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The Effect of Dividend Policy on Stock Market Price Volatility of Banks in the Gulf Cooperation Council (GCC) Markets:

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Abstract

This study examined the effect of dividend policy on the stock market price volatility of banks in the GCC markets. The study data were obtained from the selected sampled banks' annual financial reports and accounts. The study used the panel data analysis fixed effect regression model. The findings revealed that dividend yield and dividends payout does not influence the market share price in the GCC market. Therefore, they do not affect the GCC banks' market share price, thus the findings of the study support the dividend policy irrelevance theory. The study recommends that managers in the GCC banks should focus on and emphasize allocating more funds in investment rather than paying dividends. The findings have important practical implications for the policymakers on dividends in the GCC banks due to unstable and inconsistent trends of dividend payments and making it difficult for shareholders on dividend policy decisions predictions.

Keywords: Dividend policy, Market share price, Commercial Banks, GCC Market.

1. Introduction

One of the most famous researched topics in the area of financial management is dividend policy. However, the question of whether the firms' stock prices are affected by the dividend policy decision remains debatable and unsolved among shareholders, managers, and researchers. Each firm that operates in a certain particular sector follows some dividends policy that is considered suitable for that particular firm as an indicator of firm financial performance. It is believed that high dividend payments to the shareholders are seen as a positive driver while a lower or non-payment of the dividends to the investors is the negative driver of the firm future earnings prospects and therefore causes to higher or lower value of the stock of the firm (Singh and Tandon., 2019: Sattar et al., 2017). A dividend policy is an important policy for investors and managers investors, it is crucial because they consider dividend payment not only as a source of return but also as a way of evaluating the firm financial performance. Corporate finance researchers and firms' financial managers lay predominant essential on measuring an optimal dividend policy decision of the firms, first emphasizing maximizing the shareholders' values, and second, the heterogeneous preferences exist of the market participants regarding the optimal dividend pay-out (Camilleri., 2018). The academic literature comprehensively has developed theories in the area of dividend policy, however, the impact of the dividend policy on market share values remains unsolved (Camilleri et al., 2019). There are a few aspects of corporate finance literature where the gap between the practitioners and academicians is larger than that of the dividend policy. Such as (Fama and French., 2001: Miller and Modigliani., 1961: Gordon., 1959: and Gordon and Shapiro., 1956), the study on the topic exhibits conflicting trends in dividend policy and firm value. The corporate finance academicians' consensus argues that dividend policy does not matter very much for firm value and is irrelevant when firms pay a dividend as a signal to the investors. However, financial analysts and corporate officials, still argue that a firm's dividend policy great deal to the value of a firm and for conveying the information to the shareholders. Based on the argument of the side of economic theory, the dividend policy is irrelevant to the value of the firm. But on the side of the practitioners believe that the dividend policy announcement is relevant to stock price volatility. This controversy poses a problem for firms' investors in practice, thus requiring a way forward. The firm's investors need to know the exact impact of dividend policy on firm value to make an appropriate financial decision for the firm. The relationship between the market share prices and dividend policy widely exists in the body of theoretical and empirical studies in the corporate finance literature. However, most of these empirical studies were carried out in advanced financial markets such as the US, UK, and other European markets, even those few studies were conducted in the less advanced financial market, however, in most of these dividend policy studies banking institutions were excluded from the analysis due to different features compared to other institutions (Budagaga, 2020: Marsh and Power, 1999). Hence, studies on the influence of the dividend policy on the stock market price are little known in the banking sector, particularly in the GCC financial markets. The study on dividend policy effect on the stock market price of commercial banks in the GCC market is imperative based on various reforms in those countries in their financial sectors aimed at repositioning the sectors to be an active financial tool in the global financial markets. Thus, answering unanswered questions such as, 'Does the decision on the dividend policy affect the market share price of banks in the GCC markets and to what extent? Can this effect be utilized by financial managers making decisions on dividend policy to enhance the maximization of shareholders' wealth and the market share price of such banks? In addition, the study will ascertain the application of dividend policy theories to banks in the GCC markets. Furthermore, the debate associated with the fact that empirical studies on the impact of dividend policy on the market share price of banks in the GCC markets have not reached a definite



conclusion (Kumar and Waheed, 2015; Ibrahim, 2016). Thus, this lack of clear-cut empirical findings motivates this study. Therefore, this paper was intended to examine the effect of the dividend policy decisions on the stock market price for sample banks in the GCC markets using data for the period from 2015 to 2021. This paper has three objectives. The first objective was to investigate whether or not dividend payout (DP) affects the market share price (MSP) of listed banks in the GCC financial markets. The second objective was to investigate whether or not dividend per share (DPS) affects the market share price of listed banks in GCC markets. The last objective was to investigate whether or not dividend yield (DY) affects the market share price of listed banks in the GCC financial markets.

The remainder of this paper is organized as follows: Section 2 relevant literature review, conceptual framework, and hypotheses development Section 3 describe the sample size and methodology used in this paper. Section 4 provides the empirical findings and discussions. Sections 5 presents conclusions and implications of the findings,

2. Literature review

2.1 Theoretical Literature

The dividend policy and value of the firms' relationship have extensively captured the attention of corporate finance researchers and academicians around the world. The most important theoretical works in this area of corporate finance include the works of Gordon and Shapiro (1956), Gordon (1959), and Modigliani and Miller (1961). The study by Gordon and Shapiro (1956) and Gordon (1959) famously supports dividend policy relevance theories. Gordon and Shapiro (1956) argued that dividend policy has a positive effect on firm value. Meaning that increase in dividend payments results in an increase in firm value. Gordon's (1959) model argues that dividend policy is relevant and affects the value of the firm. Gordon (1959) investigated the effect of dividends on firm value and found a positive significant impact. The argument of this model is based on the premise that generally the investors are risk-averse and they prefer to have current income i.e. dividends. Thus, Gordon argued that the uncertainty of the future of the firm makes the share price depends on the dividend policy. Thus, the greater the payment of the present dividends from the firm's earnings, the higher the relative market share prices are likely to be. Investors prefer the early resolution of uncertainty and generally, they will pay a higher price for a stock that has a greater dividend payout ratio. The argument for dividend policy relevance theory was supported by Walter (1963), who argues that investors prefer to receive the dividends now so that they can reinvest and earn a further return in the future. Further studies which supported this argument are (Gejalakshmi and Azhagaiah, 2015; Ali et al., 2015). The dividend policy irrelevance theories are based on the ground that the dividend policy of the firm is independent of the market share price and thus the dividend policy decision is a passive residual. One of the most important theories of the irrelevance of dividend policy to the firms' values is by Miller and Modigliani (1961). Miller and Modigliani (1961) challenged Gordon and Shapiro (1956) and Gordon (1959) by arguing that dividend policy did not affect firm value. Based on the assumptions of perfect capital markets, arguing that among the key determinants of firm value is firm investment policy and its earning power. Modigliani and Miller (1961) suggest that the dividend policy of the firm does not influence the value of the firm. According to dividend policy irrelevance theory, the market share price of the firm is dependent on the earnings of the firm on its investment and not on the dividend payments. The argument behind this theory is that a share market price of the firm is generally measured by the present value of cash flow for future investments which is discounted with a required rate of return. Based on this hypothesis under perfect market conditions, the managers of the firms are unable to influence the value of the firms by adopting a certain dividend policy. The theory was supported by Black and Scholes (1974) and Watts (1973) their studies' findings were consistent with the irrelevance dividend theory. The dividend irrelevance theory is further supported by other studies (Miller, 1986; Miller and Rock, 1985; Miller and Scholes, 1978, 1982).

2.2. Empirical Evidence

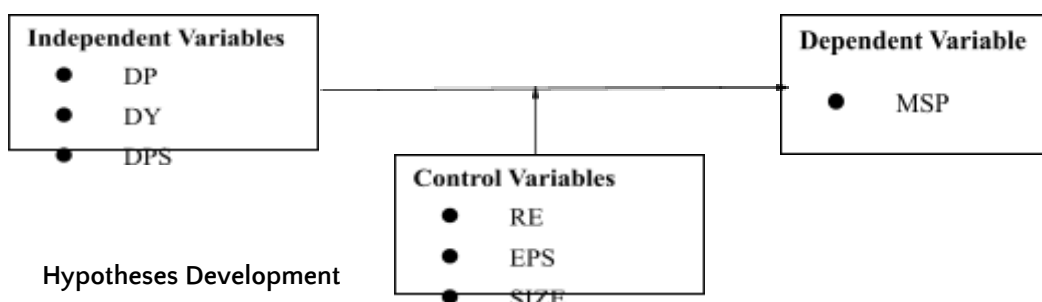
The relationship between the share price behaviour and dividend policy decisions has attracted the interest of stock market participants and financial academicians, despite numerous research papers in this area, the area is remained unsolved (Frankfurter and Wood, 2002). Black (1976) explained that the decision of the firm to distribute the proportion of profits to the investors or to retain in the firm is the "dividend puzzle" The observation was that firms adopted a policy to provide consistent payment of dividends to the shareholders on the ground that such dividend policy conveys a favourable signal to market participants (Frankfurter and Wood, 1997). Chelimo and Kiprop (2017) examined the relationship between the market share price and dividend policy of listed firms in Kenya. A dynamic regression model was used to analyze the effect of dividend payout, dividend yield, and earnings per share on market share price and the results revealed that dividend payout had a negative and significant impact on the market share price. The findings were in line with those (Ilaboya and Aggreh, 2013; Lashgari and Ahmadi, 2014). In their study, Gejalakshmi and Azhagaiah (2015) using the panel data analysis random effect model evaluated the impact of dividend policy decisions on the stock market price in the Indian market from 2009 to 2013, and the results showed that dividends per share had a positive and significant effect on the market share price. Anton (2016) investigated the relationship between the market share price and the dividend policy decisions of the firm on the Bucharest stock market for the period from 2001 to 2011 using the fixed-effects model and found that the dividend payout ratio positively affected the firm value. Adesina et al.

(2017) investigated the relationship between market share price and dividend policy in Nigerian banks using the ordinary least square regression model and found that there was a positive relationship between earnings per share and market price per share. However, the findings revealed that the dividend yield ratio had a negative impact on the market share price. Budagaga (2017) examined the effect of dividend payout on the value of firms listed on the Istanbul Stock Exchange (ISE) using the residual income approach valuation model and found a positive significant impact of dividend payments on the firms' value. Felimban et al (2018) examined the effect of dividend announcement policy on stock price and trade volume in the Gulf Cooperation Council market. Their study reported some pieces of evidence of the reaction for the market share price that partially supported the signaling hypothesis. Phan and Tran (2019) in their study used the panel dataset for the period from 2008 to 2015 of nonfinancial companies listed on the Hanoi and Ho Chi Minh stock exchanges in Vietnam to examine the impact of the dividend policy decisions on stock price volatility. The findings reported that the dividend yield mitigated the volatility of the Vietnamese market share price. The same to Almanaseer (2019) evaluated the effect of the dividend policy decision on the stock market price of insurance firms in the Aman stock market exchange using a sample of 20 insurance firms. The findings showed that there was a negative and significant relationship between payout ratio, dividend yield, and stock market price. Budagaga (2020) investigated the impact of dividend policy on the stock prices of banks listed in the MENA regions from 2000 to 2015 by using a residual income approach and found that the dividend yield and dividend payout did not affect the stock prices of listed banks in MENA countries. Therefore, the findings of the study supported Miller and Modigliani's (1961) dividend irrelevance assumption. The previous empirical studies indicated that few empirical types of research had been conducted in the banks. Lee (1979) used the sample of 78 commercial banks in the US from 1971 to 1976 to investigate the impact of dividend policy on stock market prices and findings revealed that the dividend policy had a significant on stock value and lower returns were associated with a higher dividend. In their study, Bessler and Nohel (1996) used the sample of 56 largest commercial banks on AMEX, NASDAQ, and NYSE for the period from 1974 to 1991 in the US to evaluate the impact of dividend cuts and omissions on the markets. The findings showed that dividend cuts had a negative reaction on the markets. The evidence showed that most of the empirical studies were carried out in developed countries such as the US, UK, and other European countries. Furthermore, in most of these empirical researches, the banking industry was excluded because banks have unique characteristics and reporting features compared to other industries (Budagaga, 2020). Thus, little was reported regarding dividend policy and its effect on the stock market price of the banking firms and GCC economies. Therefore, this paper fills the research gaps by investigating the effect of dividend policy on the market share price of the banking firms in GCC economies particularly focused on the top commercial banks. The following conceptual framework and hypotheses of this paper were developed based on the review of the previous studies and related literature

2.3 Conceptual Model

The conceptual model used in this study is a combination of the model presented by Myers (2003) with the extension of two independent variables. The proposed model extends this model by introducing dividend yield (DY), Dividend per share (DPS) which explain the relationship to market share price, and the control variables are retained earnings (RE), earning per share (EPS), and bank size (SIZE)

Figure 2.1: Conceptual Framework



2.4 Hypotheses Development

H₁: There is a positive relationship between dividend payout and market share price of commercial banks in the GCC market

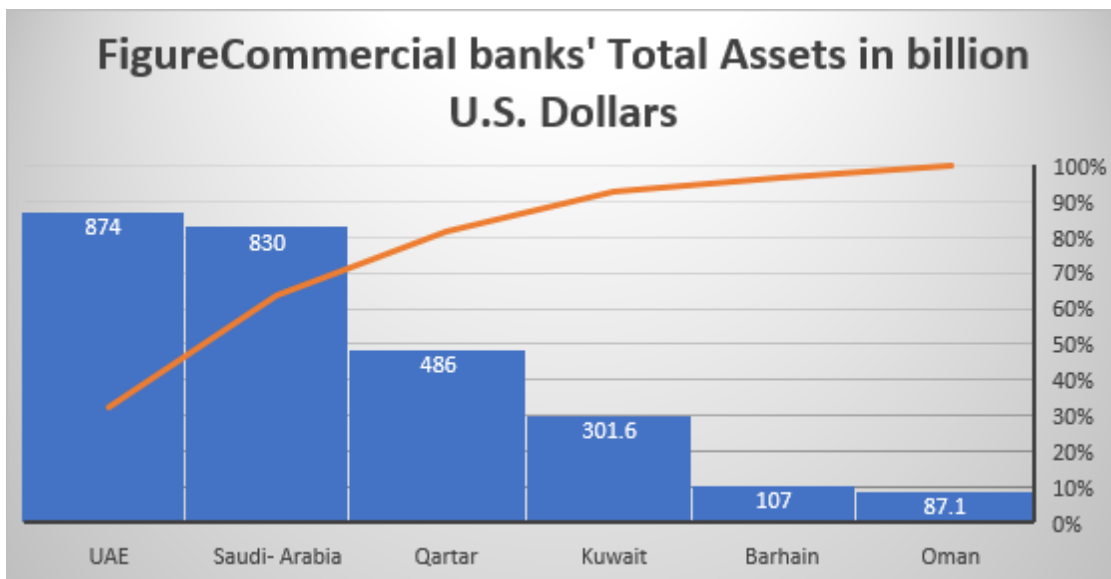
H₂: There is a positive relationship between dividend per share and market share price of commercial banks in the GCC market

H₃: There is a positive relationship between the dividend yield ratio and market share price of commercial banks in the GCC market

3. Methodology, Data, and Variables

The Gulf Cooperation Council is a political and economic union of Arab states bordering the Gulf. It was established in 1981 and its 6 members are Saudi Arabia, Oman, the United Arab Emirates, Qatar, Bahrain, and

Kuwait. In the GCC countries, the primary regulator of the banking institutions is the Central Bank of each GCC state. The Central bank of each member state is responsible for formulating and implementing the banking monetary policies and credit across the GCC countries. There are two major groups of commercial banks in the GCC countries' financial systems, namely first locally incorporated banks and the second branches of foreign banks, which are those commercial banks that have obtained a license from the Central bank to operate banking services in the country. In the GCC countries, the banking industry is largely dominated by domestic-owned banks due to licensing restrictions and entry barriers for foreign banks. In all the GCC countries the largest top banks are domestic-owned banks and account for 50% to 80% of total banking assets (Al-Hassan et al., 2010). The statistics indicate that the UAE has the highest commercial banks' total assets in the GCC countries with 874 billion US dollars followed by Saudi Arabia with 830 billion US dollars and the lowest commercial banks' total assets in the region is Oman with 87.1 billion US dollar. The UAE and Saudi Arabia account for about one-third of the total assets of the banking industry in all GCC countries with the latter acquiring the lion's share of 31.5% and the former amounting to 33%. Table 3.1 indicates the total assets in billion U.S dollars of commercial banks in GCC countries.



Source: GCC Banking Report (2021)

3.1 Sample Size and Data Source

The data sample included only top domestic-owned commercial banks listed in GCC stocks markets of six GCC countries (Saudi Arabia, Oman, Qatar, Kuwait, United Arab Emirates, and Bahrain) from 2015 to 2021. The reasons behind this selection were that these domestic-owned banks largely dominated the country's banking industry and account for more than 60% of the total banking assets. The selection of the sample of the study was based on the following criteria, first, the bank selected had been in operation during the period of the study from 2015 to 2021, second, the banks that have reported full data during the period of the study and third the bank is among the top banks in the country. after filtering the sample using the above criteria a total of 26 banks had been dropped and the final sample size was 35 banks. there were no banks in the sample found with potential outliers, this brought the final sample size for this study to be 35 banks in GCC stock markets. Tables 3.1 and 3.2 show the selected number of commercial banks in each country and selected banks and total assets in billion U.S. dollars in each country respectively

Table 3.1: Number of selected banks in the GCC countries

Country	Commercial Banks	Selected Banks	%
UAE	16	10	62.50
Saudi- Arabia	10	5	50.00
Qatar	8	4	50.00
Kuwait	6	5	83.33
Bahrain	8	5	62.50
Oman	6	6	100.00
Total	54	35	64.81

Table 3.2 Sample Size of Selected banks in GCC countries

<i>S/ N</i>	<i>UAE Banks</i>	<i>Total Assets (in Billion US \$)</i>
1	First Abu Dhabi Bank	250.18
2	Emirates National Bank Dubai	190.03
3	Abu Dhabi Commercial Bank	111.92
4	Dubai Islamic Bank	78.82
5	Mashreq	43.15
6	Abu Dhabi Islamic Bank	34.79
7	Commercial Bank of Dubai	26.5
8	Sharjah Islamic Bank	14.59
9	RAK BANK	14.37
10	National Bank of Fujairah	10.85
<i>S/ N</i>	<i>Oman Banks</i>	<i>Total Assets (in Billion US \$)</i>
1	National Bank of Oman	9.80
2	Bank Muscat	32.80
3	Oman Arab Bank	8.58
4	Bank Dhofar	11.73
5	Bank Sohar	9.75
6	HSBC Oman	6.45
<i>S/ N</i>	<i>Qatar Banks</i>	<i>Total Assets (in Billion US \$)</i>
1	Qatar National Bank	281.0
2	Commercial Bank of Qatar	44.03
3	Doha Bank	7.851
4	Al Khalij Commercial Bank	15.90
<i>S/ N</i>	<i>Saudi Arabia Banks</i>	<i>Total Assets (in Billion US \$)</i>
1	National Commercial Bank	142.053
2	Al Rajhi Bank	104.056
2	Riyad Bank	74.264

3	Banque Saudi Fransi	52.885
4	Arab National Bank	49.089
5	Saudi British Bank	70.422
<hr/>		
S/ N	Bahrain Banks	Total Assets (in Billion US \$)
<hr/>		
1	National Bank of Bahrain	4.346
2	Ahli United Bank	40.1
3	Arab Banking Corporation	30.4
4	Gulf International Bank	29.5
5	Bahrain Development Bank	2.24
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S/ N	Kuwait Banks	Total Assets (in Billion US \$)
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1	National Bank of Kuwait	98.74
2	Burgan Bank	24.0
3	Ahli United Bank Kuwait	14.52
4	Commercial Bank of Kuwait	14.58
5	Gulf Bank of Kuwait	20.31
5	Boubyan Bank	21.39

Source: GCC banking Sector Report 2021

The data source for this study was the Bank Scope database and GCC banking sector report prepared by KAMCO Investment where the most of data for specific banks in the GCC countries are obtained from these reports. In addition, this database discloses the specific country data original currencies which also gives the option to convert the data of the banks to any other country's currency. To maintain homogeneity, the data of selected banks for this study were converted to USD.

3.2 Reliability and validity of data

The data used in this paper were obtained from the Bank Scope database and GCC banking sector-market data. Most of the specific banks' accounting and financial data in the World are obtained in the Bank Scope database. The accounting and financial data were extracted from selected audited banks' published annual financial reports and were prepared according to International Financial Reporting Standards making them valid and reliable to use (Raphael, 2018).

3.2 Variables definitions and operationalization

This paper used the market share price (MSP) as a dependent variable which is the indicator of the value of the firm for the listed banks and whose shares are traded on the GCC stock markets. The independent variable in this paper was dividend policy which is an action of the management to distribute the percentage of a firm's earnings to the investors in proportion to their holdings in the company (Egbeonuet al., 2016). Dividend policy involved three selected ratios namely: dividend payout (DP), dividend per share (DPS), and dividend yield (DY), and three control variables namely earning per share (EPS), Retained Earnings (RE), and bank size (SIZE) which are presented in Table 3.2.

Table 3.2. Variable definitions and operationalization

Variables	Symbol	Definition/explanations	Sign			
<i>Dependent variable</i>	MSP	It is the market price that indicates the end-of-the-year price of the share for each of the banks for the sample period (Singh and Tandon 2019)	NA			
Market share price						
<i>Independent Variables</i>	DP	It is the dividends paid to shareholders about the total net income of a company (Brealey et al., 2001).	+			
Dividend payout						
Dividend per share				DPS	It is obtained by dividing the dividend by the number of outstanding shares (Arnold, 2005).	+
Dividend yield				DY	it is related to the dividend paid to the price of the share. It can be measured by dividing annual dividends per share by price per share (Ibrahim, 2016)	+
<i>Control Variables</i>	EPS	It is the net income of the firm in a year divided by the number of shares (Arnold, 2005).	+			
Earnings per share						
Retained earnings				RE	It is the percentage of net earnings not paid out as dividends to shareholders (Stephen, 2010).	+
Bank Size	SIZE	It is the natural log of the total assets of the banks i at the end of the year t (Kumar and Waheed, 2015; Budagaga, 2020).	+			

3.3 Model specification

This paper adopted Gordon and Shapiro's (1956) model which further was extended by Myers, (2003). The model formally states that the market share price is a function of dividend payout, dividend yield, dividend per share, company size, retained earnings, and earnings per share. The model starts with the Gordon and Shapiro (1956) Model of dividend policy effects on the firm's value. It states that investors buy expected future streams of dividends when they acquire a share of a certain firm. it can be represented as;

$$Po \sum_{t=1}^{\infty} \frac{Dt}{(1+t)} \tag{i}$$

Gordon and Shapiro (1956) assumed that dividend is paid and discounted continuously at the annual rate of D_t and k , in which equation 3.) can be shown as $Po = \int_0^{\infty} e^{-kt} dt$ (ii)

They further assumed that expected future dividends (D_t) are determined by (i) a fraction of retained earnings 'b' (ii) return on the book value of equity r . If Y_t is considered to be earnings per share after taxes at time t , then, the expected dividend at time t will be;

$$Dt = (1 - b)Yt \tag{iii}$$

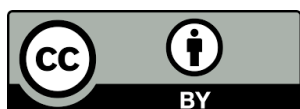
But the income per share with time t , (Y_t) is the income at $(t-1)$ plus r of the earnings at $(t-1)$ retained, i.e.

$$eY_t = Y_{t-1} + rbY_{t-1} \tag{iv}$$

Equation (3.4) is a compound interest expression which means Y_t grows at a constant rate of $g = br$, and therefore the equation (3.4) becomes

$$Y_t = Y_0 e^{gt} \tag{v}$$

Substitute equation (3.4) into equation (3.3),



$$D_t = (1 - b)Y_0 e^{gt} \tag{vi}$$

But

$$D_t = (1 - b)Y_0 \tag{vii}$$

Now, equation (3.6) becomes

$$D_t = D_0 e^{gt} \tag{viii}$$

substitute equation (3.8) into equation (3.2)

$$P_0 = \int_0^{\infty} D_0 e^{gt} e^{-kt} dt \tag{ix}$$

By applying the power exponential law equation (3.9) becomes;

$$P_0 = \int_0^{\infty} D_0 e^{-t(t-g)} dt \tag{x}$$

By solving equation (3.10) it becomes,

$$P_0 = \frac{D_0}{k-g}$$

To this point, share price becomes a function of current dividend, D_0 , and retained earnings i.e.

$$P = f(D, RE) \tag{xi}$$

The current dividend expressed in the model can take any form either dividend payout, dividend per share, or dividend yield because all are indicators of dividend policy (Myers, 2003). Equation 3.11 can further be expressed in three ways by considering the indicators of dividend policy which are DP, DPS, and DY as follows

$$P = f(DP, DY, DPS, EPS, RE, SIZE) \tag{xii}$$

The model assumes the panel data methodology. The panel data help to explore both time series and cross-sectional data simultaneously. The panel data model gives more degree of freedom, informative data, and less collinearity of data (Gujarati, 2004). So, this paper accepted a balanced panel data model. The panel data Fixed Effect (FE) regression model. This model is an alternative way to remove unmeasured heterogeneity and focuses on within-unit comparisons: changes in y_{it} and x_{it} relative to their within-group means. First, note that taking the average of the y 's overtime for a given unit given below;

$$Y_i = \frac{1}{T} \sum_{t=1}^T [x'_{it} \beta + a_i + \mu_{it}] \tag{xiii}$$

$$= \frac{1}{T} \sum_{t=1}^T (x'_{it}) \beta + \frac{1}{T} \sum_{t=1}^T a_i + \frac{1}{T} \sum_{t=1}^T u_{it} \tag{xiv}$$

$$= x'_i \beta + a_i + u_{it} \tag{xv}$$

The fixed effect regression model can be further expressed in the following equation

$$Y_{it} = \beta_1 X_{1,it} + \dots + \beta_k X_{k,it} + \alpha_i + \mu_{it} \tag{xvi}$$

with $i=1, \dots, n$ and $t=1, \dots, T$, α_i are entity-specific intercepts that capture heterogeneities across entities. An equivalent representation of this model is given by

$$Y_{it} = \beta_0 + \beta_1 X_{1,it} + \dots + \beta_k X_{k,it} + \gamma_2 D2_i + \gamma_3 D3_i + \dots + \gamma_n Dn_i + \mu_{it} \tag{xvii}$$

Where $-Y_{it}$ is representing the dependent variable, where $i=$ bank and $t=$ time., X_{it} denotes one explanatory variable, β denotes the coefficient and u_{it} denotes the error term, and the $D2_i, D3_i, \dots,$ and Dn_i are dummy variables. Therefore, by substituting the variables in the model, the following equations become the econometric models used in this paper to estimate the influence of dividend policy on the market share price (MSP) of the listed commercial banks in GCC countries from the period 2015 to 2021.

$$MSP_{it} = \beta_0 + \beta_1 DP_{1,it} + \beta_2 DPS_{2,it} + \beta_3 DY_{2,it} + \beta_4 RE_{4,it} + \beta_5 EPS_{5,it} + \beta_6 SIZE_{6,it} + \mu_{it}$$



where: MSP_{it} represents the market share price per share of the bank i at time t ; subscript represents subscript represents β_0 represents the intercept; DP_{it} is the dividend payout of the bank with time t ; DPS_{it} is a bank's dividend per share with time t ; DY_{it} is the dividend yield of the bank with time t ; RE_{it} is the retained earnings of the bank with time t ; EPS_{it} is the earnings per share of the bank with time t and $SIZE_{it}$ is the size of the bank at time t ; β_1, \dots, β_6 ; represents the parameters of the explanatory variables to market share price: μ_{it} represents the error term.

4. Empirical results and discussions

4.1 Descriptive statistics

The summary of descriptive statistics for the variables used in the regression analysis of this paper is presented in Table 4.1. The panel dataset contained the top commercial banks in the GCC markets from 2015 to 2021. The observed computed descriptive statistics consist of mean, standard deviation, minimum, maximum, kurtosis, and skewness. As presented in Table 4.1 below the details of the descriptive statistics explanatory variables that affect the MSP of listed commercial banks in the GCC stock markets. The mean value of a dependent variable (MSP) was 17.86 with the model range from 1.90 to 75 and a standard deviation of 7.01. The mean value of the dividend yield ratio was 28.5, this indicated that, on average the banks had paid 28.52% of earnings as dividends. The means values of DPS and DY were 0.28 and 3.71 respectively a total of 245 observations. The descriptive statistics of other variables are shown in Table 4.1

Table 4.1. Descriptive statistics of the variables

Variable	Mean	SD	Min	Max	Kurtosis	Skewness
MSP	17.86	7.01	1.90	75	5.50	2.26
DP	28.52	5.44	36.24	77.17	0.74	0.67
DPS	0.28	0.18	0.12	0.56	0.26	0.14
DY	3.71	1.24	1.33	5.21	0.37	0.68
EPS	0.52	0.34	0.03	1.11	0.34	0.27
RE	4.92	2.40	-11.70	10.40	1.84	1.71
SIZE	3.28	0.78	2.24	5.38	0.36	0.66

4.2 Correlation analysis

To evaluate the presence of the multicollinearity problem: the correlation matrix, tolerance (1/VIF), and variance inflation factor (VIF) among independent variables were analyzed and presented in Table 4.2. As far as the correlation matrix is concerned. The results of corrections indicated that DP and De negatively correlated with MPS, while other variables were positively correlated with MPS. The results indicated no multicollinearity existed. Only DY and DPS were the variables with highest the correlation with a correlation coefficient of 0.465. If the correlation coefficient reaches ± 0.8 , then the levels of multicollinearity is said to be harm (Vitolla et al, 2020). The Multicollinearity of the variables also was tested by using variance inflation factor (VIF) analysis, the findings showed that the highest value was equal to 1.42 and the results were less than 10, thus the effect of multicollinearity was insignificant and did not present a problem in the analysis and interpretation of the study's results

Table 4.2: Correlation analysis

Variables	MPS	DP	DPS	DY	EPS	RE	SIZE	VIF	1/VIF
MPS	1.000								
DP	-0.146	1.000						1.32	0.76
DPS	0.258	0.359*	1.000					1.42	0.71
DY	-0.172	0.235	0.465**	1.000				1.11	0.91
EPS	0.322	0.386	0.268	0.356*	1.000			0.78	1.28
RE	0.138	0.238	0.364	0.258	0.366**	1.000		0.78	1.28
SIZE	0.346						1.00		
		0.115	0.228	0.032	0.128*	0.324	0	1.12	0.89

Number of observations=50, significant at ($p \leq$ *5% and **1%)



4.3 Selection of Regression Model

A linear regression analysis model established that the dividend policy of the firm was determined by a dividend payout ratio, the dividend per share, and the dividend yield could predict the market share price level. The study first tried to specify the basic model to be used whether a random effect model or a fixed-effect model (Hausman, 1978). One of the most common approaches is to apply the Hausman test (Wooldridge, 1983; Baltagi and Kao, 2000). The null hypothesis, $H_0: \alpha_i = 0$, and the alternative hypothesis, $H_1: \alpha_i \neq 0$ were constructed under the F-test. Table 4.3 shows the summary results of the Hausman test based on chi-squared statistics suggesting that the corresponding effects were statistically significant at a P-value < 0.05, thus the null hypothesis was rejected the fixed-effects model was preferred.

Table 4.3: The Hausman test

Test Summary	Chi-Sq. Statistics	Chi-Sq. d. f	Prob.
Cross-Section	13.648	6	0.0012

The study used White's test to test for homoscedasticity, and the Wooldridge test (2002) for autocorrelation because the study consisted of panel data. The summary results of homoscedasticity and autocorrelation are shown in Table 4.4. The results showed that the p-value calculated was 0.583 which was greater than 0.05, hence the null hypothesis was not rejected. Thus, there was homoscedasticity therefore no further corrections were needed for the sample. The results on autocorrelation indicated that the p-value was 0.368 which was greater than 0.05, and the null hypothesis was not rejected, Thus the results concluded there was no presence of autocorrelation errors.

Table 4.4: Autocorrelation and Heteroscedasticity testing

Prob> χ^2	Prob.
2.868	0.583
<i>Ho: Homoscedasticity</i>	<i>Ha: unrestricted heteroscedasticity</i>
3.687	0.368
<i>H₀: no first-order autocorrelation</i>	

4.4 Regression Results and Discussion

Table 4.5 shows fixed effect regression model results of explanatory factors, namely, DP, DPS, DY, and control variables namely EPS, RE, and SIZE. A positive coefficient implies an increase in MSP whereas a negative coefficient means an association with MSP decline. The regression results were statistically significant at a 5% level. The F-test and Prob> χ^2 test were 14.37 and 0.0018 respectively which indicated that the model was a good fit for the data used in the analysis. The recorded Prob > χ^2 and adjusted R² values indicated that the regression model had sufficient explanatory power to explain the projected relationships. The R² value was able to explain 68.2% of the variation in the market share price of listed commercial banks in the GCC stock market. This was consistent with the findings of Budagaga, (2020) in emerging markets who reported R² values of 64.7%, and Budagaga, (2017) reported 63.2% in Turkey. The results of regression results provided no statistical evidence to support that dividend payout (DP) and dividend yield (DY) ratios were affecting the market share price (MSP). The DP and DY ratios were not statistically affecting the market share price, the findings were contrary to the expectation of this study. Although the findings found a negative relationship between the dividend payout ratio, dividend yield ratio, and market share price of the banks. The findings are in line with Budagaga, (2020) who found a negative and insignificant relationship between the dividend yield, dividend payout, and the market value of listed banks in emerging markets, and Chelimo and Kiprop (2017) who also found the negative relationship between the dividend payout, the dividend yield, and the market share price. The results contravene the argument of Gordon and Shapiro (1956), Gordon, (1959), Habib et al., (2012) and Anton (2016) who claimed that the dividend payout ratio had a positive significant impact on the market share price. Therefore, banks' market share prices in the GCC markets are not influenced by dividend payments. The findings to some extent are in line with Modigliani and Miller's (1961) hypothesis of dividend policy irrelevance. The coefficient estimation on dividend per share (DPS) was positively and statistically at a 5% level of significance. This implied that the dividend per share had a positive and statistically influence on the market share price of the banks in the GCC markets. The findings are consistent with the previous studies of Gordon and Shapiro (1956), Gordon (1959) Ansar (2015), Gejalakshmi and Azhagaiah (2015), and Egbeonuet al., (2016) who claimed that dividend per share has a positive significant impact on the market share price. Furthermore, the control variables of earning per



share (EPS), retained earnings (RE), and bank size (SIZE). The regression results indicated that EPS and SIZE had a positive and significant impact on the market share price. The coefficients of EPS and SIZE are calculated as 0.148 and 0.786 respectively which are statistically significant at a 5% level which means the EPS and size of banks have a positive effect on the market share price in the GCC banks. The findings are in line with Adesina et al. (2017) who found a positive relationship between earnings per share and market price per share. However, the RE was found insignificant to the market share price. The findings of this paper are in line with previous findings including the studies of Bernstein (1996), Miller (1986), Miller and Rock (1985) as well as Budagaga, (2020) in emerging markets countries. Therefore, the study fails to accept hypotheses 1 and 2, thus the cash dividend payment and dividend yield do not influence the market share price of commercial banks in the GCC markets

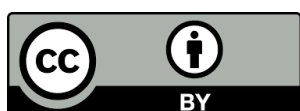
Table 4.5: Regression Model results

Source	SS	df	MS	The number of obs. = 245		
Model	77300.7418	6	1534.188	F (6, 43) = 14.37		
Residual	8843.77481	238	202.001860	Prob > F = 0.0018		
Total	81045.5168	244	890.610076	R-squared = 0.6822		
				Adj R ² = 0.6109		
				Root MSE = 18.284		

Variable	Coefficient	Std. errors	T	P> t	(95% conf. interval)	
DP	-0.064	0.054	1.202	0.435	-1.93536	2.76826
DPS	8.451	1.072	1.284	0.002	7.67381	24.8653
DY	-8.424	2.592	3.251	0.789	-7.87636	23.8676
EPS	0.148	0.121	5.152	0.023	1.35421	3.47842
SIZE	0.786	0.628	6.951	0.042	2.4362	4.58322
RE	2.345	0.005	1.236	0.795	5.67322	20.4356
Cons	3.839	0.061	12.442	0.001	6.3822	25.8662

5. Conclusion and Practical Implications

The effect of dividend policy on market share price behaviour constitutes a major issue in corporate finance studies because such insights can provide useful financial information to stock market dealers and financial managers in their financial and investment decisions. The paper investigates the effect of dividend policy decisions on the market share price of banks in the GCC markets during the period from 2015 to 2021. The analysis considered the top commercial banks in the GCC markets and applied an extended Myers (2003) model which used the dividend payout ratio, the dividend per share, and the dividend yield as proxies of dividend policy to examine their effects on the market share price of banks in the GCC stock markets. The empirical results from the extension of Myers's (2003) model indicated that dividend per share is a positive and significant factor in explaining the market share price of banks in the GCC markets. The findings are consistent with previous studies in different stock markets (Azhagaiah, 2015). Contrary to the expectations of this study, the empirical findings show that the dividend yield and dividend payout have no significant relationship with the market share price of banks in the GCC markets. The findings imply that dividend yield and current dividend payout are not factors explaining the market share price of banks in GCC stock markets. Therefore, the dividend policy has no material effect on GCC banks' market share price. The findings of this study are consistent with Modigliani and Miller's (1961) dividend irrelevance hypothesis. Their hypothesis of dividend irrelevance is applied to the conditions of a perfect market, however, in real business in the world the market is imperfection. The findings of this attributed to the real world in the GCC markets majority of banks are operating under the free tax business environments where the shareholders are subject to neither income nor corporate taxation. In addition, the regulator of these banks reduces the role of payment of dividends as a tool for minimizing the agency cost problems. According to Budagaga, (2020) banks in emerging markets banks may be forced to allocate more percentage of their funds to investment rather than dividends payments given that the banks are required to maintain liquidity requirements for general operations, expansion, investment, and compliance with countries regulations. Hence the dividend payments represent residual earnings rather than the active decision driver that influences the market share price. The findings of the paper have some important theoretical and practical implications for the banks' dividend policy decisions. First, the findings extend the dividend policy literature



dilemma by exploring for the first time the effect of dividend policy on the market share price of banks in the GCC market with the extension of Myers's (2003) model. The findings of this study will be useful and essential from the point of view of financial managers to have a better understanding of the impact of their dividend policy decisions on market share price behaviour. Regarding the limitations of this paper, the sample size consisted of only the top ten commercial banks in the GCC stock markets, and the data set comprised only the year from 2015 to 2021. For further research, the study can be extended to include more sample banks in the GCC markets, also the study can be extended to other countries Arabic countries to have a better understanding of dividend policy impacts on the market share price from a large perspective.

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