Determinants of Earnings per Share-An Application to the Pakistan Market

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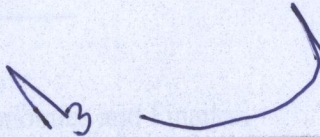
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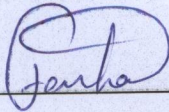**For the Pakistan Institute of Development Economics, Islamabad**

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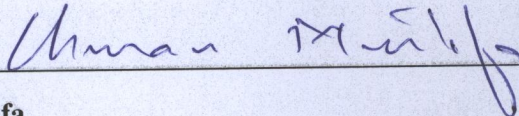CUST, Islamabad.

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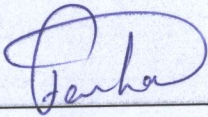
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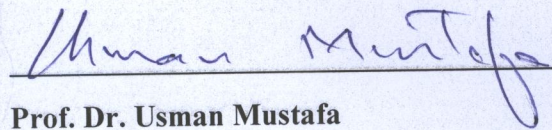Lecturer, Department of Economics and Finance,

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Dedicated

This thesis is proudly dedicated to

Almighty Allah

And

All my beloved family, my parents, my teachers and my friends

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Abstract

This study has been conducted with the objective of investigating the financial performance across seven sectors of Pakistan. For this purpose we have used a dataset of 274 non-financial firms of Pakistan which are listed on Pakistan Stock Exchange. The study has used data from seven different sectors of Pakistan over a period 2006 -2015. For econometric technique, random effect model is used for data estimation in order to assess firm performance. The findings imply that earning yield is positively influenced by firm age, sales growth and firm size whereas the relation between earning yield and other independent variables such as financial leverage of the firm and financial sack are showing negative relation. Correlation does not exist among all the variables. Strong financial performance attracts investments from external and internal sources. Enlightened by the results slack resources can be identified as having a financial cost and imparting negative effect on firm performance. The performance of a firm can be enhanced through reinvesting than to increase the amount of savings.

Keywords: Earning Yield, Financial Performance, Slack Resources, Financial Leverage

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CHAPTER I

Introduction

This chapter section 1.1 is about definition of financial performance section 1.2 is importance of financial performance section 1.3 is about research gap section 1.4 is about objectives of the study section 1.5 is about research questions while section 1.6 is significance of the study and section 1.7 is about organization of the study what is the role of financial performance in the economy, objective of the study and research question

1.1 Financial Performance

Financial performance is a subjective measure of how well a firm can use its assets from its primary mode of business to generate future revenues. This term can be used as a general measure of a firm's overall financial health for a given period of time. It can also be used to compare similar firms across the same industry and to compare industries and sectors in aggregation. According to literature financial performance can be measured using different proxies such as profitability and growth of firms Zoltan (1996).

1.2 Importance of Financial Performance

Financial performance of a sector as well as of a firm is a key indicator for investors to decide whether to invest in the desired sector or not because investors are looking for return on their investment (so called high and safe return). Therefore, if financial performance of a sector is strong then investors will rush to invest in that particular sector or firm but if financial performance of a particular sector is not satisfactory then that is not going to attract investors. Different tools are being used to measure the financial performance, return on equity, return on assets etc have been used to measure financial performance of firms. This study is using earnings yield as a tool to measure financial performance of non-financial firms of Pakistan. Earnings yield is very useful financial measure, because it shows the productivity of a company. It can be calculated by dividing earning per share of the company by market price of shares of the company. It is a tool that market applicants use normally to measure the profitability of a company to take their investment decision. Eccles *et al.* (1991) study shows that positive earnings yield have positive influence on the company financial performance and vice versa.

1.3 Research Gap

Financial performance of any sector is playing an important role in the economy of a country especially for developing countries like Pakistan. Therefore, it becomes very important to have

an eye on the performance of every sector to find out that in what direction performance of an industry is moving Mirza *et al.* (2013). Studies have done in the past by evaluating the financial performance of individual sectors and so there is a need to find out the financial performance of more sectors together to fill the gap. In this study seven sectors which are textile Energy, Sugar, Pharma, Engineering, Chemical and Mineral industries are investigated for their financial performance.

1.4 Objective of the Study

Keeping in view the above-mentioned gap in the existing literature the study has the following objective.

- ➢ To investigate the impact of firm age, firm size, firm sales growth, leverage and financial slack on the earnings yield of the selected Pakistani firms.

1.5 Research Questions

To achieve above objective, this study focuses on the following research questions.

   a.Does age of companies have any impact on the profitability of the companies?

   b. Does the firm size have any impact on the profitability of companies?

   c. Does the sales growth of firms' play any role in the profitability of companies?

   d. Does financial slack have any impact on the profitability of companies?

1.6 Significance of the Study

According to the economic survey of Pakistan the domestic economy is maintaining its growth momentum with the growth of 4.71 percent in real GDP in fiscal year 2016 which is considered to be the highest in last eight years.

This study is examining financial performance of seven important sectors of Pakistan which are very important for the economy of Pakistan. In this study we look at the financial performance of these seven big sectors of Pakistan over a span of 10 years. This topic has high significance for the economy of Pakistan because growth of a sector is not only concerned with an individual sector but it affects economy at an aggregate level. If a sector is performing well then the employability of the workers related to that sector will be high. Moreover investors (both nationally and internationally) will be interested to invest in that sector.

Mahmood *et al.* (2011) The textile sector of Pakistan is the largest agro base industry in Pakistan, textile sector of Pakistan has a very significant role is the economy of Pakistan and currently ranks as the 4th largest cotton producer in the world while in Asia, Pakistan has the third largest

capacity of spinning. Statistics show that the textile sector of Pakistan is providing over 40% of labor force and contributes about 8.5% to the national economy and it covers 60% shares in the exports. After textile, sugar industry is the second agro based industry in Pakistan which makes the country ninth largest sugar producer in the world. Energy sector in Pakistan is dependent on two main products gas and oil while coal reserves of Pakistan are the sixth largest in the world. Energy sector of Pakistan consist of 16% of electricity 1% LPG (liquid premium gas) 29% oil, 10% coal and 44% gas. Mineral resources are abundant in Pakistan which includes copper, gypsum, dolomite iron ore, many precious stones china clay and fire clay Pakistan is the 20 largest producer of cement. Chemical sector of Pakistan is counting in large scale manufacturing sectors and there are 24 chemical companies registered on Pakistan stock exchange.

Abbas et al. (2017) Historical fact is that countries which have strong industrial sector have ultimately showed more economic growth and so are very developed. In Pakistan industrial sector is the second largest sector and a very important sector of the economy and contributing 25 percent of the GDP. It covers large and middle scale manufacturing, construction, mining & quarrying, energy distribution. Different studies were conducted in Pakistan regarding the financial performance of various sectors but majority of them are based on return on equity as dependent variable with different independent variables. Keeping in view the importance of these selected sectors for the economy of Pakistan, this study will shed light on the financial performance of these sectors. This study considered earning yield as an important tool to measure financial performance of above mentioned sectors of Pakistan.

1.7 Organization of the Study

Chapter I is covering introductory part of the paper. Chapter II is about the literature related to the study. Chapter III is explaining research methodology including data description, elaborating the variables and econometric procedure. Chapter IV is about results and finally chapter V is about summary and conclusion.

CHAPTER II

Literature Review

This chapter discusses the most relevant literature for the current study which makes this study more descriptive.

2.1 Determinants of Financial Performance

There are very few models presented for the determinants of firm performance using the proxy of profitability of firms especially in the developing countries. An effort was made to discover the association between various determinants as ownership structure, capital structure, corporate governance, risk management, economic indicators and the firm performance in Pakistan. The study was conducted over a period of 3 years, for 60 firms from the corporate sector which were listed in Pakistan stock exchange and the results were in accordance to the fixed effect model. Firm performance has a valuable significance for its stakeholders, investors and at large it is important to the economy as well. An increase in financial profitability can enhance the quality of service or product and will attract more investments in future. The literature on performance of firm in developing countries like Pakistan is insufficient because a large part of research is done in developed countries Fazli *et al*. (2013).

To attain the economy status of developed countries, under-developed countries strive for full employment of resources that increase their productivity. Resource employment requires investment in innovative production activities mainly in manufacturing industries. Private sector ought to play role in establishing economy and by providing infrastructure. In this regard government must help business enterprises.

Investment for the gain of profit turns out to be the main object of corporate sector, the crucial objective of an organization is to offer maximum gain for stakeholders and to earn sufficient profit to retain business and reinvest for future growth. Firm performance is affected by several firm specific internal factors and common external factors. Economy of the country, country laws or rules and market preferences are among the external factors. For parallel businesses the rules and market remain the same but differ across industries Pervan *et al*. (2017).

Capital structure refers to the ratio of equity financing and debt financing. More debt financing can increase bankruptcy risk and less equity financing can largely increase owner control. The opportunity cost increases when finances are generated internally. Because the preserved profit would otherwise had been distributed as dividends. The financial position of a firm is of utter

importance as firms have to earn sufficient profit to retain the earnings. Also investors are inclined to invest in more profitable firms. Some characteristics such as growth rate, size, liquidity, sales and size are associated with firm's high performance. Firms which have higher growth rate can afford better resources in terms of technology and managers or workers which in turn contribute to better firm performance Lewellen *et al*. (2004).

Firms that have proper risk management, capital structure policies or well sustained ownership structure prove to be more profitable. Economic factors have a large contribution towards firms' performance but cannot be controlled by firm therefore firm strategies should be made to benefit positive circumstances and counter negative ones.

The performance of a firm possibly depends on various strategic and market-oriented factors which can affect a firm's profitability Inyiama *et al*. (2014).

2.2 Firm size and firms' financial performance

The role of company size is significant in determining profitability Wolfe (2005). Information asymmetry prevails in small firms which lead to better prospect for internal financial market. On the other hand more transparency and easy access to information allows larger firms to gain more external finance. There are different estimations about the persistence of profitability among firms. There is a view that in large firms it becomes difficult to keep everything under control which lessens profitability. Therefore, firm size is effective in a firm's performance as larger firms execute better performance due to the ability to make use of economies of scale, enclosure of varied capabilities and formalization of methods Pouraghajan *et al*. (2013).

A profitable and growing firm enlarge as a result of reinvestment of earnings. Over 13 years the importance and nature of relation between financial performance and firm size were analyzed. In a study done by Afzal *et al*. (2011) brewery industry a weighty fixed asset base is required for automation of the production line. The process cost can tell uncharacteristic nature accounting system that directs towards determination of financial performance. Operating in the same external conditions the financial performance of firms differ the internal factors being responsible. Internal factors include firm age, size, debt ratio, quick ratio, sales growth physical capital intensity, inventory level and capital turnover. Critical resources as physical assets possessed by a firm determine the size of firm. A neoclassical theory also supported by hall & Weiss (1967) also suggests that firm size to be the measure of return on investment and research and development termed as per capita also support the idea of a negative relation existing

between profitability and firm size. In large firms mangers are in control practicing self-interested targets which can replace firm's objective of profit maximization with managerial utility maximization function. Size can have a negative impact on the profitability of firms which enlarge because of bureaucracy or other possible reasons Tan (2012).

The relation between economic performance and the firm size are of considerable importance but the literature is comprised of contradictory results. Several organizations, industries and sectors consider that larger firms perform better where the research findings support a negative relation between profitability and size according to the conceptual framework.

When a firm becomes large it benefits from economy of scale and the production cost reduce as compared to efficient operational activities. Large firms get access to financial institutions easily and have greater bargaining power over distributors or clients and suppliers by setting prices above the competitive point. Researchers believe larger firms have more stability, maturity and capacity for better production and have a chance to save capital cost with economies of scale Kathuri (2012).

Fazli *et al*. (2013) analyzed smaller firms having greater growth potential and better firm performance. The perceived relation between firm size and performance was advanced after the respective opinion put forward. Controlling the competitive effects as institutional risk, firm governance structure and inter alia, growth potential is not a limiting factor for firms since firms in large or small economies can function efficiently. Leverage, size, liquidity and management competence index are the factors which statistically affect the financial performance positively.

Firm size, capital turnover and sales growth are observed to have largely positive impact on financial performance of firms, while company specific factors having significant unconstructive impact on firms' financial performance are debt ratio and inventory. The results from testing a sample of 400 firms listed in the Tehran Stock Exchange showed noteworthy negative relationship between financial performance and debt ratio of companies, and a considerable positive relationship between firm size, asset turnover, asset tangibility ratio, and growth opportunities measured against financial performance Pouraghajan *et al*. (2012)

Memon *et at*. (2012) In textile sector of Pakistan 141 textile firms were examined revealing the standpoint that performance of textile sector in Pakistan is below optimal level of capital structure and larger firms were unsuccessful in achieving economy of scale. The determinants of capital structure as tangibility, size, and annual tax amount, debt to equity ratio, risk and firm

growth were of utter importance. Earnings are positively affected by the firm size in both long and short run. The significance of long run relationship whereas was found to be at a rate of 5%. The effect of total assets on EPS for firm was positive in behavior as a raise in assets base altered the financial performance of firm positively. Consequently in the long run firms must attempt to attain a well-built asset base with the purpose of timely delivering to the customers responsibly and advance their financial performance.

2.3 Age and Financial Performance of Firms

Raheman *et al*. (2010) the business world is a challenging world to compete in therefore the companies which keep working for a long time show more capability. And found a positive relation in the age of a firm and its profitability. Also supported the stance and referred dynamic economies of scale and experience as constrains for profitability in firms with high age. Reputation of a firm is influential in determination of profit. It is also observed that due to the maturity of behaviors over time it becomes difficult for older firms to gain more profitability. Put forth the view that when firms get older managers and owners also mature enough to handle the business challenges.

Akben (2016) companies try to maintain their profitability by the market dynamics and hence market competition plays role in profitability determination. Larger companies can sustain profitability for a long time as compared to smaller firms because of their flexibility to market changes. The difference between total expenses for managing all the assets and gross earnings obtained by all the earning assets is defined as profit by executives. Sudden changes in the interest rates or loan can cause a loss to the firm which can be evaded by profits. Therefore where failure is taken into consideration, there profit is also considered as a mean of protection. Financial leverage, non-portfolio income sources and net interest margin are three prime structural features of financial institutions on which profit depends. Age is also an important factor for the performance of a firm. A firm's age acts as a mediator between profitability and growth of a firm. Growth is considerably faster in young firms and they contribute in local development, improvement and revival of industry. Older firms mostly enter a mature market as they have utilized growth opportunities and are not able to come up with new ideas that are worthy of investment and profitable as well. Firms with higher profit rates are believed to grow more than the firms with low profitability such firms are vulnerable to loss market shares.

Mahmood *et al*. (2011) conducted a study on 302 non-financial firms of Istanbul, Turkey over a span of 9 years. In Turkey the business environment is dominated by state enterprises and the private sector is comparatively new. Similar as many other developing countries in Turkey institutional voids lead to the way in which firms operate or the extent of market efficiency. Therefore firms which have been operating for a long time have gained experience and become able to perform many functions by themselves. The findings thus are different as compared to those gained by sampling in developed countries. The results showed a negative relation existing between profitability and firm age. As age is followed by decline or decay of living things, the impact of age on firms' performance is also a focal point in business.

Majumdar *et al.* (1997) the inter-relevance of firm age and performance has been a central point of attention within a wide range of financial disciplines but maturity is not yet present in the research area. There exists a possibility of a number of institutional factors affecting the relationship between firm age and performance which is country-specific as well.

2.4 Financial slacks and financial performance of firms

Keys *et al*. (1996) slack is possibly utilizable funds that can be diverted or redeployed for the success of organizational objectives. Researches have used financial slack in dissimilar forms as a predictor of risk taking, some studies have noted that reasons for the effect of different forms of slack on performance do not clear a priori opinions but tend to present post hoc justifications.

Moreover, studies have dedicated on publicly traded firms and have mostly ignored privately held firms, sendoff a gap in scholars' accepting of how financial slack may effect performance in these firms.

privately held firms tend to be undercapitalized and the instruments by which slack effects performance may vary, as managers of privately held firms differ in their decision-making process from their counterparts in public firms Busenitz *et al*. (1997) according to studies that can collectively be termed the resource constraints literature, firms with fewer resources are likely to leverage them more efficiently.

Gschwandtner (2005) the claim is that resource constraints alter the behavior by which resources are garnered and expended, forcing managers to improve allocative efficiency. While the resource constraints literature has tended to focus on entrepreneurial firms, that the theoretical assumptions of resource constraints, private ownership, and private ownership's implications for managerial behavior are similar for entrepreneurial and privately held firms. Most

entrepreneurial firms are privately held, but entrepreneurial firms typically have higher growth rates than other private firms.

Meyer *et al*. (1982) slack is used to stabilize a firm's operations by absorbing excess resources during periods of growth and by allowing firms to maintain their aspirations and internal commitments during periods of distress slack provides that cushion of actual or potential resources that allows an organization to adapt successfully to internal pressures for change in policy as well as to initiate changes in strategy.

2.5 Financial leverage on company performance

Pouraghajan *et al*. (2013) based on the predictions about a firm's performance, different views can be coined into three categories. One category has the views that financial performance of older firms grows better as they have acquired experience and 'learn by doing'. In addition there can be many unknown factors which can be reason of failure in younger firms. The second stream of research brings to light the "selection effects" which cast an impact when firms with low productivity are enforced to quit business sector resulting in an increase in the productivity level of remaining firms regardless of the individual performance

Jovanovic *et al*. (1982) the third category comprises of the literature that suggests a negative relation between aging and financial performance of firms. The reason for this being the "inertia effects" that implies firms grow nonflexible and are not readily adaptive to the rapid changes in business environment

Looney (1994) previously firm size and age were considered similar but later firm age was regarded as an independent variable employed in examining firm dynamics. The average growth rate is noted to be higher in younger firms if they continue to exist. There has been empirical evidence for decrease in cost of capital for older firms and as firms get older, plant failure rates also drop off.

2.6 Sales growth and performance of firms

Varaiya *et al*. (1987) expenditures spent on research and development, asset expansion, advertising can similarly influence income growth and sales of firms operating in different environments. If profitability and market value is affected by income growth and sales then leverage variables may also affect both directly or indirectly. In business game among the factors affecting profitability and market value, income growth is most significant one. Similarly in executive game financial performance is extensively affected by asset growth while after the

examination of actual industries' financial performance, sales growth is regarded as the most influential growth variable. In different industries indirect effects are usually different from one another. A negative impact of research intensity on sales growth in the industry of durable products and a positive impact in nondurable products industry have been supported by findings. Growth becomes irrelevant to firm performance when the latter is overlooked by group authority. Growth acts as a pull force for profitability; this proposition is empirically indistinct. It is generally believed that growth is a sign of profitability and continuous competitive advantages. Moreover, larger firms can survive comparatively longer and the associated economies of scale also prove to be beneficial.

2.7 Conclusion of the literature

Earning profit from investment is the foremost purpose of investment and is affected by various factors. If there is certainty of return from every investment then investors go for maximum return in a specific time period but in reality prevails in the real world. Investment decisions however cannot be attributed as absolute factor for firm's financial performance. There are many factors that contribute to the success or failure of firm. Different results are observed for a relationship between performances and varied financing decisions. In 2013 a study was conducted in Nairobi comprising of all 61corporations listed in the Nairobi Stock Exchange revealing a positive relation between return on assets and analyzed variables i.e. liquidity, financial leverage and investment decision.

Wolfe (2003) investing can be referred to a number of activities but generally it is associated to the employment of funds to increase investor's wealth for a specific period of time. Whereas identifying a problem or opportunity related to investment and then coming up with an investment plan is called as decision making. Along with risk and economic factors the political and social environment of an area and government laws also affect a company's investment decisions. Organizational factors including company size are effective in decision making about investment. Success of an investment plan is also associated to the support of top management.

It is a role of top management to assess capabilities and limitations of projected system, to set goals and effectively communicating organization strategy to workers in order to make investment plan beneficial. Managers also examine organizational culture due to its importance in decision making process. Culture of an organization is strongly linked to its expected success

therefore culture of an organization should be considered while decision making and planning to maximize investment returns Zmud *et al*. (1984).

CHAPTER III

Data Description and Methodology

This chapter consist of different sections such as specification of model, data sources, sample selection description of variables and econometric methodology. In the chapter, section 3.1 explain about model specification; which we use for empirical investigation, section 3.2 explain nature of the data, data sources, sample selection. The final section 3.3 the chapter discusses about the econometric methodology, which is in accordance with panel data.

3.1 Model specification

This section explains the model which propose different determinants of financial performance of the non-financial firms, measured by Earning yield (EY) of the selected firms

The following model explain various determinants of the Earning per Share (EPS) of selected non-financial firms of Pakistan

$$EY_{i,t} = \beta_\circ + \beta_1 \, AG_{i,t} + \beta_2 \, SZ_{i,t} + \beta_3 \, SG_{i,t} + \beta_4 \, LR_{i,t} + \beta_5 \, FS_{i,t} + \varepsilon_{i,t} \qquad (1)$$

Whereas:

i = the cross sectional dimension

t = time period.

EY = earnings yield (used as a proxy to measure financial performance of non-financial Firms of Pakistan

AG = age of the firms

SZ = size of the firms

SG = sales growth of the firms

LR = leverage ratio of the firms.

FS = financial slacks (savings of the firms).

3.1.1 Description of Data

This study use a panel data of 274 non-financial firms of Pakistan listed at Pakistan Stock Exchange. Firms' selection is purely based on the availability of the data. The sample cover total time span of ten years started from 2006 to 2015.

3.1.2 Data Sources

Data is taken from "Balance Sheet Analysis of Joint Stock Companies listed at the Pakistan Stock Exchange" published by the State Bank of Pakistan (SBP).

3.2. Description of the Variables

Dependent Variable

Earnings Yield (EY)

Earning per share earning yield is used as a proxy to measure firm profitability and taken as a ratio of earning per share (EPS) over market price of share (MPS)is profit on every share of the firm that are issued in the market. Earnings yield can be calculated as follows

$$EY = \frac{\text{EPS}}{\text{MPS}}$$

Where

$$EPS = \frac{\text{net income after tax}}{\text{total number of outstanding shares}}$$

Independent Variables

Age (AG)

Age of the firm can be defined as the total number of years that a firm has been in existence. It can be calculated as the difference between current year of operation and the birth year of firm

Sales Growth (SG)

Sales growth can be defined as the average annual change in sales of a firm. It can be calculated as current year's sale less previous year's sale scaled by previous year's sale.

$$SG = \frac{\text{current year sales} - \text{previous year sales}}{\text{previous year sales}}$$

Firm Size (SZ)

Size of the firm can be measured as natural log of total assets. Total assets include both fixed and current assets.

$$SZ = \ln(\text{total asset})$$

Financial Leverage (LR)

Financial leverage ratio represents the amount of total assets that are levered by debt. This ratio also indicates the ability of a firm to meet its obligation. It is the ratio of firm total debts to total assets. Whereas total debts include both short term and long term debts. It can be calculated as dividing total debt by total assets of the firm. Mathematically represented as:

$$LR = \frac{\text{total liabilities}}{\text{total assets}}$$

Financial Slack (FS)

Financial slack is the ratio of cash which is not invested plus marketable securities to total assets. Financial slack is actually the saving in the form of cash that is liquid assets and can be easily use and marketable securities which are not yet sold but can be sold at any time.

$$FS = cash + marketable\ securities$$

3.3 Econometric Methodology

Since we are working of panel data, therefore our estimations techniques should be in accordance with panel data methodologies. There are different econometric techniques which can be applied to panel data, for instance pooled regression, fixed effect and random effect models. We in our study apply both random and fixed effect models.

3.3.1 The Hausman Test

The Hausman test is framed to assist in making a choice between the fixed effects and random effects approaches in panel data to find out which method to be selected between random effect and fixed effect, The advantage of the use of the fixed effects estimator is that it is consistent even when the estimators are correlated with the individual effect. To understand this better consider the following model.

$$Y = a_i + b_1 X_{1it} + \beta_2 X_{2\,it} \cdots + \beta_k X_{k\,it} + U_{it}$$

3.3.2 The Fixed Effects Method

Fixed effects method is the method in which constant is treated as group (section)-specific. Which means that the model allows for different constants for each group (section). The fixed effects estimator is also called the least squares dummy variables estimator because in order to allow for different constants for each group.

3.3.3 The Random Effect Method

The simple difference between the fixed effects and the random effects method is that the latter handles the constants for each section not as fixed, but as random parameters. The random effect has fewer parameters to estimate compared to the fixed effects method. The random effect allows for additional explanatory variables that have equal value for all observations within a group.

CHAPTER IV

Empirical Results and Interpretations

As in the previous chapter we discussed methodology used for our study while in this chapter we have estimated the statistical results and have interpreted all the results according to their properties. table 4.1 gives summary of the study statistic, table 4.2 is correlation matrix table 4.3 is hausman test results and the last table 4.4 results of random effect ,model has been explained Table 4.1 presents the descriptive statistics and discuss the factors which have a significant influence on the financial performance of the firms in the sample as measured by earning per share the average size for the sample is 14.5, the average sales growth is 13%, When the independent variables are analyzed, it is seen that the average leverage ratio is recorded 2.19, and age is having average mean of 27.

Table 4.1: Descriptive statistics of Earning Yield

Variable	Obs	Mean	Std. Dev.	Min	Max
Earning yield	2740	86.43	176.25	11	37
Size	2740	14.93	1.67	8.78	20.13
Sales growth	2740	0.13	0.40	-1	3.58
Leverage ratio	2740	2.19	1.4	0.52	12.55
Financial slacks	2740	1204639	40894638	0	4.22e+07
Age	2740	27.08	6.09	11	37

In the constructed correlation matrix we can observed the association between all explanatory variables used in this study. There is no high correlation exist among the independent variables. The value 1 on principle diagonal indicate that there is 100 % correlation of every variable with

itself, rest of the variables are showing low level of correlations among themselves, this suggest that there will be no issue of multicollinearity in our econometric model. For instance we can see that most of the high association is visible between financial slack and size that is 0.4758 but this is also not considering any problem as this is below then 60%. Variales sales growth and size have 5% correlation which is less than 60 % hence there is no correlation exist between these two. Financial slack and leverage ratio are having 8% correlation and rest of the variables are all having below 10% association with each other's' we can conclude that there is no correlation exist among variables.

Table 4.2: Correlation matrix of Earning Yield

	Earning yield	Size	Sale Growth	Leverage Ratio	Financial Slack	Age
Earning yield	1.0000					
Size	-0.0971* 1.0000	1.0000				
Sale growth	-0.0105 0.5814	0.0515* 0.0070	1.0000			
Leverage ratio	-0.0831* 0.0000	-0.0014 0.9429	-0.0602* 0.0016	1.0000		
Financial slack	-0.0250 0.1907	0.4703* 0.0000	0.0136 0.4782	0.0830* 0.0000	1.0000	
Age	0.1743* 0.0000	-0.0436* 0.0225	-0.0133 0.6459	0.0573* 0.0027c	0.0493* 0.0098	1.0000

In table 4.3 the null hypothesis and alternative hypothesis are given below

Ho= the preferred model is random effect model

H$_1$= the preferred model is fixed effect model

Hausman test has probability value less than 1 which is 0.3458 therefore we will accept the null hypothesis Ho which accordingly random effect is suitable for our data estimations. If according

to the hausman test probability value is greater than 1 in that case Ho will be rejected and accept alternate hypothesis which is H1 and according to H1 fixed effect is best for our data estimation

Table 4.3: Hausman test

Test Summary	Chi-Square	d.f	p-value
	4.47	4	0.345

Finally in table4.4 estimated results have been presented, results of the model indicate that the two of the independent variables do not have a statistically significant influence on firm financial performance which are discussed below.

Age of firms

In table 4.4 age of the firm has positive significant impact on the earning yield. When there will be 1% increase in the independent variable age that will bring more than 5% increase in earning yield which also confirm the mentioned statement that firm age and profitability are positively related with each other reason for this relation can be explain as time goes and companies get older this bring their benefits from all the knowledge in every crucial aspects of the business (technology, customers relations, human capital, supply channels and financing costs) become more efficient Pervan *et al*. (2017).

Size of firms

In table 4.4 size has positive and significant influence on earning yield which we are using as a tool for measuring profitability of sectors. This shows that earning yield will be high of those sectors which have larger size of firms. Increasing in size will leads firms to economies of scales hence productivity will increase and cost of production will decrease which leads to increase in earnings yield. According to past literature relationship between firm size and profitability varies. There is positive relation between profitability and size of the firm it means that the large size of the firm we have high profitability Hall & Weiss (1967).

Sales growth

Sales growth shows a positive impact on company's income which means that increase in sales growth will ultimately increase income of a company will be increasing which is the indication of high profitability Wheaten *et al*. (1990). An increase of 1% in sales growth will increase the

Earning yield by 0.41% which is less than 1%. Reason for this sales growth have positively significant with earning yield which means that earning yield is increasing with increase in sales growth because income from sales growth mostly using in increasing size of the business thus increase in sales growth in positively effecting the earning yield.

Leverage ratio

In table 4.4 results show that leverage ratio is negatively effecting Earning yield as increase of 1% in Leverage ratio will bring -5.3673 % change in Earning yield. Business with an increase in leverage ratio may have less future investment opportunities. These findings are consistent with debt overhang theory that rise in leverage may lead to upcoming underinvestment Myers *et al*. (1977).

Financial slack

High slack of funds leads to low economic performance. Hence businesses that have less slack resources have to be and seek competitive advantages which leads to higher economic performance. In the above results in table no 4.4. Financial slack negatively insignificant with earning yield which show businesses are keeping slack which is reducing earning yield. Financial slacks are mostly using for innovation and improvement of the organization but if these resources are handle poorly then performance of the organization will effect negatively. And so the reason for negatively relation of financial slack and financial performance is that these sectors are gathering financial slack but not for the purpose of innovation or improvement Lee *et al*. (2012).

Table 4.4: Random effect model results

Earning yield	Coef	Std.err.	Z	P>z
Age	5.15	1.37	3.42	0.001
Size	1.00	3.50	0.28	0.776
Sales growth	.41	4.43	0.09	0.926
Leverage ratio	-5.37	1.93	-2.78	0.005
Financial slacks	-4.05e-07	8.44e-07	-0.48	0.631
Constant	-55.52	67.93	-0.82	0.414

Note R square = 0.367

CHAPTER V

Summary and Conclusion

In previous past researchers have conducted studies on financial performance of a single sector or few firms therefore the main purpose of this study was to examine financial performance across seven industries of Pakistan taking data of 274 non-financial firms from seven sectors of Pakistan all of these firms are listed on Pakistan stock exchange for the period of 2006 to 2015, All of the financial variables used in our study were constructed from approximately 1500 financial statements of non-financial firms of Pakistan. Different econometric techniques have been used for estimations, Hausman test to find out that which test is best for our estimations after that we find out that random effect is best for our data. We estimated the impact of our independent variables on earning yield which we are using a tool for performance measurement. Estimated results of this study show that only variable size, sales growth and age have positive and significant relation with earning yield which explain the relationship that as size of these sectors grow their earning yield will be also in growth other variables of our study which are age, sales growth are also positively influence over earning yield however Leverage ratio and Financial slacks are having negative and insignificant relation with Earning yield, we can conclude that these seven sectors are having slacks resources and that is negatively affect the performance of these sectors they can reinvest these slack resources which will increase the size of every sectors and we have find out in our results that size has positive and significant influence on earning yield, slack resources are having economic cost instead of increasing more savings they should use those savings to achieve a better financial performance.

5.1 Policy Implication.

• As the results shows that increase in financial slack is negatively affect financial performance of sectors keeping this in mind financial performance can be improve by using the slack resources instead of gathering slack firms have to invest the slack resources which will increase their profitability and increase externally generated funds

• As results shows that size has positive influence over financial performance of the sectors for that reason firms should increase their size to their potential to achieve a better financial performance.

5.2 Future Areas of Research

This study can be further extended in several ways for instance in future studies can be done on the sectors of financial firms of Pakistan. Studies can expand the data period and adopt other methodology for analysis which will provide more information with different results. Finally, other variables like, return on assets interest coverage ratio, current ratio net income margin and cash flow sensitivity etc. can be used for analyzing their impact on EPS

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