

Quality of Financial Reporting Premium and Equity Returns

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Abstract

Financial statements published by a company at the end of every financial year serve three purposes: they inform, they help control and they help plan. The basic aim of transparent disclosure of accounting information is to assist the resourceful allocation of capital in the economy as they improve the investment and financing decisions. Reliable financial statements provides less biased performance measures and market efficiency also improved because transparent disclosure of accounting information reduced information asymmetry at lower cost which effects market performance. This study investigates the assets pricing mechanism in Pakistani equity market by using monthly data of equity prices from 2007-2012.To explore the joint effect of size, market and new factors quality of financial reporting by using Three Factor Model of Fama and French .Results shows that FRQP is giving negative returns with less risk but size and market premium have negative returns with higher risk. All portfolios showing negative returns mean they were in loss, so market was in decline stage.For future this study converse that information asymmetries can be reduced by transparent disclosure of accounting information because business investment strategies are affected by financial disclosure.From two pass regression we further conclude that from past beta we can't predict future returns because all results are insignificant so it means market price the quality of financial reporting of today's information but it doesn't not effect on future returns. Findings of the study also shows that explaining power of our proposed model is also better as compared to conventional CAPM So investor should carefully and diligently use these factors in designing their investment, financing and valuation strategies.

Keywords: Agency Theory, Arbitrage Pricing Theory, Capital Assets pricing theory, Fama and French Three Factor Model, Signaling theory, Quality of financial reporting.

INTRODUCTION

Financial statements published by a company at the end of every financial year serve three purposes: they inform, they help control and they help plan.

Financial statements are considered the vital source of information for a large number of people who have an interest in the affairs of a company. These persons are called stakeholders and include shareholders, lenders, suppliers, customers, managers, employees, prospective investors, relevant governmental departments and the public at large. Managers and employees have direct impact on firm's performance but other stakeholders have no direct access to the detailed records maintained by the company. The only way to get vital information about financial performance and health of the company are the financial statement published by company, since these statements are audited by external auditors, they are considered fairly reliable.

In turn, this enables the existing and prospective investors to evaluate the performance of the company on the basis of these statements. On the basis of information provided in the financial statement, Shareholders make important decision and can control the conduct of directors who manage the company. These financial statements when compared with other from similar companies can also help investors set important benchmarks for measuring the efficiency of the manager. Similarly yearly comparison of financial statements also enables managers and investors to recognize different business trends and possibly makes to control negative trends and improve the positive ones.

Financial statements also provide base for making future decisions so to serve all these purposes financial statements must have good quality in the sense means: They should be clear and understandable. They should be reliable so that all stakeholders make decisions by using them confidently. Financial statements have the degree of integrity and should be honest. They should contain all the disclosures required by the various regulatory bodies. And should be compliant with applicant standard and laws.

The basic aim of transparent disclosure of accounting information is to assist the resourceful allocation of capital in the economy as they improve the investment and financing decisions. Reliable financial statements provides less biased performance measures and market efficiency also improved because transparent disclosure

of accounting information reduced information asymmetry at lower cost which effects market performance.

Return and risk go together in investment indeed these are the two sides of the same coin. Everything an investor does, or is concerned with is tied directly or indirectly to return and risk.

There are a number of interesting assets pricing theories such as (CAPM) capital asset pricing models developed by Sharpe (1964), Lintner (1965) and Black (1972), Merton developed the intertemporal models in (1973), Rubinstein (1976), and Cox (1985), and Ross developed the arbitrage pricing theory (APT) in (1976), but CAPM is most prominent and prevailing asset pricing model in the literature. However literature also constitutes of some multi factor asset pricing models.

Markowitz's model of portfolio choice (1952, 1959) paves the way for the basic foundations for asset pricing models. The capital asset pricing model (CAPM) of Sharpe (1964) and Lintner (1965) gives origin of asset pricing theory.

According to CAPM only single factor the market premium ($R_m - R_f$) affect the portfolio returns.

The equation to demonstrate the relationship between expected rate and market premium is

$$R = R_{FFR} + \beta (R_m - R_{FFR})$$

In the equation R = Expected Return, R_{FFR} = Risk Free Rate, β = Slope and R_m = Market Return. This expected return can be compared with the estimated rate of return to estimate whether the asset or security is overvalued, undervalued or properly valued.

Significance of Study:

With the globalization of capital market and rapid growth of international business make it necessary and important to know how quality of financial reporting affects firm's performance across different countries.

According to **signaling theory**, financial decision of corporation are considered as signals to outside investors directed by the company's managers in order to address asymmetries. These indicators are the keystone of financial communication programs, plans and strategies.

PROBLEM STATEMENTS:

Risk averse investors choose a portfolio which gives maximum risk adjusted return as classical portfolio also says this. According to Capital Asset Pricing model portfolio return and risk is affected by only one factor the market premium but Ross opposed it by presenting arbitrage pricing theory and stated that there are other several factors which significantly affect returns. Quality of financial reporting is one of these factors which have significant effect on portfolio returns. Various studies have been undertaken to provide an insight that how different factors effect on equity returns but in Pakistan no detailed study has been conducted to explain the role of quality of financial reporting and its effects on equity returns. Therefore this learning is aimed to test the effect of quality of financial reporting on equity returns as well as on overall firm performance in Pakistan.

Literature Review

In the 1950s, Harry Markowitz, considered the father of modern portfolio theory developed the basic portfolio principles that underlie modern portfolio theory. The primary impact of MPT is on portfolio management because it provides a framework for the systematic selection of portfolios based on expected return and risk principles. Markowitz however was the first to develop the concept of portfolio diversification in a formal way he quantified the concept of diversification.

Capital market theory, based on the conception of proficient diversification and in the marketplace it defines the pricing of capital assets.

Markowitz portfolio theory gives the dimension to Capital market theory, according to the Markowitz model, each investor is supposed to diversify his or her portfolio, by choosing a best location on efficient frontier that counterparts his or her risk return preferences.

Capital market theory is derived from several assumptions that seem to be impracticable; however, the important question is the ability of the theory to predict. Relaxation of most of the assumptions does not change the major implication of capital market theory.

As CAPM is not the only model of security pricing, another model has also got attention is based Arbitrage pricing theory which is developed by Ross (1976) and enhanced by others. In recent year APT has been emerged as an alternative theory of assets pricing to the CAPM based on Markowitz portfolio theory given by Sharpe, Lintner, and Treynor .

Demand of APT commonly comes from its consequences and implications, Very importantly; APT is not critically dependent on an underlying market portfolio as in the camp, which predicts that only market risk influenced expected returns. Instead, APT recognizes that several types of risk may affect security returns. (Reinganum, 1981).

Chen (1986), Aneez and Yonezawa (2003) and Anatolyev also examined APT on Russian, New York and Japanese market with the help of this model. Dhankar and Esq (2005) also checked applicability of APT

with multiple factors than CAPM which uses only one single measure of risk which is beta on Indian stock market by using monthly and weekly returns for 1991-2002 and provided that in explaining assets risks and assessments of required rate of returns APT has better explaining power than CAPM.

Berry (1988) uses APT to examine S&P 500, and Antoniou (1998) identifies three factors that influences the stock returns in London stock exchange, relating to the inflation, money supply, and additional returns on the stock market are priced.

Fama and French (1992, 1993, 1996, 1998) has contributed a lot in this area and pave a way for asset pricing based on APT by designing an alternative model.

Fama and French (1992) applied an alternative three factor model of asset pricing on the basis of Ross model for NYSE, Amex and NASDAQ stocks to explore the role of size, market beta, leverage and book to-market equity ratio, Earnings/Price (E/P) ratio in the cross-section of average stock returns. Time period studied was 1963 to 1990. No significant explanatory power of beta was found by the study whereas significant impact had been found for size, E/P, leverage and book to market equity in explaining cross section of average returns.

Fama and French (1993) extended their study with the inclusion of bonds by using time series regression approach. by regressing monthly returns of bonds and stock on five factors that were returns on a market portfolio, a portfolio for book to market equity and a portfolio for size effect, default and term premium. The study found significant impact of size and book to market equity on return on equity. Term and default premium were also found influencing bonds return.

On the bases of these results, three factor model of asset pricing developed by Fama and French (1993) which is an extension of CAPM for stocks which take account of market factor and two risk dynamics associated to size and book to market equity. This study showed that average returns of much of the cross section were captured by this model.

This model also showed that in additional amount of risk free rate, anticipated returns on a portfolio were explained by the accessibility of its returns to three factors. (i) The additional return on a wide-ranging market portfolio, (ii) the difference between the returns on a small stock and high stock portfolio (iii) the difference between the returns on a portfolio of high-book-to market and low book to market stocks.

Fama and French (1992, 1993) work was criticized by Daniel and Titman (1997), they investigated impact of factor loading on share returns for the period of 1973 to 1993 and found that expected returns are not a function of loadings on Fama and French's risk factors.

Kothari and MacKinlay (1995) attributed it to data snooping and survivor bias of this significant part of premium. But this argument could not get much acceptability in the literature.

Halliwel et al. (1999) also reported on premium on small size and high BE/ME work by applying Fama and French (1993) model in Australian stock market. In fact, it is amazing that the empirical results support the basic CAPM. Because theoretically CAPM is still useful and used in many financial institution and globally it had been taught in many schools but based on studies of many years of data it appears that the stock market prices securities on the basis of a linear relationship between systematic risk and return, with diversifiable/unsystematic risk playing little or no part in the pricing mechanism.

So this raises the question for researcher around the world so to check the applicability of CAPM, contradiction has been proved empirically especially by Famous work of Fama and French.

Roll's Critique:

The CAPM has not been proved empirically, nor will it be. In fact Roll has argued that the CAPM is untestable because the market portfolio which consists of all risky assets is unobservable. All exertions to test the Capital Asset Pricing were criticized by Roll in (1977). The effectiveness of the market portfolio's implication in CAPM was the basis of the Roll's Critique. Nevertheless, the CAPM remains a logical way to view the expected return risk trade off as well as frequently used model in finance.

Arbitrage Pricing Theory, Ross (1976):

The arbitrage pricing theory (APT) as developed by Ross and enhanced by others. In recent years APT has emerged as an alternative theory of asset pricing to the CAPM, its appeal is that it is more general than the CAPM, has less restrictive assumptions. However, like the CAPM it has limitations, and like the CAPM it is not the final work in asset pricing.

Similar to the CAPM, or other asset pricing model, APT posits a relationship between expected return and risk. It does so, however using different assumptions and procedures. Very importantly, APT is not critically dependent on an underlying market portfolio as in the CAPM, which predicts that only market risk influenced expected returns. Instead, APT recognizes that several types of risk may affect security returns.

APT is based on the law of one price which states that two otherwise identical assets cannot sell at different prices.

APT assumes that there are number of factors which affect returns of portfolio including some company specific, macroeconomic, behavioral and statistical factors.

Though the CAPM is based on portfolio theory and has been dominant in research over the past fifteen years, but now doubt has been casted by recent research on its ability to explain the empirical collection of asset returns. There were three assumptions on which arbitrage pricing theory was based. First, investors always prefer more wealth to less wealth. Secondly, return generating process is a linear function of n factors. And third is capital markets are perfectly competitive. For any alternative model a minimum requirement should be that it has the capability to explain the perceived anomalies which follow within the CAPM.

APT can be expressed as

$$E_i = \lambda_0 + \beta_{i1} \lambda_1 + \dots + \beta_{ik} \lambda_k$$

Whereas λ_0 is the expected return on asset when the systematic risk is zero, whereas $\lambda_1 \dots \lambda_k$ are known as risk premia and the β_i shows the pricing relationship between the risk premia the asset i. It means that the expected return depends jointly on the coefficient of asset reaction and risk premia. APT holds for multi period as well as single period.

Fama and French (1992)

Empirical failure of CAPM was confirmed by Fama and French. They formulate portfolio's groups of similar size and betas from all nonfinancial stocks dealt on NYSE, (NASDAQ) and AMEX by taking time period between 1963 and 1990.

Fama and Macbeth (1973) approach was used by Fama and French but different conclusion was attained, no relation at all.

Using the time-series regression methodology, Fama and French (1996) influence the same conclusion by applying to portfolios of stocks sorted on price ratios. Their results showed that about anticipated returns different prices have much the same information. In short, Fama and French determined that observed returns were better interpreted by firm size and other accounting ratios than beta.

Fama and French (1992, 1993) put up an alternative three factor model of asset pricing on the basis of Ross model which is an extension of CAPM for stocks which in addition to market factor also includes risk dynamics pertaining to size and book to market equity. Fama and French (1992) therefore say that risks are multidimensional when stocks are priced rationally. The size effect suggests that the corporations having small market capitalization shows returns that exceeds those having higher market capitalization. Whereas the book to market equity effect exhibits that with lower book value to market value ratio the average returns were lower and with higher book value to the market value ratio returns were greater.

Attiya (2009) again analyzed daily and monthly stock prices for 1993 to 2004 to test the Capital asset pricing model in KSE and found that CAPM did not explain returns on stocks. Mirza and Samia (2008) they also investigated the soundness of Fama and French three factor model in Pakistani equity market for 81 companies and reported size and book to market effect in Pakistani equity market.

Hassan and Javed (2011) also examined the relationship among equity return, value premium and size premium in Pakistani equity market by taking time period from 2000 to 2007. The study used FF three factors model (1992, 1993). Sample included more than 250 stocks listed at Karachi Stock Exchange and results showed that market priced size and book to market ratio. Study reported positive significant relationship of size and book to market factor with portfolio returns. This study also showed positive and significant association with market portfolio returns which showed that conventional CAPM was also valid. However they explored that explanatory power of FF three factor model was 15 % greater than the traditional.

An increasing number of accounting dishonors and scandals has provoked the necessity to increase financial reporting quality by development of good corporate governance arrangements. In the context of developed countries a great amount of research has been undertaken to examine the relationship between corporate governance and information quality .their work was an attention to turn their concentration of study of governance and financial disclosure in emerging markets. (Klai and Omri (2011).

Lopes, Cerqueira and Brandão(2011) also analyzed that how quality of financial information affect on firm's performance by using only accounting data. accounting information are considered an important source for making investment decisions and to evaluate accounting quality they used abnormal accruals methodology and ROA to measure firms performance for 17 Europeans countries and found significant relationship between accruals and accounting measures performance that with increase in income results an increase in abnormal accruals which means that decreasing accounting quality will increase ROA and vice versa.

Qabajeh et al. (2012) examined the declaration influence of interim financial reports on stock returns and analyzed statistical association between trading volume, earnings and stock return.

They used a 20 industrial public listed companies' sample on Amman Security Exchange for the time period of 2010 and 2011. Interim reports issued in the second and third quarter of the year were used by their

study for the year 2010 and 2011 and applied multiple regression model

Results indicated that during the declaration/announcement date positive relationship was found between interim reports broadcasting/announcement and stock return as consistent with work of (Foster et al., (1984) and Bernard & Thomas, 1989).

Constant with previously conducted studies of [(Mestel; et al.(2003) and Omran & Mckenzie (2000)]they also found positive substantial relationship between stock return and trading volume but irrelevant relationship between earnings and trading volume That third result was also found consistent with the previous the study of Subasi (2011).

Hypothesis:

Ho: Quality of financial reporting significantly effects on equity returns.

Sample:

This study uses monthly closing prices of 104 stocks listed at Karachi Stock Exchange (KSE) for the period 2007 to 2012 which fulfills following criteria.

Sample comprises of 52 companies that were awarded with best corporate and sustainability award and 52 companies from similar sectors but were not such awarded.

List of companies that won the award of Best corporate and sustainability reports will be obtained from website of ICAP. Stock prices and KSE index data is obtained from websites of business recorder and Yahoo finance respectively. The sources are considered as reliable sources of information.

Methodology:

According to Capital Asset Pricing Model only market premium is one factor which affect the returns but according to Arbitrage Pricing Theory many other factors also affect the returns , similarly Fama and French (1992) presented three factor model by using size premium and value premium with market premium. This study explores a new factor Quality of Financial Reporting premium to check how it influence stock returns. To capture the impact of this new factor on stock return, the methodology Two factor model is adopted proposed by Fama and French.

3.2. Portfolio Construction

- i) For Financial reporting quality based portfolios, first of all list of 52 awarded companies is taken form ICAP site and other 52 companies are also taken from same sectors to create variable of financial reporting high quality, HQFR and financial reporting low quality ,LQFR.
- ii) Now the sample has been arranged in descending order on the basis of high and low quality of financial reporting. First 52 companies have been named as higher quality financial reporting and last 52 have been selected as low quality of financial reporting. Average returns for both HQFR companies and LQFR companies have been calculated.
- iii) Again 52 companies sorted on the basis of HQFR are further arranged in descending order on the basis of their market capitalization to create size sorted variable. First 26 companies have been named as B/HQFR and last 26 have been selected as S/HQFR. Same process also applied for 52 LQFR based companies. First 26 companies have been named as B/LQFR and last 26 have been selected as S/LQFR.
- iv) The above mentioned method is applied for 2007 to 2012, and portfolios have been created.

Variable:

Financial reporting quality premium= FRQP= 1/4 [(B/HQFR-B/LQFR)] + [(S/HQFR-S/LQFR)]

Size premium=SMB = 1/4 [(S/HQFR-B/HQFR)] + (S/LQFR-B/LQFR)]

Market premium (MKT) = ($R_{m,t} - R_{ft}$)

Where

$$R_{m,t} = I_t(I_{t-1})$$

$R_{m,t}$ is the market return for month 't' and I_t and I_{t-1} are the closing values of KSE index -100 for month 't' and 't-1', respectively. R_{ft} is the risk free rate (T bill rate).

3.4 Model specification

The algebraic relationship among the variables is as follow

$$R_{pt} - R_{ft} = \alpha + \beta_1 MKT_t + \beta_2 SMB_t + \beta_3 QFRP_t + e_{it}$$

Where

R_{pt} is Return of portfolio 'i' for period't' and R_{ft} is Risk free rate.

This formula will capture the following dimensions

- Rf_t = Risk free Rate
- MKT_t = Market Premium = $R_m - R_f$
- SMB_t = size premium = Small - Big
- $FRQP_t$ = financial reporting Quality premium = return of low quality firm - return of high quality firm
- α = The management's impact (Alpha)
- e = Term of random error

3.5 Expected Results:

1. Market premium has significant impact on equity returns.
2. Size premium has significant impact on equity returns.
3. Quality of financial reporting has significant impact on equity returns.

Discussion

Table 1. Descriptive statistics High and low quality financial reporting and size-B/M ratio sorted portfolios.

variables	HQFR	LQFR	B/HQFR	S/HQFR	B/LQFR	S/LQFR
Mean	-0.0114	-0.0142	-0.0115	-0.0119	-0.0155	-0.0127
Median	0.0011	-0.0109	-0.0014	-0.0049	-0.0071	-0.0196
Std Dev	0.0708	0.0657	0.0886	0.0656	0.0716	0.0689
Kurtosis	3.5982	0.5372	10.4444	1.0110	1.7420	0.1574
Skewness	-1.6123	-0.4285	-2.5617	-0.6434	-1.0984	0.2623
Minimum	-0.2887	-0.1927	-0.4575	-0.2066	-0.2572	-0.1413
Maximum	0.1037	0.1361	0.1408	0.147342	0.1081	0.1769

Interpretation:

Descriptive statistics are used to show the important features of the data in a study; central tendency and variability of data. A simple measure of the central tendency of the data is the mean (or average), and standard deviation reflects both the deviation from the mean and the frequency of this deviation.

Statistical properties of portfolios sorted on QFR and size are reported in Table 1.

Results show that Overall all portfolios are in loss showing negative returns. It means that market was in decline so both portfolios are affected but LQFR affected more.

As standard deviation is less as compared to others showing that prices were less volatile. Standard deviation of LQFR is less as compared to HQFR average loss of LQFR is higher than HQFR. Maximum gain earned by HQFR on LQFR is 10.37% and 13.61 % .Similarly minimum loss suffered by HQFR was -28.87% and LQFR -19.27%.

Skewness shows the distribution of data, for normal distribution, skewness must be zero means data is symmetrical and has bell shaped graph. But exactly zero skewness is quite unlikely for real world data. If skewness is positive it means that data is positively skewed or skewed at right means right tail is longer than left side. If skewness is negative it means that data is negatively skewed means left tail is longer than right.

Skewness results in table 1 are negative which show negatively skewed distribution of data except S/LQFR; our mean is less than median and data has non bell shaped distribution.

The relative peakedness or flatness of a data distribution is determined by **Kurtosis** which compared this to normal distribution. Normal distribution has kurtosis of about 3. Kurtosis greater than 3 shows that data distribution is relatively peaked or leptokurtic distribution (too tall) and kurtosis less than 3 shows that data platykurtic distribution (too flat).

Kurtosis results indicate that data distribution is relatively flat for most of the portfolios.

Table 2. Descriptive statistics: Fama and French three factors.

variables	FRQP	SIZE	MKT
Mean	-0.0011	-0.0005	-0.0100
Median	-0.0008	0.0014	0.0013
Std Dev	0.0175	0.0234	0.0899
Kurtosis	1.4097	8.4278	10.1536
Skewness	0.1760	-1.4563	-2.4249
Minimum	-0.0531	-0.1125	-0.4604
Maximum	0.0465	0.0645	0.1706

Interpretation

Table 2 shows statistical properties of variables constructed for Fama and French three factor model and after adding one new premium, returns that is financial reporting quality premium which has **Mean** value of (-0.0011) with standard deviation of (0.0175). Mean value of size is (-0.0005) with standard deviation of (0.0234). Mean value of MKT is (-0.0100) with standard deviation of (0.0899). Results show that average size and market premium and FRQP all are negative. If company has good quality of financial reporting means it has less volatility and also give lower returns. Its maximum gain was 4.6% and maximum loss was -5.3%.

Negative SMB (size) **(-0.0005)** shows that average of big stock is higher than small stock.

Skewness results in table 2 are positive which show positively skewed distribution of data and data has bell shaped distribution means most values are concentrated on left of the mean with extreme value to the right.

In table 2 **Kurtosis** is greater than 3 are showing that data distribution is relatively peaked or leptokurtic distribution (too tall), or sharpen than normal distribution.

Table 3. Correlation

variables	FRQP	SIZE	MKT
FRQP	1		
SIZE	-0.6712	1	
MKT	0.4415	-0.6711	1

Interpretation:

Whether and to what degree an association occurs between two or more measurable variables is determined by correlation. A coefficient of correlation shows the degree of the relationship. 0 correlation show no relationship, -1 show strong negatively correlation and +1 show strong positive correlation.

Correlation between each pair of variables has been determined by a correlation matrix. The values of 1.00 show the diagonal of the matrix because with itself a variable has always a perfect correlation.

Our results shows negatively correlation **(-0.6712)** between size and FRQP and **(-0.6711)** size and MKT factor but positively correlated **(0.4415)** between FRQP and MKT factor.

TABLE 4 : FAMA AND FRENCH THREE FACTOR MODELS

Dependent variable	intercept	MKT	SMB	FRQP	Adj.R2	F statistics	F significance
P	-0.0064	0.6472			0.7694	197.8927	0.0000
T statistics	-1.5553	14.0674					
P value	0.1252	0.0000					
P	-0.0043	0.8882	1.2154	0.3253	0.9045	187.3885	0.0000
T statistics	-1.6100	22.2422	6.5652	1.5898			
P value	0.1130	0.0000	0.0000	0.1174			
HQFR	-0.0040	0.7319			0.8617	368.78417	0.0000
T statistics	-1.1880	19.2037					
P value	0.2396	0.0000					
HQFR	-0.0040	0.8824	1.2004	-0.6942	0.9195	225.8753	0.0000
T statistics	-1.5502	22.5014	6.6026	-3.4543			
P value	0.1267	0.0000	0.0000	0.0010			
LQFR	-0.0086	0.5541			0.5670	78.2688	0.0000
T statistics	-1.5408	8.8469					
P value	0.1287	0.0000					
LQFR	-0.0044	0.8870	1.2452	1.3312	0.8979	174.1028	0.0000
T statistics	-1.6132	21.6259	6.5485	6.3335			
P value	0.1123	0.0000	0.0000	0.0000			
B/HQFR	-0.0018	0.9646			0.9589	1378.3901	0.0000
T statistics	-0.7721	37.1266					
P value	0.4431	0.0000					
B/HQFR	-0.0025	0.9302	-0.0364	-0.3257	0.9615	492.6747	0.0000
T statistics	-1.1056	27.4245	-0.2316	-1.8739			
P value	0.2735	0.0000	0.8176	0.0661			
S/HQFR	-0.0069	0.5021			0.4645	52.17843873	0.0000
T statistics	-1.1080	7.2234					
P value	0.2723	0.0000					
S/HQFR	-0.0061	0.8462	2.4672	-1.0235	0.7693	66.6126	0.0000
T statistics	-1.4801	13.7511	8.6482	-3.2456			
P value	0.1444	0.0000	0.0000	0.0019			
B/LQFR	-0.0086	0.6802			0.7250	156.5943	0.0000
T statistics	-1.7794	12.5137					
P value	0.0803	0.0000					
B/LQFR	-0.0061	0.8462	0.4672	0.9764	0.8063	82.9064	0.0000
T statistics	-1.4801	13.7511	1.6379	3.0962			
P value	0.1444	0.0000	0.1070	0.0030			
S/LQFR	-0.0082	0.4418			0.3213	28.9324	0.0000
T statistics	-1.1251	5.3788					
P value	0.2651	0.0000					
S/LQFR	-0.0025	0.9302	1.9635	1.6742	0.9364	290.6837	0.0000
T statistics	-1.1056	27.4245	12.4872	-9.6324			
P value	0.2735	0.0000	0.0000	0.0000			

Interpretation:

In this study one new factor has been added along market and size premium in Fama and French three factor model to explain portfolio returns. This study is undertaken with an objective to investigate the significance of relationship of financial reporting quality premium on the returns of portfolio. The explanatory power of CAPM and two factor model by adding FRQP has been explored through multivariate regression analysis performed to capture the relationship among market, size FRQP premium, and results have been reported in table 4:

The **value of F** is found significant and the model has been run at the confidence level of 95%. It shows that fitness of model and that model is fit to explain the relationship between independent and dependent variable.

Size premium is found significantly positively related to both high quality and low quality financial reporting portfolios. Similarly size premium is observed as insignificant for portfolios B/HQFR, B/LQFR it

means that SMB is not significantly influence returns of big stocks. Therefore size behavior is not consistent but it is priced in many stylized portfolios.

Consistent with conventional CAPM, **market premium** is found significantly positively related to portfolio returns. So market factor is explaining significantly equity returns but is also not capable to fully explain the returns.

Financial reporting quality premium is found significantly positively related to LQFR, B/LQFR, and S/LQFR and significantly negatively related HQFR and S/HQFR and found insignificant for average of all portfolios and for B/HQFR.

It means market price the quality of financial reporting and coefficients are significant but evidence is mixed it means that according to theory LQFR portfolios are more risky so required rate of return of LQFR will be higher than less risky HQFR portfolios. So FRQP amount should be positive and negative sign specifically related to LQFR it means lack of trust on financial reporting leads to reduction in returns. So market price the quality of financial reporting than it will be treated a systematic risk. So it means companies which have low quality of financial reporting have higher risk so their return will also be high because investors will demand more return for bearing this risk as compared to those companies which have higher quality of financial reporting will have low returns because of less certainty and lower risk and Investors will also gain confidence and he will not discount the price. These results also confirmed the Callen, Khan and Lu (2010)'s work.

TABLE 5: Comparative statement of Adj.R²

Dependent Variable	CAPM	2FM-FF
P	0.7694	0.9045
HQFR	0.8617	0.9195
LQFR	0.5670	0.8979
B/HQFR	0.9589	0.9615
S/HQFR	0.4645	0.7693
B/LQFR	0.7250	0.8063
S/LQFR	0.3213	0.9364

Interpretation:

A comparison of two models is reported in table 5.

Adj.R² shows that how much explanatory variables are explaining our dependent variable. Results of table 5 are showing that although in general conventional CAPM has been found significant in explaining portfolio returns but explaining power of Fama and French is more than CAPM for all portfolios. Which show that three factor model is better in explaining portfolio return in Pakistani equity market. It is evident that three factor models substantially explain portfolio returns and its explaining power for every portfolio is significantly greater than the descriptive power of conventional CAPM. So we can say that our proposed model is better than CAPM.

TABLE 6: Two Pass Regressions results

Betas have been calculated on the basis of market premium, size premium, and financial reporting quality premium with the inclusion of new factor in the APT model. These betas are regressed against portfolio returns. The results are shown in the following table.

Dependent Variable	intercept	FRQP (B1)	SIZE (B2)	MKT (B3)	Adj.R2	F statistics	F significance
P	0.3571	-0.1133	-0.1483	-0.1626	0.0248	1.2034	0.3328
T statistics	0.6143	-0.7225	-1.4245	-0.2789			
P value	0.5455	0.4779	0.1689	0.7830			
HQFR	0.0315	-0.0780	-0.0970	0.0302	-0.0804	0.4040	0.7515
T statistics	0.0636	-0.4892	-0.8106	0.0553			
P value	0.9498	0.6297	0.4266	0.9563			
LQFR	0.6867	-0.1548	-0.1923	-0.2752	0.1179	2.0695	0.1348
T statistics	0.9541	-0.9348	-1.9166	-0.4378			
P value	0.3508	0.3605	0.0689	0.6659			
B/HQFR	0.4215	-0.0278	0.1306	-0.4460	-0.1140	0.1808	0.9081
T statistics	0.6872	-0.1310	0.6415	-0.6857			
P value	0.4994	0.8969	0.5280	0.5003			
S/HQFR	0.1664	-0.0735	-0.0996	-0.0116	0.0229	1.1875	0.3384
T statistics	0.3871	-0.6643	-1.1412	-0.0296			
P value	0.7025	0.5136	0.26662	0.9766			
B/LQFR	0.2679	-0.0394	-0.0989	-0.2273	0.0256	1.2107	0.3303
T statistics	0.7009	-0.3561	-1.1312	-0.5764			
P value	0.4910	0.7253	0.2707	0.5704			
S/LQFR	1.2844	-0.2136	-0.1666	-0.6177	0.0535	1.4525	0.2560
T statistics	1.4314	-0.7416	-0.6042	-0.7010			
P value	0.1670	0.4665	0.5521	0.4909			

Interpretation:

By regressing betas we want to check whether we can predict future return from past beta or not.

The regression for two pass is run at 95% confidence interval and Result shows that calculated betas of all premiums do not have significant relationship with portfolio returns. So it means that they do not significantly forecast the future returns and Today's information is priced today but not in future. So predictability power of beta in forecasting future is very weak. Its explaining today's return but not sufficient to predict future returns because this information is created in past so it has not effect on future. F value for all variables is also insignificant.

Conclusion:

This study investigates the assets pricing mechanism in Pakistani equity market by using monthly data of equity prices from 2007-2012. To explore the joint effect of size, market and new factors quality of financial reporting Fama and French three factors is adopted.

Above results shows that FRQP is giving negative returns with less risk but size and market premium have negative returns with higher risk. All portfolios showing negative returns mean they were in loss, so market was in decline stage. This also shows the weak proficiency form of capital market in Pakistan because market is attributable to different issues as accounting figures does not fully capture the different issues as economic political issues. this is unpredictable to the studies of Rajgopal and Venkatachalam (2011), Li and Wang (2010) and Biddle et al (2009).

This study is an attempt to existing accounting literature which studies that improves financial reporting effect economically. Literature exhibits the economic consequences of improved financial reporting such as lower costs of capital, increased liquidity and higher firm growth, e.g. (Leuz and Verrecchia, 2000; Francis et al., 2004, 2005; Martin, Khurana, and Pereira, 2005)

This study also lengthens this research by showing that reduction in information asymmetries is possible by improved financial reporting and transparent disclosure of accounting information that hamper well-organized business investment strategies.

Three factors model also shows that those companies which have low quality of financial reporting have high volatility because of high uncertainty so investors will demand higher returns due to bearing high risk because according to theory higher the risk ,higher the return so it means market price the quality of financial reporting.

From two pass regression we further conclude that from past beta we can't predict future returns because all results are insignificant so it means market price the quality of financial reporting of today's information but it doesn't not effect on future returns. Findings of the study also shows that explaining power of our proposed model is also better as compared to conventional CAPM So investor should carefully and diligently use these factors in designing their investment, financing and valuation strategies.

Recommendations

Capital market is properly monitored through Karachi stock exchange. Government must ensure transparency of financial report by improving standards. Standard setters must be vigilant in formulating, improving existing standards.

In order to prevent moral threats and improper selection companies also shows its moral responsibilities to all its stakeholders by showing real fact and figures as investors will also gain confidence in making their investment decision. Investors and decision makers must have to take into consideration the accounting number, fact and figures attentively because it will progress the effectiveness of the capital market.

Audit organizations are suggested to edit standards and determine requirements of information disclosure.

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