Kurdish Studies
September 2024
Volume: 12, No: 5, pp 1891-1899
ISSN: 2051-4883 (Print) | ISSN 2051-4891 (Online)
www.KurdishStudies.net

DOI: 10.53555/ks.v12i5.3683

Determinants of Profitability for Non-Financial Firms Listed on the Pakistan Stock Exchange

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ABSTRACT
The profitability of the non-financial firms' dependent upon various factors. The study carefully looked at independent variables including growth opportunities, firm size, tangibility of assets, and current or anticipated earnings, as well as dependent variables like profitability as determined by the ratio of total dividends to net profit per share. Here in this study five non-financial pharmaceutical companies including Abbott Pak, GSK Pak, Ferozsen, Citi pharma and AGP ltd profitability in the share market were examined and it has revealed that the profitability increases with increase in the all other four independent variables which are firm size, growth opportunity, tangibility of asset and current earnings. Various econometric models like Autoregressive distributive lag (ARDL), Bounds Test, cusum Test and Error correction model were applied to know whether the variables are significant and positively related are not. However, after the implementation of the ECM it was revealed that the variables are not auto-correlated as the Durbin-Watson results did not lie between 1.8 and 2.2.

Introduction

One of the most important component evaluations of firm performance is profitability, which actually shows the percentage of profit as compare to sales, equity and asset investment. One of the important goal of businesses is to maximizing their profits. Because to generate sufficient financial resources for sustainable development profitability and stable economy plays the major role, as profitability of firms draw interest from both foreign and domestic markets. Profitability is not only representing company performances but it is required as a tool for future of business. In case ok stock markets profitability attract investors form all around the globe as it shows the increasing wealth of its stakeholders. This is a reason why determining the various factors that directly and indirectly affect the profitability is important.

The terms "capital structure" and "different options" describe how a company finances its assets. A company can generally choose from a variety of debt, equity, and other financial arrangement levels and mixtures. It can incorporate bank loans, leasing financing, bonds, TFCs, or numerous additional equity-based options in an effort to increase the market value of the solid. Businesses vary in how they aim to maximize the total value, including capital arrangements. As a result, several hypotheses on capital structure have been developed. Make an effort to explain why companies' capital structures vary over time or between areas. However, empirical data also occasionally lacks consistency in supporting a specific theory of capital structure.

This paper makes an effort to respond to the query of what establishes the capital List of listed Pakistani companies outside the banking sector. As stated by to the authors' knowledge, it is Pakistan's first comprehensive study about the factors that determine the capital structure of publicly traded non-financial companies. Nevertheless Booth and colleagues (2001) examined the factors influencing the capital structure of ten. Pakistan is one of the poor nations included in their analysis; however, data are only analyzed for the companies that were part of the KSE-100 Index between 1980 and 1987.

Despite decades of analysis of dividend policy, no widely accepted theory has been developed to account explain the observed payout behavior of firms. Dividend policy was listed as one of the top ten most challenging unresolved financial economics topics by Brealey and Myers (2005). This explanation agrees with Black's (1976) assertion that "The more closely we examine the dividend picture, the more like a puzzle with mismatched pieces it appears to be. It may be noteworthy to note that the majority of study has been conducted on developed markets. However, dividend policy has received minimal attention in developing economies. Because of this, this field is not firmly established in the literature on finance.

Emerging markets may have dividend policies that range greatly from its nature, traits, and effectiveness, in comparison to established markets. This specific study considers examine the Karachi Stock Exchange's non-financial listed companies to see if the factors found in the literature, both theoretical and empirical, are relevant to a developing stock exchange or The factors that determine Dividend Payout are more mysterious. Analysis of the companies' dividend behavior has become more popular with the release of Pakistan's SECP established a code of corporate governance in 2002, yet there are still a lot of unanswered questions. Specifically, the variables that determine Pakistan's dividend policies—which is the main concern thorough study is required in this field. From this perspective, the study seeks to contribute to the literature regarding dividend policy. Specifically, the example of the emerging countries has several intriguing features that make the analysis suitable in

terms of suggestions for strategy for other developing nations, such as Pakistan. In addition to being more unpredictable and involving some information asymmetry, Pakistani stock exchanges also carry a high expectation of agency costs.

One of the key concerns in both Pakistan's capital market and advanced corporate finance is the dividend policy's behavior. It continues to hold a key position in advanced corporate finance while being the most contentious issue. Numerous studies have been carried out by renowned scientists who offered the hypotheses and empirical data pertaining to the factors that affect dividend policy. However, the matter remains unresolved. There I s still not a reasonable explanation for the companies' observed dividend behavior. We have not yet discussed the variables that influence the dividend policy choice and how these variables interact. The smoothing of a company's payouts in relation to income and expansion.

Lintner (1956) discovered in his groundbreaking study that businesses in the United States gradually modify their dividend payments in order to sustain a desired long-term payout ratio. The results concerning the dividend smoothing of Lintner have also been validated by a multitude of additional research since the release of the former. One well-known method is the smoothing of the dividend. Empirical fact, yet the empirical support for it comes from the US market. The payout Companies' policies differ between nations as a result of different institutions and capital variations in the market. Dividends are ranked among the top ten significant unresolved concerns in Brealey and Myers' (2005) list. The advanced corporate finance domain. According to Black (1976), dividends are the main enigma in financial economics. The conclusion of Allen and Michaely's (2003) empirical work provides much more in-depth theoretical and empirical studies of the dynamics and factors that dividend policy is necessary before an agreement can be made. According sheikh Ali Banaf the leverage has an impact over the financial performance of firms. To analyze the data regression model, descriptive statistics and inferential analysis was used. The findings of this study show that leveraging has a negative and insignificant impact on the financial performance of companies. Doctor alala, Douglus and Robert looks at the factors that are impacting on dividend policies of non-financial companies. The hypothesis shows that dividend payoff ration was dependent variable and profitability, liquidity, company size and company risk were independent variable. Two methods were used including multi regression model analysis and descriptive statistics and they found that all the four variables show favorable correlation with the distribution of dividends.

The determinants of dividend policy in non-financial firms of Jordon research done by Bassam Jaara, Alashhab. The variables that affect the dividend payout according to this study includes risk, company size, investment opportunities, leverage, historic dividend pay off system and profitability. The findings of the study shows that historic dividend, return on equity and the size of the firm have positive impact over the dividend policy of companies while risk shows insignificant or negative impact on payout levels. Determinants of profitability in chines companies' context was discussed by Ali and Gao. The study highlights that there are several numbers of variables affecting the dependent variable. Intangible assets that include intellectual property and technology highly contribute to become competitive in market and boost profitability, firm size is one of the significant factors to increases the profitability of company, account payable and effective and sufficient working capital positively affect the profitability of firms but excessive liquidity levels shows that resources are underutilized and has negative significant on the profitability of firms. insignificant impact. Research on factors that affecting profitability of non-financial firms in United state. Study aims to analyze the factors including liquidity, size of the firms, leverage, inventory and age of firm and their effect on the firm performance. The result shows that there is no collinearity found between all the independent variables. Furthermore, findings also shows that inventory, leverage, age of the firm and growth of the firm shows negative impact on return from assets, while size of the firm and liquidity have significantly positive impact on profitability of firms in America and negative relation found between return on assets and size of firm in term of the total assets. Kosar and Bano studied the interrelationship between profitability, growth and size of firm in case of non-financial firms. The results of the study shows that there is a strong correlation between profitability of the firm and its growth, when the profit of the firms increases the it tends to faster growth rates. While size has less impact on profitability of the firm, larger firm exhibiting a negative of less relationship with the firm profitability. Dividend policy with in the context of emerging markets in Pakistan for both the financial and non-financial firms by Malik has been studied. Study shows that various factors are affecting decisions of dividend payments. The finding shows that earning per share, liquidity, leverage and size of firm are correlated with dividend policies, profitability of firm and growth of firm shows no impact or insignificant impact.

The purpose of this study is to further the dividend discussion in the field of emerging market since Pakistan will shortly join the emerging markets. Numerous scholars have concentrated on the private sector in several industrialized nations, such as the United States, Germany, the UK, and the nations that make up the European Union. They have now commenced to examine the dynamics and factors that influence dividend policies or dividend behavior of businesses engaged in emerging markets and developing nations. Consequently, it is evident that the dividend policy picture is lacking, particularly with regard to Pakistan's capital marketplace. Without a doubt, dividend policy is fully implemented in Pakistan's capital market apart from the industrialized nations.

List Pakistani non-financial companies. The goal is to look into how Pakistani businesses set their dynamic dividend policies in a setting distinct from developed institutions marketplaces such as the US. Specifically, this study investigates whether Pakistanis like in developed markets where dividend smoothing is common, businesses maintain consistent dividend policy.

The study's findings offer useful and significant information about the function of institutional elements that influence the firm's dividend policy. Numerous significant aspects of Pakistan's economy and capital market that are related to the dividend policy has been looked at. Pakistan is firstly going toward development and strengthening its place in the global economy since the 1980s. The expansion of the economy and numerous scholars have identified revolution. From living in abject poverty and a nation that was economically backward in 1980, with a GDP per capita income of just $680 USD, above $2600 USD in 2007 which shows much better progress of Pakistan than before. According to the 2008 evaluation, the economy is 56.8% free, ranking it 93rd in the world. Most open economy, Out of 30 nations, Pakistan is placed 16th in the Asia-Pacific area. The Pakistan's finance markets have also grown significantly. Numerous investigations come to the conclusion that Businesses will probably pay a consistent dividend during the phase of rapid expansion. Consequently, it is crucial to learn

how Pakistan's dynamic dividend policy is decided upon in a developing nation. Second, Pakistan does not have corporate governance at the same level as Western nations. The Pakistani Securities Exchange Commission has implemented a number of initiatives to enhance business leadership.

Poor corporate governance has resulted in the ownership structure of Pakistani businesses, frequently distinguished by the dominance of a single principal owner who oversees a big number of connected companies with a tiny share or investment. Within the domain of this arrangement is referred to as circular cross investments in advance corporate financing (pyramid ownership, control, and cross-shareholding amongst subsidiary companies) in which the company's owner has the ability to exercise ownership rights over numerous businesses in various segments of the industry. One of the effects of the pyramid or cross-shareholding scheme the agency conflict between the owner and the shareholders is the ownership arrangement, where Minority shareholders' value is seized by dominant shareholders, who can also affect the simple dividend policy. Thirdly, there are significant differences between the tax system in Pakistan and the US. In Pakistan, there is no capital gains tax on equities since the government has granted the extended till 2010. Consequently, no capital gain tax will be gathered on equities in before 2010 Pakistan, dividend incomes will be subject to a 10% withholding tax. It's critical to note that in the event that the companies made a profit but did not declare a dividend, 35% of the Pakistani government will impose income tax. It's possible that Variations in the tax code could affect the dividend policy and the extent to which of dividend smoothing in Pakistan because dividend income is subject to unfavorable tax treatment more serious than the developed countries like US. Fourthly, the Securities Exchange has carried out a number of capital market changes. Commission of Pakistan to guarantee Pakistan's economy is built on market mechanisms. Considering Pakistan's capital market has been dealing with a number of serious problems since the early 1990s, including the stock market was inefficient, opaque, and sluggish, the mutual fund business was inadequately regulated and publicly owned, and the insurance sector was still in its infancy and did not significantly contribute to the development of the capital market. In the past in the last few years, the stock market has experienced a phenomenal rise in market capitalization index due to governmental restrictions. The share index of the Karachi Stock Exchange (KSE) that, at the end of 2000, was at 1507 points, overshot the 12,274 point mark on 17 April 2006, which registered a growth of 64.7% in June 2005.

The market's capitalization has surpassed $50.45 billion USD. In contrast, Korean stocks with a face value of $5,000 per share are crucial in determining the dividend policy of a company. The Capital Market in Korea the 1968 Promotion Act mandated that listed firms pay the annual dividend divided at a level equivalent to the interest rate on a one-year time deposit by its face value. An A shift in dividend payments is unlikely to be indicative of a shift in the company's fundamentals because the dividend signaling theory proposes. In Korea, the annual dividend is not altered; instead, payments and the interest rate on a one-year time deposit are tightly correlated, as opposed to representing the company's potential for the future. Major investors in Pakistan continue to disagree with dividends and view the increase in stock prices as the primary driver of stock gains. Therefore, it is anticipated that investor sentiment on dividends will have an influence on Pakistani businesses' dividend policy-setting practices.

Problem statement

As the profitability of non-financial firms listed in stock exchange of Pakistan are affected by different factors including tangibility of assets, firm size, earnings and growth opportunity and it is required to find out how these factors collectively impact the portability in the context of PSX. Moreover, it is required to investigate the relationship between dividend policies and financial performance of the firms. From this perspective, this study focuses to closely examine the factors that influencing the profitability of non-financial firms and determine how dividend policy affect their financial performance. By addressing the following aspects, the study aim to provide info to investors, policymakers and firm decision makers to enhance governance and performance of existing and emerging non-financial firms.

Research question

1. What are the specific factors significantly influence the profitability of non-financial firms that are listed on Pakistan stock exchange, and the relationship of these factors with each other.
2. How the dividend policies in non-financial firms on the stock exchange of Pakistan affect the financial performance of these firms, and what implications for these findings have for relevant firms in other developing nations.

Significance of the study

The study addresses the gap in understanding the determinants of profitability of non-financial firms and dividend policies of these firms listed on PSX. The findings not only helpful and contribute to academic literature but also can be practically use by policymakers, investors and firms itself. Studying factors such as firm size, tangibility of assets, growth opportunity and current earning offers guide to investment decisions, increase governance practices and helps in regulatory reforms. Overall, the study gives insights that can direct decision making of corporate finance in Pakistan and in other similar economies.

Scope and Limitation of the study

The study aims to identify the determinants of profitability of non-financial firms listed on the stock exchange of Pakistan. The study precisely focuses on pharmaceutical companies by examining various factors including growth opportunity, firm size, current earnings and tangibility of assets to check their impact on profitability of the firms. The study primarily analysis 6 year of data from 2015 to 2020 and data mainly collected from Pakistan stock exchange official website. The study uses econometric models and techniques including, bound test, CUSUM test, Autoregressive distributed lag (ARDL), error correction model (ECM) to examine the relationship of variables with each other and to examine significance. However, despite all the following comprehensive approach the study has few limitations. Firstly, analysis focuses only on pharmaceutical

companies, that limiting a general view to other companies, secondly, the study used time duration of 6 years, it may not able to draw long term trends, changes in profitability and dividend policies. Furthermore, the study not consider external factors including macro economics condition, regulatory changes that also highly influence profitability of firms. The study explains valuable insights about firms and propose policy recommendation but it still face practical challenges and need to investigate further the market dynamics.

Literature Review

Despite decades of analysis of profitability, no widely accepted theory has been able to explain the observed dividend behaviour of corporate profits. This explanation is in line with Black's (1976) assertion that "the dividend table resembles a jigsaw puzzle whose pieces do not fit together the closer we look at it." It is worth noting that scholars have primarily concentrated on developed economies, with very little emphasis on dividend policies in emerging nations. As a result, the finance literature does not have a strong foundation for this topic.

The nature, attributes, and adequacy of profit programs in arising nations regularly wander fundamentally from those in industrialized ones. To decide if the elements that can be recognized in the hypothetical and observational writing apply to the market — that is, whether the securities exchange is developing — or whether the variables that decide profit installments are more perplexing — this concentrate explicitly takes a gander at non-monetary organizations that are recorded on the Karachi Stock Trade. Following the execution of the SECP Code of Corporate Administration in Pakistan in 2002, there has been a developing interest in looking at corporate profit conduct; in any case, various issues in this space are as yet being uncovered as of now.

In particular, in-depth research is required to examine the factors that influence dividend (profit) policy in Pakistan, a central issue in this field. It is inside this point of view that this study means to add to the writing on profit strategy. Specifically, the instance of agricultural nations displays a few fascinating elements that make this study pertinent as far as strategy suggestions for other arising nations like Pakistan. The stock trades in Pakistan are more unpredictable and involve a specific level of data lopsidedness, notwithstanding an assumption that high organization costs will be caused. A number of theoretical and empirical studies have been conducted over the past fifty years, primarily leading to three findings: The company's or the policy's market value is affected by the increase or decrease in dividend payments. An organization's profits meaningfully affect corporate worth.

Nonetheless, one might say that the exact proof on the determinants of profit strategy is blended. Additionally, there are numerous theories regarding when and why businesses distribute dividends. Profit strategy has been the subject of significant discussion since Mill operator and Modigliani (1961) showed that, under specific suppositions, profits are superfluous and don't influence an organization's stock cost.

According to Miller and Modigliani (1961), dividends have no effect on firm value in a perfect market. Investors are not keen on accepting their incomes as profits or capital additions, as long as the organizations don't change their speculation arrangements. In this present circumstance, the organization's profit payout proportion influences the excess free income and subsequently, when free income is positive, the organization chooses to deliver profits and assuming it is negative, chooses to give shares. They additionally inferred that profit changes can pass data on to the market about the organization's future benefits. From that point forward, monetary specialists and professionals have contradicted Mill operator and Modigliani's proposition and contended that their proposition depended on wonderful capital market suppositions, suspicions that don't exist in reality. The people who go against Mill operator and Modigliani's thoughts have offered contending speculations and theories to give experimental proof that when capital business sectors are defective, profits do matter. For instance, the bird close by hypothesis (which originates before Mill operator and Modigliani's paper) makes sense of that financial backers like (certain) profits to (less certain) held income In this way, organizations ought to set a high profit payout proportion to expand their benefits. Prices of stocks (Gordon, 1956; Lintner, 1956; Fisher, 1961; Walter, 1963; The bird-in-hand theory, which states that investors always prefer cash to the promise of future profits due to reduced risk, was presented by Gordon and Walter in 1963.

In the mid-1970s and 1980s, various examinations proposed the hypothesis of assessment motivations (Brennan, 1970; Elton and Gruber, 1970; Mill operator and Rock, 1985; Ambarish et al., 1987). This hypothesis holds that profits can get higher tax cuts than capital increases. This hypothesis likewise holds that profits are burdened straightforwardly, while capital additions charges are carried out solely after the stock is sold. This is the reason, for charge reasons, financial backers like to hold an organization's benefits as opposed to deliver cash profits. However, investors may choose low dividends over high dividends due to the advantage of capital gains treatment. The organization hypothesis of Jensen and Meckling (1976) depends on the contention among supervisors and investors and the extent of capital constrained by insiders will influence profit strategy.

Mill operator and Scholes (1978) find the effect of expense motivations on client gatherings and infer that different duty rates on profits and capital additions lead to various client gatherings. In the mid 1980s, it was dissected to flag hypothesis. It finds that data deviation among chiefs and outside investors permits supervisors to involve profits as an instrument to pass private data about the company's exhibition on to outsiders (Aharony and Swary, 1980; Asquith and Mullins, 1986.Signaling hypothesis is made sense of by Bhattacharya (1980) and John Williams (1985) that profits limit data imbalance.

Kosar and Bano et al..'(2012) studied the interrelationship between profitability, growth and size of firm in case of non-financial firms. Using a data of ten-year time period from 2001-2010 of about 70 companies all across of Pakistan listed on stock exchange of Karachi Pakistan. The results of the study shows that there is a strong correlation between profitability of the firm and its growth, when the profit of the firms increases the it tends to faster growth rates. While size has less impact on profitability of the firm, larger firm exhibiting a negative of less relationship with the firm profitability.

The study focus on the determinants of dividend policy with in the context of emerging markets in Pakistan for both the financial and non-financial firms by Malik and ul at al..'(2013). The study aims to examining the specific factors that affect

the dividend decisions in both financial and non-financial firms listed on the stock exchange of Karachi Pakistan. They used data panel from 2007 to 2009 and includes larger sample size across different sectors. Study apply Data least square method to estimate the impact on dividend payments by financial ratios and OLS regression, probit model estimation. These shows that various factors are affecting decisions of dividend payments. The finding shows that earning per share, liquidity, leverage and size of firm are correlated with dividend policies, profitability of firm and growth of firm shows no impact or insignificant impact.

Mohamed M Talib at al..'(2014) done a research on factors that affecting profitability of non-financial firms in United state. Study aims to analyze the factors including liquidity, size of the firms, leverage, inventory and age of firm and their affect on the firm performance. Moreover, as a proxy for financial performance return on investment as the ratio of earning before distribution used. Time period of five year from 2009 to 2013 was used for more than 100 non-financial firms in America listed on fortune 500. The result of the data shows that there is no collinearity found between all the independent variables. Furthermore, findings also shows that inventory, leverage, age of the firm and growth of the firm shows negative impact on return from assets, while size of the firm and liquidity have significantly positive impact on profitability of firms in America and negative relation found between return on assets and size of firm in term of the total assets.

Determinants of profitability in chines companies' context was done by Ali and Gao at al... (2018). The study covers 100 companies which are listed on the stock exchange of Shangai using time period of three year from 2017 to 2019. The study highlights that there are several numbers of variables affecting the dependent variable. Intangible assets that include intellectual property and technology highly contribute to become competitive in market and boost profitability, firm size is one of the significant factors to increases the profitability of company, account payable and effective and sufficient working capital positively affect the profitability of firms but excessive liquidity levels shows that resources are underutilized and has negative significant on the profitability of firms.

The determinants of dividend policy in non-financial firms of Jordon a research done by Bassam Jaara, Alashhab et al..,(2018). The study used data period of 12 years from 2005-2016. The variables that affect the dividend pay out according to this study includes risk, company size, investment opportunities, leverage, historic dividend pay off system and profitability. The findings of the study shows that historic dividend, return on equity and the size of the firm have positive impact over the dividend policy of companies while risk shows insignificant or negative impact on payout levels.

Doctor alala, Douglus and Robert at al..'(2013) looks at the factors that are impacting on dividend policies of non-financial companies. As per NSE there were total of around 50 non-financial firms, from which by using purposeful selection technique, a sample of thirty non-financial firms sued for it. The time period of data is five years from 2007-2011. The hypothesis shows that dividend payoff ration was dependent variable and profitability, liquidity, company size and company risk were independent variable. Two methods were used including multi regression model analysis and descriptive statistics and they found that all the four variables show favorable correlation with the distribution of dividends.

A case study about the impact of leveraging on the financial performance of non-financial firms listed on stock market of Kenya was studied by sheikh Ali Banafa …(2015). The main objective of the study was to access the main effect of leverage on the financial performance of firms, using the data of 42 prominent listed companies and the time period of data was five years from 2009-2013. To analyze the data regression model, descriptive statistics and inferential analysis was used. The findings of this study show that leveraging has a negative and insignificant impact on the financial performance of companies.

Data and Methodology

To assess those factors which contribute to the profitability of non-financial in Pakistan stock exchange, Six years data (from 2015 to 2020) of five pharmaceutical companies was analyzed, which are actually non-financial firms using various estimation techniques. The study utilized secondary data, encompassing 6 observations to investigate the impact of determinants creating profit. The dependent variable chosen was Profitability, while explanatory variables include Growth opportunities, Firm size, Current/ Anticipated Earnings and Tangibility of assets. Annual reports of the pharmaceutical companies on the official site of the Pakistan stock exchange referenced to collect time-series data for the economic variables.

Dependent Variable

Profitability

The calculation of profitability involves dividing the total dividends by the net profit per share. To account for the issue of odd years producing low or negative net profit results, we computed the net profit and dividends for each individual company for each year.

Instead of using dividends per share and dividend yield to determine dividends, the majority of earlier research (Rozeff, 1982; Lloyd, 1985; Jensen et al., 1992; Dempsey and Laber, 1992; Alli et al. For two reasons, dividend payout ratio is also utilised in this analysis in place of dividend yield and dividends per share.

First, both dividend payout and dividend retention are included by the dividend payout ratio. Second, because neither dividend yield nor dividends per share account for the ratio of dividends paid to earnings, they are seen as meaningless.

Model Specification

The impact of determinants on the profitability of pharmaceutical companies in Pakistan Stock exchange is examined by estimating the model of the following form:

$LnProf = \alpha_{\circ} + \alpha 1GR + \alpha 3\ LnFS + \alpha 5\ InCAE + lnTOA + \varepsilon t$

Here:

Prof = Profitability

GR = Growth opportunities

FS = Firm Size
CAE = Current/Anticipated Earnings
TOA = Tangibility of Assets

Dependent Variable	Description of Variables	Measurement Unit	Data Source
Profit	Profitability	Annual six years of report on PSX	PSX official site
Independent Variables			
GR	Growth opportunities	Profit generated	PSX official site
FS	Firm Size	Profit generated	PSX official site
CAE	Current/Anticipated Earnings	Profit generated	PSX official site
TOA	Tangibility of Assets	Profit generated	PSX official site

Empirical Results and Discussion

The results below have resulted from the tests applied to obtain the empirical results impact of various factors on Profitability.

Unit Root Test

The stationarity of the variables is checked by applying the augmented Dickey-Fuller (ADF) unit root test. The variable is stationary if the probability value is less than a 5% level of significance. The ADF unit root test indicates that Profiability and Tangibility of assets are stationary at a level, while Growth opportunities, Firm size and Current/ anticipated earnings are stationary at 1st difference. These results are presented in Table1.

Table-1 ADF unit root test

Variables	t-statistic	Critical value at 5%	Prob. of t-test	Order of integration
Profitability	3.066604	-2.976263	0.0051	I(0)
Growth opportunities	0.171516	-2.981038	0.0000	I(1)
Firm Size	3.388374	-2.991878	0.0001	I(1)
Current/anticipated earnings	2.929157	-2.998064	0.0090	I(1)
Tangibility of Assets	8.368006	-3.632896	0.0000	I(0)

Auto-Regressive Distributed Lag (ARDL) Test

The reported results are presented in Table-2 and Table-3, with ARDL tests conducted on the variables. ARDL examines the short-run and long-run effects when certain variables are stationary at the level and others at 1st difference. By analyzing the stationary results in Table-1, the ARDL model assesses the impact of various factors in the profitability of non-financial firms in Pakistan stock exchange.

4.4 Bounds Test

Test statistic Value		Significance	I (0)	I (1)
F-statistic	25.96990	10%	2.45	3.52
		5%	2.86	4.01
K	4	1%	3.74	5.06

To confirm the presence of a long-run relationship among the factors, we applied a bound test. The bound test inspects F-insights, contrasting them with the upper bound basic worth. In the event that the F measurements surpass the upper bound basic worth, it shows a drawn-out relationship among the factors. At a 5% level of significance, the computed value of F-

statistics with bound tests is 25.96990, which is higher than the upper bound critical value of 2.86. This lets us know there's a stable long-run connection between the factors.

Long Run Results

Table-2 ARDL long-run form

Variables	Coefficients	Std. Errors	t-statistic	probability
Growth Opportunities	0.376069	0.063169	5.953352	0.0000
Firm Size	0.054172	0.036956	1.465850	0.1609
Tangibility of Assets	0.300459	0.059946	5.012136	0.0001
Current/Anticipated Earnings	0.145592	0.041457	3.511900	0.0027

The results in the table above show that all the independent variables are having significant relationship with the dependent variable. It shows that 1% increase growth opportunities leads to 0.37% increase in the profitability of the firms having shares in Pakistan stock exchange. Growth opportunities in firms impacts their profitability positively in return. Growing companies are more likely to attract investors who are looking for larger returns in the future, which will raise stock prices. This focus on growth makes it easier to enter new markets, which raises revenue and may result in cost savings through economies of scale. When it comes to the firm size it also impacts the profitability of the firms positively. It shows that 1% increase in the firm size lead to 0.05% increase in the profitability of the firms taking part in the business of share market. Larger firms frequently profit from economies of scale, which lower costs through more output and more effective operations. Their scale and well-established market position might provide them more negotiating leverage with suppliers and clients, resulting in advantageous conditions that have a positive effect on profitability. Bigger companies may also have access to a wider range of revenue sources, regional markets, and customers, which acts as a cushion against changes in the economy. Larger firms may also be seen by the financial markets as more reliable and low-risk, which would reduce financing costs and boost investor confidence. Similarly, 1% increase in the tangibility of assets lead to 0.30% increase in the profitability of the firms. Firms that have a larger percentage of tangible assets such as real estate, equipment, or inventory, often have collateral that may be used as leverage to get financing at cheaper interest rates, which lowers expenses and boosts profitability. Due to their active use in manufacturing processes, tangible assets also aid in revenue generation and operational efficiency. Crucially, businesses possessing tangible assets have a safety net during uncertain or down-turning economic times since these assets can be liquidated to satisfy debts. These businesses' financial stability is improved by this risk-buffering impact, which also increases their resistance to unfavorable market conditions.

Likewise, according to the results predicted in the above table 1% increase in the current/anticipated earnings lead to 0.14% increase in the profitability of firms have shares in the stock exchange. Current or anticipated earnings are frequently seen by investors as a sign of a company's financial stability and potential. Positive earnings reports indicate prospects for sustained profitability, excellent market positioning, and operational efficiency. An increase in demand for the company's stock and, subsequently, a rise in stock prices might result from positive earnings performance that inspires investor confidence. Furthermore, companies with strong earnings are in a better position to invest in innovation, finance internal growth, and attract financing on attractive terms, all of which help to increase profitability.

Error Correction Model (Short-Run results)

Table-3 ECM

Variables	Coefficient	Std. Err	t-Statc	Prob.
D(LN_PROB(-1))	1.335539	0.090742	14.71790	0.0432
D(LN_GR)	0.112607	0.020135	5.592633	0.1126
D(LN_GR(-1))	-0.215655	0.025308	-8.521322	0.0744
D(LN_GR(-2))	0.101432	0.015226	6.661662	0.0949
D(LN_GR(-3))	-0.140307	0.015472	-9.068714	0.0699
D(LN_FS)	0.138561	0.010649	13.01152	0.0488
D(LN_FS(-1))	-0.438886	0.023425	-18.73558	0.0339
D(LN_FS(-2))	-0.219823	0.016403	-13.40177	0.0474
D(LN_FS(-3))	-0.040323	0.013926	-2.895396	0.2117
D(LN_CAE)	0.249288	0.010510	23.71824	0.0268
D(LN_CAE(-1))	-0.087163	0.011078	-7.867968	0.0805
D(LN_CAE(-2))	0.115003	0.011074	10.38518	0.0611
D(LN_CAE(-3))	0.060835	0.009281	6.555085	0.0964
D(LN_TOA)	0.684041	0.024267	28.18765	0.0226
D(LN_TOA(-1))	-0.508536	0.035681	-14.25231	0.0446
D(LN_TOA(-2))	0.035037	0.010766	3.254462	0.1898
D(LN_TOA(-3))	0.153989	0.015462	9.959114	0.0637
CointEq(-1)*	-2.514785	0.125553	-20.02961	0.0318

R-squared	0.999256	Mean dependent var	0.038627
Adjusted R-squared	0.997148	S.D. dependent var	0.930244
S.E. of regression	0.049681	Akaike info criterion	-3.052693

Sum squared resid	0.014809	Schwarz criterion	-2.169152
Log likelihood	54.63231	Hannan-Quinn criter.	-2.818289
Durbin-Watson stat	2.974236		

The Result provide short run equilibrium ARDL – ECM. The essential Coefficient value of ECT is negative show convergence. The speed of adjustment is - 2.514785 per year. The goodness of fit R2 shows the variations in profitability due to independent variables. Here, 99% f variations in profitability is caused by the independent variables. Durbin Watson's test tells us whether there's autocorrelation in the model or not. The model has no autocorrelation if the Durbin-Watson lies between 1.8 and 2.2value. From the above outcomes, we can conclude the model has no autocorrelation.

4.7 CUSUM Test (Stability Test)

In the graph, the variable is considered stable when the blue line remains below the significance area and is indicated by red dotted lines. In CUSUM Figure (1), the statistics don't exceed the critical borders, remaining within the criical 5% limit. The accompanying graph demonstrates the stability of the long-run relationship and the consistency of coefficients between profitability and the other four independent variables.

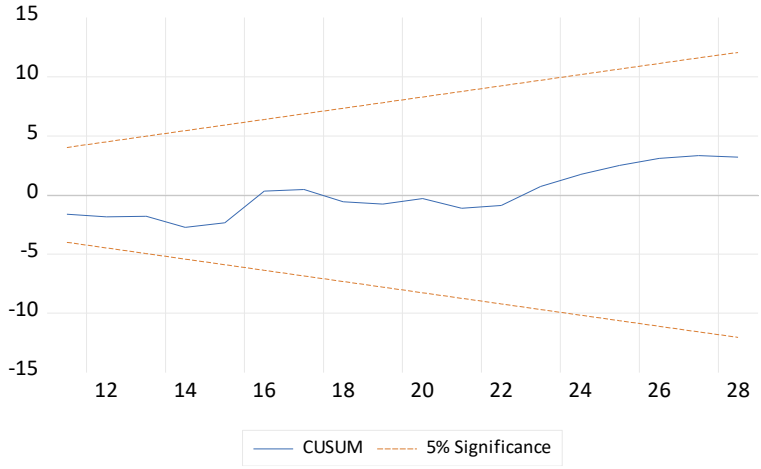

Fig: 1

Conclusion

The focal point of this study is to look at the effect of different variables on the benefit of non-monetary firms, partaking in Pakistan stock trade through buying and selling value as per the market circumstances. For the data collection we targeted five pharmaceutical companies (non-financial companies) that are listed on stock exchange of Pakistan. The data used in this study came from annual time series reports of firms from there official websites and PSX official site that covered the years 2015 to 2020. The consequences of this study are found consistent with the model and the observational exploration led in the past on the benefit of drug organizations having shares in Pakistan stock trade. We determined from this study that an expansion in the benefit of these organizations is just conceivable just when firm size, learning experiences, substantial quality of resources and current/expected profit are expanded. Co-reconciliation and mistake remedy model was utilized to explore the short-run connection among benefit and autonomous factors. Positive and critical effect of human on benefit of the organizations was upheld by affirming the immediate connection among productivity and the wide range of various four autonomous factors. The ARDL test affirmed a connection between financial development and free factors. The security of the model is affirmed through CUSUM tests, and the results were completely palatable. The examination results might have significant ramifications, particularly for policymakers for achieving quick monetary development in the offer market.

Policy Recommendations

- Encourage timely and accurate financial disclosures for non-financial firms to reduce information asymmetry.
- Reinforce SECP's oversight role, ensuring strict adherence to the Code of Corporate Governance to improve dividend policies.
- Introduce tax incentives to promote dividend payments by high-growth firms, aligning with findings on the negative relationship between growth opportunities and dividends.
- Develop policies to ease capital market access for smaller firms, balancing dividend distribution by supporting their external financing needs.
- Consider policies encouraging asset tangibility, benefiting firms with lower borrowing costs and positively impacting debt financing.

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