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INVESTIGATING THE RELATIONSHIP BETWEEN STOCK RETURNS AND MARKET CAPITALIZATION

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Abstract

This paper investigates the profitability of investing in small and medium-sized companies in Pakistan's stock market. Recent studies have found a significant impact of firms' size on stock market price. This study investigates the effect of firm size on companies listed on the Pakistan Stock Exchange, as the price of small-cap stocks should represent the firm's profitability. Stock performance in January and July plays a key role in the relationship between firm size and stock price appreciation. The study uses Thomson Reuters DataStream data, first released in January 2007, and gives investors access to previously inaccessible market data. This data includes monthly updates on the closing prices of business stocks, the value of the KSE-100 indexes, and the size of the Market. Under the Panel data techniques, a fixed-effects model is used to investigate the relationship. The findings of this paper suggest a link between company size and stock performance. The study finds the negative impact of the size of a firm on Stock Market Performance in the Pakistani stock market. This suggests that investors place a higher value on small-cap enterprises. The study found comparable results in many previous studies. The main contribution of this paper is to provide an understanding of how firm size affects stock in Pakistan's stock market. Unlike previous studies, rather than analyzing each company individually, the study uses aggregate monthly data on excess stock returns from more than 300 to grasp the size premium precisely.

Keywords: Small And Medium-Sized Enterprises, PSX, Firm Size, Market Structure

Introduction

This research shed light on the mysterious connection between the size of a firm and its stock price fluctuations. Variables such as the cost of capital, the usage of debt, and ineffective corporate governance may reduce the return on an equity investment. Daily and monthly fluctuations in the return rate are to be expected (Sawada, 2013). Opinions remain varied on the issue's severity or prevalence despite research showing that calendar mismatches are reducing in several wealthy nations. Many studies have been conducted to forecast the future direction of stock prices (Phan, Sharma, and Narayan, 2015). When looking at the stock market in the United

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States after the early 1980s, Mumtaz, Saeed and Ramzan (2018) find that cross-sectional factors heavily influence future returns.

This article examines the highs and lows of Pakistan's stock market regarding the trading volume and stock price fluctuations (PSX). Numerous studies have shown that a company's size impacts its financial strategy. Smaller enterprises have been established throughout a company's lifespan to do better than their bigger, better-funded competitors (Krasnikov, Mishra and Orozco, 2009). In their research, Lepetit et al. (2008) focus on multinational corporations' scale and velocity. The Americas, Europe, Japan, and Asia are all represented. Khan and Kamal (2022), who analyzed NYSE data, found that more market liquidity is associated with worse stock performance. Stock returns on the NYSE, AMEX and NASDAQ are impacted by stock price and market size, according to studies by Karray and Chichti in 2013.

This research examined whether bigger businesses had more substantial returns on their Pakistani-listed shares using a monthly dataset from Thomson Reuters DataStream. Other significant considerations include the risk-free rate from the State Bank of Pakistan, market capitalizations, KSE-100 index points, and the most recently traded stock prices (Jones, 2017).

The research adds to what is already known about how firm size affects outcomes in Pakistan (Jamil, Rasheed, and Mukhtar, 2022). As the coefficient value decreases, the relationship between business size and premium stock return weakens. This results in investors attaching a more significant risk premium to investments in small businesses. Consistent with other studies, the study uses dummy and control variables to determine whether January and July have an impact (Huang and Zhang, 2010).

Rationale of the study

Due to the increasing volatility and unpredictability of developing countries' financial markets, investors from both domestic and foreign markets in Pakistan and other countries want accurate projections of future returns that match the size of their firm portfolios. This study aims to investigate how Pakistani small and micro businesses affect the stock market. Through an analysis of the relationships between these businesses and the larger stock market, the study hopes to offer insightful information about the variables affecting market swings, helping investors navigate the complex financial environment and make wise decisions.

Statement of the problem

With the increasing volatility and unpredictability of financial markets in developing nations, investors from outside and at home in countries like Pakistan want reliable projections of future returns proportional to the size of their firm portfolios. This research looks at how small and micro enterprises in Pakistan have affected the stock market.

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Research Question

Does the null hypothesis claim that a corporation's size inversely correlates with stock performance hold, or does an alternative view that a firm's size significantly influences stock price hold?

Research Objective

This study aims to provide empirical evidence that supports or refutes the theory that a company's size and stock performance are inversely correlated. Additionally, the study seeks to explore the other viewpoint, examining whether a company's size affects its stock price. Using an extensive examination, the study aims to provide significant contributions to comprehending the correlation between corporate size and stock performance, thereby aiding in enhancing investment tactics and decision-making procedures for stakeholders in the Market.

Significance of the Study

This research study examines the connection between the size of a firm and the reliability of stock price predictions. When trading the PSX, the following may assist you in better implementing a "buy and hold" strategy (or working hard to ensure its durability). A company's size's effect on its stock price on the Pakistan Stock Exchange must be better understood. Every month, the study surveyed around three hundred businesses. Based on what I have learned from Hassan et al. (2021) research, the two most important aspects of portfolio management are the portfolio size and the value premium it gives. Gulamhussen and Guerreiro (2009) also analyzed annual data from Pakistan. Although one may expect a negative relationship between business size and stock performance based on theoretical modeling, Hongming et al. (2020) found a positive one. The best way to test for the size premium is to use monthly data on excess stock returns at the company level. As a result of its developed market structure and accommodating regulatory climate, Pakistan is a model-growing economy.

Literature Review

Banz studied NYSE-traded firms and found that firm size did not correlate with financial success. As determined by Ahmad et al., 2021 revenue growth was much higher for successful firms. According to Ahmad, neither the financial nor the non-financial sectors in the United States are particularly sizable or profitable analyzed three hundred small capitalization companies registered on the Australian Stock Exchange between January 1982 and December 2006(Al-Matari, Al-Swidi and Fadzil, 2014). They concluded by analyzing the correlation between company size and stock market performance. Anandarajan et al., 2010 found, using information from the Russell 3000 index, that more prominent companies were more likely to have stock market gains (AMEX).

Arif and Tayyab Sohail (2020) found that the biggest U.S. banks had a poorer risk-adjusted return than the smaller ones. Baele, De Jonghe and Vander Vennet (2007) claimed that a size-related influence might be seen on the PSX in Karachi. Studies conducted in Zimbabwe reveal that larger businesses have much

higher profit margins (Bagh et al., 2017). Bakhsh, Mahmood, and Iqbal (2019) suggested that companies looking to increase their profits and expand their operations should go to Sub-Saharan Africa. In this regard, the significance of firm size is shown by a (Barakat, 2014)—CAPM-based study of the economies of Bangladesh, India, Pakistan, and Sri Lanka. A company's stock price may increase with its size and performance. Bekkers, Doeswijk and Lam (2009) analyzed investment returns for companies traded on the Belgrade Stock Exchange by considering the impact of book-to-market ratio and liquidity risk (BSE). For further proof of the significance of firm size in the Australian stock market (Blitz, 2012). According to studies by Dai (2007), in the stock exchange, the share prices of larger companies are more consistent than those of their smaller competitor. In many East Asian nations, including Malaysia (where Koreans control the show), Thailand (where Taiwanese do the same), and Taiwan (where Thais run the show), the Hong Kong company Chui & Wei makes some bold assertions about its standing.

Only in the financial markets can daily returns have lower volatility than monthly returns (Both the Month Effect and the Day of the Week Effect fall under this category). Numerous educational institutions have reported observable calendar discrepancies. Experts agree that January is crucial to monitoring the stock market, particularly the NYSE and NASDAQ Officer (1974) were the first to indicate seasonal impacts on the Australian stock market; Dar, Naseem and Rehman (2011) provided more support for this trend by showing that, in contrast to January, in July, the more significant an investor's investment, the lower their projected return (ASX). Tax loss selling improves stock market performance in the first seven months of the year, according to De Jonghe (2010). According to research by De Jonghe, Diepstraten, and Schepens (2015), business in Saudi Arabia slowed by 12% during the holy month of Ramadan. +

The fact that Deng, Elyasiani and Mao (2007) showed that the cross-section varies with object size is a nice bonus. Elsas, Hackethal, and Holzhäuser's (2010) original model added R&D intensity and high-tech enterprises to prove the significance of business size in explaining stock returns. The data from established marketplaces demonstrates that tiny businesses have less influence despite extensive endorsement and academic backing. The author argues that nations like Pakistan, still in their development stages, need help to reap the benefits of the market structure, regulatory framework, and investor safeguards seen in more developed economies.

Research Methodology

Data and Sampling

Three-hundred and forty-one businesses randomly choose the last day of the month (within a 143-month trading period, from January 2007 through November 2022 inclusive, for a total of 38,382 observations). Favorable consideration is also given to companies trading on a public exchange for at least 30 days yearly. Despite 570 businesses being approved to sell on the PSX, they are now just 341. Stock market valuation and monthly returns may be determined using the stock's closing price and trading volume on the month's final trading day. Data was compiled using Thomson Reuters' DataStream, a data visualization application. The market return is also based on the KSE-100 index's closing price on the month's last trading day. Rate

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changes made by the Central Bank are posted on the KSE (the policy rate and the risk-free rate).

Statistical Technique

Using panel data is essential for determining the probability of success or failure. Pooled Ordinary Least Squares (POLS) regression on panel-structured data (including cross-sections and time series) raises concerns about the reliability of the original study's findings (or not very robust). The Fixed-Effects regression model's parameter estimations were found to be the most reliable using the Hausman test. A fixed-effects regression model makes the corporate world a more even playing field.

Model Specification

When analyzing the monthly returns of each company in the sample, Officer and Bettman (2011), who developed slightly comparable models, used a similar procedure. The study used the following additional techniques in conjunction with our regression analysis:

Equation#1:

$$\gamma_{i,t} = \beta_1 + \beta_2 Size_{i,t-1} + \beta_3 Market_{i,t} + \beta_4 ROS_{i,t-12} + \epsilon$$

The size of a company and its stock's performance may be described by this equation (1). To ensure that our data sets were comparable, the study first performed a natural logarithm transformation by dividing each set by their respective market capitalizations one month before the start of our observation period. To properly analyze and account for co-movement and momentum, the study assessed the company's market value as of January 31, 2007, using a starting date of February 28, 2007. The study added the contemporaneous excess market return and the 12-month delayed stock return. To reflect the possibility of loss, the total gains from stocks and the Market are lowered by the risk-free rate of return.

Equation#2:

$$\gamma_{i,t} = \beta_1 + \beta_2 Size_{i,t-1} + \beta_3 LSP_{i,t-1} + \beta_4 Jan_{i,t} + \beta_5 July_{i,t} + \beta_6 Market_{i,t} + \beta_7 ROS_{i,t-12} + \epsilon$$

The variables in (2) are the same as in (1), with the addition of a dummy variable for stock prices below or equal to Rs. 5.00. (With a one-month lag, penny stocks are valued at one if their price is less than $5 and at 0 otherwise). Managing shares with lower values is crucial since tiny price changes disproportionately affect estimates for returns in low-value enterprises. January and July are dummy variables in this equation, following in the footsteps of (Sherif, 2020) and (Scholtens, 2008). "Tax-loss selling" refers to selling assets at a loss in the final month of the fiscal year and reinvesting the proceeds in the first month of the next fiscal year. In contrast to the United States, whose fiscal year finishes in September, Pakistan's concludes in June. Historically, January and July have proven to be the most fruitful months for financial investments. Any value of 1 indicates that it is the first day of the month (or

the seventh of the year), whereas any value of 0 indicates that it is not. Making these adjustments helps us see whether smaller companies provide better risk-adjusted returns.

Equation#3:

$$\gamma_{i,t} = \beta_1 + \beta_2 Size_{i,t-1} + \beta_3 LSP_{i,t-1} + \beta_4 LSP_{i,t-1} \times Size_{i,t-1} + \beta_5 Jan_{i,t} \times Size_{i,t-1} + \beta_6 July_{i,t} \times Size_{i,t-1} + \beta_7 Market_{i,t} + \beta_8 ROS_{i,t-12} + \epsilon$$

The study found an interaction term between firm size and each of the dummy variables used to assess the significance of the side effects for penny stocks in January and July when the studycombine all the data from the first two equations in the third.

Dependent variable

$\gamma_{i,t}$ = At time t, the asset with the most significant monthly return is I.

Independent variables

$Size_{i,t-1}$ = Multiply a time variable by the exponent of the natural logarithm of the market price of I securities at time t-1.

$LSP_{i,t-1}$ = Indicator: If the stock price at time t-1 was lower than Rs. 5.00, then 1 is 0.

$Jan_{i,t}$ = Set the security dummy variable to 1 I if the current month is January; otherwise, set the security dummy variable to 0.

$July_{,t}$ = security Setting the false variable's value to 1 This means that I will get the number 1 if the current date and time fall inside July and the number 0 otherwise.

$LSP_{i,t-1} \times Size_{i,t-1}$ = I's logarithmic market value at time t-1 and share prices less than Rs. 5.00.

$Jan_{i,t} \times Size_{i,t-1}$ = The impact of January on security I am logging market value at time t-1.

$July_{,t} \times Size_{i,t-1}$ = The t-1 market logarithm of I will have altered by July

$Market$ = Average KOSPI value for the period starting from time t; and

$ROS_{i,t-12}$ = Consider the 12-month lag in return on securities to measure momentum's effectiveness.

Model Hypothesis

This research aims to produce evidence that supports the following hypothesis.

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Stock performance has been inversely correlated with the size of a corporation (i.e., the null hypothesis).

One opposing view is that the size of a firm has a significant bearing on its stock price.

Analysis and Results

Descriptive Statistics

Table 1 provides a brief overview of the essential details. Excess inventory monthly returns vary widely, as seen in Table 1. The range is 17.91%, the median is -1.01%, and the mean is 0.80%. Our target is 94.41%, up from our starting position of -202.32%. Annual revenues of the companies under review ranged from $17.24 billion to PKR 57.14 billion (PKR). A yearly excess return of 0.42 percent is average, 1.21 percent is the median, and 6.98 percent is the standard deviation. Therefore, the Market is very unpredictable. Both positive (up 20.76%) and negative (down -20.63%) outperformance relative to the Market is possible (Sufian and Royfaizal Razali Chong, 2009).

Table 1: Information about the techniques and variables of the study used to compile this data follows the break. Firm A security's value is its natural logarithm, and r (i, t) is the excess return on investment I at time t. (i, t-1). Panel A shows the mean, median, and range of I in market capitalization at time t (in millions of rupees) and Market (t), the KSE-100 index's excess market return. This includes every year from 2007 through December 2022 (the end of data collection). (Now that the study has completed this)

Table 1: Descriptive Statistics

Variables	Mean	Median	Std. Dev	Max	Min
$\gamma_{i,t}$	0.0081	-0.01008	0.1791	2.0232	-0.954
$Size_{i,t}$	17,241.88	1,937.58	57,143.76	1,202,538	0.378
$Market$	0.0042	0.0121	0.0698	0.2076	-0.385

Table 2 displays the results of a regression analysis performed on the correlation matrix. According to Table 2, multicollinearity is not an issue since there is little to no correlation between the independent variables.

Table 2: The Interdependency Diagram

The variables included in the regression analysis, and a summary of the correlation matrix are listed in the table below. In this context, the matrix member r represents the monthly excess return earned by an investor I as of time t. (i, t). For a given point in time t-1, its size is proportional to the natural logarithm to the base e (-1) of the current market price of security I. (i, t-1). Take, for example, the excess market return of the KSE-100 indexes at time t. (Market (i, t)) to the trailing twelve-month return of security (R (i, t-12)). Assuming the study is interested in penny

stocks, the study creates dummy variables I LSPi, t-1 (for January observations). I LSPi, t-7 (for July observations) that take on the value of one if the word was taken in January or July and the importance of zero otherwise (Szegedi, Khan, and Lentner, 2020).

Table 02: Correlation Matrix

	$r_{i,t}$	$Size_{i,t-1}$	$Market_t$	$R_{i,t-12}$	$LSP_{i, t-1}$	Jan	Jul
$\gamma_{i,t}$	1.0000						
$Size_{i,t-1}$	-0.0436	1.0000					
$Market_t$	0.2833	-0.0163	1.0000				
$ROS_{i,t-12}$	0.0081	-0.0010	-0.0030	1.0000			
$LSP_{i, t-1}$	0.0545	-0.5222	0.0358	-0.0055	1.0000		
Jan	0.0365	-0.0031	0.0661	0.0199	-0.0038	1.0000	
Jul	0.0324	0.0004	0.0532	0.0041	0.0041	-0.0923	1.0000

Regression Analysis Results

If you look at the statistics in Table 3, you will see that the company's stock price increases as it grows. The study finds that the correlation between firm size and stock price returns is inverse using a partial-ordered logistic (POLS) regression model. Using fixed-effects regression, the study established a statistically and practically significant negative association between firm size and stock return, with a more significant excess return suggesting a smaller business. This result has been replicated in various nations and areas, including Australia. These findings show that small-cap stocks outperformed their large-cap counterparts regarding ROI. The study finds that company size impacts monthly stock returns after aftermarket returns, and momentum are considered. Using partial-ordered logistic regression (POLS), the study discovers positive correlations between excess stock return and excess market return, and the study shows that this link weakens using fixed-effect regression analysis. The results were confirmed by the presence of control factors in the Australian stock market, which was discovered by Yasir Khan et al. (2021)

Table 3: Using a Statistical Technique Called Regression Analysis For repeated-measures data, POLS regression does not affect standard deviations (1). External variables may affect the monthly excess stock return unrelated to one another. Comparing the natural logarithm to the dimension, both are equally safe (i, t-1). I at its closing price as of t -1 seconds ago. The rate of return (R) on investment in Security I over 12 months is the compounded annual growth rate (CAGR) (i, t-12). Market (i, t) Provide the extra ROI for the KSE-100 as of t. (i, t-12). The appropriate T-statistics follow the table for the different sample sizes. Quantitatively, this investigation began in November 2007 and continues until the current day (2018).

Equation # 1 (Dependent variable: Excess monthly stock return)

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Table 3: Regression Analysis For repeated-measures data, POLS regression		
	POLS	Fixed-effects Regression
Constant	0.0262 (6.79) ***	0.1267 (12.28) ***
$Size_{i,t-1}$	-0.0029 (-6.27) ***	-0.0162 (-12.05) ***
$Market_t$	0.7787 (23.68) ***	0.7668 (22.73) ***
$ROS_{i,t-12}$	0.0262 (1.82) *	0.0120 (1.09)
Number of observations	38,382	38,382
R^2	0.0818	0.0859
*, **, *** Significant at the 10%, 5%, and 1% level, respectively.		

The analysis of stock returns after the effect of January-July was considered, demonstrating, as shown in Table 4, that company size is relevant. A dummy variable has been included in the dataset to investigate how volatilities affect predicted returns. Although the size of a company is not the only determinant of stock performance, it is correlated with it. Capital losses taken by investors in the United States and Pakistan at the end of the fiscal year (i.e., December or June) may be deducted from the investor's upcoming income tax payment in January or July (for example, Henker & Paul, 2012).

Although a low share price does not always suggest lower risk-adjusted returns, companies with a share price of less than or equal to Rs.5.00 have a substantial and beneficial effect on stock return (Goyal, 2017). The results are the same whether a POLS or fixed-effects model is used. Bettman et al. (2011) and Henker & Paul (2008) reach the same results for the Australian stock market.

Table 4: Statistical Methods the Regression Method Following is a table displaying the robust standard error (SSE) and normalized residual sum of squares (RMS) from ordinary least squares (OLS) and fixed-effects regression analysis (2). External variables may affect the monthly excess stock return unrelated to one another. R will be fully repaid after a year of work on my part (i, t-1). The natural logarithm of the I price at time t-1 (i, t-1). Market performance at time t is measured by the return above the KSE-100 index (i, t-12). Shares of companies with a price per share of Rs.5 or less are designated by the LSP dummy variable (i, t-1). The dummy variable "Jan" for each pair (an observation I, time t) takes the value 1 if I is seen in January and qq the value 0 otherwise. If the observation date occurs in July, July (i, t) will be 1; if not, it will be 0. The appropriate T-statistics follow the table for the different sample sizes. Results from the sample period (January 2007 - November 2018) are given.

Equation#2 (Dependent variable: Excess monthly stock return)

Table 4: Ordinary least squares (OLS) and fixed-effects Regression analysis		
	POLS	Fixed-effects Regression
Constant	0.0112 (3.22) ***	0.0889 (9.39) ***
$Size_{i,t-1}$	-0.0016 (-3.69) ***	-0.0123 (-9.84) ***
$Market_t$	0.7701 (23.24) ***	0.7567 (22.29) ***
$ROS_{i,t-12}$	0.0015 (1.78) *	-0.0023 (1.06)
$LSP_{i,t-1}$	0.0381 (3.17) ***	0.0454 (5.97) ***
$Jan_{i,t}$	0.0479 (3.36) ***	0.0494 (3.47) ***
$July_{,t}$	0.0127 (4.03) ***	0.0129 (4.52) ***
Number of observations	38,382	38,382
R^2	0.0832	0.0881
***, **, *** Significant at the 10%, 5%, and 1% level, respectively.**		

Finally, a Rs. 5.00 share price floor and a seasonality dummy variable are applied to the company's size (January and July). According to the findings, tiny, low-cost enterprises trading on the Pakistan Stock Exchange benefit significantly from the interaction between the dummy variables. Even if a locally owned business offers lower costs and better service, it is not necessarily in your best interest to give them your business in line with what Bettman et al. (2011). Significant positive returns are found in both January and July, suggesting that the seasonality of returns is maintained despite the month swap (see, for example, Bettman et al. (2011).

The correlation between company size and the impact of the month shows that January and July's effects are not the result of novice investors (Henker & Paul, 2012). As can be seen in Table 5, our findings are supported by the averaged results of several regression models. In conclusion, the study discovered that business size has substantial explanatory power for risk-adjusted returns. This effect remains even after adjusting for factors that may otherwise affect our underlying link between firm size and stock returns.

Table 5: Regression is often used for this purpose in statistics. Standard errors are minor when using the Pooled Ordinary Least Squares (POLS) Fixed-Effects method. They may be computed as follows: (3). The following are irrelevant since the monthly excess stock return is the dependent variable. The natural logarithm states that the size of a portfolio at time t-1 is directly proportional to the inverse of its asset value at that time (i, t-1). One definition of a market that has outperformed the KSE-100 index over time t has fared better than the index on a cumulative basis. (i, t-1) (i, t-1) false promises the market value of Security I at Time

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t-1 and its share price at that time form the base of the triangle (i, t-1). From now until the end of the year, information technology will be a top priority (i, t). The relationship between the natural logarithm of Security "I" is market capitalization at Time t-1, and the January observation is described using a dummy variable indicated by the letter "size" (i, t-1). The interaction between the market capitalization of security I at time t-1 and its natural logarithm will occur for the July observation if the dummy variable size (i, t-1) equals one. T-tests, a time-honored method in statistical analysis, are used after the closing parenthesis. Things that have happened since 2007 are included in the data set.

Equation#3 (Dependent variable: Excess monthly stock return)

Table 5: Pooled Ordinary Least Squares (POLS) Fixed-Effects method

	POLS	Fixed-effects Regression
Constant	0.0212 (6.11) ***	0.1096 (11.70) ***
$Size_{i,t-1}$	-0.0027 (-5.97) ***	-0.0146 (-11.74) ***
$Market_t$	0.7710 (23.48) ***	0.7584 (22.54) ***
$ROS_{i,t-12}$	0.0020 (1.77) *	0.0022 (1.06)
$LSP_{i,t-1} \times Size_{i,t-1}$	0.0016 (3.50) ***	0.0029 (4.33) ***
$Jan_{i,t} \times Size_{i,t-1}$	0.0014 (3.15) ***	0.0023 (3.75) ***
$July_{,t} \times Size_{i,t-1}$	0.0017 (4.14) ***	0.0017 (5.17) ***
Number of observations	38,382	38,382
R^2	0.0828	0.0872

*, **, *** Significant at the 10%, 5%, and 1% level, respectively.

Conclusion

As all economists agree, thriving businesses are suitable for the economy and the greater good of society (for example, Banz, 1981; Bettman et al., 2011; Henker & Paul, 2012). The study empirically analyses the size effect on stock returns using the Pakistan Stock Exchange data. The agreement includes three hundred forty-one companies on the stock exchange and thirty-one monthly data sets. This study primarily used the KSE-100 index, the stated monetary policy rate of the State Bank of Pakistan, the closing stock price from the previous month, and the market capitalization of the KSE. The study uses Pooled Ordinary Least Squares (POLS) and Fixed-Effects regression to investigate the effects of limited sample size.

The research shows that more prominent firms do worse on the stock market than their smaller counterparts. Our results, which align with the existing literature, highlight the significance of a company's size as an indication of its success on the Pakistani stock market. A company's growth comes with more danger, and the

rewards it brings become less with time. The stock market in Pakistan is susceptible to the ever-changing state of the country's macroeconomy, which leads to both prosperous and disastrous times, interspersed with periods of above-average returns (i.e., synchronizing effect in emerging markets). Even if your assets have improved year over year, it is possible that you will not see a difference until the second part of the year (see, for example, Banz, 1981; Bettman et al., 2011; Fama and French, 2012, 2008, 2022).

Dummy variables, such as whether the stock price was less than or equal to Rs. 5.00, were used to optimize stock returns. The months of January and July have been shown to operate as "dummy variables," influencing stock returns, according to recent studies (Henker & Paul, 2012). Abnormally large returns at the start of the month might be related to the liquidation of assets to satisfy tax obligations (for example, Gaunt et al. (two thousand). The results demonstrate that risk-adjusted returns are significantly affected by the correlation between business size and a dummy variable reflecting share prices. The significance of company size in the stock market is that small-cap shares only sometimes beat their large-cap counterparts.

Recommendations

Investors and stakeholders are advised to carefully consider the implications of a company's size on its stock market performance based on the research findings regarding the size effect on stock returns in the Pakistan Stock Exchange. The study highlights the need for in-depth analysis by showing that larger companies typically perform worse in the stock market than their smaller counterparts. The findings also emphasize how important it is to use dummy variables to maximize returns, especially regarding stock prices and particular months. It is recommended that investors proceed with caution and develop a comprehensive understanding of market dynamics, particularly in January and July when stock returns are most pronounced. Because it significantly impacts risk-adjusted returns, the correlation between business size and dummy variables reflecting share prices should be considered. The study highlights the significance of using a strategic and informed approach when making investment decisions in the Pakistani stock market, considering the complex interplay between market dynamics, company size, and risk-adjusted returns.

Limitation of Research

Even with the strict methodology used in this study, some limitations remain. First, because the study's conclusions are predicated on historical data, they might not accurately reflect the subtleties of financial markets' dynamic and ever-changing character. Furthermore, the study's primary focus is on small and micro businesses within the context of Pakistan, which may limit the applicability of the findings to other markets or economic environments. Furthermore, external factors that are not within the purview of this study, like abrupt changes in the economy or geopolitical developments, may impact stock performance in addition to firm size. Finally, the study is limited by the inherent limitations of the available data sources, which may impact how thorough the analysis is.

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