

Dividend Payout Trend: An analysis of Listed Manufacturing Firms in Nigeria

Aishat Salawudeen
University of Abuja, FCT-Nigeria
ayizworld@gmail.com

Muhammad Aminu, Isa
Bayero University, Kano, Kano – Nigeria
ameenuesa@gmail.com

Abstract

The ultimate motive behind every investment is to get a reasonable return. However, firms act as if they have a certain mark Dividend Payout Rate or Ratio (DPR), but do not always apply it to each year's earnings. The investigation evaluates the trend in DPRs among listed manufacturing firms in Nigeria, intending to understand the dividend payout pattern. The research's population comprises sixty-three firms quoted on the Nigerian stock exchange (NSE) between 2009 and 2019. The sample size of fifty-one was selected using a filter. The selected corporations' annual reports and financial accounts from 2009 to 2019 were used. The study uses trend analysis as an estimation method. This study confirms that listed manufacturing companies have a low but steady dividend payout ratio. This study observes cases of negative DPRs and a decrease in DPR. The decline is significant and has resulted in a hurdle in the DPR. This paper offers an insight into the shareholders of manufacturing companies in Nigeria. That trend analyzing DPR is a good measure of how well a company performs financially. In view of elements such as market fluctuation, the need for reinvestment for expansion purposes, and how a corporation is recognized in the share market. Hence, prospective shareholders want a complete assessment of the corporation's performance rather than just judging the company based on its annual dividend payout ratios.

Keywords: Bird-in-the-hand, Dividend payout, Trend analysis

Introduction

Dividend Payout (DP) is an important aspect of a company's dividend decision-making process since it limits the amount of profits that may be retained and given to shareholders (Bhat & Pandey, 1994). The payout ratio (PR) is essential to stockholders, according to Walsh (2014), since it indicates how much of the company's profits are distributed to stockholders. A Payout Ratio of 30% means that for every naira in net income the corporation earns, 30% is paid to stockholders as a dividend (Walsh, 2014). Since the dividend is one of the oldest indicators, stockholders can use it to help evaluate a company's financial health (Oberoi, 2014). Therefore, the PR is a critical business metric used to determine the sustainability of a company's dividend payments (Auerbach, 2020). Although DPRs aren't the most important factor to consider when investing for dividends, stockholders normally value them. PRs, on the other hand, offers much predictive ability since they show where a company is in its development (Azhagaiah & SabariPriya, 2008). Furthermore, the PR is the proportion of total profits given to stockholders to the company's annual profit. The corporation keeps the money it doesn't pay out to stockholders to pay down debt or reinvest in core activities. Thus, the DPR indicates the amount of return a corporation is giving back to the stockholders, as against the

profit the companies keep to reinvest for growth and development, settle debt or increase cash reserves. The considerations about the interpretation of the DPR have a lot to do with the corporation's level of growth. A corporation with the goal of expansion and developing a new product cycle could reinvest the majority or all of its profits and be excused for having a low or even zero PR. Furthermore, again, the PR is vital for ascertaining dividend sustenance. Businesses are incredibly reluctant to cut dividends since it has the potential to lower the stock price and reflect adversely on management's ability. As a result, when a corporation's PR exceeds 100%, it is returning more money to shareholders than it is making, forcing it to reduce or eliminate the dividend. To contextualize the backward-looking PR, it is necessary to include future profits estimates and generate a forward-looking PR. The PR's long-term patterns are also important. A continuously rising rate may suggest a strong, maturing firm, but a rapidly rising rate may signal that the dividend is approaching untenable levels.

Literature Review

Several scholarly articles have been conducted to shed light on the dividend policy of firms. Miller and Modigliani (1958) irrelevance theory assumed prudence in the behavior of investors. They believe that if a corporation does not pay a dividend and a stockholder

requires money, the stockholder can construct their own dividend policy by selling a portion of their stock for money at a satisfactory market price. If a corporation pays a greater dividend, on the other hand, a stockholder can utilize the excess income to buy more stocks of similar firm. The corporation's dividend policy will be irrelevant if stockholders may set their own dividend policy without incurring brokerage expenses or incurring tax deductions. Black and Scholes (1974) supported this argument. Miller and Scholes (1978) and Baker and Powell (2000) argue that corporations would not have large compensation policies unless they considered it was in the best interests of investors. Nonetheless, they feel that dividends are paid to investors whereas salaries and wages are paid to employees in the financial realm. Employees desire a raise in compensation, and investors want a high return on their investment. Dividends, on the other hand, are frequently taxed heavily by investors. It's tough to think investors received what they wanted because large earnings mean high taxes. The notion of dividend irrelevance is only applicable in the context of a perfect capital market, and there is virtually no evidence of such a market anywhere in the world. Bradford and Gordon (1980) contended that rising DPO leads to a declining shareholders' wealth. They stated that when dividends are taxed more highly than capital gains, companies pay the smallest cash dividends possible, and any cash should be kept or used to repurchase stock. Because it is thought that if dividends are taxed more heavily than capital gains, investors will be more willing to pay more for equities with low dividend yields. This implies that investors would be willing to accept a low tax return on securities in exchange for future earnings in the form of capital gains rather than dividends. According to Casey and Dickens (2000), the lower the taxes, the bigger the Payout. This outcome is in Walter's favor (1963). The tax preference idea has been supported by Blume (1980), Morgan (1982), Papiouannous, and Savarese (1992), despite the fact that they are conflicting. They revealed that high dividend-yielding stocks have lesser values and provide greater returns. Graham and Dodd (1962) argue that it is rational for investors to invest in corporations with a high DP rather than invest in firms with low or zero dividend payout. Because a rise in DP leads to a rise in the shareholder's wealth, investors will be glad to pay more for stocks that are recording high dividend payout. Walter (1963) appears to support the dividend relevance theory. Long (1978), Suwabe (2006), Kapoor (2009). The later works of Adelegan (2001) and Musa (2009) offer extensive backing to the opinion that dividend policy affects stockholders' value. More so, a survey study by Baker (1999) reveals that corporate managers typically believe that DP is pertinent and that a finest level of dividend policy exists.

Methodology

A descriptive or explanatory research design was adopted for this study. The data for this research was derived from secondary sources, such as financial statements submitted with the SEC and the NSE by manufacturing firms. The research population for this study includes the sixty-eight (68) manufacturing companies listed on the Nigerian Stock Exchange from December 31, 2009, to December 31, 2019. Because of the similarity in allocating assets from other industries, this study used a stratified random sample of

listed manufacturing enterprises. Thus, the strata are formed based on five key sectors (conglomerates, construction, consumer goods, industrial goods, and natural resources companies) having common characteristics. The sample size of 51 listed manufacturing companies was used after filtering to eliminate some of the considered unsuitable firms for the study. The data analysis method adopted for this study is trend analysis to evaluate the dividend payout in listed firms.

Model Specification

The least square trend model method has been adopted for this study as used by Srivastava, Shenoy, and Sharma (1989). The following model is specified for this study.

$$\alpha = \frac{\sum Y}{n} \quad \dots 1$$

$$b = \frac{\sum XY}{n} \quad \dots 2$$

$$Y = \alpha + bx \quad \dots 3$$

Where,

Y represents the trend, α represents the value of Y at the origin (constant), b is the average amount of change in the trend values per unit of time, and x is the value of the trend line for any given period.

Results and Discussions

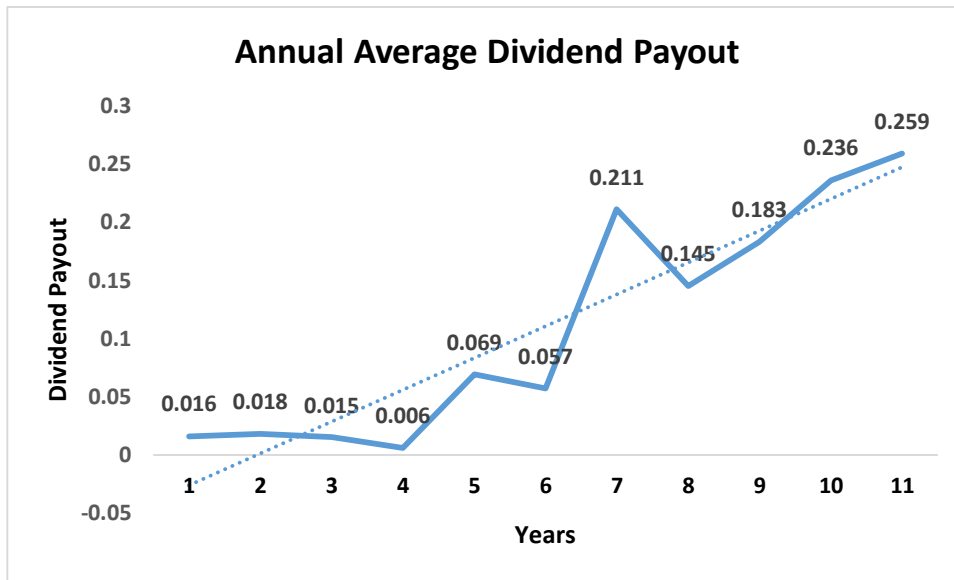
Analysis of General Trend in Dividend Payout among Firms.

Trend analysis is an observation of changes over time. It evaluates the dividend payout ratio over some time. The essence is to analyze the amount change or percent change from one period to the other. In this study, the period is measured in years as the dividend payout is every year. The ability of trend analysis to build a history reduces one's reaction to a single analysis result. Thus, comparing the effects of historical data on the dividend payout ratio will improve the shareholders' ability to analyze their wealth effectively.

Trend analysis makes it easier to predict companies' future performance and react appropriately to any unusual activities that may harm shareholders' wealth. However, when using trend analysis to forecast the future, it's important to remember that variables that formerly influenced a data point may no longer do so to the same level. As a result, extrapolating a historical time series may fail to produce the intended prediction of a forthcoming financial occurrence. As a result, when utilizing trend analysis to create projections, additional research should be considered. For stock market activity, trend analysis is used to discover signals of an approaching shift in the market price of shares as a result of changes in the DPR.

Nonetheless, Data from different periods is collected and plotted on a straight axis for further examination in trend analysis. As a result, this analysis aims to find practical trends in the accessible data on DPR to educate shareholders and develop a historical DPR trend line. Also, you can use the data to forecast future changes in shareholder value as a result of DPs.

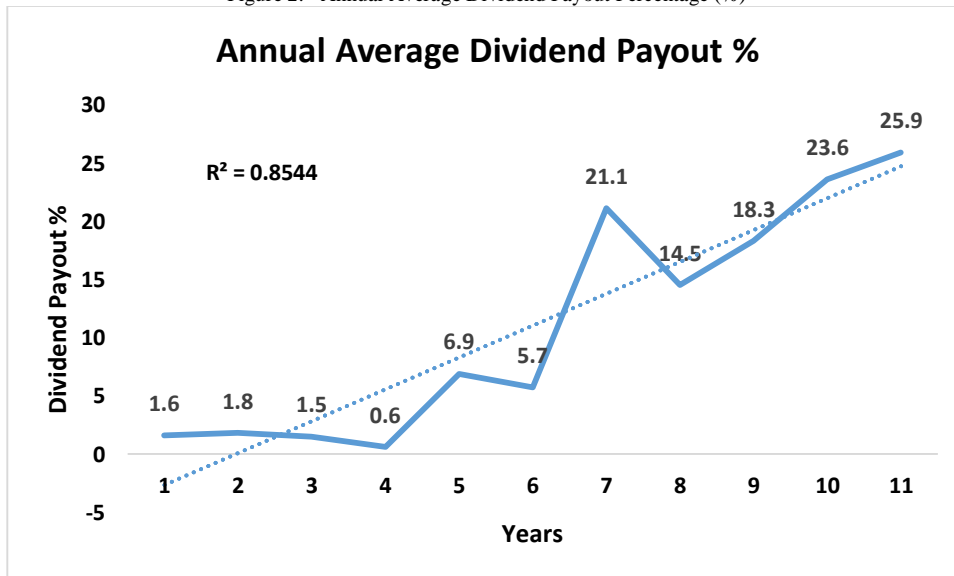
Figure 1: Annual Average Dividend Payout Ratio



The changes observed in the graph above demonstrate the characteristics of both secular and cyclical trends in time series data. It's secular in that the variable's value tends to rise or decline over a long period. Firms' stable surge in DPR is an example of a secular trend. Yearly, the dividend payout ratio varies greatly; also, if we are to consider an extended period, the dividend payout ratio is towards a steady increase, as shown on the graph. On the other hand, it's cyclical that there are years when the dividend payout ratio was at its highest ahead of the trend line. Also, at different years, when the dividend payout ratio was at its lowest, stirring a low point below the trend line, this change is generally between three (3) years to five (5) years. However, the cyclical flow is erratic and does not reflect any defined trend.

In this study, it is observed from the graph that the cyclical variation element of this time series tends to fluctuate beyond and under the trend line for periods more extended than a year which does not have a consistent pattern. Therefore, for this analysis, only the secular, cyclical, and irregular variation component is considered as displayed on the graph because seasonal variance creates a completely normal cycle within each year. The annual data is unaffected. The secular trend is a line that shows consistent growth in the dividend payment ratio over time. The cyclical and irregular trend component explains the fluctuations or variations by the trend component, which are left unexplained by the secular line. The table below shows a vivid picture of the above explanation.

Figure 2: Annual Average Dividend Payout Percentage (%)



The graph shows that dividend payout had amplified from 1.6% in 2009 to 25.9% in 2019. Although 2011 and 2012 show a fall in the percentage paid as a dividend, which stands at 1.5% to 0.6%, respectively. Generally, comparing the dividend payout for all the years, it's seen that from 2009 through 2019, there exists a steady

increase in the percentage of dividend payout as suggested by the trend line, as there is more increase than the previous year's primarily from the year 2012 through 2019. This noticeable increase in DP depends on the level of maturity of the business, the liquid position, and the companies' efficiency. Consequently, this finding

interpreted that some manufacturing corporation is outside the early phases of growth, which is a fitted sign. Though, dividend payout does not always offer transparency to the investors of the corporation because dividend payout is not still similar every year due to highly unstable factors. Dividend payout does change with

the available investment opportunities. However, investors may want quick returns, the meal yet shareholders' desire for instant results in the company's clarity if the corporation is still to give out dividends to its stockholders.

Analysis of Annual Average Dividend Payout Percentage

Table 4.1 Annual Average Dividend Payout %

S/No	1	2	3	4	5	6	7	8	9	10	11
Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
DPR %	1.6	1.8	1.5	0.6	6.9	5.7	21.1	14.5	18.3	23.6	25.9

In 2009, sampled manufacturing companies paid an annual average dividend payout of 1.6% of the profit to shareholders as dividends. The balance of 98.4% is plowed back into the business for expansion or investment purposes. In 2010, sampled manufacturing companies paid an average of 1.8% of the profit to shareholders as dividends, while the balance of 98.2% was plowed back into the business for expansion or investment purposes. In 2011, sampled manufacturing companies paid an average of 1.5% of the profit to shareholders as dividends, while the balance of 98.5% is plowed back into the business for expansion or investment purposes. In 2012, sampled manufacturing companies paid an average of 0.6% of the profit to shareholders as dividends, while the balance of 99.4% was plowed back into the business for expansion or investment purposes.

A noticeable increase in 2013, when sampled manufacturing companies paid an average of 6.9% of the profit to shareholders as dividends while the balance of 93.1% was plowed back into the business for expansion or investment purposes. In 2014 also, sampled manufacturing companies paid an average of 5.7% of the profit to shareholders as dividends and plowed back 94.3% into the business for expansion or investment purposes. In 2015, sampled manufacturing companies paid an average of 21.1% of the profit to shareholders as dividends, while the balance of 78.9% is plowed back into the business for expansion or investment purposes. In 2016, sampled manufacturing companies paid an average of 14.5% of the profit to shareholders as dividends, while the balance of 85.5% was plowed back into the business for expansion or investment purposes. In 2017, sampled manufacturing companies paid an average of 18.3% of the profit to shareholders as dividends, while the balance of 81.7% was plowed back into the business for expansion or investment purposes. In 2018, sampled manufacturing companies paid an average of 23.6% of the profit to shareholders as dividends, while the balance of 76.4% is plowed back into the business for expansion or investment purposes. In 2019, sampled manufacturing companies paid an average of 25.9% of the profit to shareholders as dividends, while the balance of 74.1% is plowed back into the business for expansion or investment purposes.

The average payout trend in percentage shows that earnings retention is given more priority than dividend payout. More than 98% of the profit generated went into the business in 2009, 2010, 2011, and 2012. Also, a noticeable increase exists in average Payout in 2013 and 2014, with more than 78% of the profit generated plow back into the business. This trend continued in 2015 through 2016, 2017, 2018 and 2019 where dividend payout stood at 21.1%, 14.5%, 18.3%, 23.6% and 25.9% respectively. The concern of these firms is to maximize the shareholders' value, whereas most investors, especially minority shareholders, want a quick return on investment in the form of a dividend payout. The reason is that dividend payout is the only way shareholders can get cash on their investment while still maintaining their shares. However, other shareholders may be satisfied with the board of directors' decisions concerning dividend payout if there is a noticeable improvement in wealth maximization for the shareholders. However, they may even prefer that the firms plow back their portion of the profit into the business by giving them stock dividends. It will increase the wealth of the shareholders, which will attract investors from their countries and foreigners to invest in the business and create employment opportunities. This action will lead to the expansion of the business. Still, it will

generate revenue for the government through taxes, which can be used to provide necessities like the reconstruction of roads, provision of pipe-born water, and rehabilitation of the public school.

Sectors Trend Analysis

Figure 3: Industrial Trend showing DP in conglomerates companies within the eleven years period

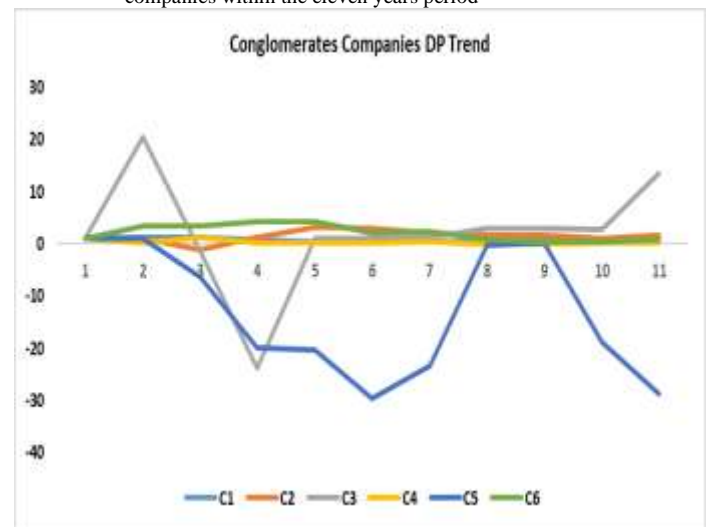


Figure 4: Industrial Trend showing DP in natural resources companies within the eleven years period

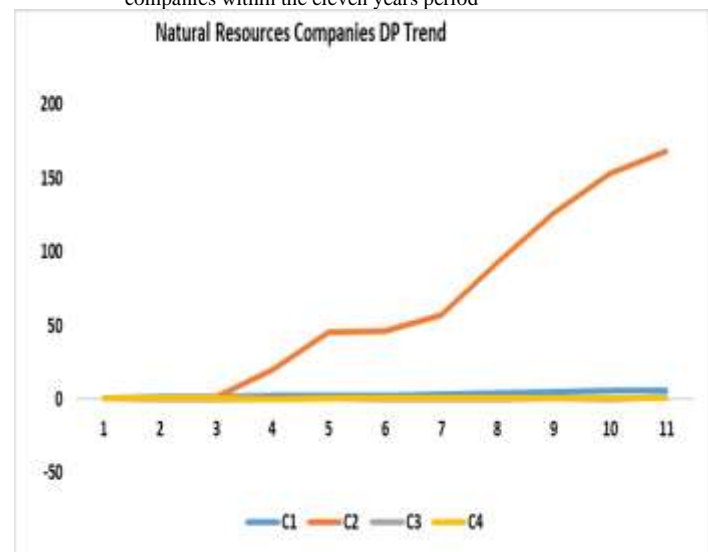


Figure 5: Industrial Trend showing DP in construction companies within the eleven years period

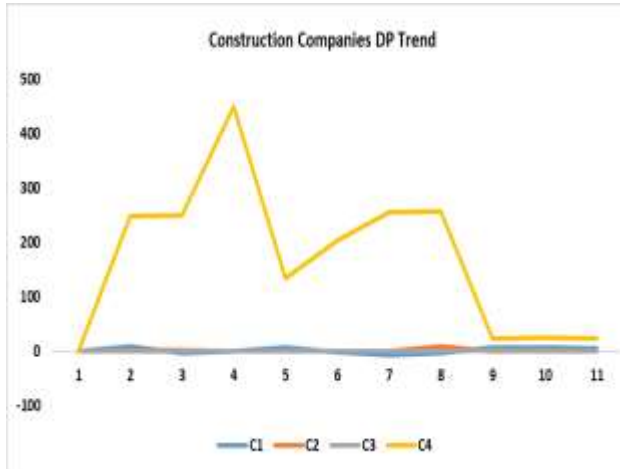


Figure 6: Industrial Trend showing DP in consumer goods companies within the eleven years period

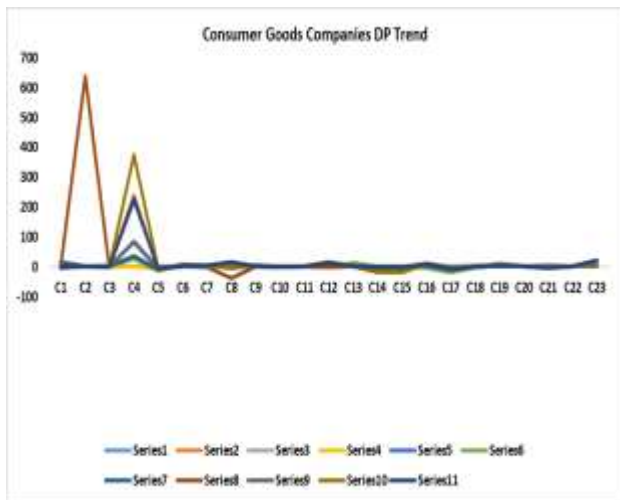
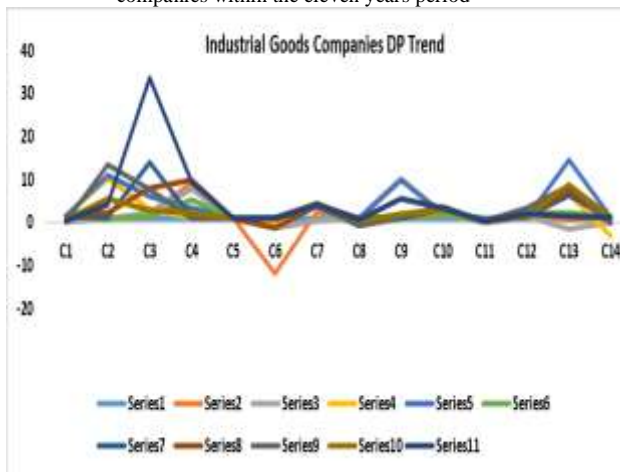


Figure 7: Industrial Trend showing DP in industrial goods companies within the eleven years period



From the analysis of sectorial trend of dividend payout, the trend lines are depicted with different colors to show trend activities in various companies. However, some firms have a negative dividend payout as noticed in the graphs. This indicates that payout still happened when the corporation was losing money, dividends were paid out. Negative dividends is not a good sign because the corporation will have to pay dividends to stockholders using existing cash or raising additional capital. There are also cases of a decrease in dividend payout; this decline is significant and has led to the difficulty in DP. The decrease in dividend payout at the early stage of the firm could mean that the firms were investing more money than they were given out as dividends for expansion purposes or settlement of the debt.

On the other hand, the decline could be due to the attainment of the maturity stage. So the firms no longer attach importance to paying dividends to their shareholders. However, it is clear that a manufacturing company's dividend payout has a stable DP and negative DP amongst companies within the years under study. Nonetheless, this study can conclude that manufacturing companies have a steady dividend payout judging from figure 3 to figure 7 as shown by the trend lines.

Analysis of Companies' Annual Dividend Payout Ratio

Based on the analysis, manufacturing companies are companies with a huge market capitalization that are matured and grow at a steady rate yet have a small but stable DP. The analysis of the 2009 dividend payout by firms shows that Dn Meyer Plc has a payout of 0.12 or 12%, and Flour Mills Nigeria Plc has the lowest Payout at the value of 0.0004 or 0.04%, followed by 7up Bottling Company Plc at the amount of 0.0005 or 0.05%. However, Vono product plc recorded the highest dividends payout at the value of 0.33 or 33%. Similarly, the analysis of 2010 shows that Vono product plc, West Africa Glass Industry Plc, and Multiverse Mining and Exploration Plc recorded the highest dividend payout ratio at the value of 0.18 or 18%, 0.18 or 18%, and 0.05 or 0.5% respectively. Among the lowest record dividend payout ratios are 7up Bottling Company Plc and Guinness Nigeria Plc at the value of 0.0005 or 0.05% and 0.0005 or 0.05%, respectively.

Further analysis shows the dividend payout ratio record by firms in 2011. It indicates that Berger Paints Plc paid 0.13 or 13% of their earnings as dividends during Transitional Corporation plc, Vono Products Plc, West Africa Glass Industry Plc, Multiverse Mining, and Exploration Plc, and Nigeria Ropes Plc. Their respective negative record of dividend payout ratios stood at the value of 0.003, 0.18, 0.036, 0.024, and 0.011. More so, the analysis of the 2012 dividend payout by firms shows that Costain West Africa Plc, P. S. Mandrides, and Co. Plc, Vono Products Plc, Dn Meyer Plc, Nigeria Ropes Plc, Multiverse Mining, and Exploration Plc experience losses. But still pay dividends out of existing cash, Nigerian Enamelware Plc and UTC Nigeria Plc have the highest dividend payout in this fiscal year. This negative Payout amongst firms was noticed in 2013, 2014, 2015, and 2016. However, a noticeable improvement in the dividend payout generally in the fiscal year 2017 through 2019 as the percentage of dividend payout increase significantly as they seem to experience a boom in the business activities. As a result of the trend analysis, DP is a strong measure of how a firm is performing in terms of earnings, taking into account a few elements such as volatility. This concerns the corporation's current stage in the business cycle. Also, because of the organization's expansion and how a corporation is considered in the stock market, reinvestment is needed. Thus, shareholders should take a comprehensive picture of the corporation rather than appraising the corporation just on the basis of dividend payout.

Table 4.2 Companies' Annual Dividend Payout (%)

S/N	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Sum%
1	0.54	0.45	0.40	0.56	0.58	0.58	0.74	0.59	1.5	1.5	1.5	8.9
2	1.99	1.36	2.00	2.16	2.61	1.84	1.97	0.97	-0.81	0.87	0.80	1.58
3	0.51	0.69	0.71	0.72	4.58	1.31	1.87	-4.26	-0.20	1.09	1.12	-2.01
4	1.28	1.84	-0.34	2.47	3.85	5.32	4.21	2.00	0.60	1.84	5.21	2.83
5	1.28	1.84	-0.22	0.58	0.06	0.17	0.07	0.13	0.10	-0.02	-0.02	3.99
6	0.09	0.08	0.14	0.07	0.92	0.82	1.50	2.02	1.71	0.10	0.14	7.57
7	1.23	0.79	2.00	-0.93	-0.33	-0.25	9.88	1.31	-0.69	1.78	0.58	1.54
8	0.12	0.10	0.24	0.05	0.05	0.05	0.09	0.14	1.19	1.58	0.55	4.16
9	1.36	1.74	0.94	3.11	1.26	4.50	1.17	1.06	1.43	2.06	3.38	9.34
10	0.87	0.80	0.99	1.18	1.33	1.54	0.05	1.47	1.12	0.74	1.13	1.12
11	0.80	1.24	0.49	0.45	-3.37	-0.74	-1.10	-0.38	-0.20	-0.38	-0.20	-3.40
12	0.74	1.20	5.53	-0.56	-0.36	-0.32	-0.36	-0.34	-0.42	-0.50	-1.29	3.30
13	1.75	1.82	2.16	2.79	4.06	2.91	2.38	3.10	0.75	1.20	0.56	2.34
14	0.04	0.05	0.04	0.04	0.36	0.30	0.24	0.31	0.31	0.36	0.40	2.46
15	0.08	0.08	0.12	0.20	0.18	0.19	2.89	2.14	-1.49	6.71	-3.61	7.51
16	0.09	0.10	0.11	0.10	0.10	0.11	0.11	0.14	0.15	0.17	0.22	1.41
17	0.05	0.06	0.06	0.07	0.15	0.21	0.19	0.24	0.28	0.26	0.39	1.91
18	0.07	0.08	0.12	-0.07	-0.06	0.08	0.08	0.15	0.08	0.14	0.81	1.48
19	0.35	0.32	0.37	0.37	0.39	0.39	0.06	0.38	0.32	0.19	0.20	3.35
20	0.04	0.05	0.05	0.08	0.06	0.05	0.04	0.03	0.11	0.07	0.06	0.64
21	0.10	0.12	0.10	0.21	0.23	0.25	0.17	0.36	1.96	0.52	0.67	4.69
22	1.24	1.67	3.33	-1.61	-2.56	-1.94	1.86	1.89	1.59	1.223	6.87	3.139
23	0.09	0.20	0.20	0.23	0.16	0.15	0.19	0.26	0.23	0.33	0.28	2.34
24	0.63	0.80	0.99	1.83	1.89	-1.96	0.93	1.04	1.80	7.40	-4.08	-6.34
25	0.78	0.94	1.24	1.84	3.61	-2.09	-1.01	-1.24	-1.47	-1.79	-1.93	3.48
26	0.54	0.61	0.70	3.40	0.74	-0.65	1.33	0.58	0.58	0.43	1.15	9.40
27	0.13	0.18	0.28	0.30	1.18	2.06	1.94	0.60	-0.27	-0.93	-0.34	5.14
28	0.10	0.12	0.18	0.19	0.19	0.20	0.19	0.34	0.04	0.05	0.06	1.67
29	4.34	4.92	6.31	4.95	5.76	4.85	4.84	5.701	3.06	2.16	1.73	2.06
30	0.78	0.71	0.83	0.71	1.02	0.75	0.78	0.81	0.81	0.61	0.96	8.79
31	3.34	1.82	-1.84	-1.24	-0.90	-0.03	-2.70	-5.94	-0.92	-0.96	-4.28	4.05
32	4.63	5.18	6.11	6.01	5.90	1.76	6.55	6.43	7.06	8.66	7.78	3.85
33	1.63	1.63	0.70	0.35	0.18	0.08	0.08	0.10	0.10	0.16	0.40	5.42
34	0.06	0.08	0.15	0.74	1.70	1.53	1.66	1.42	0.46	1.76	1.95	1.152
35	0.94	1.08	1.25	4.60	1.72	1.72	1.36	7.03	1.60	1.50	2.74	4.903
36	0.15	0.22	2.45	2.57	5.39	0.64	3.33	1.93	3.76	1.74	1.54	2.371
37	0.10	0.18	0.35	2.22	0.36	1.85	0.10	0.17	1.84	2.53	3.08	1.279
38	0.05	0.07	0.09	0.27	0.21	0.29	0.35	0.39	0.09	0.24	0.37	2.43
39	1.19	1.82	3.40	-1.17	9.06	1.24	3.24	-1.80	0.70	-1.43	6.68	1.091
40	1.00	1.32	3.36	2.07	1.07	1.68	3.36	4.14	2.69	3.58	2.38	2.665
41	1.31	2.00	-3.67	5.76	7.89	-3.81	4.44	6.46	4.63	4.53	4.00	3.356
42	0.09	0.11	0.14	0.11	0.91	0.17	0.30	0.52	0.51	0.23	0.24	2.50
43	0.56	0.72	0.89	2.06	2.85	3.23	3.03	1.86	3.23	1.86	1.05	2.133
44	0.58	0.50	0.61	5.77	2.39	6.29	6.66	8.31	2.86	2.44	4.76	5.04
45	0.08	0.10	0.14	1.78	2.89	3.21	0.12	2.89	3.08	3.57	0.18	1.803
46	0.09	0.12	0.17	7.98	9.87	7.81	0.09	6.965	-1.78	1.18	1.313	1.03
47	1.31	9.34	-2.41	-2.08	1.21	1.003	8.29	-2.40	-3.31	14.3	19.36	-8.54
48	0.68	0.92	1.08	1.90	1.90	1.63	2.97	2.46	2.44	3.87	3.74	2.459
49	1.11	2.50	5.10	2.52	3.13	8.43	9.23	6.92	0.05	0.06	0.08	3.93
50	1.07	5.67	-1.10	-0.77	-1.25	-1.45	1.3	1.18	9.89	0.43	0.63	3.882
51	0.47	0.94	1.71	1.44	1.30	1.09	1.37	2.33	2.44	1.81	1.53	1.644

Table 4.2 shows the yearly dividend payout trend analysis for all firms. Each year is relative to the base year. In the fiscal year 2009, firms also noticed that the dividend payout was between 0.04 percent to 64 percent. It means that while most firms paid 0.04 percent dividend payout out of every N1 earnings, few firms paid N0.64k as a dividend, which is more than 60 percent of profits. This type of change is also noticed in all the years 2009 through 2019, as indicated by the trend line. However, this signals a wide gap between manufacturing firms' dividend payout ratios during these periods from 2009 to 2019.

Also, in the trend analysis for the 2009 fiscal year, the dividend payout was between 1:01 to 1:42 by firms. It means that while most firms paid N0.01k dividends out of every N1 earnings, few firms paid N0.42k as a dividend of more than 40 percent of profits. It also

shows yearly ratios trend analysis for the 2010 fiscal year and noticed that the ratio dividend payout was negative between 1:-0.50 to 1:75 by firms. It means that while some firms' shareholders were making losses per share, few firms paid N0.75k as a dividend, which is 75 percent of every naira earned. On the other hand, in figure 4, the yearly ratios trend analysis for the 2011 fiscal year also has a negative payout between 1:-0.30 to 1:15 by firms. Generally, firms' performance in the 2011 fiscal year is weak, as most firms observed to make losses throughout the year. It means that while most firms' shareholders were making losses per share, a few other firms paid N0.15k as a dividend, which is 15 percent of every one-naira earnings.

However, the scene changed in the fiscal year 2012 as few losses were still noticed with some companies. We can argue that there is

considerable improvement in the firm's performance this year as 4.50k was paid as a dividend by some firms. The same is noticed in 2013 and 2015, with a high dividend payout of 3.00k and 9.00k. More so, no firm is seen to pay a dividend from the existing cash as the dividend payout was all positive in the fiscal years 2015, 2016, 2017, and 2019 as they are seen to experience a boom in the business activities. Therefore, for every N1 earnings, the firms paid a minimum of 11 percent to 50 percent as dividend and a maximum of 5.00 percent to 9.00 percent.

Least Square Analysis of Annual Average Dividend Payout

Table 4.3 Least Square Trend Model for Annual Average Dividend Payout %

Year	Y (DPR %)	X	X ²	YX	TREND
2009	1.6	-5	25	-8	-125.8
2010	1.8	-4	16	-7.2	-98.43
2011	1.5	-3	9	-4.5	-71.06
2012	0.6	-2	4	-1.2	-43.69
2013	6.9	-1	1	-6.9	-16.32
2014	5.7	0	0	0	11.05
2015	21.1	1	1	21.1	38.42
2016	14.5	2	4	29	65.79
2017	18.3	3	9	54.9	93.16
2018	23.6	4	16	94.4	120.53
2019	25.9	5	25	129.5	147.9
Total	ΣY= 121.5	0	ΣX ² = 110	ΣXY= 301.1	

$$\alpha = \frac{\Sigma Y}{n} = \frac{121.5}{11} = 11.05$$

$$b = \frac{\Sigma XY}{n} = \frac{301.1}{11} = 27.37$$

$$Y = \alpha + b x$$

$$Y = 11.05 + 27.37 x$$

The calculation below aids in forecasting the trend value of the annual dividend payout for 2009 through 2019.

$$Y (2009) = 11.05 + 27.37x = 11.05 + 27.37(-5) = 11.05 - 136.85 = -125.8$$

$$Y (2010) = 11.05 + 27.37x = 11.05 + 27.37(-4) = 11.05 - 136.85 = -98.43$$

$$Y (2011) = 11.05 + 27.37x = 11.05 + 27.37(-3) = 11.05 - 136.85 = -71.06$$

$$Y (2012) = 11.05 + 27.37x = 11.05 + 27.37(-2) = 11.05 - 136.85 = -43.69$$

$$Y (2013) = 11.05 + 27.37x = 11.05 + 27.37(-1) = 11.05 - 136.85 = -16.32$$

$$Y (2014) = 11.05 + 27.37x = 11.05 + 27.37(0) = 11.05 - 136.85 = 11.05$$

$$Y (2015) = 11.05 + 27.37x = 11.05 + 27.37(1) = 11.05 - 136.85 = 38.42$$

$$Y (2016) = 11.05 + 27.37x = 11.05 + 27.37(2) = 11.05 - 136.85 = 65.79$$

$$Y (2017) = 11.05 + 27.37x = 11.05 + 27.37(3) = 11.05 - 136.85 = 93.16$$

$$Y (2018) = 11.05 + 27.37x = 11.05 + 27.37(4) = 11.05 - 136.85 = 120.53$$

$$Y (2019) = 11.05 + 27.37x = 11.05 + 27.37(5) = 11.05 - 136.85 = 147.9$$

To overcome the graphical approach's defect, the above mathematical approach was used to get an unbiased fit of the straight line to a series of data used in this study by adopting the least-squares method. According to the mark off theorem, the line suited by the method of least squares is the line of perfect match in a

specific sense for a particular criterion. It signifies that the constants α and b estimates are the best linear impartial predictions of those constants. As a result, the projected line of greatest fit is $Y = \alpha (11.05) + b (27.37) x$. α represents the value of Y at the origin, which is the arithmetic mean of the Y variable. The average amount of change in trend values per unit of time is the value of b . Since this study had an odd number of periods, it was simple to utilize the midpoint of the series as the starting point for calculating the trend. For any given period, the study inserts the value of x for that year in the above equation to get the trend line or line of best fit. Trend analysis, on the other hand, is concerned not only with detecting the previous growth pattern of a series, but also with anticipating future trend values.

As can be seen from the trend values calculated, there is a steady increase in dividend trend values from -125.8 in 2009 to 147.9 in 2019. This means that the shareholders of manufacturing firms in Nigeria can measure how well their companies are performing financially rather than just judging the company based on its annual dividend payout ratios.

Conclusion

From this study, it is noticed that some firm has negative dividend payout ratios. It's not a good sign because the corporation will have to pay dividends to stockholders using existing cash or raising additional capital. However, this study found that the manufacturing company's dividend payout ratio has a combination of stable dividend payout ratio and negative dividend payout ratio amongst companies from 2009 through 2019.

The study observed a decrease in dividend payout; this decline is significant and has resulted in the DPR's hurdle. However, this study can show that manufacturing companies have a low but steady dividend payout ratio.

This study concludes that the DPR is a worthy measure of how a corporation is performing in terms of its earnings, taking into consideration elements like variation in the market, the need for reinvestment for expansion purposes, and in the share market how a corporation is viewed. As a result, rather than assessing a firm solely based on its DPR, it is urged that stockholders take a comprehensive picture of the corporation.

References

- i. Adelegan, O. J. (2001). The cost of capital and return on investment of conglomerates in Nigeria; 1984-1999, 4th Annual Conference of the Centre for the Study of African Economies, University of Oxford.
- ii. Auerbach, A. (2020) How to Analyze Your Business Using Financial Ratios. Retrieved from <https://edwardlowe.org/how-to-analyze-your-business-using-financial-ratios-2/>
- iii. Azhagaiah, R., & SabariPriya, N. (2008). The impact of dividend policy on shareholders' wealth. *International Research Journal of Finance and Economics*, (20), 181-187.
- iv. Baker, H. K. (1999). Dividend policy issues in regulated and unregulated firms: A managerial perspective. *Journal of Managerial Finance*, 25(6), 1-19.
- v. Baker, H. K. & Powell, G. E. (2000). Determinants of corporate dividend policy: A survey of NYSE firms. *Journal of Financial Practice and Education*, 9, 29-40.
- vi. Black, F. & Scholes, M. (1974). The effects of dividend yield and dividend policy on common stock prices and returns. *The Journal of Financial Economics*, 1(1), 1-22.
- vii. Bhat, R. & Pandey, M.I (1994). Dividend decision: a study of managers' perceptions *Decision*, 21(1 & 2), 67 -86.
- viii. Blume, M. E. (1980). Stock returns and dividend yields: Some more evidence. *Review of Economics and Statistics*, 62(4), 567-577.
- ix. Bradford, D. F. & Gordon, R. H. (1980). Taxation and the stock market valuation of capital gains and dividends. *Journal of Public Economics*, 14(2), 109-136.

- x. Casey, K. M. & Dickens, R. N. (2000). Effects of tax and regulatory changes on commercial bank dividend policy. *Quarterly Review of Economics and Finance*, 40(2000), 279-293.
- xi. Bakar Edelman, R. B. & Farrelly, G. E. (1983). Analyzing dividend policy: A questionnaire survey. *Historical Working Paper*. Retrieved from: <http://digitalrepository.smu.edu>.
- xii. Graham, B., Dodd D. L. & Sidney, C. (1934). *Security analysis: Principles and techniques*. Publishers McGraw-Hill, New York.
- xiii. Graham, M. & Dodd, D. (1962). *The investment, financial, and valuation of corporations*. The McGraw-Hill Companies, Inc., New Jersey.
- xiv. Haque, R., Fuad, S. M. & Mahamud, M. S. (2017). Dividend versus capital gain and investor preference: A case study on Dhaka stock exchange. *Research Journal of Finance and Accounting*, 8(8), 60-68.
- xv. Hasan, M., Ahmad, M. I., Rafiq, M. Y. & Rehman, R. (2015). Dividend payout ratio and the firm's profitability. Evidence from Pakistan. *Article in Theoretical Economics Letters*. DOI: 10.4236/tel.2015.53051
- xvi. Kapoor, S. (2009). Impact of dividend policy on shareholders' value: a study of Indian firms. Doctoral thesis. Retrieved from <https://125.21.244.195/uploads/SUJATA%20SYNOPSIS>.
- xvii. Linter, J. (1956). Distribution of incomes of corporations among dividends retained earnings and taxes. *The American Economic Review*, 46(2), 97-113.
- xviii. Long, J. B. Jr. (1978). The market valuation of cash dividends: A case to consider. *Journal of Market-Evaluation*, 6(2), 235-264.
- xix. Miller, M. H., & Modigliani, F. (1961). Dividend policy, growth, and the valuation of shares. *The Journal of Business*, 34(4), 411-433.
- xx. Miller, M.H. & Scholes, M.S. (1978). Dividend and taxes. *Journal of Financial Economics*. 6, 333-364.
- xxi. Morgan, I. G. (1982). Dividends and capital asset prices. *Journal of Financial*, 37(4), 1071-1086.
- xxii. Musa, I. F. (2009). The dividend policy of firms quoted on the Nigerian stock exchange: An empirical analysis. *African Journal of Business Management* 3(10), 555-566.
- xxiii. Oberoi, R. (2014). Key financial ratios you must look at before analyzing companies. Retrieved from <https://www.businesstoday.in/moneytoday/investment/key-financial-ratios-analyze-company-stock-investment/story/209789.html>
- xxiv. Papaioannou, G. & Savarese, C. (1994). The corporate dividend policy response to the tax reform act of 1986. *Journal of Business and Financial Management*, 23(4), 1-15.
- xxv. Suwabe (2006). Dividend policy that boosts shareholders' value. *Security Analysts Journal*, 44(7), 1-18.
- xxvi. Srivastava, U. K., Shenoy, G.V. & Sharma, S. C. (1989). *Quantitative techniques for managerial decisions*. New age international (P) Ltd. 4835/24, Ansari Road, Daryaganj, New Delhi-110002.
- xxvii. Walter, J. R. (1963). Dividend policy: its influence on the value of the enterprise. *Journal of America Financial Association*, 18(2), 280-291.
- xxviii. Walsh, T. (2014). Why understanding a dividend payout ratio is so important? Retrieved from <https://www.fool.com/investing/general/2014/10/15/why-understanding-a-dividend-payout-ratio-is-so-important.aspx>