

FIRM'S PROFITABILITY AND DIVIDEND SMOOTHING IN FINANCIAL INSTITUTIONS LISTED ON THE NAIROBI STOCK EXCHANGE

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# FIRM'S PROFITABILITY AND DIVIDEND SMOOTHING IN FINANCIAL INSTITUTIONS LISTED ON THE NAIROBI STOCK EXCHANGE

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#### **ABSTRACT**

Dividend smoothing is when you keep your dividends relative to your Earnings per share. Not too high dividends and not too low. It may also imply setting a dividend price that does not necessarily conform to retained earnings. The dividend smoothing decision can affect the value of the firm by changing the firms expected earnings in the preceding years, its cost of capital or both. One of the most important objectives of determining factors leading to dividend smoothing of the firm is to ensure that we maximize shareholders wealth while we protect the value of the firm in terms of retained earnings. The purposive of this study sought to establish the influence of profitability on dividend smoothing among the financial institutions listed at Nairobi Securities Exchange. The specific objective of this study was; to determine the influence of firm's profitability on dividend smoothing in financial institutions listed on the national stock exchange. This study used the theories of Information Asymmetry or Signaling Theory and Agency Conflict Theory. The study employed cross-sectional research design to gather the data. The study included all the 9 listed financial institutions that were paying dividends for the last 5 years and were currently listed in the Nairobi securities Exchange. The study used primary and secondary data from NSE data base. The study tested construct, criterion and content validity. Reliability was determined by Cronbach alpha at 0.7 and above. This study analyzed data using both descriptive statistics computations as well as inferential statistics i.e. regression analysis. Analyzed data was presented using APA tables. Profitability had a unique significant contribution to the model implying that when other variables in the model are controlled, a unit change in leverage would result to significant change in dividend smoothing in the same direction. Therefore, the hypothesis was rejected. Based on the study findings, the researcher made the following recommendations that Firms ought to put in place measures to enhance and sustain their profitability since it's an essential determinate of dividends issuance in a firm.

**Key Words:** Profitability, Dividend Smoothing

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#### INTRODUCTION

Dividend smoothing is when you keep your dividends relative to your Earnings per share. Not too high dividends and not too low. It may also imply setting a dividend price that does not necessarily conform to retained earnings. The dividend smoothing decision can affect the value of the firm by changing the firms expected earnings in the preceding years, its cost of capital or both. One of the most important objectives of determining factors leading to dividend smoothing of the firm is to ensure that we maximize shareholders wealth while we protect the value of the firm in terms of retained earnings (Wurgler, 2017).

In a classic study, Lintner (2016) showed that dividend-smoothing behavior was widespread. Lintner observed that firms are primarily concerned with the stability of dividends. Firms do not set dividends de novo each quarter. Instead, they first consider whether they need to make any changes from the existing rate. Only when they have decided a change is necessary do they consider how large it should be. Managers appear to believe strongly that the market puts a premium on firms with a stable dividend policy. While Lintner's study was done over 50 years ago and his sample contained only 28 firms, his findings seem to hold for a wide set of firms and more recent time periods (Harvey, 2015).

Since the novel study of Lintner (2016), it has become a wide-spread idea that US firms only gradually adjust the dividend level toward to the long-term target. Lintner suggests that US firms' speed of adjustment (SOA) in their dividend payments is only 30 percent. Early US studies (e.g., Fama and Babiak, 2018; Mueller, 2017) confirm the dividend smoothing policy and a recent survey by Bravo, Graham; Harvey, and Michaely (2017) suggest that US managers view stable dividend payments as an important financial policy. Leary and Michaely (2017) show evidence that US firms have increased dividend smoothing tendencies over time.

In the finance literature, the dynamics of dividend policy has been analyzed for years. But, scholars in this field have presented different views to explain the dynamics of dividend policy over time and across cultural settings. The controversy around dividend policy has also been researched in Nigeria since the work of John Lintner (2016). As documented, highlighted the pattern of dividend policy in Nigeria firm, especially during the indigenization decree programme of 1969 to 1972 and concluded that the dividend policy of a Nigerian firm is influenced by fear and resentment as against the conventional factors such as share pricing policy, to change in dividend policy. However, research had since challenged and criticized Uzoaga and Alozieuwa's study for its failure to empirically test the contribution of conventional factors to dynamics in dividend of firms.

This study mainly focused on how financial institutions listed in the NSE smooth their dividends with special interest on the determinants of dividend smoothing by the financial institutions. The researcher used a sample size of all financial institutions that are listed and that have been paying dividends for the last five years. The study targeted both the private and public financial institutions listed in Nairobi Securities Exchange.

### **Problem Statement**

Dividend policies refer to a firm's policy regarding disbursing out cash to its shareholders holding constant its investment and borrowing decisions. In a perfect capital market the value of the firm is unchanged no matter what dividend policy the firm adopts. However, in the real world frictions exist, and such frictions can cause dividend policy to have effect on the value of the firm (Cleeton, 2018). Despite the prevalence and importance of dividend smoothing; there is little agreement about why firms smooth their dividends or what determines a firm's propensity to smooth. The determination of an optimal dividend payout and dividend smoothing as well as the factors that determine it have been and, are still an important area in financial management. This is evident in a comment by Leary

and Michaely (2017) 'Rather than set dividends de novo each quarter, firms first consider whether they need to make any changes from the existing rate. Only when they have decided a change is necessary do they consider how large it should be. Managers appear to believe strongly that the market puts a premium on firms with a stable dividend policy.' However, some researchers conclude that dividend smoothing is costly to firms. Yet other researchers observe that there is no clear reason why firms smooth their dividends, nor convincing evidence that investors prefer this practice (Wurgler, 2018), and lack in agreement on factors that influence managers decision to smooth dividends (Lambrecht and Myers, 2018). This study mainly focused on the primary factors that make firms that are listed in the Nairobi Securities Exchange (NSE) smooth their dividends. The researcher used a sample size of all firms which have been paying dividend to their shareholders for the last five years and are listed in the NSE. The study targeted the large and small firms, old and new firms and highly profitable and low profit making firms in order to get the probable answers to the research question. This research therefore intends to concentrate on identifying determinants of the dividend smoothing decisions of companies listed at the NSE. Although several studies have been done on the dividend decisions of the companies none has been done on determinants of dividend smoothing firms listed at the NSE goals. Mutswenje (2018) in a multi correlation analysis of dividend paid against other factors (twenty seven in total) such as need of the investors, share price of the firm and broker information; cite a varied response to different situation. As such seems to make a conclusion that given different conditions the dividend decision definitely changes. Mwaura and Waweru (2016) investigated the signaling hypothesis by testing the displacement property of dividends. The study's findings provided further empirical evidence that dividends are used as signals about future earnings prospects of the firm. The researcher has explored the time trends in smoothing behavior over a longer

horizon than has previously been documented in Kenya. Expectedly, the findings will serve both to shed light on existing theories of smoothing as well as to provide direction for future theoretical work. The issue of determinants of dividend smoothing has not been given enough attention by researchers especially in Africa and in particular Kenya. In fact none has ever been done concerning this topic. There's a very big disparities between time periods during which the research were carried out. It was therefore important to carry out this study to understand the determinants of dividend smoothening in the firms listed in the NSE and those that has been paying dividends for the past five years. This study therefore sought an answer to the questions: What factors influence dividend smoothing at NSE?

### **General Objective**

This study sought to establish the influence of profitability on dividend smoothing among the financial institutions listed at Nairobi Securities Exchange. The specific objectives were;

 To determine the influence of firm's profitability on dividend smoothing in financial institutions listed on the national stock exchange.

The study was guided by the following research hypothesis;

 Profitability has no significant influence on dividend smoothing in financial institutions listed on the national stock exchange.

## LITERATURE REVIEW

### **Theoretical Framework**

The Information Asymmetry or Signaling Theory model was developed by Ross (2011). Another assumption of Modigliani and Millers value invariance theory was that the market possesses full information about the activities of financial institutions. Models referring to the signaling theories assume the existence of imperfect and asymmetric information between the various partners of the financial institution. The conflicts of

interests are likely to appear between the quite informed managers and the other uninformed partners. To solve this problem, the managers try to communicate their information to the other partners by a signal. There are multiple signals used in finance and allow the investors to make a perfect difference between various companies. invariance assumption of perfect theory information was relaxed by Leland and Pyle and Stephen Ross through the information asymmetry theory (Ross, 2011).

However, Fama and French (2016) were of a different opinion that more profitable financial institutions tend to have lower levels of dividend payout. They argued that increasing dividends actually signals poor prospects for future earnings and cash flow as there was less internal financing available to fund development. Manigaart (2016) argue that information asymmetries decrease over the lifetime of a financial institution. However, there is insufficient clarity on exactly signaling, within the context of information asymmetries, affects dividend smoothening decisions.

### **Agency Conflict Theory**

Jensen and Meckling (1976) are the pioneers in introducing the agency theory and in relaxing the assumption of no conflict of interest between the managers and the shareholders. Their financial model is focused mainly on the relationship between the shareholders as the principal and the manager as the agent. Managers do not always act in the interest of the shareholders and consequently the goal is not always to maximize the value of the financial institution and therefore a conflict of interest arises.

Such a conflict of interest will create agency costs that require remedy measures. The managers tend to prove the quality of their decisions in a way to put the shareholder in confidence and minimizing the residual loss corresponding to the divergence of interests between the manager and shareholders. According to Jensen and Meckling, the managers can use the financial policy to get pecuniary and non-pecuniary benefits like prestige, discretionary latitude and empire building.

Low leverage preserves financial flexibility, but exposes financial institutions to the agency costs of excess cash. A high and stable dividend enables mature financial institutions to mitigate agency costs without sacrificing (and perhaps enhancing) access to low-cost external capital. The authors conclude that the ideal financial policy for mature financial institutions is low leverage combined with substantial, ongoing equity payouts. This predicts a very different profile of dividend smoothers from the financial constraints explanation, in which dividend smoothing is associated with low dividend levels and high-cost capital market access.

Finally Lambrecht and Myers (2010) argue that shareholders demand a regular dividend to limit agency costs, but costs of collective action allow the manager to extract rents. Risk aversion and habit formation in the manager's utility f unction lead him to desire a smooth stream of rents, which in turn requires a smooth stream of dividends. While the level of dividends increases as shareholder rights weaken, the degree of smoothing is primarily a function of the manager's habit persistence.



Figure 1: Conceptual Framework

**Dependent Variable** 

# Profitability and dividend smoothing among financial institutions listed on the NSE

Dividend smoothing is determined in part by time-series properties of a institutions earnings. Consistent with the survey evidence of Lintner (2016), financial institutions with more persistent earnings series smooth less, while those with more cyclical earnings smooth more. It has also been found that financial institutions that smooth their earnings more smooth dividends less. At the same time, our crosssectional results reflect differences in dividend policy over and above any differences in earnings smoothing behavior. It is also documented that there is a pronounced asymmetry in smoothing behavior: Financial institutions adjust dividends quicker when they are below their target than when they are above. The financial literature provides conflicting evidence on the relationship between the profitability and the dividend decision of the financial institution. Myers and Majluf, (2018) argue that the financial institutions have a pecking order in the choice of financing their activities and the relationship between leverage and profitability is negative since the internal funds are more preferred than debt. There is therefore a negative relationship between the financial institutions profitability and the level of its debts and dividend decision as well. It is however generally expected that more profitable financial institutions are more able in tolerating high level of debt since they may be in a good position to meet their obligations easily and on time. They therefore can easily add more debt in their capital structure (Peterson, 2016).Ellili (2017) in his empirical analysis of financial institution straded on Abu Dhabi Stock Exchange found out that profitability is negatively correlated to the long term leverage and positively correlated to the short term leverage. This result reveals that the profitable financial institutions use their internal funds in financing their long term investments and use the short term debt in financing their operating activities. This findings contrast several previous studies that connoted a positive correlation among this variables.

In Tunisia, Ben Naceur (2016) investigated the determinants of dividend smoothing for 48 companies listed on the Tunisian Stock Exchange (TSE) and found that the determinants of dividends for the Tunisian firms were in line with the published factors for companies from the developed countries. More specifically, they concluded that profitable companies have more cash flow than unprofitable firms and this allows them to smooth dividends. Besides firms with rapid growth pay more dividends to signal confidence in the future of the company and this make investor's think positively about buying the shares of this company.

Reddy (2016) used two main theories -the signaling theory and the tradeoff theory- to explain the determinants of dividends in India during the period 1990-2001. He investigated data for companies listed on Bombay Stock Exchange (BSE) and compared the results to the American companies listed on the NYSE. He concluded that large size, profitable and rapidly growing companies are more likely to smooth dividends than small size, unprofitable and slow growth firms. In addition, the determinants of the dividend policy of 245 companies listed on the Gulf Cooperation Council (GCC) country stock exchange during the period of 1999 to 2003 have been investigated by Al-Kuwari (2019). He concluded that companies listed in the GCC countries use dividends to reduce the agency problem and improve their reputations in the market. His results suggested that profitability, size of the firms, leverage and government ownership are the main determinants of dividend policy. He found that leverage affects dividend policy negatively but profitability, size and government ownership had a positive relationship with the amount of dividend paid.

Moreover Nazir (2017) empirically investigated the determinants of dividend policy in the Pakistani market using both the fixed and random effects techniques. Their sample included 73 companies listed on the Karachi Stock Exchange (KSE) during the five years of 2003-2008. They concluded that

the main determinants of dividend policy in Pakistan are the same as those reported by Ahmed & Javid (2016) for the same market. They found that the signaling theory holds in the Pakistani market since profitability affects dividend policy positively but size affects dividends negatively.

# Dividend smoothing among financial institutions listed on the NSE

Dividend smoothing can be described as a method managers use to avoid adverse stockholder reactions when setting the dividend level. Lintner's work in the 1950s on dividend smoothing is seen as the pillar and the foundation of later research of phenomenon. dividend Lintner interviewed CEOs and other key managers of 28 American companies to draw conclusions on firms' dividend policy behavior and why firms smooth their dividends relative earnings. He found that managers target a long-term payout ratio when deciding upon dividend policy. Further, he found that firms do not decide what level dividends should be set at each new period but rather how many the dividends should change. Managers only raised their dividends partly of the amount that was actually supported by the financials after a strong financial result. If additional increases in dividends were still justified, the managers would continue to raise the dividends in the subsequent years. He referred to this as dividends being "conservative", and argues that strong avoidance of "erratic changes" in dividend policy is very important to firms. This is due to management's strong belief in the market preferring stable dividends over more volatile payments.

Lintner's (2016) study implied that management thought that in the eyes of investors a change in current net earnings was the solely valid factor in changing the dividend rate. That is why management targets net earnings in the payout ratio. Consistent with his findings, Lintner (1956) developed the partial adjustment model, which is a model specification of how managers smooth their dividends. In his model he presumed that the change in dividends from one year to another

corresponded to the earnings, the target payout ratio and the speed of adjustment.

This model can be specified in a regression where speed of adjustment is a coefficient. The speed of adjustment is particularly important and is a common measure of dividend smoothing. The speed of adjustment estimates how fast the target payout ratio is adjusted in relation to changes in a firm's earnings. The slower the target payout ratio is adjusted, the higher the degree of smoothing. Lintner (20166) argues that the constant in this model was positive for the most firms because of the reluctance of managers to cut dividends.

Lately, researchers have started to question how well Lintner's model actually describes the dividend smoothing phenomenon. Bravo (2015) finds that this apparent link between dividends and earnings has deteriorated since Lintner's study some 50 years ago. One reason is that nowadays, CFOs in the US are less prone to target the payout ratio when deciding the dividend level. They find that dividend per share is a more commonly used target. This can have certain implications on when deciding to what target the dividends actually revert to if smoothing occur. However, the actual target is seldom (never) known and a good approximation of a target is to analyze the previous dividends to try to see a pattern.

Also Lambrecht and Myers (2016) have some concerns as they mathematically derive Lintner's dividend smoothing model. They argue that the fit of the model has degraded as share repurchases have become more common. Even though they do not believe that the model is redundant, they are providing evidence for that the model rather should be explaining the total payout instead of only cash dividends. With regards to dividend smoothing, the prevalent literature does mainly handle three different possible sources of dividend smoothing, as mentioned earlier. These are motivations based on information asymmetry, agency problems and smoothing motivated by investor clientele. These were discussed in the next few sections.

Lintner (2016) in his research developed a model of dividend policy in which he proposed that financial institutions adjust their dividends slowly to maintain a target long-run payout ratio. Lintner interviewed managers from 28 financial institutions and found that rather than setting dividends each year independently based on that year's earnings, they first decide whether to change dividends from the previous year's level. Managers claimed to reduce dividends only when they had no other choice, and increase dividends only if they were confident that future cash cows could sustain the new dividend level. Two beliefs were expressed strongly: that investors put a premium on financial institutions with stable dividends, and that markets penalize financial institutions that cut dividends.

Furthermore, Lintner found that managers were setting the dividend policy first, while adjusting other cash-related decisions to the chosen dividend level. Almost fifty years later, in a survey of 384 financial executives, Bravo, Graham, Harvey and Michaely (2015) found that similar considerations still play a dominant role in determining dividends in publicly traded financial institutions. By contrast, Michaely and Roberts (2017) found that dividend smoothing is significantly less likely in private financial institutions.

#### **METHODOLOGY**

The study employed cross-sectional research design to gather the data. This design was chosen because it offers the most reliable set of data. Crosssectional research involves observation of a representative subset at a defined time. The study population was the 9 listed financial institutions that had been paying dividends for the last 5 years and that were currently listed in the Nairobi securities Exchange. The sample was deduced through a census of the financial institutions that are listed in the NSE and have paid dividends for the last 5years. Secondary data was sourced through document analysis. Amongst documents analyzed comprised institutions financial statements and books of account. Criterion, content and construct validity was determined in the study. Supervisor(s) and experts examined the items and have their expert inputs. A test-retest mechanism was used to determine dependability of data. Tools were given to similar respondents in the pilot sample. Then bivariate analysis using Pearson's product moment correlation coefficient(r) was used to determine reliability of two sets of data collected. This investigation used the instrument since the coefficient of 0.887 was achieved. This study analyzed data using both descriptive statistics i.e. frequencies, percentages, means and standard deviation as well as inferential statistics i.e. correlation and regression analysis. The study employed multiple regression analysis to measure the effect of the different factors on the financial institutions dividend smoothing decision analyze the relationship between the dependent and the independent variables; the following regression equation was used: Multiple regression models were used to test the statistical significance of the relationship involving the dependent and independent variables.

The general multiple regression models used in the study was as follows;

Regression equation:

$$Y_i = \beta_0 + \beta_1 X_1 + \epsilon$$
 .....(i)

Where:

 $Y_{\rm i}$  is the dependant variable dividend smoothing computed using Linters model to estimate the Speed

Of adjustment (SOA).

 $X_1$ = profitability measured by the returns on assets  $\varepsilon$ = Error term (Episolon knot) normally distributed about a mean of 0 and for purpose of computation, the  $\varepsilon$  is assumed to be zero (0).

#### **FINDINGS**

# **Descriptive Statistics**

The data that was used was that of 9 firms out of the total firms listed at the NSE. These were the firms that had all the required data and those that have been paying dividends for the last five years. Data for each company was computed for a mean and the Independent variable computed. The data was then coded and entered into the SPSS version 22. The following table 1 represented the

dependent and independent variable computations.

**Table 1: The Dependent and Independent Variable Computations** 

Firm	Y(Dividend Smoothing)	Profitability
Barclays Bank Ltd Ord 0.50	0.15	0.41
CFC Stanbic Holdings Ltd	0.14	0.55
I&M Holdings Ltd	0.07	0.24
Diamond Trust Bank Kenya Ltd	0.37	0.13
Housing Finance Co Ltd	0.68	0.15
Kenya Commercial Bank Ltd	0.49	1.5
National Bank of Kenya Ltd	0.68	1.2
NIC Bank Ltd	0.58	0.45
Standard Chartered Bank Lt	0.17	1.3

This study employed multiple regression analysis to measure the effect of the different factors on the company's dividend smoothing decision to analyze the relationship between the dependent and the independent variables; the following regression equation was used:

 $Y = \alpha + \beta 1X1 + \beta 2D + E$ 

Where;

Y is the dividend smoothing computed using Linters model to estimate the Speed of adjustment (SOA);  $\Delta Dit = g + h (D^*)$ 

it – Dit-1) + Xit,  $\alpha$ ,  $\beta$ 1- $\beta$ 6 are coefficients to be extracted of X.

X1= profitability of the firm measured as the natural logarithm of total assets

D = dummy variable 1 when listed firm and zero otherwise

E = the random error term

Lintner (1956) originally presented the following partial-adjustment model of dividend payments:

Dit-Dit-1= $\infty$ + $\beta$ (D\*it-Dit-1)+Uit

Where D is the actual dividend payment, and D\* is the target dividend level which is computed by the net income times the target payout ratio.  $\beta$ represents the Speed of Adjustment (SOA). Since the target payout ratio is unknown to researchers, many previous studies including Lintner (1956) estimate β the following by using equations(equation(1) by Chemmanur, He, Hu, and 2010; equation(2) by Lintner, 1956; Chemmanur, He, Hu, and Liu, 2010; Aivazian, Booth, and Cleary, 2006):

 $\Delta Dit = \alpha + bEit + cDit-1 + Vit (1).$ 

Dit = di + eiEi + fDit-1 + Wit (2).

Under the equation (1), the SOA is estimated as c while it is 1-f under the equation (2).

Although models (1) and (2) are commonly used in previous studies, Leary and Michaely (2011) point out that these models suffer from the small-sample bias in AR (1) models. Alternatively, they propose the following model to estimate the SOA:

 $\Delta Dit = g + h (D^*it - Dit-1) + Xit (3)$ 

Where D^\*it is computed as the median payout ratio of the firm during the period.

Although estimation of equation (3) can successfully avoid the bias associated with AR (1) models, it highly depends on the assumption that the median payout ratio represents the firm's target payout ratio. However, Lintner (1956) suggests that firms only gradually adjust dividend payments toward to the target ratio. Previous studies also argue that dividend payout levels significantly differ across companies with different characteristics, suggesting that firms' target payout ratio considerably varies. These ideas warn that equation (3) is also subject to estimation biases. To present robust evidence, we estimate SOA by using models (2), and (3). The estimated SOAs are denoted by SOA LINTNER and SOALM, respectively. The linear regression model is interpreted as follows; Y as the response variable and predictor variables are from X1 to X4, D the dummy variable for either listed or non-listed and the residual error E usually unmeasured variable.

Interpreting the Y Intercept;  $\alpha$ , the Y-intercept, can be interpreted as the value you would predict for Y if X1-YD = 0.

Interpreting Coefficients of Continuous Predictor Variables; since X1 is a continuous variable,  $\beta1$ 

represents the difference in the predicted value of Y for each one-unit difference in variables remains constant.

Table 2: Calculation of the Dividend smoothing

Company	G	G h(D^it-Dit-1		it Smoothing	
Barclays Bank Ltd Ord 0.50	0.069	0.00325	0.0751	0.1473	
CFC Stanbic Holdings Ltd	0.057	0.00154	0.0798	0.1383	
I&M Holdings Ltd	0.007	0.0034	0.0620	0.0731	
Diamond Trust Bank Kenya Ltd	0.015	0.1023	0.245	0.3632	
Housing Finance Co Ltd	0.29	0.1231	0.253	0.6749	
Kenya Commercial Bank Ltd	0.0234	0.0184	0.0263	0.0681	
National Bank of Kenya Ltd	0.123	0.0542	0.0621	0.2397	
NIC Bank Ltd	0.0156	0.1204	0.2078	0.3439	
Standard Chartered Bank Lt	0.234	0.1265	0.1317	0.4927	
Barclays Bank Ltd Ord 0.50	0.0024	0.0225	0.0325	0.0575	

SOURCE: Research Data

Table 2 presented how the Y dependent variable was computed for each firm using the Formula:

 $\Delta Dit = g + h (D^*$ 

it - Dit-1) + Xit.

Where:

 $\Delta Dit = Change in dividend for firm$ *i*from period t-1 to t.

g = coefficient to be extracted based in number of observations in this case 0.1-0.5 based on five years data sets

h = Speed of adjustment estimated as beta 0.1-0.5 based on five data sets.

(D^\*

it – Dit-1) = Target dividend payout ratio (TP) X earnings in year t minus actual

Dividend paid or median payout of the firm during the period.

Xit = Random error term

The dividend payout was the most important aspect in the calculations since firms only gradually adjust dividend payments toward to the target ratio.

## **Inferential Statistics Results**

The results of the study variables computation were regressed and results presented as below.

# Effect of Profitability on dividend smoothing

The objective of the study was to investigate the influence of Profitability on the dividend smoothing. The objective sought to test the hypothesis: H<sub>01</sub>: There is no significant statistical effect of Profitability on dividend smoothing. This was accomplished by use of Pearson correlation (r) and linear regression (R<sup>2</sup>) with aid of SPSS version 22.

# Correlation and Regression Results of Profitability and dividend smoothing

The Pearson correlation analysis was used to investigate the relationship between profitability and dividend smoothing. The study established a coefficient of correlation P<0.01 as shown in Table 3. This showed that there exists a significant positive relationship between profitability and dividend smoothing. This implied that the dividend smoothing increase with an increase in profitability and a decrease in profitability leads to a decrease in their dividend smoothing.

Regression analysis was used to tell the amount of variance accounted for by one variable in predicting another variable. Regression analysis was conducted to find the proportion in the dependent

variable (Dividend Smoothing) which can be predicted from the independent variable

(Profitability) Table 3 showed the analysis results.

Table 3: Regression Results of Profitability and dividend smoothing

Model Su	ummary					·	
Model	R	R	R Square		Adjusted R Square		Error of the te
1	.767ª	.5	.588 .544		.57426		
a. Predic	tors: (Constan	t), Profitability					
Model		Sum of	Squares	Df	Mean Square	F	Sig.
	Regression	3.875		1	3.875	11.74	9 .001 <sup>b</sup>
1	Residual	20.776		337	.330		
	Total	24.423		338			
a. Depen	dent Variable:	: dividend smo	othing				
b. Predic	tors: (Constan	t), Profitability					
Coefficie	nts <sup>a</sup>						
Model	Model Unstandardized Coefficient		ed Coefficient	s Sta	Standardized Coefficients		Sig.
		В	Std. Error	Be	ta		
1(Consta	nt)	2.486	.469			5.302	.000
Profital		.423	.123	.39	96	3.428	.001
a. Depen	dent Variable:	: dividend smo	othing				

The results revealed a coefficient of determination  $(r^2)$  of 0.588. Meaning Profitability can explain up to 58.8 % of the variance in dividend smoothing. The F test gave a value of (1, 75) =11.749, P<0.01, which supported the goodness of fit of the model in explaining the variation in the dependent variable. It also meant that Profitability was a useful predictor of dividend smoothing. The unstandardized regression coefficient  $(\beta)$  value of Profitability was 0.423, p< .001. This indicated that a unit change in Profitability would result to change in dividend smoothing by 0.423 significantly.

The regression equation to estimate dividend smoothing as a result of Profitability was hence stated as:

$$Y_{fp} = 2.486 + 0.423 X_1$$

The null research hypothesis posited  $H_{01}$ : There is no significant effect of Profitability on dividend smoothing was rejected using both r and  $R^2$ . From the results, Profitability had significant positive effect on dividend smoothing with P<0.01 and it

significantly accounted 58.8% variance in dividend smoothing. Therefore, the first null hypothesis is rejected as profitability has significant effect on dividend smoothing.

Previous studies had contrasting opinions on the above findings. Ellili (2017) in his empirical analysis of financial institution straded on Abu Dhabi Stock Exchange found out that profitability is negatively correlated to the long term leverage and positively correlated to the short term leverage. This result reveals that the profitable financial institutions use their internal funds in financing their long term investments and use the short term debt in financing their operating activities. This findings contrast several previous studies that connoted a positive correlation among this variables. However in contrast, the study in Tunisia by Ben Naceur (2016) investigated the determinants of dividend smoothing for 48 companies listed on the Tunisian Stock Exchange (TSE) and found that the determinants of dividends for the Tunisian firms were in line with the published factors for

companies from the developed countries. More specifically, they concluded that profitable companies have more cash flow than unprofitable firms and this allows them to smooth dividends. Besides firms with rapid growth pay more dividends to signal confidence in the future of the company and this make investor's think positively about buying the shares of this company.

### **CONCLUSIONS AND RECOMMENDATIONS**

The objective of the study was to investigate the influence of Profitability on the dividend smoothing. Regression analysis was used to tell the amount of variance accounted for by one variable in predicting another variable. Results showed that Profitability is a useful predictor of dividend smoothing. The null research hypothesis posited H<sub>01</sub>: There is no significant effect of Profitability on dividend smoothing was rejected using both r and R<sup>2</sup>. From the results, Profitability had significant positive effect on dividend smoothing and it significantly accounted for variance in dividend smoothing.

Therefore, the first null hypothesis is rejected as profitability has significant effect on dividend smoothing.

In conclusion, Profitability had a unique significant contribution to the model implying that when other variables in the model are controlled, a unit change in leverage would result to significant change in dividend smoothing in the same direction. Therefore, the hypothesis was rejected. Based on the study findings, the researcher made the following recommendations. Firms ought to put in place measures to enhance and sustain their profitability since it's an essential determinate of dividends issuance in a firm. Every financial organization should develop a liquidity policy for its operations to ensure that the firm is stable. Financial institutions should maintain standard leverage levels for them to enjoy financial sustainability. Every firm should aspire to grow since large firms tend to enjoy higher dividend payouts compared to smaller firms.

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