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Stock Performance, Sector's Nature and Macroeconomic Environment

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Abstract

The existing literature on stock performance has focused on the viability of asset pricing theories, macroeconomic and microeconomic variations, and institutional disparities. Yet, whether any additional factors influence SP (Stock Performance) remains unanswered. To address this question, the study aims to provide fresh insights into industry factors concerning firm stock performance. The study adds to the existing research literature by focusing on these issues in the context of a developing economy. Data from 80 organizations were evaluated using a multiple regression model for 12 years to study the problem. The findings back up the importance of sector nature in stock performance. According to the results, company size, munificence, and HHI negatively link with financial performance, but growth, GDP, exchange rate, money supply, and oil prices have a positive link. The findings can help firms and individual investors better understand the factors that influence share prices, allowing them to assess their investment options better. Other financial institutions can provide better advice and products to investors seeking funding to finance share purchases.

Keywords: stock performance, HHI, GDP, growth.

JEL Classification: G01, G15.

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Introduction

In the previous era, research on stock markets was widely explored worldwide under the subject area of economics and finance. Financial analysts and experts like to predict how the stocks will move in future. Al-Shubiri (2010) stated that the prices of stocks move upward or downward as per the forces decided like demand and supply forces. Palepu, Bernard, Healy, and Peek (2007) said those who provides or those who buy these stocks must gather firm-related information about the industry in which these firms operate and use this information as per their own investment goals. These financial/money markets provide a way for the economy to secure long-lasting commitments concerning real capital beneficial for the country (Ologunde, Elumilade, & Asaolu, 2007). When the decision to buy or sell any stock is taken, the economics/financial health of the concerning company must be considered for better decision making. So, researchers suggest that the study of firm-level factors is very important when stock performance is under discussion. A review of existing literature does not provide any clear picture of this relationship. These mixed results from literature raised questions in our mind about the nature of the relationship between firm-level factors and stock performance which needs to be explored.

Another thing which influences to find out the answer to this question is that the economic theory considered share prices as one of the factors of fluctuations in economic activities so, along with the firm-level factors,

other elements such as market expectancy, macroeconomic, socio-political hearings, international trades, fiscal & monetary policies, etc. also influence stock performance. Macroeconomics and the stock performance relationship have been studied over the years, and research literature is well-versed in it. These factors attract researchers because the economy of any state is figured out via these factors. Therefore, it is equally essential to empirically analyze and clarify the macroeconomic factors to assess stock performance. One of the third lines pointed out by Palepu et al. (2007) the operation and policies of any firm is under the significant influence of the industry in which that firm is operating. The study of the industry is also a crucial element of stock performance. Thus, along with the firm level and macroeconomics factors, it is equally important to analyze the industry level factors and get a deep insight into stock performance.

Literature Review

2.1 Firm-Level Factors

Firm size influences were initially studied by Banz (1981) and a few other researchers, Blume and Stambaugh (1983); Brown, Kleidon, and Marsh (1983) added their contribution in the literature of firm size. Large firm's stockholders suppose less return on their stock; on the other hand, Smaller firm's stockholders demand more returns since large-size firms are pointedly more diversified, having quick contact to financial markets and taking on less risk than smaller firm's stockholders (Al-Qudah, 2012; Gunarathna, 2014; Phoprachak & Buntornwon, 2020). A negative relationship between company size and stock performance can be seen (Banz, 1981; Chan, Hamao, & Lakonishok, 1991; Fama & French, 1992; McManus, Ap Gwilym, & Thomas, 2004; Morgan & Thomas, 1998). Several studies Azhar and Ahmed (2019); Luk et al. (2008); Prabowo and Sunarto (2016); Senthilkumar (2009) investigated the firm size and stock performance relationship they said that firm size is not significantly explaining changes in stock returns. Capitalization of intangible assets from time to time makes firms more profitable. As per Erica and Laura (2012), tangibility and intangibility of assets have conflicting results with the stock performance of the firms. Some of the variables have the power to increase a firm's capacity to attract external financing and escalate investment when firms have limited options of a credit, and tangibility is one among those variables (Almeida & Campello, 2007). Firms with more tangible assets can attract more external financing and minimize hurdles of contractability. Value of firm rises due to more tangible assets, and thus positive relationship can be inferred. Some of the authors (Hoque, Hossain, & Hossain, 2014; Skoogh & Swärd, 2015) provide arguments favouring the positive relationship between tangibility and firm value. On the other hand (Kodongo & Ojah, 2014; Kong, Musah, & Agyemang, 2019) in their study concluded with the results of a negative relationship between tangibility and stock performance. Tangibility has shown an insignificant connection with stock performance (Prabowo & Sunarto, 2016). Asset's growth is an essential variable when the firm-level variable is under analysis. In the research literature, Berk, Green, and Naik (1999); Cochrane (1996); Gomes, Kogan, and Zhang (2003); Li, Livdan, and Zhang (2008); Ling, Ooi, and Xu (2019) provided arguments in favour of negative growth and performance relationship. Cooper, Gulen, and Schill (2008); Gray and Johnson (2011); Lipson, Mortal, and Schill (2009) studied growth in assets and stock performance relationship. These authors suggested that total assets measure is the best approach to measure the assets growth, providing more profound insights.

2.2 Industrial Factors

Starbuck (1976) interpreted environmental munificence as the extent to which the environment offers constant growth of help is very much like the definition of environmental capability outlined in his book organizations and environments by (Aldrich & Pfeffer, 1976). Both claimed that companies monitor conditions that foster the development and steadiness of the organization. This growth and stability can enable the business to build inexpensive means (Cyert & March, 1963). The capacity of an environment to maintain a constant rise is named munificence in consultation with (Dess & Beard, 1984). Likewise, these industrial sectors prosper from greater sustainability because of less modest conditions. The influence of industry/sector is noticeable, steady with these orders when businesses achieve higher profits; some inhabit market segments with a high degree of munificence (Ramakrishnan, 2012). There are few experiments in which munificence is utilized as a leverage predictor. Abiodun, Olalekan, and Grace (2019) examined the connection between munificence and prosperity and ended with an irrelevant connection. Qi et al. (2014) argued that munificence and financial results are favourable. Kayo and Kimura (2011) reported that in their forecasts about the effect of financial performance on leverage, two different methods compete at the company level. One is the philosophy of the pecking order that encourages a detrimental correlation between business financial leverage, whereas the hypothesis of trade-off advocates a favourable interaction. The strong bond of munificence and stock efficiency is thus compatible with the theory of trade-off and the negative association with the theory of pecking order.

In general, environmental Dynamism explains the pace of shift in the natural environment of an organization (Dess & Beard, 1984; Simerly & Li, 2000). Further volatility is generated by high Dynamism; thus, it decreases the amount of leverage that impacts equity values and eventually returns. Correspondingly, businesses operating in a competitive market can prefer to use equity funding to minimize the expense of transactions resulting from elevated risk levels. On the other side, businesses of lower Dynamism working in the environment prefer to utilize more debt funding. Businesses need to reinvent themselves to stay alive in competitiveness while working in a competitive market (Zehir & Balak, 2018). Kayo and Kimura (2011) noticed a positive yet negligible link between leverage and environmental trends in a survey through emerging economies. A positive association between leverage and the company's success operating in a stable setting was reported by (Simerly & Li, 2000). In this definition, it can be understood that high Dynamism produces additional instability as the atmosphere in which companies operating turn uneven is noticeable to systemic danger from companies operating in related sectors or industries, and this uncertainty can also impact stock efficiency.

High and low concentrated industries are two types of industry concentration. The "Herfindahl Hirschman Index" (HHI) is a highly important index for calculating industry concentration levels since it is both practical and generic (Moeinaddin, Nayebzadeh, & Ghasemi, 2013). Both sorts of industries differ substantially in terms of their qualities (Almazan & Molina, 2005). Low concentration sectors, often known as competitive sectors, are prone to high risk and profit volatility and hence handle less debt. On the other hand, more concentrated industries use higher levels of leverage since they are more profitable, stable, and less exposed to risk and risk dispersion. The study of Gallagher, Ignatieva, and McCulloch (2015); Hou and Robinson (2006); Mouselli and Jaafar (2019) industry concentration and average stock performance using empirical data concluded that in high-concentrated industries had lower risk-adjusted stock returns than companies in low-concentrated industries, implying a positive association between industry concentration and stock performance. The stock market is more volatile for US companies in competitive industries, and their investors seek more significant returns as recompense for their investments (Gaspar & Massa, 2006).

2.3 Country Level Factors

The overall measure of an economy's success is gross domestic product (GDP), and there is a close and essential association between GDP and stock market return. GDP was used to measure the severity and defects in various industries. The fluctuation of GDP is a good indicator of the country's overall economic health. According to studies published in the literature, actual economic activity is positively linked with stock prices. The affiliation with stock price and Output is favourable and substantial (Campbell, Lettau, Malkiel, & Xu, 2001; Chen, Roll, & Ross, 1986; Fama, 1981; Jareño, Escribano, & Cuenca, 2019; Olasumbo, 2012). A positive relationship is also supported by research by (El-Nader & Alraimony, 2012; Grau-Grau, 2020; Ramadan, 2016; Singh, Mehta, & Varsha, 2011; Zaman, Shah Iqtidar, Mushtaq Khan, & Ahmad, 2012). This link exists due to stock market members' reactions to macroeconomic factors aimed at increasing Output. Growing the workforce has a negligible impact on earnings and future business problems. This link is most likely due to the relationship between predicted economic growth and expenditure outlay. On the other hand, Tan, Arsad, and Loh (2006) find a negative relationship between GDP and stock prices in Malaysia. GDP is negligible in influencing stock performance (Kirui, Wawire & Onono, 2014; Mahmud, 2009; Sloan, 2012).

The impact of inflation on stock prices is still debated philosophically and experimentally. Studies such as Apergis and Payne (2011); Ouma and Muriu (2014); Ratanapakorn and Sharma (2007); Tweneboah and Adam (2008) have demonstrated a positive relationship between business performance and inflation, proposing that stock acts as an inflation hedge. Since businesses hedge common stocks against inflation because equities represent ownership of real assets, share prices and inflation is positively related (Erdugan, 2012). It is said that the stock market provides excellent hedging to avoid the effects of inflation (Bodie, 1976). The theory that the stock market provides a buffer against inflation is based on Irving Fisher's (1930) fundamental notion, often known as the "Fisher Effect". According to the Fisher Effect, nominal interest rates and inflation should follow predicted inflation in the long run. This implies that if inflation rises, so will nominal stock performance. Inflation has been employed in the literature by research such as (Bui, 2019; El-Nader & Alraimony, 2012; Fama, 1981; Mishra & Singh, 2012; Mukherjee & Naka, 1995; Pal & Mittal, 2011; Ramadan, 2016). Inflation and financial success are inversely associated, according to this research. However, other researchers have shown that there is no significant association between stock performance and inflation (Bae & Duvall, 1996; Butt, ur Rehman, Khan, & Safwan, 2010; Jareño et al., 2019; Kirui, Wawire, & Onono, 2014; Rapach, 2002; Tursoy, Gunsel, & Rjoub, 2008).

Huang, Masulis, and Stoll (1996) used economic connections to describe the theoretical relation between crude oil prices and stock performance. Driesprong, Jacobsen, and Maat (2008); Filis (2010); Narayan and Sharma

(2014); Park and Ratti (2008) studied how oil price fluctuations influenced stock market performance. Their findings revealed that oil price fluctuations had a detrimental influence on stock market performance. According to Liao and Chen (2008), oil price variations affect different businesses differently; hence they looked at 20 industries for this study. They conclude that oil price fluctuations influence a variety of companies. Though studies of Çiftçi (2014); Gjerde and Sættem (1999); Narayan and Sharma (2014) found a good association between stock performance and oil prices. According to Awan, Khan, and Zaman (2011); Chen et al. (1986); Gay Jr (2008), oil prices do not appear to have a significant influence on stock prices. The exchange rate determines how much of one currency is exchanged for another. The exchange rate has been identified as influencing stock prices through trading (Geske & Roll, 1983). There is no imaginary harmony, neither in terms of a link between stock performance and exchange rate nor the relationship's trajectory. In any event, in the literature on exchange rates, there are two approaches to linking stock performance and exchange rate (Maku & Atanda, 2010). Dornbusch and Fisher (1980) proposed a "flow-oriented model" or "goods market model", and another offered a "stock-oriented model" (Portfolio oriented model). Maysami, Howe, and Rahmat (2005) found that financial performance and exchange rate were favourable. Growth in the value of local assets leads to an increase in wealth, which drives investors to increase their money demand, which raises local interest rates. Increased interest rates entice foreign money, resulting in an increase in international demand for local currency, which leads to appreciation (Stavarek, 2005). The link between exchange rate and stock prices has been studied empirically by Agrawal, Srivastav, and Srivastava (2010); Ajayi and Mougouė (1996); Bilson, Brailsford, and Hooper (2001); Vanita and Khushboo (2015) in literature. They discovered that the exchange rate and stock prices had a negative and substantial link. According to this research, there is no significant association between stock performance and exchange rate, according to scholars Ahmed, Aslam, and Hakeem (2018); Caporale, Hunter, and Menla Ali (2014); Chkili and Nguyen (2014); Ozturk and Acikalin (2008); Türsoy (2017). Money supply has also been discovered to impact company stock prices. The money supply is a major problem for central monetary institutions since it affects a country's economic operations (Osamwonyi & Evbayiro-Osagie, 2012). The money supply is classified as "narrow money supply (M1)" and "wide money supply (M2)" by Nell (2000) as a leading indicator of stock performance. There are two ways to express the effects of the money supply. The first is called the "Monetary Portfolio Hypothesis" (MPH), while the second is called the "Efficient Market Hypothesis" (EMH). Growth in the money supply, according to the MPH, will produce a rise in practically all economic activity, including the stock market (Friedman, 1988). Money supply and stock prices are positively related, according to studies such as (Adaramola, 2011; Büyüksalvarci & Abdioglu, 2010; Galea, 2015; Maku & Atanda, 2010; Maysami et al., 2005); Mukherjee and Naka (1995); (Ouma & Muriu, 2014; Ramadan, 2016; Zaheer & Rashid, 2014). Mukherjee and Naka (1995) utilized the concept of "economic provocation" to explain the relationship between money supply and stock prices. According to them, an increased money supply stimulates commercial activity, which leads to an increase in stock values due to the accompanying company profits. While EMH believes that the impact of changes in the money supply on stock prices is limited and that the speed of adjustment provides little opportunity for traders to profit from unexpected returns since stock market prices already include all relevant information. (Gan, Lee, Yong, & Zhang, 2006; Humpe & Macmillan, 2009; Isenmila & Erah, 2012) found that rising interest rates reduce the cost of maintaining cash, resulting in worse stock performance and hence a negative relationship between money supply and stock performance. The money supply is minimal in affecting stock performance, according to (Butt et al., 2010; El-Nader & Alraimony, 2012; Singh et al., 2011).

Methodology

3.1 Data

The secondary data was used to analyze the research variables. The research variables were analyzed using a multiple regression model. The study included data spanning 12 years, from 2004 to 2015, because this time period saw significant economic shifts. From 2004 to 2015, the study looked at non-financial sector enterprises in Pakistan. The analysis relies on secondary data from the "State Bank of Pakistan's publication Financial Statement Analysis of Companies". These releases provide vital information in the form of audited financial statements to listed companies. World Bank Development Indicators and Annual Statements of Concerned Companies are two additional data sources of the data.

3.2 Multiple Regression Model

Multiple regression analysis is widely used to estimate the absolute short-run relationship between the dependent variable and a series of independent variables. The model can be expressed as:

$$Ri = \alpha + \beta_1 X1i + \beta_2 X_2 i + \beta k\, Xki + ui \quad (1)$$

Where R is a dependent variable, α indicates constant or intercept term; the series of X are different independent variables, beta coefficients (β) represent a series of regression coefficients associated with given independent variables, and the error term is residuals or disturbance terms which are assumed to be independently and identically distributed. The link between the research variables was investigated using the Ordinary Least Square (OLS) regression approach. The OLS, also known as the constant co-efficient model, is commonly used in statistics and econometrics to assess unknown parameters in a linear regression model. The intercept and co-efficient are assumed to be constant in the OLS (Ordinary Least Square) model. The adoption of this model is justified since it ignores the individual and temporal effects while minimizing the error between estimated and observed locations on the line. For Equation 1, both cross-section and time-series components are employed but in Equation 2 and Equation 3, customized data with time series components are employed.

$$Rit = \beta\theta + \beta_1 TANGit + \beta_2 SIZEit + \beta_3 GRWit + \varepsilon \quad (2)$$

$$Rmt = \beta\theta + \beta_1 MUNImt + \beta_2 DYNAmt + \beta_3 HHImt + \varepsilon \quad (3)$$

$$Rt = \beta\theta + \beta_1 GDPt + \beta_2 INFt + \beta_3 OPt + \beta_4 EXRt + \beta_5 MSt + \varepsilon \quad (4),$$

where R = Return, TANG = Tangibility, GRW = Growth, SIZE = Size, DYNA = Dynamism, MUNI = Munificence, HHI = Herfindahl Hirschman Index, EXR= Exchange Rate, GDP = Gross Domestic Product, OP = Oil Prices, INF = Inflation, MS = Money Supply and ε = Error Term, *i* is Security, *t* is time, *m* is sector, βθ is constant, β1 to β5 are independent variables. The formulation and measurement of variables are provided in table 1. At the firm level, size is measured as the natural log of the sales of a year, tangibility is measured as a ratio of fixed assets and total assets, and growth with % change in total assets during the year. For industry munificence, we have regressed the time period of study variables over the sales of an industry for the same study period. After taking the ratio of the regression slope coefficient from the mean value of sales, Dynamism is munificence regression slopes co-efficient standard error divided by sales mean value. Finally, HHI is a sum of the squares of market shares of firms within a given industry. At country level GDP is annual growth is gross domestic product, inflation is measured as consumer price index, oil prices are per barrel USD price of crude oil, exchange rate is how many Pakistani rupee required to buy 1 US dollar and money supply is broad money calculated through M_2.

3.3 Variables

Eleven independent variables from the company, industry/sector, and nation levels are included in study. Size, tangibility, and growth are factors/variables at the company level.

Table 1. Variable Measurement

Name	Measurement	Empirical Studies Evidence
R	(Pt - Pt-1) / Pt-1 where Pt = Current year stock price and Pt-1 is previous year stock price	Kalyanaraman and Al- Tuwajri, (2014)
TANG	Fixed assets divided by Total Assets	Kayo and Kimura (2011)
SIZE	Natural Log of Total Sales for the year	Kayo and Kimura (2011)
GRW	Percentage Change in total assets	Ahsan et al. (2016)
MUNI	"Regressing time against sales of an industry over the period of study and Taking the ratio of the regression slope coefficient to the mean value of sales over the same period".	Ahmad et al (2014) Kayo and Kimura (2011)
DYNA	Standard error of the Munificence regression slopes co-efficient divided by the mean value of sales over the study period	Ahmad et al (2014) Kayo and Kimura (2011)
"HHI"	HH index is measured by the sum of the squares of market shares of firms within a given industry	Boyd (1995) Kayo and Kimura (2011)
GDP	GDP Annual Growth	Forson and Janrattanagul, (2013)
INF	"CPI Consumer Price Index"	Talla (2013)
OP	Crude Oil Prices per barrel in US dollar.	Gay (2016)
EXR	Pakistani Rupee against one unit of (US) $	Doong et al (2005)
MS	M2	Sirucek (2011)

Note: The table prepared by author based on the measures provided by authors cited in last column.

Source: compiled by the author.

Munificence, Dynamism, and HHI at the industry/sector level. Finally, GDP, inflation, oil prices, exchange rate, and money supply are macroeconomic indicators at the national level. The stock performance is used as a dependent variable in the study. Average yearly stock prices are used to calculate stock performance.

Formulation of variables with empirical evidence from literature provided in Table 1.

Analysis and Discussion

4.1 Descriptive Statistics

Descriptive statistics are used to summarise and characterize the characteristics of the variables studied. It includes measurements of central tendency, such as means, as well as measurements of variability, such as minimum, maximum, standard error, and standard deviation. The descriptive statistics of the study variables are shown in Table 2.

Table 2. Descriptive Statistics

	N	R	SIZE	TANG	GRW	MUNI	DYNA	HHI	GDP	INF	OP	MS	EXR
Mean		0.15	6.94	0.49	0.05	0.25	0.03	0.09	4.35	95.7	77.03	8.65	82.3
Max		4.19	11.5	0.99	1.00	0.89	0.16	0.37	7.66	145.3	105.0	9.35	105
Min		-1.0	-3.3	0.00	-3.7	0.08	0.01	0.03	1.60	50.72	37.73	7.91	59.1
SD	960	0.59	2.48	0.22	0.28	0.22	0.03	0.11	1.91	33.26	22.81	0.44	17.4
Skw		1.87	-1.5	-0.1	-4.3	1.90	2.20	1.84	0.26	0.11	-0.15	-0.04	-0.1
Kur		9.76	5.43	2.71	47.0	5.68	7.35	4.47	2.06	1.53	1.61	1.82	1.51
J-Bera		239	633	9.5	8415	871	1533	633	46.7	88.4	80.7	55.8	91.4
Prob		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Source: Author computation (Summary data generated from MS excel).

Munificence, Dynamism, HHI, GDP, and Inflation are all skewed in the positive direction. Negatively skewed include tangibility, growth, money supply, exchange rate, and oil price. The leptokurtic pattern is followed by Return, Size, Growth, Munificence Dynamism, and HHI. While Platykurtic refers to distribution which has kurtosis lesser than a Mesokurtic distribution. Tangibility, GDP, Inflation, Oil price, Exchange and Money supply has Platykurtic pattern. Average return during the study period was 0.15-rupee, maximum return earned 4.19 and maximum loss bearded was 1. The standard deviation of return was 0.59. The average size of the firm during the study period was 6.94 with maximum increase in size was 11.5 and decrease was 3.3. The average assets tangibility of the firm was 0.49 with maximum increase of 0.99. The sales growth of the firms during the period under analysis was 0.05% with maximum 100% increase and 300% decrease. Munificence, dynamism and HHI average was 0.25, 0.03 and 0.09 respectively with maximum value of 0.89, 0.16 & 0.09 and minimum value of 0.08, 0.01 & 0.03 respectively. GDP, inflation, oil price, money supply and exchange rate mean value was 4.35, 95.7, 77.03, 8.65 and 82.3 respectively with standard deviation during the period 0.11, 1.91, 33.26, 22.81, 0.44 and 17.4 respectively.

4.2 Correlation Matrix

The association between the research variables is shown in Table 3. Except for growth, GDP, and oil prices, all variables are highly connected with stock returns.

Table 3. Correlation Matrix

	R	TANG	GRW	MUNI	DYNA	OP	SIZE	HHI	GDP	INF	EXR	MS
R	1											
TANG	-0.02**	1										
GRW	0.12	-0.06	1									
MUNI	0.05**	0.04	0.18	1								
DYNA	0.06*	0.01	0.19	0.08	1							
OP	0.21	-0.05	-0.11	-0.68	-0.67	1						
SIZE	-0.02**	-0.05	0.29	0.06	0.07	-0.04	1					
HHI	-0.12*	-0.07	-0.03	0.06	0.20	-0.21	-0.03	1				
GDP	0.13	-0.04	-0.05	-0.25	-0.23	0.09	-0.07	0.26	1			
INF	0.09*	-0.03	-0.08	-0.50	-0.47	0.73	-0.04	-0.01	0.02	1		
EXR	-0.01**	-0.01	-0.04	-0.16	-0.16	0.33	-0.08	-0.03	-0.32	0.45	1	
MS	-0.01*	0.04	0.03	0.33	0.32	-0.37	-0.02	0.18	0.36	-0.51	-0.49	1

MUN= Munificence, GRW= Growth, TANG= Tangibility, DYN= Dynamism, INF= Inflation, GDP= Gross Domestic Product, EXR= Exchange Rate, OP= Oil Price, MS= Money Supply.

(***) Significant at 1%, (**) Significant at 5% and (*) Significant at 10%.

Source: Author Computation (Generated from excel).

With a correlation value of -0.02**, size is adversely and highly connected with stock return, which is significant at the 5% level. The association between tangibility and returns is considerable, although it is negative. At a

5% significance level, munificence shows a positive and substantial link with stock returns. At a 10% significance level, Dynamism shows a positive and substantial association with stock returns. At a 10% significance level, HHI displays a negative and significant association with stock returns. At a 10% significance level, inflation shows a significant positive association with financial performance. At a 5% significance level, the exchange rate displays a significant negative association with returns. Money supply has a negative association and is statistically significant at a 10% level.

4.3 Firm Level Variables

For the firm level results calculated using OLS method by using the following equation Rit = βθ + β1TANGit + β2SIZEit + β3GRWit + ε and the results of the analysis provided in table 4. According to the findings in Table 4, size has a substantial negative connection with stock performance, with a p-value of 0.067* under the most stringent condition of 10%. Because huge businesses are much more diversified, have easy access to financial markets, and face less risk than smaller businesses, stockholders in huge businesses expect a lower return on their investment than shareholders in tiny businesses.

Table 4. OLS Results Firm Level Variables

Firm Level				
	Coefficient	Std. error	t-ratio	p-value
Constant	0.162	0.046	3.49	0.000***
SIZE	-0.036	0.020	-1.83	0.067*
TANG	-0.088	0.085	-1.04	0.297
GRW	0.295	0.070	4.197	0.000***
R^2	0.022	p-value(F)	0.000	

Source: Author computation (Multiple regression analysis through Gretl).

The negative size and stock performance link occurs due to strong diversification and decreased risk. Researchers such like (Al-Qudah, 2012; Chan et al., 1991; Fama & French, 1992; Gunarathna, 2014; McManus et al., 2004; Mohammed, Yusheng, & Agyemang, 2019) has have offered evidence for the negative size and returns link. Growth has supersizing conclusions that contradict the majority of previous research. With a p value of 0.000*** growth has a positive and substantial connection with stock success.

4.4 Industry Level Variables

For the industry level results calculated using OLS following equation Rmt = βθ + β1MUNI mt+ β2DYNAmt + β3HHImt + ε and the results of the analysis provided in table 5. Under the 1% correlation threshold, munificence shows a positive link with stock performance, with a p-value of 0.000***.

Table 5. OLS Results Industry Level Variables

Industry Level				
	Coefficient	Std. error	t-ratio	p-value
Constant	0.257	0.037	7.039	0.000***
MUNI	-0.546	0.161	-3.399	0.001***
HHI	-9.085	2.771	-3.278	0.001***
R^2	0.026	p-value(F)	0.000	

Source: Author computation (Multiple regression analysis through Gretl).

The findings are consistent with those of Kayo and Kimura (2010), who found that munificence has a substantial negative connection with company leverage, which might be explained by agency theory. Dynamism has a negative association with stock performance and a positive link with stock performance. The relationship between leverage and stock performance is well-balanced. Because as stock prices increase, companies reduce their debt levels, causing financial performance to fall, and companies to become more willing to take on extra debt. The table presents the OLS regression model results. Dependent variable is stock performance and independent variables are Munificence and HHI. (***) is Significant at 1%, (**) at 5% and (*) at 10%. As a result of these reversible factors, leverage levels and stock performance are comparable and move in the same direction (Qi et al., 2014). The generosity of the industry has a substantial impact on corporate profitability (Kayo & Kimura, 2011). Financial performance and HHI have a negative and substantial association. Concentrated industries produce lower returns than businesses with more competition (Hou & Robinson, 2006). These findings support the conclusion of Hou and Robinson (2006) that there is a negative association. Those in high-concentrated industries generate lower risk-adjusted returns than firms in low-concentrated industries.

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4.5 Country Level Factors

For the country level results calculated using OLS following equation

Rt = βθ + β1GDPt + β2INFt + β3OPt + β4EXRt + β5MSt + ε and the results of the analysis provided in Table 6. GDP has the positive relationship with financial performance, and it is significant as proved by the p-value which is 0.000*** laying under the correlation criteria of 1%. The results of this study are consistent with majority of literature for positive association. Increased economic activity may result in higher predicted future cash flows and profitability, which is the primary driver of EPS (Earnings Per Share). As a result, GDP is favourably correlated with the stock performance of Pakistani publicly traded companies. The positive correlation between oil prices and stock performance is considerable, as evidenced by the p-value 0.000***, which meets the high correlation requirements of a p-value of less than 1%.

Table 6. OLS Results Country Level

Country Level				
	Coefficient	Std. error	t-ratio	p-value
Constant	-1.043	0.166	-6.262	0.000***
OP	0.014	0.001	9.238	0.000***
GDP	0.049	0.016	3.006	0.000***
INF	-0.012	0.013	-0.929	0.350
EXR	0.002	0.004	0.523	0.600
MS	0.483	0.740	0.653	0.510
R^2	0.194	p-value(F)	0.000	

Source: Author computation (Multiple regression analysis through Gretl).

The findings support those of Çiftçi (2014) who found a favourable association. Risk management practises are in place to support businesses. Hedging oil/energy and commodity prices through derivatives is common. If there is a state of uncertainty and fluctuation in oil prices, as well as any financial crisis, corporations are more likely to use hedging methods to decrease risk exposure. These techniques increase trade volume, which may boost the business's revenues and future cash flows, allowing the business to benefit from fluctuating oil prices (Çiftçi, 2014; Maku & Atanda, 2010).

4.6 Ordinary Least Square Model Results for Both Sector

For the analysis of the firm is both sector the data of each sector's firms is separated and analyzed under sector head. In this study two sector's data have been employed namely textile sector and food & personal care product care sector. The results have calculated by using the following equation.

Rit (Textile) = βθ + β1TANGit + β2SIZEit + β3GRWit + β4MUNImt + β5DYNAmt + β6HHImt + β7GDPit + β8INFit + β9OPit + β10EXRit + β11MSit + ε (5)

Rit (Food & Personal Care) = βθ + β1TANGit + β2SIZEit + β3GRWit + β4MUNImt + β5DYNAmt + β6HHImt + β7GDPit + β8INFit + β9OPit + β10EXRit + β11MSit + ε (6)

Table 7 shows that the nature of the sector has a significant impact on the stock performance of the companies.

Table 7. Sector Level Analysis

	TEXTILE SECTOR		FOOD & PERSONAL CARE PRODUCT SECTOR	
Variables	Coef	p-value	Coef	p-value
Constant	-0.52	0.000***	-0.843	0.035**
SIZE	-0.048	0.010***	-0.02	0.803
TANG	-0.136	0.083*	0.272	0.607
GRW	0.244	0.001***	0.226	0.373
MUNI	0.207	0.172		
DYNA				
HHI	-52.91	0.000***		
OP	0.012	0.000***	0.021	0.000***
GDP	0.153	0.000***	-0.012	0.755
INF	-0.023	0.017**	-0.068	0.032**
EXR	0.012	0.048*	-0.002	0.849
MS	-0.172	0.838	-0.427	0.808
R2	0.21		0.298	
P value(F)	0.000		0.000	

Source: Author computation (Multiple regression analysis through Gretl).

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Both the textile and food and personal care goods sectors have a negative connection in stock performance coefficients. However, the association was very significant in the case of textiles, as opposed to food and personal care products, which had a weaker link. Size has a negative correlation with both sectors among the company level characteristics listed in Table 7. However, this association is substantial in the textile industry but not in the food and personal care product industry. The size connection with a negative value is backed up by (Al-Qudah, 2012; Gunarathna, 2014; McManus et al., 2004). Because huge businesses are much more diversified, have easy access to financial markets, and face less risk than smaller businesses, stockholders in huge businesses expect a lower return on their investment than shareholders in tiny businesses. The tangibility of assets has a negative and substantial link with returns in the textile industry, but a positive and negligible link with returns in the food and personal care product sector. Both sectors exhibit a positive association in terms of growth, however the link is minor in the food and personal care goods sector and large in the textile sector. Firm level factors have the greatest impact on the textile industry, whereas firm level variables have little impact on the food and personal care product industries. The impact of company level variables varies with the character of the sector, indicating that as the character of the sector changes, so does the impact of these elements. GDP has a positive and very significant link in the textile industry, but a negative and negligible correlation in the food and personal care product sector, as shown in Table 7. Inflation is negative and considerable in the textile industry, whereas it is negligible in the food and personal care products industry. The negative sign of the coefficients means that increase in inflation will cause stock price to fall. This is consistent with the previous evidence of a negative and significant linkage between inflation and stock performance. And the insignificant results are supported by (Butt et al., 2010). Oil prices show positive and highly significant correlation in both sectors. Exchange rate is negatively correlated with stock performance of food & personal care product sector and positively correlated with textile sector returns and showing weak and significant results for textile and insignificant results for food & personal care products sector. The negative correlation of exchange rate is supported by (Ajayi & Mougouė, 1996; Bilson et al., 2001; Vanita & Khushboo, 2015). Money supply has insignificant and negative correlation with both the sectors. The exchange rate is negatively correlated with stock performance in the food and personal care product sector and positively correlated with stock performance in the textile sector, yielding weak and significant results for textile and insignificant results for the food and personal care product sector. Ajayi and Mougouė (1996); Bilson et al. (2001); Vanita and Khushboo (2015) support the negative correlation of exchange rate. The money supply has a week and negative relationship with both sectors. The R2 in the final row for the textile sector indicates that these presented factors account for around 21% of the variation in stock performance in the textile industry. R2 for the food and personal care products category is 30%.and the 0.000 p_value (F) indicates the fitness of model.

Conclusion and Policy Implication

Firm, sector, and macroeconomic level determinants were investigated in connection to financial performance in this study. Stockholders of large enterprises expect a lower return on their investment than stockholders of small enterprises, hence size has a negative association. Growth has a positive association, which might be because companies with a high asset ratio may borrow more money and put it into more productive initiatives, resulting in higher earnings. Because concentrated industry businesses are shielded from competitive forces, have lower levels of innovation, and so have reduced profitability, HHI revealed a negative and highly significant association with performance. The positive association between GDP and performance is owing to the fact that rising economic production may increase predicted future cash flows and profitability, resulting in EPS (Earnings Per Share) growth. Inflation was shown to have a negative and negligible relationship. The price of oil showed a positive association. Risk management methods and oil/energy hedging are backed by the companies. Money supply stimulates commercial activity and accompanying firm revenues, resulting in a stock price increase.

The study findings can be beneficial in formulation and implementation of policies related to share pricing as well as regulating of stock exchange trading. The government will also be informed on how to make policies, rules and regulations regarding trading rules that will help protect investors to encourage investments and spur economic growth. The findings can assist firms and individual investors in understanding the factors that affect share prices and they can be better informed on how to gauge their investment options and other financial institutions be able to offer better financial advice and products to investors who seek funding to finance share purchases.

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