by imitating each other based on the type of stock to buy or sell, volume of stock, selling or buying decisions, and speed of herding (Audu & Abubakar, 2019). Furthermore, Cipriani and Guarino (2014) noted that herding theory and the corresponding empirical literature are disconnected. Thus, this study seeks to use the herd model to provide empirically testable hypotheses. Therefore, determining the herding effect has become necessary in order for the researcher to validate his measurement model that will be used in this study.

The empirical study of Nayak and Kumar (2021) examined the impact of herding factor on the investment performance of individual investors in the Indian stock market. The study used quantitative or qualitative data. A population size of 375 was sampled. The study administered 375 questionnaires to respondents and 310 acceptable responses were received. 75 questionnaires were randomly administered to selected individual investors from five top share broking houses in the study districts which gave a total of (375) and 310 genuinely filled questionnaires chosen as the sample size. The data collected period was from January 2018 to March 2019. The study used the Multiple Regression Model with the support of SPSS statistical instrument. The findings of the study revealed that herding had a positive and insignificant impact on investment performance while revealing had a significant effect on Satisfaction in the investment decisions.

Rehan et al., (2021) examined the impact of herding factor on investment performance from the Pakistan stock exchange. The study adopted a self-administered questionnaire and the data were collected from local investors in Pakistan. 300 questionnaires were distributed and 155 were received from the respondents. The data collected were analyzed with the support of SPSS and Smart-PLS 3.0. The analysis performed included, descriptive statistics and structural equation modeling. Based on the sampled data analysis, the study found that herding factor had a positive and significant impact on investment performance.

Vol.12, No.3, pp.1-17, 2024

Print ISSN: 2052-6393(Print)

Online ISSN: 2052-6407(Online)

Website: https://www.eajournals.org/

Publication of the European Centre for Research Training and Development-UK

Kunwar (2021) examined the effect of behavioral factors on the investment performance of individual investors in the Nepali stock market. The study used 26 items with a 6-point Likert scale (1 = Extremely disagree, 2 = Highly disagree, 3 = Somewhat disagree, 4 = Somewhat agree, 5 = Highly agree, 6 = Extremely agree). A total of 300 questionnaires were distributed and 203 completed questionnaires were collected during the three months survey period with a response rate of 68 percent from Kathmandu and Pokhara. The Exploratory Factor Analysis (EFA), Principal Component Analysis, and Varimax rotation were used in the study. The suitability of the data for the factor analysis was examined using KMO and Barlett's Test of Sphericity. The results revealed that herd behavior is positive and does not significantly result in improved investment performance. Furthermore, Zain ul Abdin et al. (2022) investigated the effect of risk propensity bias on the investment performance of investors in the Pakistan stock exchange. A mixed-method approach was used for this research. The study applied both qualitative and quantitative research techniques. The study used a semi-structured interview. The study approached 1000 individual investors for the questionnaire survey through the help of a brokerage house. 400 individuals agreed to participate in the study. The total numbers of complete collected samples were 378. The study employed a purposive sampling method. The findings of the study revealed that Risk Propensity has a positive and significant effect on investment performance.

Kanagasabai and Aggarwal (2020) assessed the impact of risk tolerance on investment performance. The research was explanatory and the study data were collected through the convenience sampling technique from investors that traded in both National Stock Exchange and the Bombay Stock Exchange in Chennai. The data of the study were collected through personal distributing questionnaires and online Google forms. The GPower software was used in order to determine the sample size. The population represented 440 questionnaires that were administered through (Google form and hard copy). The 210 filled questionnaires were received back from respondents and seven responses were found to be not filled and were rejected, while 203 represented the sample size, which was more than what was predicted by GPower. The study used SPSS to analyze Cronbach's Alpha and Composite reliability value, and, the convergent validity that was measured through Average Variance Explained (AVE) and Correlation Matrix Pearson. The structural equation model was conducted through the use of AMOS version 24 analysis tools. The results of the study indicated that risk tolerance has a significant and positive impact on investment performance.

Ahmad et al. (2021) examined the influence of the herding effect on investment performance from individual investors trading in Pakistan Stock Exchange. The study administered questionnaires to the respondents through primary sources of data collection. The study administered questionnaires through the brokerage houses to collect the data and a total of 500 survey questionnaires were distributed among the individual investors out of which 400 returned and 352 were used for the study. Convenience and purposeful sampling techniques were used in the study. The five-point Likert scale was used to answer all items in the questionnaire. The findings revealed that herding

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Publication of the European Centre for Research Training and Development-UK factors have a positive and significant influence on investment performance. More so, Oyaro and Nasution (2021) assessed the influence of herding factor on the investment performance of individual investors in Nairobi Security Exchange. The study adopted a survey research design that targeted 1,196,995 individual investors in Nairobi Securities Exchange. The Slovin's formula was used to estimate the 400-sample size, whereas the researcher took the high limit of 500 individual investors. Convenient sampling technique was used in the study. The study data were analyzed using simple linear regression, and hierarchical linear regression analysis. Findings from the study established that herding factor has a positive and significant effect on investment performance.

Annamalah et al. (2019) empirically investigated the influence of investor's risk-taking behaviour on investors 'decision in unit trust investment (higher returns by investing) in the Malaysian environment. The study employed a quantitative research approach and the survey data was sampled from 202 participants through a convenient sampling technique. The study was cross-sectional and primary data was used for the analysis. The data analysis was carried out through multiple regression analysis. Findings from the empirical research revealed that financial risk-taking behaviour significantly influences the investors' investment behaviours in unit trusts as measured by (higher returns by investing). In conclusion, Onosumu etal. (2017) examined the effect of risk tolerance on portfolio returns. Their study sample comprising of 279 investors who traded at the Nairobi Securities Exchange. The study employed secondary data to measure risk tolerance levels for equity portfolios held by individual investors. The study used primary data collected using questionnaires and secondary data (share prices). The data were re-analyzed using ANOVA and regression analysis. The findings of the regression results indicated that risk tolerance has a significant positive effect on portfolio returns.

# METHODOLOGY

This study employed a survey research design, population of study this study consists of 460 investors in Kaduna city obtained from the Central Securities Clearing System Plc data base in the first quarter of 2023. A census sampling technique was used. The study used primary data and the data was collected through self-administered questionnaire and online google form. Out of the 460-questionnaire administered, 33 copies of questionnaires were invalid due to missing information, 78 copies were not returned, and 349 were validly returned. Thus, the retuned 349 questionnaires are sufficient for the analysis and generalization of the result findings. 7-point Likert scale, ranging from '1' "Extremely Agree" to '7' "Extremely Disagree" was employed. SPSS version 20 was employed in analyzing the demographic characteristics and PLS-SEM technique were used for data analysis.

Presented below are the models used to test the hypotheses;  $IPit=\beta 0 + \beta_1 HEit + \beta_2 FRTit + \epsilon$ ------i International Journal of Business and Management Review Vol.12, No.3, pp.1-17, 2024 Print ISSN: 2052-6393(Print) Online ISSN: 2052-6407(Online) Website: <u>https://www.eajournals.org/</u> <u>Publication of the European Centre for Research Training and Development-UK</u> IPit= β0+ β1HE\*FLit + β2FRT\*FLit +ε ------ii

Where: IP = Investment Performance, HE= Herding Effect, FRT= Financial Risk Tolerance, FL= Financial Literacy, i= number of investors, observation, 1- - 4, t= time periods,  $\beta_0$ = Intercept of the model "Constant",  $\varepsilon$  =is the error component,  $\beta$ = 1, 2, are the estimate parameters.

#### Table 1

Variables definitions	s, Measurement and Sources				
Variables	Components	Measurement	Sources		
Dependent	-				
Investment Performance i) Dividend yield		7-Likert Scale	(Siraji, 2019)		
	ii) Stock appreciation				
Independent					
Herding Effect	i) Rely on information from	friends 7-point Lik	kert Scale		
-	ii) Depend on investment de	Rehan et al., (2021)			
	iii)You quickly change to other investors decision				
Financial Risk	i) low risk tolerance	7- Likert Scale	(Bayar etal. 2020)		
Tolerance	ii) Average risk tolerance iii) High risk tolerance				
Moderator					
Financial Literacy	i) Financial knowledge ii) Financial planning	7- Likert Scale	(Rasool & Ullah, 2020)		

Source: Research Work (2023)

# **RESULT AND DISCUSSION**

This study used SPSS and Smart PLS tool of analysis data and result were presented. SPSS was used to demonstrate the demographic attributes of the respondents in Kaduna city. Furthermore, Smart-PLS 4 was used to investigate the moderating role of financial literacy on the effect of herding effect and financial risk tolerance on investment performance. In accordance with the findings, 58.5% consisted of males and 41.5% were females. In addition, the analysis revealed that 4.9% were within the ages of 18–30. And 36.7% were within the ages of 31–40. 32.1% were within the range of 41 - 50 and the aged 51 and above were 26.4%t. Furthermore, the respondents with basic, Secondary levels of education represent 1.7% of the total. 30.7% have a tertiary education (B.Sc. and HND) while Postgraduate educational qualifications such as Masters and PhD comprised 67.6%.

Vol.12, No.3, pp.1-17, 2024

Print ISSN: 2052-6393(Print)

Online ISSN: 2052-6407(Online)

Website: https://www.eajournals.org/

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Table 2						
Demographic Characteristics						
Variables	Frequency	Percentage				
Gender						
Male gender	204	58.5				
Female gender	145	41.5				
<b>Educational Qualification</b>						
Secondary	6	1.7				
BSc & HND	107	30.7				
Master & PhD	236	67.6				
Total Respondents	349	100				

Source: SPSS 20 Result Output

#### **Descriptive statistics**

The descriptive statistics as shown in Table 3, has 349 as the observation of the study and no missing data. The minimum and maximum value assigned is 1 to 7 representing extremely agree to extremely disagree in the study respectively. From the study, the herding effect shows a min of 1 to max value from 1 to 5 and the financial literacy and risk tolerance show a min 1 to max of 6, while the investment performance revealed the min and max value of 1 to 7, with a high standard deviation.

#### Table 3

Descriptive	statistics
-------------	------------

Name	No.	Туре	Mean	Median	min	Max	Standard deviation	Excess kurtosis	Skewness
G	0	0 1	1.415	1	1	2	0.493	-1.892	0.345
EQ	1	MET	1.659	2	0	2	0.509	-0.046	-1.062
HE1	2	MET	2.768	3	1	5	0.973	0.315	0.067
HE2	3	MET	2.716	3	1	5	1.077	-0.265	0.169
HE3	4	MET	2.507	3	1	5	0.929	0.167	0.291
FRT1	5	MET	2.576	3	1	5	0.965	-0.14	0.129
FRT2	6	MET	2.218	2	1	6	0.986	1.583	0.974
FRT3	7	MET	2.768	3	1	5	0.973	0.315	0.067
FL1	8	MET	3.307	3	1	6	1.267	-1.004	0.062
FL2	9	MET	2.768	3	1	5	0.973	0.315	0.067
FL3	10	MET	2.716	3	1	5	1.077	-0.265	0.169
IP1	11	MET	3.275	3	1	7	1.048	2.061	0.69
IP2	12	MET	3.352	3	1	7	1.379	0.203	0.547

Source: Smart-PLS.4

Vol.12, No.3, pp.1-17, 2024

Print ISSN: 2052-6393(Print)

Online ISSN: 2052-6407(Online)

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# **Evaluation of the Measurement Model**



**Figure 1 Source:** Smart-PLS.4

# **Reliability and Validity of Constructed Model**

Cronbach's Alpha (CA) was used to assess the research's reliability; financial literacy was 0.47, financial risk tolerance was 0.602, heuristic factor was 0.81, and investment performance was 0.74. this implies a good internal consistency of reliability of the study and it is accepted. According to kenerd (1996) reliability values of 0.45 is acceptable. The Composite reliability (CR) for each construct was computed and in all cases the CR was above the minimum threshold of 0.70, this showed that variables have acknowledged. AVE of all latent constructs were in the range between 0.50 and 78 which were above the recommended threshold of 0.50, which is an indicator of strong convergent validity. Therefore, the table 4 result shows that the constructs are all reliable and valid for the study.

Vol.12, No.3, pp.1-17, 2024

Print ISSN: 2052-6393(Print)

Online ISSN: 2052-6407(Online)

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Table 4						
Assessment of Measurement Models						
Construct	Cronbach's Alpha	<b>Composite Reliability</b>	(AVE)			
Financial Literacy	0.470	0.771	0.536			
Financial Risk Toleran	ce 0.602	0.761`	0.543			
Heuristic Factor	0.806	0.815	0.721			
Investors Performance	0.735	0.796	0.786			

Source: Smart-PLS.4 Result Output

## **Quality Criteria**

Table 5 shows the quality criteria which was determined by the value of  $R^2$  of dependent variable, the acceptable level of  $R^2$  is 0.25, 0.50 and 0.75, which is indicated as weak, moderate and significant respectively. The results represent that there is 24% variance in investment performance and the rest of 76% is determined by variables not considered in the model. The weak predictive accuracy is because only two independent variables were used, and this can be concluded that the model is sufficiently predictive and accurate as the values exceed the threshold level of 0.1.

## Table 5

Predictive Accuracy of the Model						
Construct	$\mathbb{R}^2$	Adjusted R <sup>2</sup>				
Investors Performance	0.235	0.223				

Source: Smart-PLS.4 Result Output

## **Structural Equation Model**

In order to find the effect of the exogenous variables (herding effect and financial risk tolerance) on the endogenous (investment performance), and moderator (financial literacy), the SMART-PLS version 4, was used to analyse the structural equation model.

t-Statistics

3.115

0.120

0.168

3.783

4.315

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P-Values

0.002

0.904

0.867

0.000

0.000

Print ISSN: 2052-6393(Print)

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# Figure 2

FL X HF X IP

 $FL X FRT \square IP$ 

# Table 6Structural Equation ModelConstructCoefficientsStandard DeviationHF $\boxtimes$ IP0.4120.132FRT $\rightarrow$ IP-0.0090.073FL $\boxtimes$ IP0.0200.119

0.354

-0.340

Source: Smart-PLS.4 Result Output

Herding effect significantly influenced investment performance. The coefficient value is 0.412 with a t-value of 3.115 and a corresponding p-value of 0.002, which shows that herding effect, has a significant and positive effect on investment performance. The result shows that if herding effect change by 1%, the investment performance will increase by 412%. The study revealed that the herding bias positively affect investment performance; indicating that investors are less concerned with risk associated with investment but highly concerned with appreciation of wealth and gain. The findings are supported by work of Ahmad et al. (2021) and contradict the study of Kunwar (2021) which concluded that herding effect, has no significant effect on investment performance

0.094

0.079

International Journal of Business and Management Review Vol.12, No.3, pp.1-17, 2024 Print ISSN: 2052-6393(Print) Online ISSN: 2052-6407(Online) Website: https://www.eajournals.org/

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Financial risk tolerance and the investment performance shows a coefficient value of -0.009 with a t-value of 0.120 and a corresponding p-value of 0.904. This shows that financial risk tolerance has an in significant negative impact on investment performance. This further indicate that a 1% change in financial risk tolerance, will drop or decrease investment performance by 12%, with all other predictors remaining constant. The findings from the study is supported by research of Kanagasabai and Aggarwal (2020). However, this contradicts the study of Onsomu et al. (2017) shows that risk had a positive and significant relationship with portfolio returns.

Ho<sub>4</sub>: financial literacy influence investment performance with a coefficient value of 0.20, the t-value of 0.168 and a corresponding p-value of 0.867, this shows that financial literacy has a positive and insignificant effect on investment performance. This means that a 1% change in financial literacy of individual investor, will result to 2% increase in investment performance. The findings of the study revealed that the financial literacy level of individual's investor does not have significant effect on investor decision and not much returns is achieved from investment. The findings of this study is supported by research of Tuffour et al. (2020). but contradicts the study of Ahmad et al. (2021) which concluded that financial literacy has a significant effect on investment performance.

The role of financial literacy in moderating the effect of herding effect and financial risk tolerance on investment performance shows a coefficient value of 0.354 and t-value of 3.783 with a corresponding p-value of 0.000 which shows that the interaction of financial literacy and herding effect is discovered to have a significant positive influence on investment performance. This indicates that a 1% increase in the interaction of financial literacy and herding effect of individual investors, will increases the individual investment performance by 35.3%.

Furthermore, the role of financial literacy as a moderator on the effect of financial risk tolerance on investment performance shows a coefficient value of -0.340 and t-value of 4.315 with a corresponding p-value of 0.000, which indicates that the interaction of financial literacy and financial risk tolerance is discovered to have a significant negative influence on investment performance. This shown that a 1% increase in the interaction of financial literacy and financial risk tolerance of investors, will decrease the individual investment performance by 34%.

#### **CONCLUSION AND RECOMMENDATIONS**

This study examined herding effect and financial risk tolerance on individual investment performance in Kaduna city, Nigeria. Result revealed that herding effect has positive and significant effect on individual investment performance. This shows that herding bias of investors play pivotal role to determining investment performance. From the findings of this study, investors believe that their dividend yields and high returns can be attributed to investment decisions based on herding reactions in the market. In addition, financial risk tolerance shows a negative and

International Journal of Business and Management Review Vol.12, No.3, pp.1-17, 2024 Print ISSN: 2052-6393(Print) Online ISSN: 2052-6407(Online) Website: <u>https://www.eajournals.org/</u>

Publication of the European Centre for Research Training and Development-UK insignificant influence on investment performance, which revealed that individual investors risk tolerance level does not really influence the individual investment performance

This study shows that financial literacy has a significant and positive moderating influence on the influence of herding bias on investment performance of individual. This study concludes that financial literacy level of individual investor influence herding bias of individuals investors because FL has been found to increase individual investment performance. On the other hand, financial literacy had a negative and significant moderating role on the effect of financial risk tolerance on individual investment performance. This suggests that the high financial literacy level of individuals significantly reduce investment performance which may be as result of investors overdependence on other investors.

Based on the findings of this study, it is therefore recommended that individual investors should recognize that herding effect is a behavioral factor, and that investment decision is an important cognitive factor that influences investment performance rather than focusing on only fundamental analysis in taking investment decision. Secondly, individual investors should lower their financial risk tolerance because it has been established to reduce investment performance regardless of financial literacy level.

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