

WORKING CAPITAL MANAGEMENT AND VALUE OF LISTED OIL AND GAS COMPANIES IN NIGERIA

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Abstract

This study investigated the impact of working capital management on value of listed oil and gas companies in Nigeria, with the specific objectives to determine the impact of account receivables collection period, account payables payment periods and inventory conversion period on Tobin's Q as well as share price. The study's aims were achieved using panel data. The study employed an explanatory, descriptive and correlational research design. Six research hypotheses were put out for the study and generalized least squares regression was utilized to analyze the data taken from the annual reports and financial statements of the sampled companies from 2006 to 2019. The proxies for firm value used for this study were Tobin's Q and share price. The study result showed that inventory conversion period significantly and negatively affects value of Nigerian listed oil and gas firms while account receivables collection period has negative but insignificant impact on value. Furthermore, account payables payment period has a significant positive effect on firm value. In light of these findings, the study recommends among other things, that the receivables collection period be decreased as far as is practicably possible below 365 days during favorable economic conditions, and vice versa, as this will positively boost value. It is further recommended that inventory conversion period be reduced as reasonably minimum while extending account payables payment period as reasonably possible so as to impact positively on value.

Keywords: Account Payables Payment Period, Account Receivables Collection Period, Inventory Conversion Period, Firm Value, Tobin's Q

1. Introduction

The management of working capital has drawn a lot of attention among researchers considering the large amount of current assets and current liabilities specifically on issues surrounding it and value of firm as measure of financial performance because of the need to maximize the wealth of the owners. Similar to this, contemporary finance literature has established that working capital investment makes up a large portion of firms' total assets and, as a result should have an impact on firm value (Kwenda, 2017). Again, according to Ademola and Kemisola (2014), the proportion of current assets to total assets varies by industry. For instance, marketing and retails enterprises require even greater current assets than those in manufacturing firms. This implies that an organization's success depends greatly on how its Working Capital (WC) is managed.

A corporate entity's primary goal is to maximize the value of its shares on the market, and as this is one way to achieve its goal of maximizing wealth, investors will view a firm as being a good one to invest in if its share price is rising (Ademola & Kemisola, 2014). Inferring from this is the idea that greater value is a sign of

successful management, as seen by the efficient use of available resources and this suggest how important working capital should be well managed to enhance value.

The Energy Information Administration-EIA (2020) of the United State portrays the Nigerian economy to be heavily dependent on oil revenue which is noticeably affected by crude oil prices. Nigeria has been a country that is usually affected by fluctuations in USD, as it concerns oil prices. As a result, it is expected that a deteriorating effect of US Dollar will have an adverse impact on Working Capital Management (WCM) and may possibly have a spillover effect on the oil and gas industry in Nigeria. Thus, in light of the WCM, Cash Conversion Cycle (CCC) is frequently and widely regarded as a better indicator of WC (Waema & Nasieku, 2016). The current study will focus on the individual components of CCC (inventory, receivables and payables) and how they impact on value in light of the aforementioned. More so, there is paucity of literatures on the impact of the individual components of CCC on value in the Nigerian oil and gas industry and this study intend to fill in the gap by examining how SP and Tobin's Q (TQ) are affected by the effects of Account Receivables Collection Period (ARCP), Inventory Conversion Period (ICP) and Account Payables Payment Period (APPP).

The choice of the oil and gas sector was the driving force (motivation) for the current study. Where previous studies dominate other industries inside of Nigeria's territory such as manufacturing and food and beverages sectors (Ademola & Kemisola, 2014; Mohamad & Saad, 2010; Ogundipe *et al.*, 2012), very few studies focused on the oil and gas sector in Nigeria (Ironkwe & Wokoma, 2017). This further demonstrate empirically that, despite the oil and gas sectors significance to the Nigerian economy and the demand and consumption of petroleum products, there are few publications on WCM related to it. The need to research the oil and gas industry is thus, justified. Finding out how WCM affects the value of Nigerian listed oil and gas companies is the study's main objective. In view of that, the following research questions are raised in accordance with the study's objectives:

- i. How does ICP affect the value of Nigerian listed oil and gas companies?
- ii. How does ARCP impact on value of Nigeria's listed oil and gas companies?
- iii. What is the impact of APPP on value of Nigerian listed oil and gas industry?

Furthermore, to guide the study, the following hypotheses are also presented in their null form:

H₀₁ : ICP has little to no effect on SP of Nigerian listed oil and gas firms.

H₀₂ : ICP has little effect on TQ of Nigerian listed oil and gas firms.

H₀₃ : ARCP has no material impact on SP of Nigeria's listed oil and gas companies.

H₀₄ : ARCP has no material impact on TQ of Nigeria's listed oil and gas firms.

H₀₅ : The SP of Nigerian listed oil and gas firms is not significantly impacted by APPP.

H₀₆ : The TQ of listed Nigerian oil and gas firms is not significantly impacted by APPP.

2. Review of related studies

2.1 Working capital management concept

WCM is a management technique that is focused on keeping an efficient level of current assets and current liabilities which makes up a company's working capital (Waema & Nasieku, 2016). This implies that the management of current assets and current liabilities can be defined as WCM. The goal of WCM is to guarantee that

firms are able to manage their operational expenses and meet their short-term debt obligation as at when due.

Inventory Conversion Periods: The amount of days a company takes to turn its raw materials, work-in-progress and finished commodities into cash is known as the inventory conversion period. Similarly, the sum of the raw material, work-in-progress and finished goods conversion periods make up the inventory conversion period (Pandey, 2004).

Accounts Receivable Collection Period: The account receivable collection period measures the speed of collection as well as the quality of the receivables (Pandey, 2004). It also indicates how investment in receivables is converted into cash. More so, it measures the time it will take a company's debtors to pay back what they owe.

Accounts Payable Payment Periods: The account payable payment period estimates the number of times a firm can extend settlement period for the cost incurred to enhance its daily operations. APPP otherwise known as creditor's deferral period is the average amount of time that a company defers paying its creditors. It is calculated by dividing creditors by credit purchases and multiplying the result by 365 days (Pandey, 2004).

2.2 The Concept of value

The worth of a company, product, service or something is what the word 'value' literally means. More so, Thamrin et al. (2018) opined that the development of share prices in the secondary market can also be used to determine a company's value, and a rise in share prices is a sign that value has increased.

Share price: Share price is the cost of acquiring the shares of an entity on the public exchange market. The SP is affected by a number of factors including volatility in the stock market, current economic conditions, as well as the popularity of the company (Ibrahim, 2016). The average quarterly SP is used in this study to determine the share price. The choice of this measurement is in consideration to the fluctuations in SP, as share price is not uniform throughout the year. Thus, it will be appropriate to use the average share price (the sum of March, June, September and December share prices divided by four) so as to capture the effects of such fluctuations during the year.

Tobin's Q: TQ is a ratio which measures the proportion between two accounting variables. That is, the market worth of an entity and the total asset's replacement value, expressed mathematically. TQ is the ratio of market value of equity plus book value of debt scaled by the book value of all assets (Vijayakumaran, 2019). TQ is a common technique in evaluating a fair firm (Gharaibeh & Qader, 2017).

2.3 Empirical review

In their study, Langroudi *et al.* (2013) observed the impact of WCM on firm performance of listed companies on Tehran Stock Exchange from 2006-2011. The yearly financial reports of the selected manufacturing companies were where the data was obtained from. ICP has a positive but insignificant impact on TQ according to the study, which also used descriptive statistics, fixed and random effect, and generalized methods of moment to analyze the data. Again, ARCP and APPP have an insignificant negative effect on TQ. Additionally, the impact of WCM on the market value of publicly traded food and beverages manufacturing companies in Nigeria in 2013 was also studied by Ademola and Kemisola (2014) utilizing primary

data sources. Multiple regression and Pearson correlation were employed to ascertain the impact. The findings revealed that factors relating to working capital have a favorable and significant positive influence on value of the beverage's enterprises. In a similarly study, Parvaneh and Chashmi (2014) examined the effects of financing strategies and WCM on the market value of listed companies on the Tehran Stock Exchange between 2008 to 2012. The data analysis used regression and descriptive statistics, and the study found that ARCP, ICP and CCC significantly and negatively affected value.

Additionally, Arachchi et al. (2017) also assessed the effect of WCM on business value in Colombo between 2011 and 2015. With the aid of descriptive statistics, correlation, pooled ordinary least square regression, fixed effects regression, the study data were evaluated, and the result revealed a statistical negative association between ARCP and ICP with TQ. Furthermore, a statistically positive association between APPP and TQ discovered. Vijayakumaran (2019) assessed the effect of WCM on value of listed Chinese enterprises from 2004 to 2013. Ordinary least square regression was utilized in the investigation. The study discovered that net trading cycle, days sales outstanding, days inventory outstanding and days payables outstanding have a negative impact on TQ. Again, Dayi and Olusoy (2020) looked into the impact of operating ratio on value of European airline from 2010 and 2016. The data were analyzed using descriptive statistics, fixed effect regression and random effects regression. The study discovered that while inventory turnover had a negative impact on share price, assets turnover and account receivables turnover had a positive impact on share price. Furthermore, Khan et al. (2020) evaluated the impact of working capital on company performance and share price in Pakistan from 2006 to 2011. The data obtained were analyzed using univariate regression and Pearson correlation. According to the study, average payment periods have a large negative effect on share price, whereas average collection periods, current ratios, and inventory turnover days have considerable positive impact on share price.

2.4 Theoretical framework

The Cash Conversion Cycle (CCC) theory posited by Richard and Laughlin (1980) is deemed appropriate in supporting the current investigation. The CCC theory has been regarded by many researchers to be the most appropriate measure of WCM. In view of that, Ironkwe and Wokoma (2017) posit that the CCC demonstrate the interaction between the mechanism of working principal and cash flowing inside the business, which is used to control the amount of money required for any auctions level. The CCC theory is pertinent to the current investigation since it is regarded as the popular measure of WCM which seeks to explain how ICP, ARCP and APPP as component of CCC interact to influence liquidity and subsequently value.

3. Methodology

3.1 Research design

The research design combined explanatory, descriptive and correlational methods. Eight oil and gas firms were selected as a sample from a total of twelve (12) listed oil and gas companies in Nigeria as of 31 December 2019. The sample size is derived from the premium and main board listing classification against the alternative security market (Asem) of the NSE. Ibrahim (2019) employs a similar technique. Because the companies in the premium and main board listing classification are larger in size than those in the alternative security market classification, which consist of small and medium-sized businesses with strong development prospect, it was

decided to utilize this classification as the sample. As a result, the study uses the census sampling technique after filtering.

Table 1: Variables definition

Variable Name	Acronym	Measurement and Source
Share Price	SP	Average quarterly share price (Mohammed, 2017).
Tobin's Q	TQ	Market capitalization add total liabilities divide by total assets (Arachchi <i>et al.</i> , 2017).
Inventory Conversion Period	ICP	Inventories divide by cost of sales times 365 days (Arachchi <i>et al.</i> , 2017).
Account Receivable Collection Period	ARCP	Account receivables divided by revenue multiplied by 365 days (Arachchi <i>et al.</i> , 2017).
Account Payable Payment Period	APPP	Account payables divide by cost of sales times 365 days (Arachchi <i>et al.</i> , 2017).
Net Profit Margin	NPM	Divide net profit after tax by total revenue (Ibrahim, 2017).
Leverage	LEV	Total debts divide by total assets (Irom, Joshua, Ahmed & Emmanuel, 2018).

Source: Author's compilation

3.2 Method of data analysis

In analyzing the impact of WCM on value of Nigerian listed oil and gas firms, three techniques were used. These techniques are descriptive statistics, correlation and generalize least square regression. Three fundamental regressions – fixed effects, random effects, and pooled ordinary least squares regressions were run on the panel data. Furthermore, diagnostic test was carried, and these include Multicollinearity, Heteroskedasticity, hausman test, F-test as well as, langragian multiplier test.

3.3 Model specification

The research used two models in carrying out the objectives of this study and the two models were adapted to accommodate the study variables based on empirical literatures (Mohamad & Saad, 2010; Ogundipe et al., 2012).

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_n X_n + \epsilon$$

Where Y=dependent variables, β_0 is a constant, the independent variables' coefficients, X_1 - X_n , are β_1 - β_n and ϵ is the error term. Thus, the two models are estimated to test the hypotheses by inserting the dependent and the independent variables in the equation above.

$$SP_{it} = \beta_0 + \beta_1 ICP_{it} + \beta_2 ARCP_{it} + \beta_3 APPP_{it} + \beta_4 NPM_{it} + \beta_5 Lev_{it} + \epsilon \dots \dots \dots (i)$$

$$TQ_{it} = \beta_0 + \beta_1 ICP_{it} + \beta_2 ARCP_{it} + \beta_3 APPP_{it} + \beta_4 NPM_{it} + \beta_5 Lev_{it} + \epsilon \dots \dots \dots (ii)$$

Where:

SP_{it} and TQ_{it} = Share price and Tobin's q of *it*th firm at time *t* respectively, ICP_{it} = Inventory Conversions Period of *it*th firm at time *t*, $ARCP_{it}$ = Account Receivables collection period of *it*th firm at time *t*, $APPP_{it}$ = Account Payables Payments Period of *it*th firm at time *t*, NPM_{it} = Net Profit Margin of *it*th firm at time *t* and LEV_{IT} = Leverage of *it*th firm at time *t*.

More so, NPM and Lev were taken into account in this study as control variables. The choice of NPM as a control variable is to control for the effect of differences in profit among Nigerian listed oil and gas companies (Ibrahim, 2017). More so,

leverage on the other hand is to control the effect of debt financing which is based on total debt to total assets.

4. Data analysis

4.1 Descriptive statistics

On Table 2, the study variables descriptive statistics are shown.

Table 2: Descriptive statistics

Variables	Obs	Mean	Std. Dev.	Min.	Max.
SP	112	77.43	80.92	0.21	303.21
TQ	112	1.63	1.64	0.50	14.42
ICP	112	25.43	14.14	2.30	85.47
ARCP	112	49.62	70.58	3.92	572.40
APPP	112	60.82	86.26	1.45	722.68
NPM	112	32.09	546.72	-704.24	5640.10
LEV	112	76.26	25.16	0.73	247.85

Source: Stata 14.0 output

From Table 2, it can be seen that there are 112 observations total for the study's variables. For share price, the lowest and maximum share price is 0.21Kobo and ₦303.21 respectively. This wide range is evident from the standard deviation of 80.92kobo which is outside the mean SP of ₦77.43kobo. The standard deviation of ₦80.92kobo above the mean value suggests that the sampled companies have significant variations in their share prices since it shows how far away from the mean the share price is from the mean. Tobin's Q measurement of firm value yields a mean of 1.63 with minimum and maximum values of 0.50 and 14.42, respectively. The large TQ standard deviation of 1.64, which is barely over the mean value of 1.63, also points to significant TQ variance among Nigerian the oil and gas industries.

For the ICP, it is reported to have a mean of 25.43 days is and a minimum and maximum of 2.30 and 85.47 days, respectively. The low standard deviation of 14.14 days below the average ICP of 25.43 days suggests that the variation in ICP is not significant among the oil and gas businesses. The ARCP on the other hand, also reveals a mean of 49.62 days. A high standard deviation of 70.58 days above the mean value of 49.62 days is reported, which suggests that there is a large variation in the ARCP of the oil and gas companies in Nigeria which is also evident from the minimum ARCP of 3.92 days and a maximum ARCP of 572.40 days. Furthermore, the APPP has an average value of 60.82 days while minimum and maximum value of APPP is 1.45 days and 722.68 days respectively.

4.2 Correlation matrix

Table 3 present the correlation matrix, which includes the individual Variance Inflation Factor (VIF) for each explanatory variable, as well as, the values of the correlation coefficientst. The VIF is found to be lower than 5, indicating the absence of Multicollinearity in line with the suggestion of (Abdullahi et al., 2020).

Table 3: Correlation matrix

	SP	TQ	ICP	ARCP	APPP	NPM	LEV	VIF
SP	1							-
TQ	0.26	1						-
ICP	-0.28	-0.18	1					1.06
ARCP	0.62	0.03	-0.05	1				1.24
APPP	0.41	-0.12	-0.19	0.38	1			2.42

NPM	0.32	0.08	-0.10	0.16	-0.14	1		1.11
LEV	0.27	-0.37	-0.09	0.27	0.73	-0.16	1	2.16

Source: Stata 14.0 Output

According to Table 3’s correlation result, share price is positively related with ARCP, APPP, NPM and LEV, with the correlation coefficients of 0.62, 0.41, 0.32 and 0.27 accordingly. However, ARCP and share price have a strong correlation and the degree of the association is deemed to be substantial because the absolute value of 0.62 is greater than 0.5. In contrast, since the absolute values of the coefficients of correlation of 0.41, 0.32 and 0.27 are less than 0.5, APPP, NPM and LEV is said to have less correlation with share price. However, ICP is negatively but weakly associated with SP with a coefficient of -0.28. More so, table 4.2’s correlation result shows that ARCP and NPM are favorably connected with TQ, with the correlation coefficients of 0.03 and 0.08 in absolute terms, respectively. Furthermore, it can be observed that ICP, APPP and LEV have a weakly negatively association with TQ with correlation coefficient values of -0.18, -0.12 and -0.37 respectively.

4.3 Regression Results

The panel data used in the study is a balanced panel data spanning a period of fourteen years. With prob > F of 0.0000 and prob > chi2 of 0.0000 for SP and TQ, respectively, which are significant at 5%, the overall and combined influence of the independent variables on the dependent variables of this study provide the evidence that the two models are fit. Additionally, the differences in the dependent variables by the independent variables are explained by the coefficient of determination R² for share price and Tobin’s Q which are 53% and 26% for share price and Tobin’s Q accordingly. Following the completion of Multicollinearity test, Heteroskedasticity test, hausman test, Langrangian Multiplier test and F-test, SP model is best predicted by the fixed effect result while TQ model is best predicted by random effect result. The choice of fixed and random effect result for interpretation is premised on the assumption of Hausman test, F-test and Langrangian test. The result of these diagnostic tests is found on Table 4.

Table 4: Regression results

Share Price Model 1 Fixed Effect (FE)				Tobin’s Q Model 2 Random Effect (RE)		
Variables	Coef.	T	P > t	Coef.	Z	P > z
ICP	-0.0060	-5.59	0.000	-0.0020	-1.37	0.172
ARCP	-0.0489	-0.87	0.386	-0.0978	-1.29	0.195
APPP	1.88e-09	3.38	0.001	1.73e-09	2.21	0.027
NPM	0.0002	6.30	0.000	5.38e-06	0.15	0.880
LEV	-0.0002	-0.18	0.854	-0.0055	-5.07	0.000
cons	0.5346	0.0995	0.000	0.1518	10.09	0.000
Number of observations			112	Number of observations		112
R-sqr:				R-sqr		
	Within		0.5314	Within		
	Between		0.4022	Between		0.2586
	Overall		0.2283	Overall		
Prob > F			0.0000	0.0098		
Hettest	Prob > chi2		0.0003	0.1754		
Hausman test	Prob>chi2		0.0000	0.0000		
F-test	Prob > F		0.0000	Prob >		chi2
				0.0000		
				Hettest		Prob > chi2 0.9859

	Hausman test	Prob>chi2
	0.8810	LM test
	Prob>chibar2	0.0000

Source: Stata 14.0 Output

4.3.1 ICP and Share Price

In Table 4, it can be observed that ICP is statistically significant and negatively skewed with SP at 5% which is consistent with cash conversion cycle theory. The outcome of the result is contrary to null hypothesis one which indicates a beta coefficient of -0.0060 and a $P > |t|$ of 0.000. This result provides the ground for the rejection of the null hypothesis 1 of the study. Thus, based on the SP model, the negative coefficient implies that an increase in SP is explained by a reduction in ICP which suggests that lower ICP would result to higher value. This result supports literature expectation and consistent with the findings of Dayi and Ulosoy (2020) who found a significant negative relationship between ICP and SP. The findings of Khan et al. (2020) show a positive and significant link between ICP and value and suggested that an increase in ICP would lead to an increase in value, is further at odds with the result of this study.

4.3.2 ICP and TQ

Furthermore, it is also observed that ICP is negatively and statistically insignificant with TQ suggesting that ICP does not significantly impact on value. A beta coefficient of -0.0020 and a $P > |t|$ of 0.172 are shown by the outcome. The outcome is in agreement with null hypothesis two. This insignificant impact further suggests that firms in the Nigerian oil and gas sector need an improvement in inventory management as this current practice add insignificantly to value. Null hypothesis 2 of the investigation can be accepted on the basis of this outcome. This result is in line with literature expectations and consistent with the findings of Parvaneh and Chashmi (2014); Vijayakumaran (2019) that found a negative link between ICP and value. The outcome of this study further contrasts the findings of Ademola and Kemisola (2014) that found a significant positive effect of ICP on TQ, suggesting that an increase in ICP by one day would result to value increase.

4.3.3 ARCP and Share Price

It can be observed on Table 4, that ARCP is statistically negligible and negative with SP which suggests that ARCP insignificantly impact on value. A beta coefficient of -0.0489 and $P > |t|$ of 0.386 is observed by the outcome. The outcome is in agreement with hypothesis 3. The third null hypothesis of the investigation can be accepted in light of this outcome. Thus, based on the SP model, the negative coefficient is accordance with CCC theory which asserts that lower ARCP would result to higher value. The results contrast the findings of Khan *et al.* (2020); Dayi and Olusoy (2020) who observed a positive but significant effect of ARCP and SP.

4.3.4 ARCP and Tobin's Q

From Table 4, it can be observed that ARCP is negatively and statistically insignificant with TQ which suggests that ARCP and value has no significant impact. Furthermore, a beta coefficient of -0.0978 and $P > |t|$ of 0.195 is revealed by the outcome of this study. The outcome agrees with null hypothesis four. The fourth research null hypothesis can be accepted on the basis of this outcome. This result is in line with literature expectations and consistent with the finding of Lai (2012) and Langroudi *et al.* (2013) that observed a statistical but negative insignificant impact of ARCP on TQ. This outcome agrees with the CCC theory, which asserts that a lower

ARCP would result to higher value. Conversely, a significant positive impact is reported on ARCP and TQ according to (Ademola & Kemisola, 2014).

4.3.5 APPP and SP

The impact of APPP on value of firm as measured by SP is positive and significant statistically at 5% as evident by this outcome. This implies that APPP significantly impact on value when assessed according to SP. The outcome shows a beta coefficient of 1.88e-09 and a $P > |t|$ of 0.001. The outcome conflicts with the research null hypothesis number five. And thus, the outcome gives reason to disprove the fifth hypothesis. Thus, the positive coefficient implies that an increase in SP is explained by an increase in APPP, suggesting that higher APPP has the potential effect of increasing value. This finding supports the CCC theory which asserts that, higher APPP will result to higher value. The result contrasts the finding of Khan *et al.* (2020) that observed a negatively and statistical relationship between APPP and SP.

4.3.6 APPP and Tobin's Q

More so, the finding on the impact of APPP and value of firm as measured by TQ is positively and significant at 5%. The outcome indicates a coefficient of 1.73e-09 and a $P > |t|$ of 0.027. The outcome conflicts with the research null hypothesis number six. And thus, the outcome gives reason to disprove the sixth hypothesis. Thus, the positive outcome implies that an increase in TQ is explained by an increase in APPP, suggesting that an increase in APPP would increase value. This result is in line with literature expectations and consistent with the findings of Ademola and Kemisola (2014); Arachchi *et al.* (2017) that observed significant positive effect of APPP on TQ. This finding is also in accordance with the cash conversion cycle theory. This result contrasts the findings of Parvaneh and Chashmi (2014); Vijayakumaran (2019) that found a negative link between APPP and TQ.

5. Conclusion

In view of the current study that looks at how WCM impact on value of Nigerian listed oil and gas companies. The following conclusions are made.

- i. There is a significant negative impact of ICP on SP of Nigerian listed oil and gas firms. The oil and gas sector in Nigeria can be said have effective inventory management as explained by an increase in SP as a result of a reduction in ICP.
- ii. ICP have negative but negligible impacts on TQ of Nigerian publicly traded oil and gas firms. The negligible impact on TQ leads to the conclusion that inventory management in this sector is not efficient.
- iii. More so, ARCP has an insignificant effect and negatively impacted on both share price and Tobin's Q of Nigerian listed oil and gas companies. The minimal and negligible impacts of ARCP on both SP and TQ leads to the conclusion that ARCP is not a key component of WCM in value creation in Nigerian publicly traded oil and gas companies.
- iv. The SP and TQ of Nigerian listed oil and gas companies are significantly impacted favorably by APPP. The significant positive impact leads to the conclusion that APPP is a crucial component of WCM in value creation. It can also be said that firms in the oil and gas industry have good utilization of funds raised as a result of extended credit terms with suppliers in profitable ventures.

Recommendations

The following recommendations are given in light of the study findings.

- i. The findings of this study on ICP show that ICP has a significant negative impact on SP in Nigerian listed oil and gas companies. Therefore, it is advised that the management reduce the time it takes for petroleum product to sell. This will have a significant impact on value while bearing in mind that keeping low level of inventory may lead to stock out, which may result to customers' unhappiness as a result of partial or unsatisfied demand at the time of need.
- ii. Conversely, the finding on the impact of ICP on TQ revealed an insignificant negative impact of ICP on TQ. It can be said that the current inventory management is not adding much value and it is recommended that the service of a professional be employed in the management of inventory in this sector of the Nigerian economy.
- iii. Based on the study finding, ARCP does not significantly impact on share price and Tobin's q accordingly. However, these negative impacts may be improved upon by ensuring that the firm receives payment from debtors as early as possible so as to avoid doubtful and subsequent bad debt which may result to a loss to the firm. It is therefore recommended that the management should carry out creditor analysis to ascertain their creditworthiness and discount should be extended to the debtors so as to encourage them pay on time. In addition, the maximum ARCP be reduced below 365 days so as to discourage bad and doubtful debt as the current maximum ARCP exceeds 365 days and perhaps the insignificant impact on value.
- iv. The study finding on the impact of APPP on SP revealed a significant positive impact of APPP on SP and TQ respectively in the oil and gas sector of the Nigerian economy. Thus, it is also advised that management work towards delaying settlement as reasonably possible with a view of reinvesting such fund in profitable ventures as this would yield value as evident by the significant impacts on both share price and Tobin's Q accordingly. In achieving this, the management should trade with cautiousness as creditors may as well demand early settlement as quick as possible so as not to tamper good relationship with suppliers. Thus, reputational risk should be avoided while attempting to lengthen the payables deferral period as lengthy as possible.

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