Moderating Effect of Financial Constraint on Relationship Between Accounting Conservatism and Investment Efficiency of Nigerian Consumer Goods Firms

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Abstract

This study explores the moderating effect of financial constraint on relationship between Accounting conservatism and investment efficiency of consumer goods firms listed on the Nigerian Stock Exchange market. The study used correlational and ex-post facto research design in a sample of 27 consumer goods firms. Secondary data for a period of 10 years (2010-2019) was used, and Advanced panel multiple regression was employed in data analysis. The results obtained from this research indicate that there is a significant relationship between accounting conservatism and investment efficiency. The study also found that there is a significant moderation effect between accounting conservatism and financial constraint on defining investment efficiency of consumer goods firms in Nigeria. The study concludes by showing that financial constraint has antagonistic role to accounting conservatism on explaining investment efficiency thus, conservatism may not improve investment efficiency in firms facing financial constraints. The study suggests that consideration of firms financial conditions should form an essential part of any analysis towards understanding the impact of Accounting conservatism more especially on investment behaviour, because of the influence financial constraint has on accounting conservatism is antagonistic in nature.

Keywords: Accounting conservatism, investment efficiency, financial constraint and Nigeria consumer goods firms

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1. Introduction

Due to the existence of information asymmetry and agency problem, it is possible that firms' managers don't use firms' resources to increase stockholders' wealth. Therefore, to support stockholders' resources, different tools are used to resolve this problem. According to the role of accounting in determining contract condition and monitoring its correct implementation between

owners and managers, accounting principles and procedures are applied which aimed to protect the rights of beneficiaries and fair proposing of financial statements. Conservatism concept is applied to give an effective determining and monitoring mechanism to investment contracts between firm, creditors and stockholders (Mansoori & Kiamehr, 2014). Thus, accounting conservatism is predicted to be paramount in achieving investment efficiency (Lalbar, Mehdi, & Karamali, 2012 and Lawal & Shehu, 2016).

Managers in presenting quality information are faced with precincts commonly termed constraints, namely, cost-benefit relationship, materiality principle, industry practice, and conservatism. Accounting conservatism is an outlook of caution (prudent reaction) in dealing with the uncertainty and risks inherent in the business environment. Therefore, the role of accounting conservatism in increasing investment efficiency is expected to be stronger when firms smear litigation risk (Ardana et al, 2021).

Following Zahra & fatemeh, (2015) it is argued that financial constraint can also help provide important insights into the relationship between accounting conservatism and the investment efficiency of firms. Conservatism is expected to reduces potential underinvestment in the presence of information frictions and ameliorates the negative impact of the financing frictions on corporate investment because of focusing on the financial constraints challenge allows firms to use a conservatism measure immediately prior to the external shock to explain changes in firm investment. In this study, firms cash holdings is used as proxy of financial constraints (as used by Arslan, Florackis & Ozkan, 2006; Leonida, Ozkan & Ozkan, 2006; Honda & Suzuki, 2006; Khalid, Albusaidi & Serkan, 2015 and Demonier, Almeida & Bortolon, 2015).

Managers decide whether to invest in innovative projects based on financial reporting and incentives. By implementing more-stringent verification standards for recognizing good news, conservative reporting practices may lower the probability that risky innovations will receive positive future earnings reports if they are not offset by appropriate incentive contracting. However, more-conservative accounting policies raise the profitability threshold above which the manager invests in a new idea. A firm will be less likely in these circumstances to issue a favorable report showing new investments that yield high profits, but if it does so, such a favorable report is more likely an accurate indicator. Conservative reporting may foster risk avoidance and tamp managers' inclination to overinvest, but it also may inhibit innovation in organizations (Laux & Ray, 2020).

This study is motivated by the recent economic challenges which significantly affect the level of investment and the overall economic activities across the world. In Nigeria, where economic activities are highly experiencing serious recession, there are issues across almost all the sectors and subsectors of the economy that has to do with their investment decisions and consequently their general performance. This study focuses on consumer goods firms operating in Nigeria because it was report that cumulative operating expenses of majority of them increases in the recent times (FBN Capital Research, 2015). These brought up question, particularly relating to these symptom revealed by the Nigerian consumer goods firms, that does a consumer goods firm in Nigeria have low commitment to conservatism? Similarly, there are no empirical studies so far examining the moderating effect of financial constraint on relationship of accounting conservatism and firm investment efficiency in Nigeria. However, it is against this background

that this study aims to examine the moderating effects of financial constraint of listed consumer goods firms in Nigeria on relationship between their accounting conservatism and their investment efficiency. In line with this objective of the study, null hypotheses have been formulated that:

H0₁: Conditional accounting conservatism has no significant impact on investment efficiency of listed consumer goods firms in Nigeria.

H0₂: Unconditional accounting conservatism has no significant impact on investment efficiency of listed consumer goods firms in Nigeria.

H0₃: financial constraint has no significant impact on investment efficiency of listed consumer goods firms in Nigeria.

H0₄: financial constraint has no significant moderating effect on the relationship between conditional conservatism and investment efficiency of listed consumer goods firms in Nigeria.

H0₅: financial constraint has no significant moderating effect on the relationship between unconditional conservatism and investment efficiency of listed consumer goods firms in Nigeria.

2. Literature Review

Accounting conservatism can be associated with investment efficiency in at least two ways (Verdi, 2006). First, it is commonly argued that conservatism mitigates adverse selection costs by reducing the information asymmetry between the firm and investors, and among investors (Mohammadi, 2014). For instance, Mohammadi (2014) finds out that a commitment to more conservative accounting reduces information asymmetries and increases firm liquidity. On the other hand, the existence of information asymmetry between the firm and investors could lead suppliers of capital to discount the stock price and to increase the cost of raising capital because investors would infer that firms raising money is of a bad type (Myers and Majluf, 1984). Thus, if conservatism reduces adverse selection costs, it can improve investment efficiency by reducing the costs of external financing.

Second, a large literature in accounting suggests that conservatism plays a critical role in mitigating agency problems. For instance, financial accounting information is commonly used as a direct input into compensation contracts (Lambert, Leuz, & Verrecchia, 2007). Further, financial accounting information contributes to the monitoring role of stock markets as an important source of firm specific information (Mohammadi, 2014). Thus, if conservatism as quality of this accounting information and disclosure reduces agency problems, it can then improve investment efficiency by increasing shareholder ability to monitor managers and thus improve project selection and reduce financing costs.

Several empirical studies on accounting conservatism and/or investment efficiency have been conducted in different countries using different group economic units in a different geographical environment at a different time frame. However, the findings from the studies are mixed and some inconclusive. This, calls for further researches on the subject matter.

Table 1 Summary of Empirical Review

Author	Year	Result
Balakrishnan, Watts & Zuo	2014	They found that firms with less conservative accounting experienced a sharper decline in investment activity following the onset of the crisis than firms with more conservative accounting on the other hand which experienced lower declines in both debt raising activity and stock performance
Brochman, Liu & Ma	2014	They found negative correlations which is consistent with the accounting literature's prediction that accounting conservatism can reduce overinvestment but can also lead to dysfunctional investment incentives whereby managers forego positive net present value (NPV) projects (Leuz, 2001; Watts, 2003a; Guay and Verrecchia, 2006). Consistent with expectations, their results also show that the negative relationship between conservatism and firm investments for underinvestment firms is concentrated in firms with high return volatility and firms with short CEO investment horizons.
Demonier, Almeida & Bortolon	2015	The results show financially constrained firms adopt less conditional conservatism practices on their accounting figures. In other words, those firms avoid to disclose losses trying to access more external funds, however, increasing information asymmetry.
Garcia lara, Garcia osma & Penelva	2016	The results revealed that more conservative firms invest more and issue more debt in settings prone to underinvestment and that these effects are more pronounced in firms characterized by greater information asymmetries. They also find that conservatism is associated with reduced overinvestment, even for opaque investments such as research and development.
Lawal & Shehu	2016	The results obtained from this research indicate that there is a significant relationship between accounting conservatism and investment efficiency. They suggest that need to embrace the element of conservatism in to the accounting regulatory framework, because of it role in constraining managers to act efficiently in an investment monitoring and decision making.
Louis, Sun & Urcan	2012	The study predicts that accounting conservatism could mitigate the value destruction associated with an increase in cash holdings. It further suggests that accounting conservatism is associated with a more efficient use of cash holdings, supporting the notion that accounting conservatism can serve as a substitute for external monitoring and reduce agency conflicts between managers and shareholders.
Mansoori & Kiamehr	2014	Their findings show that there is a significant relationship

		between conservatism and investment of companies accepted in Tehran stock exchange market during 2007 to 2011. The studies provide evidence that by identifying conservative optimal level, it can be also hopeful to increase investment. Hence, investors can predict investment rate using identification of firm's conservatism level. Secondary data was used in this study
Zahra & Fatemeh	2015	They found that over-investment has had a direct and positive effect on conditioned and unconditioned conservatism. Their findings suggested that conservatism has information advantages that reduce over-investment and thus reduces investment's inefficiency.

There are many relevant theories in the field of Accounting conservatism, Investment efficiency and financial constraint some of which include Agency theory, Trade-off theory, Pecking Order theory, MM theory, and positive accounting theory. However, the theory that underpins this study is agency theory from efficiency perspective. The theory provides a framework and a linkage between the accounting conservatism as a mechanism for monitoring managers and firms investment efficiency within a financial constrain circumstance.

3. Research Method

Predicated on the objectives of this study, it was believed that this study is quantitative in nature. Therefore, the worldview was post-positivism paradigm and research design is quasi experimental and the study approach is quantitative approach. To describe the statistical association between variables of the study quasi experimental family (correlational and Ex post facto research designs) are used. The sample of the study consists of all the 27 consumer goods firms listed on the Nigerian Stock Exchange (NSE) for the period 2010 to 2019, making 270 observations. In order to test the hypotheses of this study, advance multiple panel regression analysis is employed. This is because of the effectiveness and efficiency of the technique in estimating the statistical relationship of one variable on another variable. Hence, this is consistent with the objective of this study. Two way interaction effects analysis was also used in estimating the statistical effect of moderator variable in the study. The explanatory variables used as proxies of accounting conservatism are unconditional and conditional accounting conservatism. The choice of explanatory variable is based on the existing literature related to accounting conservatism. The moderator variable used as proxy of financial constraint is cash holding as guided by literature. The model designed for the study is specified as follows:

$$INVEFF_{it} = \alpha + \beta_1 CON_{it} + \beta_2 UNCON_{it} + \beta_3 CASH_{it} + \beta_4 CON_{it} * CASH_{it} + \beta_5 UNCON_{it} * CASH_{it} + \varepsilon_{it}$$

Where:

INVEFF = Investment efficiency

i = firm

t = period/time

α = Constant

β_{1-5} = coefficient of independent variables

CON = conditional conservatism

UNCON = unconditional conservatism

CASH = Cash holding

ε = Error term

Variables Measurement

Table 2 Summary of Variable measurement

Variable	Measurement
1. Investment efficiency (INVEFF)	$Invest_{i,t} = \alpha_0 + \alpha_1 NEG_{i,t} + \alpha_2 \% RevGrowth_{i,t-1} + \alpha_3 NEG * RevGrowth_{i,t} + \varepsilon$ by Biddle & Hillary (2006)
2. Conditional conservatism (CON)	$ACC_{it} = \beta_{0it} + \beta_{1it} DCFO_{it} + \beta_{2it} \Delta CFO_{it} + \beta_{3it} (DCFO_{it} * \Delta CFO_{it}) + \varepsilon$ by Ball & Shivakumar (2005)
3. Unconditional conservatism (UNCON)	$ACC_{it} = (NI_{it} + DEP_{it}) - CFO_{it}$; $oACC_{it} = \Delta (AR_{it} + I_{it} + PE_{it}) - \Delta (AP_{it} + TP_{it})$; $NoACC_{it} = ACC_{it} - oACC_{it}$ by Givoly & Hayne (2000)
4. Cash holdings (CASH)	The ratio of total cash and equivalent items to total assets by Myers & Majluf (1984)

Source: Author, 2021

To measure investment efficiency; this study adopted Biddle & Hillary (2006) model as stated in the work Ialbar et al (2012) and Mohammadi (2014) in which the formula of deviation from expected investment and investment prediction model as a function of income growth is used as follows.

$$Invest_{i,t} = \alpha_0 + \alpha_1 NEG_{i,t} + \alpha_2 \% RevGrowth_{i,t-1} + \alpha_3 NEG * RevGrowth_{i,t} + \varepsilon$$

Where:

$Invest_{i,t}$ = Total investment, sum of investment in machinery, equipment, acquisition, plant, capital and research and development expenditure, minus cash receipts from sale of property, divided by the total assets of firm i and fiscal year t.

$NEG_{i,t}$ = An indicator variable that takes the value of one if the firm's income growth is negative, and zero otherwise.

$RevGrowth_{i,t-1}$ = annual income growth rate for firm i at year t-1.

ε = the residual error from the regression model.

α_0 = Coefficient calculated by the regression model.

α_{1-3} = Coefficients of variables (slope).

Based on the study, the amount of deviation from the expected investment (residual error) indicates the investment inefficiency. Investment below/ above the standard level represents a negative/positive value for the residual error (McNichols & Stubben, 2008; Ialbar et al, 2012; Mohammadi, 2014). The study adopted Ball & Shiva Kumar (2005) model for measuring conditional conservatism and Hayne & Givoly's (2000) model for measuring unconditional conservatism as accounting conservatism proxies following the work of Zahra & Fatemeh (2015).

Conditional conservatism is measured as follows:

$$ACC_{it} = \beta_{0it} + \beta_{1it}DCFO_{it} + \beta_{2it}\Delta CFO_{it} + \beta_3(DCFO_{it} * \Delta CFO_{it}) + \varepsilon$$

Where:

ACC_{it} = accruals of firm in year t

$DCFO_{it}$ = if operating cash flow in year t is negative, it would be 1, or otherwise 0.

CFO_{it} = cash flow resulted from operating activity

β_0 = Coefficient calculated by the regression model.

β_{1-3} = Coefficients of variables (slope).

Conservatism means that when there is negative cash flows, the accruals are more probably negative due to the faster recognition of losses not realized. When this relationship is bigger, the asymmetric behavior against profit would be present when there are not positive cash flows. The more good news (profit) and bad news (losses) will result in more conservatism (Zahra & Fatemeh, 2015).

Unconditional conservatism is measured as follows:

$$ACC_{it} = (NI_{it} + DEP_{it}) - CFO_{it} \dots\dots\dots(i)$$

$$oACC_{it} = \Delta (AR_{it} + I_{it} + PE_{it}) - \Delta (AP_{it} + TP_{it}) \dots\dots\dots(ii)$$

$$NoACC_{it} = ACC_{it} - oACC_{it} \dots\dots\dots(iii)$$

In which: ACC=Total accruals NI=Net profit before Items DEP=Depreciation Expense Payable CFO=Cash Flow from Operations oACC=Operational Accruals ΔAR =Change in Accounts Receivable ΔI =Change in Inventory ΔPE =Change in Prepaid Expenses ΔAP =Change in

Accounts Payable $\Delta TP = \text{Change in Taxes Payable}$ NoACC=Non-operational Accruals (unconditional conservatism)

The only difference between unconditional and conditional model is that the total non-operating accruals alter operating accruals and the reason is that the main incentive for unconditioned conservatism is the difficulty of assessing assets and liabilities. Meanwhile, the main incentive for conditioned conservatism is to neutralize the tendency of managers in presenting financial information (Zahra & Fatemeh, 2015).

To measure Moderating Variable this study adopted Myers & Majluf (1984): The moderating variable is firm cash holding as proxy of financial constraint, in which it is measured as the ratio of total cash and equivalent items to total assets (Leonida et al, 2006, Khalid et al, 2015 and Demonier et al, 2015).

4. Finding and Discussion

In this section, the study's results are presented and discussed. The descriptive statistics are first presented, Correlation result, then finally followed by the regression results.

Table 3: Descriptive Statistics of the Variables

VARIABLES	Min	Max	Mean	SD	Skewness	Kurtosis
INVEFF	-0.055	0.40	0.194	0.0776	-0.1459	3.292
CON	2.158	336	131	83.874	0.6531	2.766
UNCON	12.71	390	138	80.885	1.1679	3.9461
CASH	6.198	531	159	117.39	1.3137	4.2616
CONCASH	-0.482	1.228	0.466	0.3253	-0.6159	3.8257
UNCONCASH	3.976	358	131	84.509	4.0548	2.7845

Source: computation

Table 3 show that our measure of Investment efficiency (INVEFF), has an average value of 0.194 with standard deviation of 0.078, and minimum value of -0.055 and 0.400 as the maximum value. This is an indication that the data is normally distributed and is fit to produce a reliable result, because the mean is greater than standard deviation. The Table 3 also shows that the Accounting conservatism (CON) have an average value of 131 with standard deviation of 83.874, and the minimum and maximum value of 2.158 and 336 respectively. This shows that the data is not dispersed from the mean because the standard deviation is lower than the mean. Finally, the average firm financial constraint, which is The ratio of total cash and equivalent items to total assets is 159, ranging between 6.198 to 531. Here also, there is an indication that the data are not positively skewed and are fit to produce result that is reliable.

The correlation matrix Table 4 presents the correlation results between predictor variables (conditional accounting conservatism, unconditional accounting conservatism, financial constraint proxy, and interaction terms CONCASH and UNCONCASH) and the investment efficiency (INVEFF) of the listed consumer goods firms in Nigeria. The result shows that there is a significant positive relationship between investment efficiency (INVEFF) and conditional

accounting conservatism (CON) from the correlation coefficient of 0.5813, at 1% level of significance, (p-value 0.0000). This result suggests that conditional accounting conservatism increases in the sample firms, investment efficiency would increase.

Also, from the Table 4 the results indicate that there is a negative relationship between investment efficiency (INVEFF) and unconditional accounting conservatism (UNCON) from the correlation coefficient of -0.0936 which is not significant at all levels of significance (p-value of 0.1277). This implies that the more unconditional accounting conservatism increases in the sample firms, investment efficiency decreases, but is not statistically significant.

In the Table 4 also the results show that there is a negative relationship between investment efficiency (INVEFF) and financial constraint proxy (CASH) from the correlation coefficient of -0.0048, with p-value of 0.9373. This suggests that investment efficiency (INVEFF) of listed consumer goods firms in Nigeria decreases with increase of their financial constraints, but is not statistically significant. The results from the Table 4.3 also indicate that there is a significant negative relationship between investment efficiency (INVEFF) and interaction term CONCASH, given the correlation coefficient of -0.4911 and p-value of 0.0000. This result suggests that investment efficiency of listed consumer goods firms in Nigeria decreases with antagonistic effect of financial constraint on conditional accounting conservatism which is statistically strongly significant at 1% level of significance, thus the causal effect of financial constraint increases.

Moreover, Table 4 shows that there is a significant positive relationship between investment efficiency (INVEFF) and interaction term UNCONCASH from the correlation coefficient of 0.2000, at 1% level of significance, (p-value 0.0010). This result suggests that investment efficiency of listed consumer goods firms in Nigeria increases when enhancing effect of financial constraint with unconditional accounting conservatism is increased.

Table 4 Correlation Matrix

VARIABLES	INVEFF	CON	UNCON	CASH	CONCASH	UNCONCASH
INVEFF	1.0000					
CON	0.5813 (0.0000)	1.0000				
UNCON	-0.0936 (0.1277)	-0.0386 (0.5309)	1.0000			
CASH	-0.0048 (0.9373)	0.4938 (0.0000)	0.5177 (0.0000)	1.0000		
CONCASH	-0.4911 (0.0000)	-0.0404 (0.5123)	-0.1579 (0.0099)	-0.1529 (0.0126)	1.0000	
UNCONCASH	0.2000 (0.0010)	0.0159 (0.7965)	0.0560 (0.3627)	-0.4274 (0.0000)	0.0322 (0.6014)	1.0000

P-Values in Parentheses, Source: Computation, 2020

Table 5. Summary of Regression Results

Variable	Coefficient	Std. Err.	T. Test	P> T
Constant	0.198303	0.009224	21.50	0.000
CON	0.000852	0.000049	17.42	0.000
UNCON	0.000223	0.000049	4.58	0.000
CASH	-0.000468	0.0000468	-10.01	0.000
CONCASH	-0.1244884	0.00876	-14.21	0.000
UNCONCASH	-0.0001043	0.0000435	-2.40	0.017
R ²				0.7506
Wald-Statistic				749.01
Prob. of F				0.000
Autocorrelation				No autocorrelation

Source: Computation, 2020

The Table 5 presents the regression results of PCSE models. The classical assumption of regression model assumed that the error terms are normally distributed and independent (that is the error terms are uncorrelated); the predictor variables are not perfectly correlated (absence of multicollinearity); the variance of the error terms is constant (Homoskedastic). When these assumptions have not been met, the estimators are biased and cannot be used in drawing any inference. However, the results proved the absence of perfect multicollinearity among the independent variables, because on average variance inflation factor (Mean VIF) is 2.26. The rule of thumb for the Tolerance Value is that any value of 1.0 and above implies the presence of perfect multicollinearity in the estimates, while for the Variance Inflation Factor a value of 10 and above is an indication of perfect multicollinearity.

The evidence from Breuch Pagan/Cook-Weisberg coefficient of 0.01 with p-value of 0.9352 confirms the absence of the effects of heteroskedasticity, that is, there is constant variance in the residuals. Moreover, Breuch Pagan/Cook-Weisberg test may also be an evidence of the absence of serial correlation. Similarly, the panel is a micro-panel which the problem of autocorrelation may not cause much harm on the findings (Wu & Zumbo, 2008).

The time-series and cross-sectional nature of panel data usually lead to the production of bias estimators when pooled-OLS regression is used. The usual solution to this problem was to conduct Feasible Generalized Least Squares regression (FGLS), however Beck & Katz (1995) argues, that this procedure too tends to under-estimate standard errors seriously thus, they suggested panel corrected standard errors regression (PCSE) take care of FGLS inefficiency. In this study, all relevant tests are carried out alongside the regression model (PCSE). The multiple coefficient of determination R^2 from Table 4 indicates that the predictor variables (conditional accounting conservatism, unconditional accounting conservatism, financial constraint, interaction term CONCASH and interaction term UNCONCASH) explained 75.06% of the variations in the dependent variable, investment efficiency of the listed consumer goods firms in Nigeria, (R^2 value of 0.7506). The result also shows that the model is fitted as evidenced by the Wald-Statistics of 749.01 which is significant at 1% level of significance (P-value 0.0000).

4.1 Conditional Conservatism and Investment Efficiency

The results in Table 5, shows that conditional accounting conservatism (CON) has a statistically significant positive impact on the investment efficiency (INVEFF) of listed consumer goods firms in Nigeria as indicated by the t-value of 17.42 with P-value 0.000 which is significant at 1% level of significance. That is, conditional accounting conservatism (CON) significantly improves the investment efficiency of listed consumer goods firms in Nigeria. The study infers that conditional accounting conservatism has positively significant impact on the investment efficiency of the listed consumer goods firms in Nigeria, during the period covered by the study. Thus, the null hypothesis (H_{01}) which states that, conditional accounting conservatism has no significant impact on investment efficiency of listed consumer goods firms in Nigeria is rejected.

This paper showed that conditional conservatism has information advantages that reduce inefficiency in firm's investment activities. Regarding the role of conditional conservatism, it seems that the reason is the improvement of control over management decision making through reducing investment where managers tend to over-investment and fostering cheap external financing through increasing investment where managers tend to under-investment. This finding is in accord with researches by Lawal & Shehu (2016), Garcia Lara et al (2010; 2016), Zahra & fatemeh (2015), Mahmoudabadi & Mehtari (2012) and Lalbar et al (2012), Thus, the implication of this finding is that when investment efficiency decreases, the investors become sensitive and consider it as a result of mis-use by managers of the confidential information and they would act for more conservative methods to preserve their benefits.

4.2 Unconditional Conservatism and Investment Efficiency

The Table 5, also shows the main effect of unconditional accounting conservatism on the investment efficiency of listed consumer goods firms in Nigeria is significantly positive, considering the t-value of 4.58 and p-value Of 0.000. That is, when unconditional accounting conservatism improves investment efficiency would also improve. Therefore, the study infers that unconditional accounting conservatism has significant positive impact on the investment efficiency of listed consumer goods firms in Nigeria, during the period covered by the study. Based on this, we reject the null hypothesis (H_{02}) which states that Unconditional accounting conservatism has no significant impact on investment efficiency of listed consumer goods firms in Nigeria.

From the result it was found that unconditional conservatism has significant positive effects on the investment efficiency of listed consumer goods firms in Nigeria. This implies that for every improvement in unconditional conservatism, there would be improvement in efficiency of Nigeria consumer goods investment activities. The reason may be by understating book values free cash flows would increase, in which projects with positive NPV may be financed. The finding supports the findings of Mahmoudabadi & Mehtari, (2012), Mansoori & Kiamehr, (2014), Balakrishnan et al (2014), Brochman et al (2014), Nakano et al, (2014), Nuanprdit & Boonlert-U-Thai, (2013), Shirin & Seyyd, (2015). Thus, the implication of this finding is that when investment efficiency decreases, the creditors analyze the ratios and observe financial

leverage increase against lack of increase in expected profits regarding investments and may avoid conferring credits, hence lead to higher cost of capital.

4.3 Cash Holding and Investment Efficiency

On the contrary, the results from the Table 5 shows that the financial constraint proxy cash holding has a significant negative impact on the investment efficiency of consumer goods firms in Nigeria, given the t-value of -10.01 which is significant at 1% level of significance (from the p-value of 0.000). This suggests that the higher the financial constraint of a firm the lower the investment efficiency of listed consumer goods firms in Nigeria during the period of the study. The study infers that cash holding can cause over or under investment which is inefficiency. Based on this, the study rejected the null hypothesis (H_{03}) which states that financial constraint has no significant impact on investment efficiency of listed consumer goods firms in Nigeria.

This signifies that when the level of cash holdings increases investment efficiency would decrease, therefore the higher firms Holds cash the lower their investment efficiency. The reason could be investment-cash flow sensitivity which would lead to firm's strict retention policy that would lead to pass up positive NPV project. The finding is in consistence with the work of Louis et al, (2012) Zahra & fatemeh, (2015), Balakrishnan et al (2014) while is contrary to that of Leonida et al, (2006) and Khalid et al, (2015). Thus the implication here is that firms facing higher level of financial constraint may not be able to have efficient investment activities.

4.4 Interaction Term (Conditional Conservatism X Cash Holding) and Investment Efficiency

The results presented in the Table 5, also shows that the interaction term CONCASH has a significant negative impact on the investment efficiency of listed consumer goods firms in Nigeria, from the t-value of -14.12 which is significant at 1% level of significance (from the p-value of 0.000). This signifies that the interaction term coefficient β_4 is statistically different from zero; there is significant moderation effect of the conditional accounting conservatism-investment efficiency relation. it can be claimed that financial constrain affects the relationship between conditional accounting conservatism and investment efficiency directly and meaningfully in a way that by increasing financial constrain the effect of conditional accounting conservatism on investment efficiency significantly changing inversely.

This signifies that the financial constraint changing the influence of the conditional accounting conservatism on investment efficiency of listed consumer goods firms in Nigeria during the period of the study, significantly negatively. In other words in firms that conditional accounting conservatism along with having financial constraints (i.e. conditional accounting conservatism X financial constraint as interaction term), there would be more tendency of inefficient investment decisions. Therefore, based on this, we rejected the null hypothesis (H_{04}) which states that, financial constraint has no significant moderating effect on the relationship between conditional conservatism and investment efficiency of listed consumer goods firms in Nigeria.

This results showed that financial constrain proxy cash holdings has negative and direct effect on the relationship between conditional conservatism and investment efficiency. In other words there is moderation effect between conditional conservatism and financial constraint proxy. This

means that by increasing cash holding in the company and lack of investment would follows, which means in projects under considerations, the firms managers would increase their precision in selecting a project for investment. Thus, the projects chosen for the investment would be chosen with higher cautious and more precise calculations. The finding is in consistence with the work of Zahra & fatemeh, (2015), Demonier et al (2015), Balakrishnan et al (2014) and contrary to that of Khalid et al, (2015). Thus the implication of this finding is that managers may be using conditional conservatism while facing financial constraint leading to under investment which is investment inefficiency.

4.5 Interaction Term (Unconditional Conservatism X Cash Holding) and Investment Efficiency

Finally from the Table 5 results show that the interaction term UNCONCASH has a significant negative impact on the investment efficiency of listed consumer goods firms in Nigeria, considering the t-value of -2.40 which is significant at 1% level of significance (p-value 0.017). This signifies that the interaction term coefficient β_5 is statistically different from zero; there is significant moderation effect of the unconditional accounting conservatism-investment efficiency relation. We can say that financial constrain affects the relationship between unconditional accounting conservatism and investment efficiency directly and meaningfully and increasing firms' financial constrains result in changing the effect of unconditional accounting conservatism on investment efficiency.

This indicates that the financial constraint changing the influence of the unconditional accounting conservatism on investment efficiency of listed consumer goods firms in Nigeria during the period of the study, significantly negatively. Therefore, based on this, we rejects the null hypothesis (H_{05}) which states that, financial constraint has no significant moderating effect on the relationship between unconditional accounting conservatism and investment efficiency of listed consumer goods firms in Nigeria.

This results indicate that financial constraint have also negative and significant moderation effect on the relationship between unconditional conservatism and investment efficiency. This indicates that financial constraint influence of the unconditional accounting conservatism on relationship with investment efficiency of listed consumer goods firms in Nigeria during the period of the study. This mean that unconditional conservatism changes as a result of cash holdings which may decreases value added and the earnings created for equity owners that finally affect the goal of the firm regarding maximum earnings. The finding is in consistence with the work of Zahra & fatemeh, (2015), Balakrishnan et al (2014), Demonier et al (2015) and contrary to that of Khalid et al, (2015). Thus the implication of this finding is that Firms may significantly changes in their unconditional conservatism resulting from financial constraint.

This study in general, is consistent with the views of Lawal & Shehu, (2016), Balakrishnan et al (2014), Brochman et al(2014), Nakano et al, (2014), Nuanprdit & Boonlert-U-Thai, (2013), and Shirin & Seyyd, (2015), stating that more conservative firms act more efficiently in their future investments. The finding add to the current flow of relevant empirical literature, such as the relationship between the higher quality reports and investment efficiency (Verdi, 2006; Biddle, 2006; and McNichols & Stubben, 2008), and particularly, the studies concerning how conservatism affects the investment decision (Hope & Thomas, (2008), Balakrishnan et al (2014), Brochman et al 2014, Nakano et al, (2014), Nuanprdit & Boonlert-U-Thai, (2013), and

Shirin & Seyyd, (2015). Also, in line with Suijs (2008), Ialbar et al (2012) and Garcia lara et al (2016) the study argued that eliminating the accounting conservatism is similar to pursuing the adverse economic outcomes.

5. Conclusion

Based on the key findings of this research, the study concludes as follows:

There is significant positive relationship between conditional accounting conservatism and investment efficiency of listed consumer goods firms in Nigeria. Therefore conditional conservatism plays a prominent role in improving control over management decision making through reducing investment where managers tend to over-investment and fostering cheap external financing through increasing investment where managers tend to under-investment

There is significant positive relationship between conditional accounting conservatism and investment efficiency of listed consumer goods firms in Nigeria. Therefore unconditional conservatism improves investment efficiency by increasing free cash flows in which projects with positive NPV may be financed, when book values is understated.

There is significant negative relationship financial constraint and investment efficiency of listed consumer goods firms in Nigeria. Therefore, firms experiencing higher level of financial constraint may not be able to have efficient investment activities.

Conditional Accounting conservatism doesn't matter for investment decisions in the presence of financial constraint. Because the information role of conditional conservatism changes inversely at interaction with financial constraint.

And finally unconditional conservatism and financial constraint interaction term significantly determine investment efficiency of the Nigerian consumer goods. The higher the degree firm needed financing the higher it practice unconditional conservatism negatively.

Overall the study concluded that firm facing financial constraint may optimally trade off costs and benefits of accounting conservatism and is willing to bear the costs of accounting conservatism as long as the corresponding benefits are sufficiently large.

In line with the findings and conclusion of the study, it is recommended that:

- i. Managers of consumer goods firms in Nigeria should embrace the practicing of conditional conservatism as a means to manage information asymmetry in their financial reporting strategies. This is because of the positive impact of conditional conservatism on the investment efficiency activities.
- ii. Since unconditional conservatism is one of the significant determinants of investment efficiency, it is recommended that investors should be conversant with it. Because it has been observed that it is mainly practiced by managers only.
- iii. To prevent the risk of expropriating the interests of the shareholders by facilitating empire-building or overinvestment, government, through Financial Regulation Council

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- of Nigeria (FRCN) should institute regulatory framework as mechanism devoid of unnecessary accumulating cash for financially constraint firms to protect shareholders.
- iv. Overall, the results of the study indicate that financial constraints proxy plays a role in explaining the relations of accounting conservatism to investment efficiency. It is therefore recommended that consideration of firm's financial conditions should form an essential part of any analysis towards understanding the firms accounting conservatism practices by the stakeholders.
 - v. Accounting conservatism should be encouraged by the accounting standard setters and all other stakeholders especially, those in the Nigerian consumer goods firms because of the impact it does in attaining efficient investment decisions.

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