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- V. Literature Review
- VI. Methodology
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## EFFECTS OF ASSET TANGIBILITY AND CASH FLOW VOLATILITY ON DIVIDEND POLICY OF LISTED MANUFACTURING FIRMS IN NIGERIA

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### ABSTRACT

*This research examined the effects of asset tangibility and cash flow volatility on dividend policy. Data were collected from the websites of the individual companies. The study used SPSS to run the regression of dividend policy on asset tangibility and cash flow volatility. The regression results suggest that asset tangibility does not have effect on dividend policy. However, cash flow volatility has significant positive effect on dividend policy. Diagnostic tests do not suggest problems with the regression results. Company managements should leverage on the relationship between cash flow volatility and dividend policy.*

**KeyWords:** Cash flow, Cashflow, Volatility, Dividend, Dividend policy, Asset tangibility.

### 1. Introduction

To a layman, and even educated people without knowledge of finance, the name company is all about dividends. Of course, dividend is important because the essence of investment is to meet the investors consumptions needs. Since all the time, it is exchange that solve human problems.

A shareholder can get cash from a company to solve domestic needs in two principal ways: (1) Share repurchase, which is the distribution of excess funds that a company cannot use for investment. Share repurchase may give a negative signal to the market, because outsiders may see the company as failing to identify investment opportunities. (2) dividend policy. In finance standard textbooks, dividend policy is always discussed. Dividend policy has become synonymous with corporate finance. Some authors have simply defined dividend policy as the distribution of profit to shareholders (see, Abbas et al., 2016; Kilincarlan, 2018; Olubiyi et al., 2023).

Some authors believe that dividend policy is important in boosting the firm's value (Bello & Lasisi, 2020; Bradly et al., 1998; Correa-Meji et al., 2023; Emeka, 2022; Sinebe, 2023; Taiwo et al., 2022, Trang, 2012; Vu, 2023) among others.

In support of this view, many researchers have developed theories linking dividends and share value. The value of dividend policy is considered for enhancing the value of the firm and financing of the firm, hence, the question is always asked "is dividend policy an investment decision or financing decision?"

Since the time of Lintner (1956) who is seen as one of the fathers of dividend policy, the role of dividend policy remains elusive. There is hardly any author that conducts research on dividend that will not mention this issue of controversy (Alshabibi, 2011; Baban & Cankayab, 2011; Saini & Sharma, 2022), and others. Up to date in 2024, researchers are pouring out researches on dividend policy. The following authors have conducted recent researches on dividend policy.



They are: Louziri and Oubal (2020), Momany et al. (2024), Olubiyi et al. (2023), Setiawan et al. (2024), Kristiante and Wardani (2022), Olemu and Oghenevwerho (2023) and Chaudhury and Dawan (2020).

Al-Najjar (2010) points out that in Jordan, dividend policy is highly under researched. According to Louziri and Oubal (2022), the types of dividend policy used by firms are varied, while Sanyaolu et al. (2013) posit that shareholders returns from a company are in the form of dividends. Definitely dividend is the regular return that shareholders expect. Erasmus (2010) reports that, a company has clienteles with diverse needs, one of which is dividend. When firms pay dividends, the firms may ultimately resort to the capital market to raise funds (Hamzah et al, 2022). Osman and Mohammed (2011) document that dividend is not an issue of concern in Saudi Arabia, because there is neither tax on dividend nor capital gain.

The manufacturing sector in Nigeria is passing through turbulent time. The manufacturers' Association of Nigeria (MAN) has complained that many manufacturing firms have closed down because of several issues including power supply problems, exchange rate volatility, and cost of diesel. These problems have affected production in Nigeria.

Although there are researches conducted on determinants of dividend policy in Nigeria, there are dearth of researches on the effect of asset tangibility and cash flow volatility on dividend policy of manufacturing firms. On the course of literature search, one of the researches on the effect of asset tangibility on dividend policy is by Sanyaolu et al. (2017). The authors used only 5 manufacturing firms in Nigeria as sample of the study. There are today, 57 manufacturing firms listed on the Nigerian Exchange Group. A large sample is therefore more proper. This research uses the whole manufacturing firms listed on the Nigerian Exchange Group, so as to increase the robustness of the study. Most of the studies on effect of asset tangibility on dividend policy use the hold listed firms in the country. There is the need to conduct segment studies. Literature search does not show a single research conducted on the effect of cash flow volatility on dividend policy in Nigeria. This case informs the choice of cash flow volatility as an independent variable of this research.

## 2. Literature Review

In this section, empirical works on the effects of asset tangibility and cash flow volatility are reviewed. The studies on the effect of asset tangibility on dividend policy are more than those on effect of cash flow volatility on dividend policy. This is so even in other countries. It is not clear whether the reason is due to the method of calculating volatility or not. But it is doubtful whether the reason is due to relevance or

importance of volatility. Volatility is a very important variable at all times.

### 2.1 Asset Tangibility and Dividend Policy

Several researches have been conducted on the effect of asset tangibility on dividend policy. In Nigeria, most of the researches use all the firms listed on the Nigerian Exchange Group. In so far as it is important to use all the firms that are listed, it is important that segment studies are also carried out. This is because there is the phenomenon of individualistic or reductionist fallacy.

Bello and Lasisi (2020) document a significant negative impact of asset tangibility on dividend policy. This research confirms both the pecking order theory, and the signaling theory. Sanyaolu et al. (2017) also document that asset tangibility affect dividend policy. These authors do not tell the direction of causation in their research. If researchers do not report the direction of causation of the relationship in their study, the research would not be very useful for policy makers. Research in the modern time is focused on application to solve policy problems. Taiwo et al. (2022) report a negative relationship between asset tangibility and dividend policy. Al-Najjar (2010) reports that asset tangibility has significant effect on dividend policy.

Yousaf et al. (2010) report completely different finding. The authors document that asset tangibility has significant positive effect on dividend policy. This result is a rare result because most researches report negative impact of asset tangibility on dividend policy. Yousaf et al.'s research, however does not confirm the signaling theory.

Babangida and Caskayab (2021) and Kilincaslan (2018) report that asset tangibility affects dividend policy. Abbas et al. (2016) also document a unique result. The authors find that asset tangibility does not have any significant impact on dividend policy. The result has defied theory and need to be verified. Sharma (2023) also document a significant impact of asset tangibility on dividend policy.

### 2.2 Cash Flow Volatility and Dividend Policy

Globally, it appears that researches on the effect of cash flow volatility are few compared to other independent variables. Ali et al. (2021) document a negative relationship between cash flow volatility and dividend policy. The research confirms the life cycle theory. Bradley et al. (1998) also find a significant effect of cash flow volatility on dividend policy; the same as Chay and Suh (2009). It is clear that the life cycle theory has been confirmed in some jurisdictions.

## 3. Theoretical Considerations

There are theories that relate asset tangibility and dividend policy and cash flow volatility and dividend

policy. These theories have continued to play important roles in corporate finance researches. Prominent among these theories are the “Pecking Order Theory”, the “Signaling Theory”, and the “Life Cycle Theory”. These theories are discussed in this section.

### 3.1 Pecking Order Theory

Myers and Mijluf (1984) developed this theory. These authors argue that firms have hierarchy of preference for financing investments. That firms first finance their investments with internal sources (retained earnings). In the absence of retained earnings firms prefer to finance their investments with debt, and finally equity. When firms have high amount of tangible assets, they can raise money through debt, because large tangible assets are easily accepted as collateral. The implication of the analysis is that high tangible assets lead to low dividends.

### 3.2 Signaling Theory

This theory propounded by Bhattacharya (1979) is one of the long-term surviving theories of corporate finance. The author argues that firms signal to shareholders and investors any opportunity of future with what they have. If a firm has done well and generated large income, it signals to the stakeholders by distributing dividends. The amount of dividend depends on the amount of profit. When firm do not make fortune, they fail to signal by way of dividends, because they do not want to pay dividend now and fail to do so in the future. The theory postulates that firms with large amount of tangible assets can use them to acquire debt financing. But debt financing goes with bankruptcy cost which serves as a check on dividend payment. Because of the bankruptcy risk, firms pay low dividend. The implication of the theory is that when firms have large amount of tangible assets, it leads to low dividend.

### 3.3 Life Cycle Theory of Dividends

DeAngelo et al. (2006) developed the life cycle theory of dividends. In this theory, the authors argue that as a firm grows, it passes through stages of cash stability. At a young stage, a firm has not grown enough to acquire sufficient cash. At this stage, the cash flow of the firm is uncertain. At this stage a firm cannot risk paying dividends, if it is to grow. At a mature stage, the firm has stable cash flow, unlike young stage when cash flow is volatile. The conclusion of the analysis is that volatility of cash flow moves in opposite direction with dividend policy.

### 3.4 Catering Theory of Dividends

The catering theory of dividends was propounded by Baker and Wurgler (2004). The authors posit that large dividend can still be paid to investors even in the presence of high cash flow volatility. The argument hinges on the view that shareholders can mount pressure on directors to pay dividends. Being agents,

the directors do not have any option than to comply. This phenomenon can happen more in developing country like Nigeria, where investors consider dividend as the sold benefit of investing in a company. The prediction of this theory is that even in the presence of high volatility, a company can pay high dividends.

## 4. Method

### 4.1 Populations, Data, Sources and Analysis

This research uses manufacturing firms listed on the Nigerian Exchange Group. Manufacturing firms constitute one of the industries that add value to the economy. Although these firms are going through serious challenges, data on them are available. The Nigerian Exchange Group makes such firms to make data available. In Nigeria, such listed firms are also enforced by certain legislations to make data available.

For this research the data were sourced from the websites of the individual companies. A more comprehensive source of data on this firms are found on their websites. The Exchange Group also make data available from listed firms, but the data it provides are more summary than the ones provided by the companies from their websites, making the data sometimes unsuitable.

The data collected are in cross sectional form. Cash flow volatility is a low frequency variable, because it is not possible to calculate the values of this variable annually. This research uses census of all the listed manufacturing firms in Nigeria. This was based on the thinking that the manufacturing firms in Nigeria are not very many. Specifically, 57 manufacturing firms are listed on the Nigerian Exchange Group. Using all of them will increase the number of data values. This, it is hoped, would increase the robustness of the study and its findings.

Ordinary Least Squares (OLS) was used to analyze the data. OLS remains one of the most valued methods of analyzing data. The use of its robustness checks such as multicollinearity, heteroscedasticity, normality, serial correlation, make OLS robust. These tests are used in this research. Hausman specification test was used to select the model.

### 4.2 Data Preparation

Manufacturing firms in Nigeria are passing through turbulent time. The economy of the country is not favourable to these firms. This has made these firms to have data that are not expected. When the data were collated for this research, many of these firms have missing data. Removing all the firms with missing data would create selection bias, thereby, distorting the results. It is important to note that even with imputation method, one should be careful not to deflate the data set. In this research, the “K-nearest

neighbours” imputation method is used. This method takes the average of the data values close to the missing data and then, this average is used to fill the missing space. This method is preferred because it is more robust, such that it does not reduce the dispersion of the data set.

### 4.3 Variable Measurement

#### 4.3.1 Dividend Policy

There are two common proxies for dividend policy—dividend yield and dividend payout ratio. Dividend yield is dividend paid divided by market value. Dividend payout is dividend paid divided by earnings after tax. This can be calculated by either using dividend per share divided by price of the shares or total dividend paid divided by total market value. In this research, the dividend payout ratio is used. To develop the variable, payout ratio, the average of the payouts for all the years of the study for each firm is taken. This research is not the first to use this technique. Several researchers have used it before (see, for example, Allen & Rachim, 1996; Baskin, 1989; Nishat & Irfan, 2001).

#### 4.3.2 Asset Tangibility

Almost all the proxies of assets tangibility revolve around the ratio; “fixed assets to total assets”. The concordance suggests that researchers accept this ratio as a good measure of asset tangibility. The reason that, there are no diversionary opinions suggest also that in the conceptual meanings of asset tangibility, it is viewed as a unidimensional variable.

Earlier than many researchers, Titman and Wessels (1988) used the ratio of inventory plus gross plants and equipment to total assets to measure asset tangibility. Titman and Wessels (1988) used this measure because they view assets tangibility as the collateral capability of a firm. Chang et al. (2009) adopts this view of asset tangibility. Camison et al. (2002) introduced the use of the ratio of fixed assets to total assets to measure asset tangibility. Hur et al. (2002) used the median value of this ratio. Giambona and Sehnveinbacher (2007) oppose the use of gross tangible assets, but rather agree with net tangible fixed assets. In other words, these authors deduct depreciation values before applying the “(Fixed assets to total assets ratio)”. These authors may have believed that the use of net tangible asset is a better measure of assets tangibility. Campello and Giambona (2013) also used the ratio, total fixed assets to total assets. This ratio was also used by Nasution et al. (2017). It is important to note that there is no perfect and generally acceptable proxy for a construct. The belief of a researcher as to which index represents the

construct well is the reason for the use of such index.

Researchers generally measure asset tangibility by dividing total book value of fixed assets by total assets of the firm (see, Almeida & Campello, 2007; Drobetz & Gruninger, 2007; Uyar & Kuzey, 2014). This measure of asset tangibility is used for this research. Thus, the measure of asset tangibility in this research follows Camison et al. (2002). To calculate asset tangibility, the average of the ratio is taken for the whole years for each firm.

#### 4.3.3 Cash Flow Volatility

The usual method of calculating volatility is to calculate the standard deviation of a set of data. There is usually low data frequency in calculating volatility, and so, it is not usually possible to calculate annual standard deviation. For each variable, therefore, the standard deviation for the whole study period is calculated. To calculate cash flow volatility, Kale et al. (1991) used standard deviation of annual operating cash flows. A variant of this measure is coefficient of variation which is the standard deviation of annual cash flows divided by mean of the measures over the same period. This measure was introduced by Minton and Schrand (1999). Stohs and Mauer (1996) used the standard deviation of first difference in earnings before depreciation, amortization, interest and tax to represent cash flow volatility. This research follows Kale et al. (1991) to measure cash flow volatility. In other words, this research uses the standard deviation of annual cash flows as a measure of cash flow volatility.

### 5. Model Specification

This research examines the effects of asset tangibility and cash flow volatility on dividend policy of manufacturing firms in Nigeria. The model for the relationship is given as:

$$DP_i = \beta_0 + \beta_1 AT_i + \beta_2 CFV_i + e_i, \text{ where,}$$

DP	=	Dividend policy
AT	=	Asset tangibility
CFV	=	Cash flow volatility
$\beta_0$	=	Intercept
$\beta_1$ and $\beta_2$	=	slope coefficients
e	=	error term
i	=	case or unit of analysis

### 6. Results

This section presents the results of the regression of dividend policy on asset tangibility and cash flow volatility. The results of this regression model are presented in table 5.



**Table 6**

Results of Regression of Dividend Policy on asset tangibility and cash flow volatility

Variable/constant	Unstandardized coefficient	Standard error	Standardized coefficient	T	Sig	Tolerance	VIF
			B				
Intercept	1.583	.628		2.522	0.015		
AT	-0.155	.128	-.126	-1.212	.231	.997	1.003
CFV	0.707	.1181	.624	5.976	.000	.997	1.003
Adjusted R square		F-statistic		P-Value			
.392		19.025		0.000			

Source: Authors' Compilation

From table 6, asset tangibility has a non-significant coefficient at 5% level. The cash flow volatility coefficient however has significant positive effect on dividend policy at the same 5% level. The intercept term is also significant at 5% level.

Looking at table 6, the F-statistic is significant at 5%. This supports the significance of the cash flow volatility. Because the results indicate that, only one of the independent variables is significant the adjusted R-square value suggests that about 60% of the variation in dividend policy is explained by factors other than cash flow volatility. This leaves the remaining explanation to be by cash flow volatility.

There seem to be no multicollinearity between asset tangibility and cash flow volatility. This can be seen in table 5, by the tolerance and variance inflation factor. These figures indeed suggest that there is no collinearity, with high tolerance level and very low variance inflation factor for cash flow volatility asset tangibility variable. The data set is relatively large to command the central limit theorem for the analysis. An examination of the data suggests no outliers and influential points.

## 7. Discussion and Conclusion

This study examines the effects of asset tangibility and cash flow volatility on dividend policy. The research finds that asset tangibility does not have any effect on dividend policy. This finding does not support the pecking order theory. The pecking order theory predicts that high level of asset tangibility leads to low dividends paid by a firm. The prediction of the signaling theory is the same with that of the pecking order theory. The finding of this research also fails to support the signaling theory.

The finding of this research also fails to agree with findings of some Nigerian researchers who have conducted studies on the effect of asset tangibility on dividend policy. Bello and Lasisi (2020) find that asset

tangibility has significant negative impact on dividend policy. Taiwo et al (2022) also document that asset tangibility has significant negative effect on dividend policy. Babangida and Caskayab (2021) report that they find significant effect of asset tangibility on dividend policy. On Jordan, Al-Najjar (2010) find significant effect of asset tangibility on dividend policy. Yousaf et al (2010) find a significant positive impact of asset tangibility on dividend policy. The finding of this research however, agree with the finding of Sanyaolu et al. (2017) who do not find evidence of effect of asset tangibility on dividend policy.

This study also examined the effect of cash flow volatility on dividend policy. The research finds that cash flow volatility has significant positive impact on dividend policy. The finding of this study supports the "Catering Theory of Dividends". The "Catering Theory of Dividends" propounds that a firm can pay high amount of dividend to investors even in the presence high cash flow volatility. This situation is more pronounced in developing countries, where investors consider dividend the main reason for investing in a company.

Ali et al. (2021) document a negative effect of cash flow volatility on dividend policy. Bradley et al (1998) and Chay and Suh (2009) also report that cash flow volatility has significant effect on dividend policy. These authors do not indicate the direction of the relationships, thereby preventing a clear comparison between their findings and the finding of this research. One of the findings of this study is that asset tangibility has no effect on dividend policy. This finding might be that, there are several considerations for dividend policy that might be more important than asset tangibility. These might include debt covenants, shareholders pressure and Government incentives on dividend payments and retentions.

The economic situation in Nigeria has affected many manufacturing firms on dividend policy. Many firms

have not paid dividends for many years. Although imputations were made to estimate the missing data, the imputation may not have solved the problem completely. Researchers can use several imputation and machine learning techniques to estimate the missing data. This might give different results. More segment analysis is recommended because of the problem of individualistic fallacy. The relationship between cash flow volatility should be used to help firms grow.

## REFERENCES

- Abbas, A., Hashmi, S.H. & Chishti, A. (2016). Dividend policy and capital structure: Testing endogeneity. Available at SSRN2745726
- Allen, D. E., & Rachim, V. S. (1996). Dividend policy and stock price volatility: Australian evidence. *Applied Financial Economics*, 6(2), 175-188, <https://doi.org/10.1080/0960334402>.
- Ali, M., Shair, W., Rahman, F., & Naeem, S. (2021). The Relationship between cash flow volatility and dividend payout ratio: Evidence from Pakistan's non-financial firms. *Empirical Economic Review*, 4(2), 2522-2465. Doi: <https://doi.org/10.29145/22>
- Al-Najjar, B. (2011). The inter-relationship between capital structure and dividend policy: Empirical evidence from Jordanian data. *International Review of Applied Economics*, 25(2), 209-224.
- Alshabibi, B., & Ramesh, G. (2011). An empirical study on the determinants of dividend policy in the UK. *International Research Journal of Finance and Economics*, (80), 106-120. <https://www.internationalresearchjournaloffinanceandeconomics.com>
- Babangida, J. S., & Cankayab, S. (2021). Determinants of dividend policy: Evidence from Africa. *ASEP conferences* 140, 2021.
- Baker, M., & Wurgler, J. (2004). Catering theory of dividends. *Journal of Finance*, 59(3), 1125-1165. DOI: 10.1111/j.1540.6261.2004.00658.x
- Baskin, J. (1989). Dividend policy and the volatility of common stocks. *Journal of Portfolio Management*, 15, 19-25. <https://doi.org/10.3905/jpm.1989.409203>.
- Bello, M. B., & Lasisi, T. K. (2020). Effect of asset tangibility on dividend policy in Nigeria. *Lafia Journal of Economics and Management Sciences*.
- Bhattacharya, S. (1979). Imperfect information, dividend policy, and the bird in the hand fallacy. *Bell Journal of Economics*, 10(1), 259-270.
- Bradley, M., Capozzo, D. R., & Segun, P.J. (1998). Dividend policy and cash flow uncertainty. *Real Estate Economics*, 26(4), 555-580.
- Chaudhury, A., & Dawar, V. (2024). Determinants of dividend policy: Evidence from an emerging economy. *International Journal of Indian Culture and Business Management*, 31(4), 488-500.
- Chay, J. B., & Suh, J. (2009). Payout policy and cash-flow uncertainty. *Journal of Financial Economics*, 9(1), 88-107.
- Correa-Mejia, D.A., Correa-Garcia, J.A., Castano-Rio, C.E. (2023). Determinants of dividend policy in small and medium-sized enterprises of an emerging market. *Journal of Management*, 39(77).
- Deangeb, H., Deangeb, L., & Stutz, R. M. (2006). Dividend policy and the earned/contributed capital mix: A test of the life cycle theory. *Journal of Financial Economics*, 81(2) 227-254. Doi:10.1016/j.jfineco.2005.07.005 Doi:102307/30003330
- Emeka, A. H. (2020). Determinants of dividend policy: Empirical evidence from Nigerian listed firms. *International Journal of Business insights & transformation*, 13(2)
- Erasmus, P. D. (2010). Earnings, dividend and cash flow volatility: South African perspective. *Corporate Ownership & Control*, 8(1), 508-514.
- Hamzah, R. S., Gozali, E. O. D., & Yurdi, P. R. (2022). Banking Corporation dividend policy. Evidence from ASEAN-6 countries. *Accounting Analysis Journal*, 11(2), 94-103. <https://journal.unnes.acid/sju/index.php/aj>
- Hartono, P.G., & Matusin, A. R. (2020). The determinants of dividend policy on real estate, property and building construction companies listed in IDX using, unbalanced panel data approach. *The International Journal of Applied Business*, 4(2), 139-156.
- Kilincarslan, E. (2018). The factors determining the dividend policy of financial firms listed on the Borsa Istanbul. *Bogazici Journal: Review of Social, Economic and Administrative Studies*.
- Kristiante, F. T., & Wardani, F. T. (2022). Determinants of dividend policy of family firms in Indonesia. *The 5<sup>th</sup> European International conference on Industrial Engineering and Operations Management (Internal)* 26-28.
- Lintner, J. (1956). Distribution of incomes of corporations among dividends, retained earnings, and taxes. *American Economic Review*, 46(2), 97-113.
- Louziri, R., & Oubal, K. (2022). Determinants of dividend policy: The case of Casablanca Stock Exchange. *Journal of Risk Financial Management*, 15(12), 548.

- <https://doi.org/10.3390/jrtm15120548>
- Myers, S., & Mujluf, N. S. (1984). Corporate Financing and investment decisions when firms have information that investor do not have. *Journal of financial Economics*, 13(2), 187-221. Doi:10.1016/0304-405x(84)90023-0
- Nishat, M., & Irfan, C. M. (2003). Dividend policy and stock price volatility in Pakistan. Pacific Basic Finance, Economics and Accounting Conference.
- Olubiyi, E. A. (2023). Determinants of dividend policy in Nigeria Stock Exchange Companies. *Journal of Business and Economic Option*, 6(3), 1-8.
- Osman, D., & Mohammed, E. (2010). Dividend policy in Saudi Arabia. *The International Journal of Business and Finance Research*, 4(1), 99-113.
- Otemu, O., & Oghenevwerho, O. J. (2023). Profitability and dividend policy of consumer goods firms in Nigeria. *Jalingo Journal of Social and Management Sciences*, 4(4), 209228.
- Saini, D., & Sharma, P. (2022). A systematic literature review of factors influencing the dividend policy. *Australian Journal of Business and Management Research*, 7(1).
- Sanyaolu, W. A., Onifade, H. O., & Ajalu, O. O. (2017). Determinants of dividend policy in Nigerian manufacturing firms. *Research Journal of Finance and Accounting*, 8(6), 105-111.
- Setiawan, S., Wahyudi, S., & Muharam, H. (2024). Determinants of banks dividend policy: A life cycle theory test in Indonesia. *Managerial Finance*, 50(8).
- Sharma, A. (2023). Effect of collateralizable assets, growth in net assets, liquidity, leverage and profitability on dividend policy of Nepalese Commercial banks. *Perspectives in Nepalese Management*, 31.
- Sinebe, M. T. (2023). Firms performance and dividend policy: Evidence from listed service firms in Nigeria. *Central Asian Journal of Innovations on Tourism management*, 04(06). <https://cajtmf.centralasianstudies.org>
- Taiwo, J., Oladipo, S., & Baanu, O.A. (2022). Firm specific attributes and dividend policy of listed oil and gas firms in Nigeria. *Fuoye Journal of Accounting and Management*, 5(1), 23-39. [www.fjamifuoye.edu.ng](http://www.fjamifuoye.edu.ng)
- Trang, N. T. X. (2012). Determinants of dividend policy: The case of Vietnam. *International Journal of Business, Economics and Law*, 1(1), 1-18.
- Trang, N. T.X. (2012). Determinants of dividend policy: The case of Vietnam. *International*

*Journal of Business, Economics and Law*, 1.

VU, C. A. (2023). The impact of the free cash flow and the firm's life cycle of dividend policy. *Journal of Innovation and sustainable development*, 15(2), 116-125. Doi:10.22144/ctu.jen.2023.026