

A Comparison between Islamic and Conventional Stock Prices Performance: Evidence from Pakistan's Equity Market

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ABSTRACT

This study examines the performance comparison of conventional and Islamic stock prices in Pakistan's equity market. It takes Karachi Meezan Index-30 (KMI-30) and Karachi Stock Exchange Index-30 (KSE-30) for conventional stock prices and Islamic stock prices. This study uses the daily data of KSE-30 and KMI-30 stock indexes, ranging from period 1st January 2008 to 29th December 2017. For performance comparison, different performance indicators such as performance ratios (Beta, Sharpe ratio, Treynor ratio, and the Jensen's Alpha), GARCH models, and Stochastic Dominance approach are employed.

The results show that the overall KMI-30 stock index outperforms KSE-30 stock index. The average returns of KMI-30 stock index are greater than KSE-30 stock index. The volatility of KSE-30 stock index is higher than KMI-30 stock index. Further, KMI-30 stock index has higher excess returns than KSE-30 stock index. Moreover, KMI-30 stock returns are stochastically dominated over the KSE-30 stock returns. These results reveal that Islamic stock index performs better than the conventional stock index. They suggest, as there is a lot of potential in an Islamic equity market with minimum default risk so, investors can expect a lot of potential investment opportunities by keeping their eye on Islamic financing instruments.

Keyword: Stock Performance, Islamic stock, Conventional stock, Performance ratios, Stochastic dominance

INTRODUCTION

During the last decade, remarkable growth and advancement has been observed in Islamic equity markets. The main reason behind this growth and advancement is that the investors particularly, from Islamic countries seek to invest their capital in Shariah compliant financial instruments. The framework of Islamic equity markets is based on Shariah principles which includes the prohibition of interest (riba), speculation (maysir), excessive uncertainty (gharar), the prohibition of investing in 'unethical' businesses and risk and return sharing. Under this framework, investments in equities of companies are consistent with ethically oriented and socially responsible investments. These features make Islamic equity markets apart from conventional equity markets.

The research studies on the performance comparison of Islamic equity investments and conventional equity investments show mixed results. Some studies show that Islamic equity investments outperforms its conventional counterpart (Mallin, Saadouni, and Briston 1995; Jawadi, Jawadi, and Louhichi 2014; Al-Zoubi and Maghyereh 2007; Al-Khazali, Lean, and Samet 2014). While, some studies show that conventional equity investments outperform Islamic equity investments. Hayat and Kraeussl (2011); Abdullah, Hassan, and Mohamad (2007) examine financial performance of both equity investments. Their studies use either parametric (CAPM statistics) or non- parametric (GARCH, Stochastic dominance) methodologies to compare the performance of conventional and Islamic equity investments.

This study aims to empirically investigate the performance comparison of conventional stock prices and Islamic stock prices in Pakistan. It takes KSE-30 index and KMI-30 index as proxies for conventional stock prices and Islamic stock prices respectively. It employs different performance indicators such as performance ratios (Beta, Sharpe ratio, Treynor ratio, and the Jensen's Alpha), GARCH model, and stochastic dominance approach to analyze their returns and risks as well as the characteristics of their entire distribution. For this, it uses daily data from the period September, 2011 to December, 2017. It finds out Islamic stock index outperforms conventional stock Index.

This article is the comprehensive study of performance comparison of conventional and Islamic stock indexes in Pakistan. The finding of this study may have important implications for investors, managers and policy makers in investment decision making as well as in designing investment strategies.

The structure of article is as follows: Section 2 shows the Literature Review. Section 3 gives an overview of KSE-30 Index and KMI-30 Index. Section 4 presents Data and Methodology. Section 5 presents empirical results. Section 6 concludes the paper.

LITARATURE REVIEW

A considerable amount of empirical research focuses on investigating salient features of stock prices through returns and risks analysis and performance in different markets (Hussein and Omran 2005; Hakim and Rashidian 2004; Causse 2010; Abbes 2012). Most studies analyze the performance comparison of different stock indexes by using parametric methodologies such as CAPM statistics and non-parametric methodologies such as stochastic dominance approach (Muhammad and Mokhtar 2008; Mallin, Saadouni, and Briston 1995; Jawadi, Jawadi, and Louhichi 2014; Hendranastiti and Asutay 2016a; Elfakhani, Hassan, and Sidani 2005; Al-Khazali, Lean, and Samet 2014). There are different findings of these studies based on the performance of conventional and Islamic stocks. Some studies say that Islamic stocks perform better as compared to conventional stocks. However, some studies document that conventional stock does better perform in term of return in their counterpart. Following are the some important studies related to this research study.

Mallin, Saadouni, and Briston (1995) study the performance comparison of non-ethical UK investment funds, ethical UK investment funds and equity market benchmarks, using Sharpe ratio, Treynor ratio and Jensen's Alpha. They find both ethical and non-ethical funds underperform equity market bench marks. They show that ethical investment funds outperform non-ethical investment funds. Cummings (2000) finds similar results for the comparison of ethical and non-ethical Australian investment funds by using risk-adjusted performance measures.

Nassir, Mohamed, and Ngu (1997) examine the performance comparison of Kuala Lumpur composite index (KLCI) and thirty one Malaysian mutual funds. They find that Malaysian mutual funds outperform KLCI benchmark. Hussein (2004) investigates comparison of performance of the FTSE Global Islamic index and the FTSE All World index by using CAPM model. Their findings show that performance of Islamic index is better than its conventional index.

In similar lines, Elfakhani, Hassan, and Sidani (2005) investigate comparison of performance of forty six Islamic funds, S&P 500 Shariah and Dow Jones Islamic Market Technology Index (DJITEC). They show that the financial performance of these funds extends similar to some with their benchmarks. Abdullah, Hassan, and Mohamad (2007) finds conventional funds outperform Islamic funds by testing the performance of Malaysian Islamic funds. Al-Zoubi and Maghyreh (2007) examine the relative risk performance of Dow Jones Islamic Market Index and Dow Jones Islamic Market World Index using Value-at-Risk methodology. They conclude higher risk performance for the Dow Jones Islamic Market Index and it has lower risk level than the market of stocks due to profit-and-loss sharing principle.

Furthermore, Muhammad and Mokhtar (2008) study the performance of Islamic equity funds by using using Sharpe ratio and Treynor ratio in Malaysia. They find mixed results for

Islamic equity funds performance. Similarly, Hoepner, Rammal, and Rezec (2011) investigates the Islamic equity funds financial performance from different countries in Africa, Europe, Asia-Pacific, and North America. They show that Islamic equity funds underperform their conventional equity funds in western markets, and have small preferences by investors. Whereas, Islamic equity funds neither underperform their conventional equity funds nor have small preferences in Muslim majority countries.

Hayat and Kraeussl (2011) examine the return and risk performance of 145 Islamic equity funds by using CAPM model. They estimate the risk-adjusted performance (alpha) and systematic risk (beta) for each Islamic equity fund. They conclude that Islamic equity funds underperform their conventional equity funds. While by analyze the return and risk performance of Kuala Lumpur composite index (KLCI) and Kuala Lumpur Sariah index (KLSI), Albaity and Ahmad (2008) conclude that Islamic indexes do not significantly underperform conventional indexes. Abbes (2012) examines the return and risk performance of the Islamic stock indexes versus their conventional stock indexes from emerging and developed stock markets. They conclude no significant difference in mean and no difference between performances in risk adjusted return basis between Islamic stock indexes and conventional stock indexes.

Al-Khazali, Lean, and Samet (2014) make comparison of nine Dow Jones conventional indexes and Dow Jones Islamic indexes. By using stochastic dominance (SD) approach, they find that at second and third orders all conventional stock indexes stochastically dominate Islamic stock indexes in all markets. During global financial crisis, Islamic stock indexes dominate conventional stock indexes.

Jawadi, Jawadi, and Louhichi (2014) examine the financial performance of Islamic and conventional indexes in Europe, USA and the World. They use Sharpe ratio, Treynor ratio and Jensen's Alpha. They also estimate the CAPM- GARCH model. They find conventional indexes outperforms Islamic indexes before financial crisis while Islamic funds outperforms conventional indexes during periods of calmness. Hendranastiti and Asutay (2016a) investigate portfolio performance comparison of Shariah portfolio and socially responsible investment portfolio in the UK. They find that Shariah portfolio has higher beta and Jensen's alpha compared to SRI portfolio.

OVERVIEW OF KMI-30 INDEX AND KSE-30 INDEX

The KSE Meezan Index (KMI-30) is a stock market index on the Pakistan Stock Exchange of Shariah criteria screened thirty companies. The index is launched in 2009. Using free float market capitalization methodology, KMI-30 index is calculated. According to this

methodology, at any point of time, the index level reflects the free-float market value of 30 companies' Shariah-compliant shares in relation to the base period.

The KSE-30 Index is a stock market index on the Pakistan Stock Exchange of top-thirty companies. The index is launched in 2006. Using free float market capitalization methodology, KSE-30 index is calculated. According to this methodology, at any point of time, the index level reflects the free-float market value of top 30 companies' shares in relation to the base period.

DATA AND METHODOLOGY

Data

For the performance comparison between conventional and Islamic stock prices in Pakistan's equity market. It takes Karachi Meezan Index-30 (KMI-30) and Karachi Stock Exchange Index-30 (KSE-30) for conventional stock prices and Islamic stock prices. It uses 6-months T-bill rate for risk-free rate. The daily data from the period September 6, 2011 to December 29, 2017, consisting of 1566 observation is used for analysis. The data is obtained from Pakistan Stock Exchange (PXS) and International Financial Statistics (IFS).

Methodology

To examine the return and volatility performance of Islamic and conventional stock indexes, ARMA (p, q) – GARCH (p, q) model is used. The ARMA (p, q) – GARCH (p, q) is specified as:

$$R_{i,t} = c_i + \sum_{l=1}^p \delta_{i,l} R_{i,t-l} + \sum_{m=1}^q \varphi_{i,m} \varepsilon_{i,t-m} + \varepsilon_{i,t} \quad (1)$$

$$h_{i,t} = \omega_i + \sum_{j=1}^p \theta_{i,j} \varepsilon_{i,t-j}^2 + \sum_{k=1}^q \phi_{i,k} h_{i,t-k} \quad (2)$$

where, $R_{i,t}$ is stock return of an index i , and $h_{i,t}$ is conditional variance of stock return of an index i which denotes stock price volatility. Moreover $\omega_i > 0$, $\theta_{i,j} \geq 0$ and $\phi_{i,j} \geq 0$. For the estimation of GARCH model, the maximum-likelihood (MLE) method is used.

The performance indicators for risk-adjusted returns of Islamic and conventional indexes such as Beta, Sharpe ratio, Treynor ratio, and Jensen's Alpha (referred to as Capital Asset Pricing Model statistics) are also used.

The daily stock return series of an index i , $R_{i,t}$ is constructed as logarithmic first difference of closing prices over the period $[t, t + 1]$. The standard deviation of stock return i , $\sigma(R_{i,t})$ is used for the total risk for stock return i . The stock returns and their standard deviations are the two statistics that are usually used to evaluate stock performance along with CAPM statistics.

The Sharpe ratio which measures the average risk-premium per unit of total risk is computed as

$$SR = \frac{R_{i,t} - R_{f,t}}{\sigma(R_{i,t})} \quad (3)$$

where $R_{i,t}$ is the stock return of an index i , $R_{f,t}$ is the risk-free return and $\sigma(R_{i,t})$ is the standard deviation of stock return i .

The Sharpe ratio shows that the stock having a higher Sharpe ratio with same risk has higher excess returns. Consequently, its financial performance is greater. Further, if SR is positive (negative), then an index i outperforms (underperforms) with reference to risk-free asset. Moreover, if the SR is between 0 and 1, it implies excess return requires higher risk. While, if the SR is higher than one it implies an excess return requires lower risk.

The Treynor ratio (TR), which measures the average risk premium per unit of systematic risk and based on CAPM is computed as

$$TR = \frac{R_{i,t} - R_{f,t}}{\beta_i}, \quad \beta_i = \frac{Cov(R_{i,t}, R_{M,t})}{\sigma_{M,t}^2} \quad (4)$$

where β_i is the market beta of stock return of an index i . It is estimated from CAPM model. It can be computed as the ratio of the covariance between the stock return $R_{i,t}$ and the market return $R_{M,t}$ and variance of market return $\sigma_{M,t}^2$.

The Treynor ratio (TR) shows that the stock having higher TR with same systematic risk has higher excess returns. Consequently, better is its financial performance.

The Jensen's alpha (α) which measures the performance of excess stock returns and is computed from CAPM model.

$$R_{i,t} - R_{f,t} = \alpha + \beta(R_{M,t} - R_{f,t}) \quad (5)$$

where α is the Jensen alpha, $R_{i,t} - R_{f,t}$ is the excess return of an index i and $R_{M,t} - R_{f,t}$ is the excess market return towards risk-free return and ε_t is the error term.

The CAPM statistics consider only the first two moments and ignored higher moments of data. Therefore, non-parametric stochastic dominance (SD) statistics to test for the dominance of any pair of the returns series are applied. For this, (Hadar and Russell 1969), three SD approach rules based on utility function namely; first-order SD (FSD), second-order SD (FSD), and third-order SD (TSD) are applied. To check the stochastic dominance (SD), KS type (Kolmogorov-Smirnov) test by Barrett and Donald (2003) is used. The KS type test is described as follows:

Let $\{L_i\}$, where $i = 1, 2, \dots, N$, be iid (identical independent distribution) having cumulative distribution function $F_L(a)$ of conventional stock returns with $D_L^s(a)$ distribution. By assuming that the CDFs generally lie between $[0, a]$, where $a > 0$ and are continuous function between the space $[0, a]$, the following rules to explain whether $D_L^s(a)$ integrates $F_a(r)$ to any stochastic dominance order $s = I$ is defined as:

$$D_L^1(a) = F_L(a) \quad \text{For FSD} \quad (6)$$

$$D_L^2(a) = \int_0^a F_L(u) du = \int_0^a D_L^1(u) du \quad \text{For SSD} \quad (7)$$

$$D_L^3(a) = \int_0^a \int_0^a F_L(v) dv du = \int_0^a D_L^2(u) du \quad \text{For TSD} \quad (8)$$

In the same way, suppose $\{M_i\}$, $i=1,2,\dots,N$, be iid having cumulative distribution function $F_M(a)$ of Islamic stock returns with $D_M^s(a)$ distribution.

To test the stochastic dominance order of stock returns “L” over asset “M, the null and alternative hypotheses are as follows:

$$\begin{aligned} H_0^s : D_L^s(a) &\leq D_M^s(a) && \text{for all } a \text{ (stock returns)} \\ H_1^s : D_L^s(a) &> D_M^s(a) && \text{for some } a \text{ (stock returns)} \end{aligned}$$

The null hypothesis is stated that stock returns “L” (conventional returns distribution) stochastically dominates over stock returns “M” (Islamic returns distribution). Whereas, the alternative hypothesis implies that distribution M stochastically dominates over L.

The following KS test statistic is applied to test the null hypothesis (H_0^s)

$$K_s = \left(\frac{N^2}{2N}\right)^{1/2} \sup_a [D_L^{-s}(a) - D_M^{-s}(a)] \quad (9)$$

This test can be applied for second ($s = 2$) or higher orders ($s > 2$) of SD. The p-values for the underlying null hypothesis through simulation method is obtained to estimate the value of suprema of test statistics, K_s (Barrett and Donald 2003).

EMPIRICAL RESULTS

Preliminary Analysis

The daily stock returns series plots of KSE-30 stock index and KMI-30 stock index are given in Figure 1. They exhibit no pattern in the stock returns. They indicate that the stock returns quickly revert to their means. They also reveal that the variances of the stock returns varies over time and volatility tends to cluster.

Figure 1: Daily Stock Returns of KSE-30 Stock Index and KMI-30 Stock Index

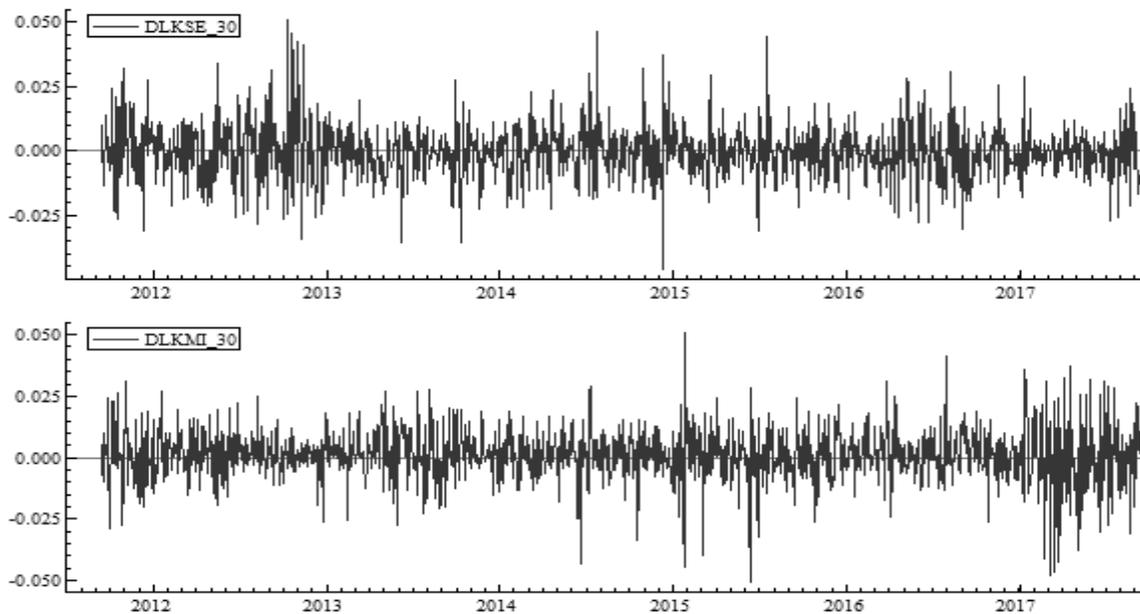


Table 1 presents descriptive statistics for the daily stock returns series of KSE-30 and KMI-30 stock indexes. The daily KMI-30 stock returns are positive on average while daily KSE-30 stock returns are negative on average. It implies that Islamic stocks have higher returns than conventional stocks. The standard deviation as a measure of total risk indicates that KMI-30 stocks have higher total risk than KSE-30 stocks. These results reveal the principle of ‘the higher the risk the higher the returns’. The skewness is positive and statistically significant in KSE-30 stock returns. While, the skewness is negative and statistically significant in KMI-30 stock returns. The excess kurtosis is statistically significant and positive for both KSE-30 and KMI-30 stock returns indicating heavy tailed and leptokurtic distribution of the daily stock returns.

The Jarque-Bera test statistic are statistically significant for both KSE-30 and KMI-30 stock returns showing non-normality in both KSE-30 and KMI-30 stock return distributions. For stationarity, Augmented Dickey Fuller (ADF) test is employed. The ADF test is used with constant

term with lags 2. The results in table 1 show stationarity of KSE-30 and KMI-30 stock indexes in first difference form.

Table 1: Descriptive Statistics and Diagnostic Checks of Daily Stock Returns for Islamic and Conventional Stock Indexes

	Daily Stock Returns	
	KSE-30	KMI-30
Mean	-0.00034027	0.00077375
Standard Deviation	0.010092	0.010265
Skewness	0.28412	-0.25100
Excess Kurtosis	2.3673	2.7542
J-B test statistic	386.24**	510.74 **
Observations	1564	1564
ADF test statistic (with constant)	-22.1544 (2)	-22.8988 (2)
LM-ARCH 1-2	23.445 [0.0000]**	38.024 [0.0000]**
LM-ARCH 1-5	15.196 [0.0000]**	19.605 [0.0000]**
LM-ARCH 1-10	10.929 [0.0000]**	12.071 [0.0000]**
LB- Q(10)	44.3361 [0.0000029]**	23.0121 [0.0107021]*
LB- Q(10) ²	171.474 [0.0000000]**	184.172 [0.0000000]**

Note: *p* – values are in parentheses, ** indicates significant at 1% and * significant at 5%.

The Table 1 also shows the Lagrange Multiplier ARCH test statistics and the Ljung-Box–Pierce Q-statistic and Q²-statistic of stock return series. The Ljung-Box–Pierce Q-statistic and Q²-statistic at lags 10 shows the presence of serial correlation in residuals and square residuals and LM statistic shows evidence of ARCH effect. The non-stationarity, non-normal distribution and volatility clustering in stock returns series imply the use of GARCH models.

Return and Volatility Analysis

Table 2 presents estimated ARMA (1,1) -GARCH-M (1, 1) model results for KSE-30 and KMI-30 stock returns series. The conditional mean equation shows average daily KMI-30 stock returns are positive while average daily KSE-30 stock returns are negative. It implies that Islamic stocks have higher returns than conventional stocks. The estimated parameters of GARCH (1,1) for KSE-30 and KMI-30 stock returns series show the ARCH coefficient and the GARCH coefficient are significant. While diagnostic tests shows non- normality, no ARCH effects and no serial autocorrelation.

The plots of the daily stock volatility series are given in Figure 2. These plots shows volatility of conventional stock index (KMI-30) is larger than Islamic stock index (KSE-30).

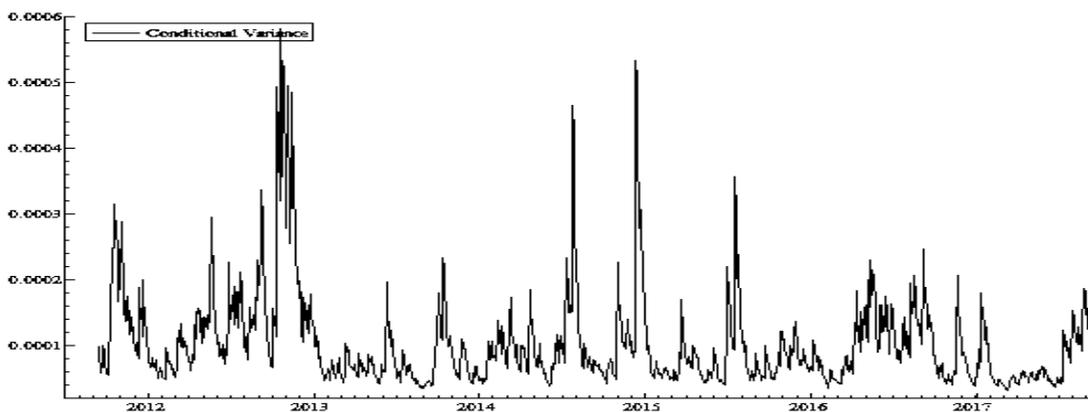
Table 2: ARMA (1,1) - GARCH (1,1) Model

Parameter	Daily Stock Returns	
	KSE-30	KMI-30
Mean Equation		
c (constant)	-0.000662 (0.0143)	0.001263 (0.0000)**
δ_1 (AR(1))	0.184174 (0.0000)**	0.154329 (0.0000)**
Variance Equation		
ω (constant)	0.048416 (0.0000)**	0.051863 (0.0000)**
θ_1 ARCH-Co	0.124649 (0.0000)**	0.114500 (0.0000)**
ϕ_1 GARCH-Co	0.832681 (0.0000)**	0.838430 (0.0000)**
$\theta_1 + \phi_1$	0.95733	0.95293
AIC	-6.493798	-6.460267
SIC	-6.476678	-6.443148
Log likelihood	5083.150	5056.929
Skewness	-0.076637	-0.16605
Excess Kurtosis	1.8899	1.8111
Jarque-Bera	234.29**	220.93**

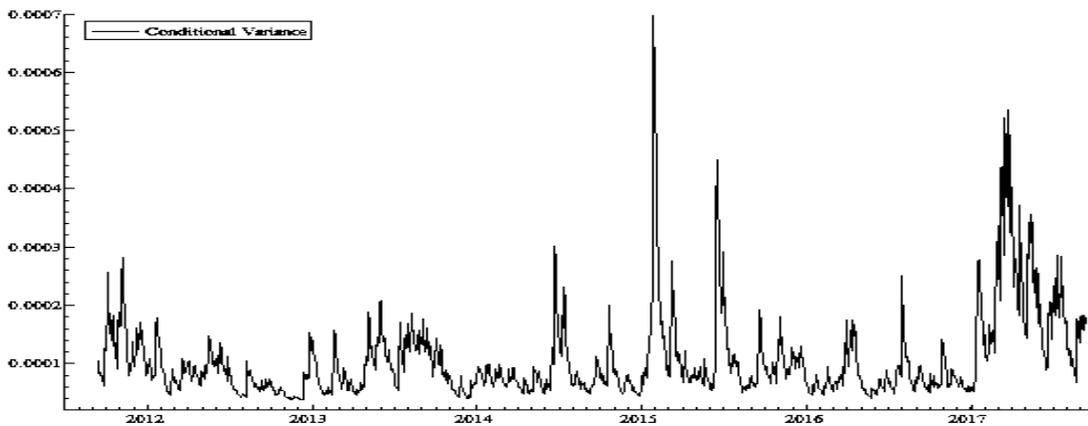
LM-ARCH 1-2	0.082089 [0.9212]	0.76704 [0.4646]
LM-ARCH 1-5	0.55093 [0.7377]	1.0280 [0.3994]
LM-ARCH 1-10	0.59814 [0.8165]	0.70477 [0.7207]
LB- Q(10)	5.10950 [0.8246599]	4.03494 [0.9090980]
LB- Q(10) ²	6.27191 [0.6168025]	7.28563 [0.5061517]

Note: p – values are in parentheses, ** indicates significant at 1% and * significant at 5%.

Figure 2: Daily Stock Volatility of KSE-30 Stock Index and KMI-30 Stock Index



KSE-30 Stock Index



KMI-30 Stock Index

Financial Performance Measures

Table 3 reports different performance measures of KSE-30 and KMI-30 stock indexes. The Sharpe ratios show that KMI-30 stock index have higher Sharpe ratio than KSE-30 index. It implies that Islamic stock index has higher excess returns by having higher risk than conventional stock index. Consequently, financial performance of Islamic stock index is greater than conventional stock index. Similarly, the Treynor ratios (TR) show that KMI-30 stock index have higher Treynor ratio than KSE-30 index. It implies that Islamic stock index has higher excess returns by having higher systematic risk than conventional stock index. Therefore, financial performance of Islamic stock index is greater than conventional stock index. The Jensen's alpha (α) of KSE-30 stock index is negative while it is positive for KMI-30 stock index. The β of both KSE-30 and KMI-30 stock indexes are positive but KMI-30 stock index has high β than KSE-30 stock index. It implies that Islamic stock index has higher excess returns than conventional stock index.

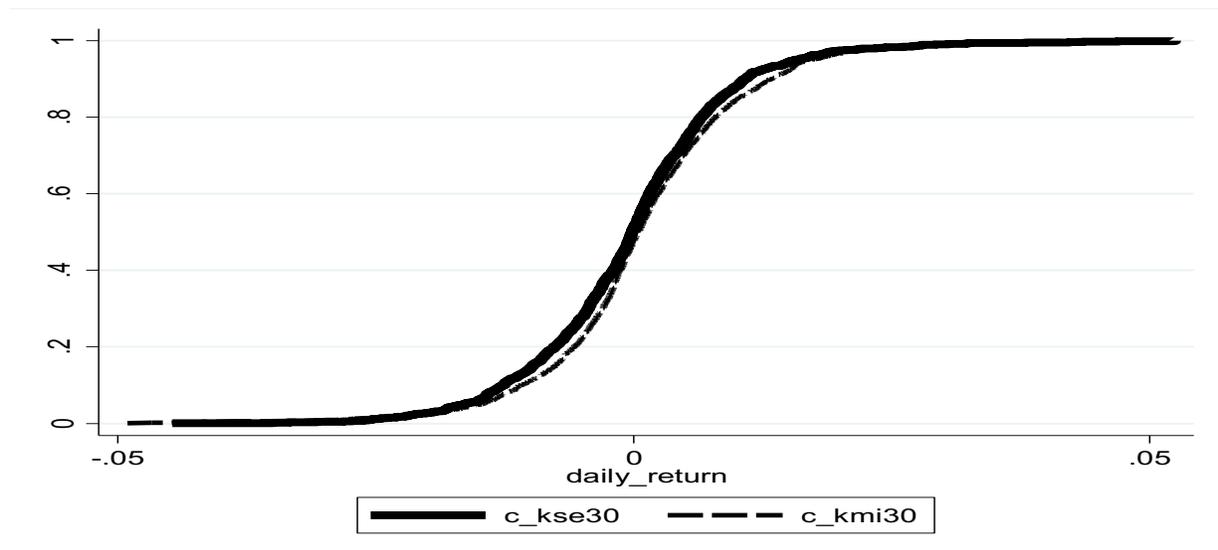
Table 3: Performance Ratios

Ratios	KSE-30 Index	KMI-30 Index
Sharpe ratio (Devos et al.)	0.013058	0.099989
Treynor ratio (TR)	0.000463	0.001417
Jensen's alpha (α)	-0.000299	0.000091
β	0.35098	0.900036

Stochastic Dominance Approach

Figure 2 shows the cumulative distribution functions (CDF) of KMI-30 and KSE-30 stock returns to check which stock outperforms better. The mean value presented in Table 1, shows that KMI-30 stock returns have high mean returns as compared to KSE-30 stock returns. Also KMI-30 stock index has high standard deviation as compared to KSE-30 stock index. Similarly, it is observed that the CDF of KMI-30 stock returns is right side to the CDF of KSE-30 stock returns. This implies that the KMI-30 stock returns would have stochastically dominance over the KSE-30 stock returns.

Figure 3: Stochastic Dominance of KMI-30 Stock Returns over KSE-30 Stock Returns



Note: The CDFs of KMI-30 stock returns and KSE-30 stock returns are presented. Solid line represents CDF of KSE-30 stock returns series and dash line shows the CDF of KMI-30 stock returns series. The CDF of KMI-30 stock returns is right side as compared to the CDF of KSE-30 stock returns distribution.

Table 4 shows the results of stochastic dominance test by applying KS test. It shows the p-values of KS stochastic dominance test under the null hypothesis of target index stochastically dominates over the other index. In the table, first column shows the stochastic dominance orders, second column presents the KS p-values, and third column shows the p-values. The p-values indicates that p-values of KS of all three SD orders are higher than the acceptable significance level. The results reveal that KMI-30 stock returns are stochastically dominated over the KSE-30 stock returns. Overall, the p-values under the heading of KMI-30 stock returns *versus* KSE-30 stock returns show that KMI-30 stock returns outperforms over the KSE-30 stock returns. However, the p-values under the heading of KSE-30 stock returns *versus* KMI-30 stock returns, indicate that KSE-30 stock returns does not outperform over KMI-30 stock returns at either stochastic dominance order. Our results are consistent with the prior studies of Hussein (2004); Hendranastiti and Asutay (2016b); Al-Zoubi and Maghyereh (2007); Albaity and Ahmad (2008). There are the many reasons that the performance of Islamic stock is better than conventional one. Among them, profit and loss sharing, comparatively low risk, short selling is not allowed etc.

Table 4: Stochastic Dominance of KMI-30 Stock Returns *versus* KSE-30 Stock Returns

	KMI-30 Index <i>versus</i> KSE-30 Index	KSE-30 Index <i>versus</i> KMI-30 Index
SD Orders		KS P-value
SD1	0.938	0.001
SD2	0.378	0.000
SD3	0.412	0.000

Note: Stochastic dominance of two pair of Indexes KMI-30 and KSE-30 is revealed. KS P-values are calculated through simulation and SD1, SD2, SD3 are three p-values of stochastic orders first, second and third.

CONCLUSION

This paper examines the performance of conventional and Islamic stock prices in Pakistan's equity market. It uses both parameters (Beta, Sharpe ratio, Treynor ratio, and Jensen's Alpha) and non-parametric approach (KS test for stochastic dominance) to examine the performance of both stock prices. For this, it uses KMI-30 stock index and KSE-30 stock index as proxies for Islamic and conventional stock prices respectively.

The results shows that the overall KMI-30 stock index outperforms KSE-30 stock index. The returns of KMI-30 stock index are greater than KSE-30 stock index. The volatility of KSE-30 stock index is higher than KMI-30 stock index. Further, KMI-30 stock index has higher excess returns than KSE-30 stock index. Therefore, Islamic stock index performs better than conventional stock index. These results are particularly interesting in term of diversification and investment opportunities for the investment in convention stocks context. Investors may more better off through controlling the risk associated with Islam is stocks. This study can be extended by focusing on the excess returns on asset pricing context through portfolio construction size and value basis. Furthermore, additional economic indicators can be included such risk factors such as, credit risk, default risk, liquidity risk in order to examine the performance comparison of Islamic and conventional stock prices.

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REFERENCES

- Abbes, Mouna Boujelbène. 2012. "Risk and Return of Islamic and Conventional Indices." *International Journal of Euro-Mediterranean Studies* no. 5 (1):1-23.
- Abdullah, Fikriyah, Taufiq Hassan, and Shamsheer Mohamad. 2007. "Investigation of performance of Malaysian Islamic Unit Trust Funds: Comparison with Conventional Unit Trust Funds." *Managerial Finance* no. 33 (2):142-153.
- Al-Khazali, Osamah, Hooi Hooi Lean, and Anis Samet. 2014. "Do Islamic Stock Indexes Outperform Conventional Stock Indexes? A stochastic Dominance Approach." *Pacific-Basin Finance Journal* no. 28 (3):29-46.
- Al-Zoubi, Haitham A, and Aktham I Maghyereh. 2007. "The Relative Risk Performance of Islamic Finance: A New Guide to Less Risky Investments." *International Journal of Theoretical and Applied Finance* no. 10 (02):235-249.
- Albaity, Mohamed, and Rubi Ahmad. 2008. "Performance of Syariah and composite indices: Evidence from Bursa Malaysia." *Asian Academy of Management Journal of Accounting and Finance* no. 4 (1):23-43.
- Barrett, Garry F, and Stephen G Donald. 2003. "Consistent Tests for Stochastic Dominance." *Econometrica* no. 71 (1):71-104.
- Causse, Geneviève. 2010. "La Finance Islamique: Les Principes et Les Principales Opérations." *La revue du Financier* no. 183:23-44.
- Cummings, Lorne S. 2000. "The Financial Performance of Ethical Investment Trusts: An Australian Perspective." *Journal of business ethics* no. 25 (1):79-92.
- Devos, Erik, Upinder Dhillon, Murali Jagannathan, and Srinivasan Krishnamurthy. 2012. "Why are firms unlevered?" *Journal of Corporate Finance* no. 18 (3):664-682.
- Elfakhani, Said, M Kabir Hassan, and Yusuf Sidani. 2005. Comparative Performance of Islamic Versus Secular Mutual Funds. Paper read at 12th Economic Research Forum Conference in Cairo, Egypt.
- Hadar, Josef, and William R Russell. 1969. "Rules for Ordering Uncertain Prospects." *The American Economic Review* no. 59 (1):25-34.
- Hakim, Sam, and Manochehr Rashidian. 2004. Risk and Return of Islamic Stock Market Indexes. Paper read at International Seminar of Non-bank Financial Institutions: Islamic Alternatives, Kuala Lumpur, Malaysia.
- Hayat, Raphie, and Roman Kraeussl. 2011. "Risk and Return Characteristics of Islamic Equity Funds." *Emerging Markets Review* no. 12 (2):189-203.
- Hendranastiti, Nur Dhani, and Mehmet Asutay. 2016a. "Sharī‘ah and SRI Portfolio Performance in the UK: Effect of Oil Price Decline."
- . 2016b. "Shari‘ah and SRI Portfolio Performance in the UK: Effect of Oil Price Decline." *Islamic Economic Studies* no. 24 (2):77-104.
- Hoepner, Andreas GF, Hussain G Rammal, and Michael Rezec. 2011. "Islamic Mutual Funds' Financial Performance and International Investment Style: Evidence from 20 Countries." *The European Journal of Finance* no. 17 (9-10):829-850.

- Hussein, Khaled A. 2004. "Ethical Investment: Empirical Evidence From FTSE Islamic Index." *Islamic Economic Studies* no. 12 (1):1-22.
- Hussein, Khaled, and Mohammed Omran. 2005. "Ethical Investment Revisited: Evidence from Dow Jones Islamic Indexes." *The Journal of Investing* no. 14 (3):105-126.
- Jawadi, Fredj, Nabila Jawadi, and Waël Louhichi. 2014. "Conventional and Islamic Stock Price Performance: An Empirical Investigation." *International Economics* no. 137:73-87.
- Mallin, Christine A, Brahim Saadouni, and Richard J Briston. 1995. "The Financial Performance of Ethical Investment Funds." *Journal of Business Finance & Accounting* no. 22 (4):483-496.
- Muhammad, Nik Maheran Nik, and Masliza Mokhtar. 2008. Islamic Equity Mutual Fund Performance in Malaysia: Risk and Return Analysis. Paper read at The Midwest Finance Association (MFA) Conference.
- Nassir, Annuar Md, Shamsheer Mohamed, and Mee H Ngu. 1997. "Selectivity and Timing: Evidence from the Performance of Malaysian Unit Trusts." *Pertanika Journal of Social Science & Humanities* no. 5 (1):45-57.