

# The Impact of IPP and HUBCO News on Energy Sector Firms: Case Study of Karachi Stock Market

Roohi Ahmed<sup>1\*</sup>, Khalid Mustafa<sup>1</sup>

1. Department of Economics University of Karachi, Karachi Pakistan

\*E-mail: [roohiazeem@yahoo.com](mailto:roohiazeem@yahoo.com)

## Abstract

The aim of the study is to investigate the role of combined news of IPP and Hubco as public information on stock market activity at energy sector firms for the period July 1998 to December 2006. It is investigated the relationship between publicly reported news in daily Dawn and Business Recorder and measures of market activity, i.e., returns and volume at firm level. It is found that the combined news of IPPs and HUBCO has no significant effect on stock returns in all selected power supply firms. However, the combined news of IPP and HUBCO has significant and negative effect on trading volume in case of HUBCO and positive effect on KESC. It indicates that the role of non-informational trade has dominant on informational trade. For day of the week investigation it is found that the combined news of IPP and HUBCO has negative and significant effect on stock returns on Monday in all selected firms except HUBCO. The combined news of IPP and HUBCO has negative and significant effect on stock returns on Tuesday on HUBCO firms. However, the positive and significant effect of combined news on stock returns found on Tuesday in KESC and SEPCO. The combined news has negative and significant effect on volume on Monday in SEPCO, Tuesday in HUBCO. The combined news of IPP and HUBCO has positive and significant effect on volume on Tuesday and Friday in KESC. It implies that there is consistency in daily variability of news across the two newspapers (Business Recorder and Dawn) and that the daily average number of news/information exhibits some systematic pattern.

## 1. Introduction

Karachi stock exchange (KSE) has been termed as one of the best performing emerging market during 1990. However, like many other emerging markets KSE is considered as shallow market<sup>1</sup>, plays limited role to raise the funds<sup>2</sup> and a fairly volatile<sup>3</sup> market. Before KSE was high volatile and perceived speculative nature the incidence of insider trading is commonly expected at KSE. In addition, preferential treatment is given to members of stock markets for their role as market makers<sup>4</sup>; time span of trade settlements<sup>5</sup> was large. From regulatory side, loose enforcement of rules and regulation<sup>6</sup> and foreign investors were not allowed to invest in KSE without prior approval of the government. Moreover, restriction on outflow and inflow of foreign exchange movements<sup>7</sup>; liquidity constraints, narrow trading base and limited use of technology<sup>8</sup> are constrained to develop the market. As

<sup>1</sup> The market capitalization to GDP ratio (31%) is less than turns over to GDP ratio (322%) in 2006. For developed market the market capitalization ratio to GDP is large and turnover is small. It implies that the size of the market is less than the size of the economy in Pakistan. Pakistan stock market in contrast to developed market like, as US capital where market capitalization to GDP ratio is 92 percent turnover is 65 percent.

<sup>2</sup> In 2006 seven new companies were listed in KSE which raised Rs. 13.59 billion.

<sup>3</sup> During 2006, standard deviation of KSE-100 was 666.65

<sup>4</sup> Members are not care the margin requirements in their mutual trade as a result a considerable part of trade lies between member themselves. It does not necessarily represent the true small investors. Moreover, members involve in speculative trade between themselves and take command on stock positions

<sup>5</sup> At that time it took time seven to fourteen days for settlements of shares and transfers the registration of share from seller to buyers. As a result *badla* financing and other informal trade begin which ultimately increase the uncertainty in stock market

<sup>6</sup> This rises the problems of insider trading through unchecked marginal requirements. These marginal requirements are neither regulated nor rigorously enforced. As a result the trade is stock market takes place with too much leverage, which can easily force a trader into bankruptcy if his expectations about the future prices are not materialized

<sup>7</sup> This policy kept the foreign investors away from Pakistani stock markets.

<sup>8</sup> These constraints limited the number of listed companies and their market capitalization.

a result information played limited role on stock market.

To play a required role in mobilization of capital in the economy, many steps were taken to open the market to foreign investors as well as to attract the local players. The institutional development and reforms resulted in more disclosure of information through frequent issue of quarterly and annual report, announcement of dividends, annual general meeting and issue the daily quotation.

Moreover, to protect investor's interest from excessive volatility in prices, the Karachi stock market has taken many measures. These are introduction of Karachi Automated Transaction systems (KATS), for up grad test to handle excessive trading volume; Central Depository System (CDS), which help to deal more than one million share per day; and National Clearing System that handle clearing and settlement of three exchanges of the country under one roof. These measures have eliminated the chances of forgery frauds, delay in transfer and thus have caused decline in the volatility of stock prices. In addition to that, the exchange provides information on real time basis to the investors through the Internet. Security and Exchange Commission of Pakistan (SECP) provides guidelines to reinforce good corporate governance whose aim is enhancing investor confidence by increasing transparency in the business practices of listed companies. In order to minimize the organizational weakness and to improve the financial soundness government privatized the financial and non-financial institution. They generated the funds from stock markets that ultimately improved the performance of stock market. Further, they also helped in linking information through remained influenced by ever changing political and economic environment and helped the investors to relate all such information with the trading activity of the market in a gainful manner, which means that no investors could earn above than normal profit.

The relevance of arrival of information is very crucial for working of efficient market. Efficient market hypothesis actually examines the arrival of new information relevant to the market on the stock prices or not? However, the empirical tests of efficient market hypothesis could not accept the random-walk hypothesis of stock returns. Most of the research focused on aggregate variables of daily market returns on one hand and on the other hand a broad based information variable of number of daily publicly announced news items.

One fundamental issue in all studies is the definition of information and its measurement. Researcher bias is bound to come into play in it. Another issue in such studies is the relative importance of various kinds of information because not all news items are equally important in the consideration of market participants.

Many researchers used economic news as information variable and ignore political news. This approach is not covered with broad-based definition of information. Some researchers used trading volume as proxy variable for information. It reflects the nature of information after trading take place. It does not provide the causes of movements of stock price and trading volume. Some economists assumed the role of information in the efficiency of the market. This method misleads to efficiency of stock market. A few economists used news items as informational variables.

Ali and Mustafa (2001) used broad-based information in Karachi stock market. They constructed informational on the basis of headlines of front page of daily "Dawn" and "Business Recorder". As they reported the difference in nature of these two newspapers is to capture the relative importance of market relevant information, which covers economic and political news items together. They also mentioned that the collection of news from these two newspapers is raw data, which creates serious problem as information variable. These problems are some news items may be only the publication of already anticipated news, which is not likely to impact market valuation of stocks on the day of its publication. The raw data on the number of daily news items does not differentiate between anticipated and unanticipated announcements. Moreover, news around a certain event may come in clusters and may some times be repeated for more than one day. To account for all three factors mentioned above, they define information as difference between numbers of daily news items from its twenty-day moving average. The idea is that this method will capture innovations or unanticipated element in news. They reported that surprise news items are negatively related to trading volume as well as stock returns. However, the observed relationship between news and market activity is weak. It indicates that the importance of factors other than public information is driving the stock market activity. Though they used broad-based definition, however, this information could not capture the sudden and

abrupt nature of information. Because they have selected simply the headlines on front pages published in the daily Dawn and Business Recorder. Unexpected or shocking news e.g., war, dispute between India and Pakistan about Kashmir matters, dispute between Pakistan and HUBCO authorities, IMF and World Bank news etc may have greater effect on trading activity of stock market as compared to the company news, dividend announcement etc. For this purpose the definition of information is narrowed from its broad-based version. It is selected some particular news to see the reflection of information on stock activity. This method is expected to use a priori information about importance of news stories. In this study it is investigated the impact of IPP news (Independent Power Producer) on energy sector. This approach is in line with the method of Niederhoffer (1971), and Cutler, Poterba, and Summers (1989) to study the impact of particular news that researchers think important. The aim of the study is to investigate the impact of IPP news (Independent Power Producer) on energy sector.

## 2. Data Description and Econometric Technique

The data on information/ News of IPP and HUBCO is collected on daily basis from the headlines of front-page news of Daily Dawn and Business Recorder. The length of data period is July 01, 1998 to Dec.31, 2006. Total 15772 news headlines are collected in which 10510 are taken from Business Recorder and 5262 from Dawn. During this sample period there are 619 days in which Karachi Stock exchange was open and trading took place. For the purpose of this study two variables are utilized i.e. (i) returns of firms (ii) and trading volume of firms. The returns are calculated by taking first difference of natural logarithm of energy sector firms. Those firms are selected whose trading took place at least 500 days. Regression technique used which shows the casual relationship between dependent variable and independent variable. It is regressed the model on market activity i.e. stock returns and trading volume at selected firm level as dependent variable and combined news of IPP and HUBCO as independent variable.

## 3. Estimation and Result

Table I presents the number of news involving IPP (Independent power produce) and HUBCO by week of the day. Mondays, Tuesdays and Friday have less than average news as compared to other days. A large of news pertaining to the above topics was published on Saturday and Sunday when the stock markets were closed.

Table 2 shows the results of eight separate regressions of excess stock returns and trading volume on dummy variable for IPP and HUBCO news. It indicates that the combined news of IPPs and HUBCO has no significant effect on stock returns in all selected power supply firms. Unlike the stock returns, the combined news of IPP and HUBCO has significant and negative effect on trading volume in case of HUBCO and positive effect on KESC. These results are in contrast to French-Roll (1986) who argued that the importance of news has significant effect on return rather than trading volume. The present study shows the trading volume is affected by the combined news of IPP and HUBCO. Ali (1997) and Nishat and Mustafa (2008) argued that due to serial correlation in return the non-informational trade has a significant effect on prices and trading volume activity in addition to volatility. The reasons may be first, KSE does not link with foreign stock market, which is why impact of news information cannot be incorporated in KSE index. Second, KSE is the emerging market, which casts down on the validity of the model regarding to information. Third, the data on information is collected from Business Recorder and Dawn and the news therein are imperfect substitute for new information. That is, these news items are settled information hence could not convey sudden and abrupt reaction on trading activity.

We further investigated these relationships separately for each day of the week and found interesting result in day of the week pattern. These are reported in Table 3. Regression of combined news of IPP and HUBCO has negative and significant effect on stock returns on Monday in all selected firms except HUBCO. This is supported to the study of Cross (1973), French (1980), Gibbson and Hess (1981), Kein and Stanbergen (1984), Lakonshok and Smidt (1987). The other reason may be the systematic pattern in arrival of information Mitchell and Mulherin (1994). There is consistency in daily variability of news across the two newspapers (Business Recorder and Dawn) and that the daily average number of news/information exhibits some systematic pattern. The combined news of IPP and HUBCO has negative and significant effect on stock returns on Tuesday on HUBCO firms. However, the positive and significant effect of combined news on stock returns found on Tuesday in KESC and SEPCO. The combined news has negative and significant effect on volume on Monday in SEPCO, Tuesday in HUBCO. The combined news of IPP and HUBCO has Positive and significant effect on volume on Tuesday and Friday in KESC.

#### 4. Concluding Remarks

In this study it is examined the linkage of combined news of IPP and HUBCO published in daily Business Recorder and Dawn with market activity of selected firm measured by market returns and trading volume. It is found that the combined news of IPPs and HUBCO has no significant effect on stock returns in all selected power supply firms. Unlike the stock returns, the combined news of IPP and HUBCO has significant and negative effect on trading volume in case of HUBCO and positive effect on KESC. It indicates that the role of non-informational trade has dominant on informational trade. For day of the week investigation it is found that the combined news of IPP and HUBCO has negative and significant effect on stock returns on Monday in all selected firms except HUBCO. The combined news of IPP and HUBCO has negative and significant effect on stock returns on Tuesday on HUBCO firms. However, the positive and significant effect of combined news on stock returns found on Tuesday in KESC and SEPCO. The combined news has negative and significant effect on volume on Monday in SEPCO, Tuesday in HUBCO. The combined news of IPP and HUBCO has positive and significant effect on volume on Tuesday and Friday in KESC. It implies that there is consistency in daily variability of news across the two newspapers (Business Recorder and Dawn) and that the daily average number of news/information exhibits some systematic pattern.

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**Table 1 Number of combined news of IMF and IPP by day of the week**

Days	News of IPP & HUBCO
Monday	57
Tuesday	47
Wednesday	66
Thursday	72
Friday	54

**Table 2 Regressions of importance of news (IPP and HUBCO with proxies) with Stock Returns and Trading volume.**

Table shows the results of univariate regressions of combined news of IPP and HUBCO on stock returns and excess trading volume of energy sector firms.

		Return	Volume
HUBCO	Coefficient	-0.026	-0.600 <sup>c</sup>
	t-values	-1.204	-1.789
	p-values	0.228	0.085
JPGL	Coefficient	-0.021	0.398
	t-values	-0.843	0.575
	p-values	0.400	0.566
KESC	Coefficient	-0.018	0.832 <sup>c</sup>
	t-values	-0.784	1.755
	p-values	0.434	0.08
SEPCO	Coefficient	-0.017	-0.362
	t-values	-0.741	-0.666
	p-values	0.459	0.505

a Significant at 1%      b Significant at 5%      c Significant at 10%

**Table 3 Day of the week and Regression Analysis with News of IPP and HUBCO**

Table shows the results of univariate regressions of combined News of IPP and HUBCO on stock returns and excess trading volume. with multiplicative dummies for each day of the week and without dummies. Stock Returns = a + b1 (Total Number of News) \* D1 + b2 (Total Number of News) \* D2 + b3 (Total Number of News) \* D3 + b4 (Total Number of News) \* D4 + b5 (Total Number of News) \* D5. Similarly, Ln(Excess Trading Volume) = c + g1 (Total Number of News) \* D1 + g2 (Total Number of News) \* D2 + g3 (Total Number of News) \* D3 + g4 (Total Number of News) \* D4 + g5 (Total Number of News) \* D5. Where D1 to D5 are dummy variables for each day of the week Monday to Friday. Numbers in parentheses are t-values.

Firms		Monday		Tuesday		Wednesday	
		Return	Volume	Return	Volume	Return	Volume
HUBCO	Coeff.	0.026	0.911	-0.145 <sup>a</sup>	-2.160 <sup>a</sup>	-0.014	-0.738
	t-value	0.545	1.153	-2.708	-2.473	-0.315	-0.956
	p-value	0.585	0.249	0.007	0.013	0.752	0.339
JPGL	Coeff.	-0.194 <sup>a</sup>	-0.968	0.077	1.635	0.035	-0.204
	t-value	-3.337	-0.6	1.213	0.927	0.58	-0.121
	p-value	0.001	0.549	0.226	0.354	0.562	0.904
KESC	Coeff.	-0.134 <sup>a</sup>	0.568	0.163 <sup>a</sup>	3.333 <sup>a</sup>	0.021	0.361
	t-value	-2.671	0.542	2.796	2.741	0.42	0.341
	p-value	0.008	0.588	0.005	0.006	0.675	0.733
SEPCO	Coeff.	-0.18 <sup>a</sup>	-2.265 <sup>b</sup>	0.174 <sup>a</sup>	-0.275	0.014	-0.387
	t-value	-3.693	-1.938	3.079	-0.204	0.258	-0.297
	p-value	0.000	0.053	0.002	0.839	0.796	0.766

a Significant at 1%      b Significant at 5%      c Significant at 10%

**Table 4 Day of the week and Regression Analysis with News of IPP and HUBCO**

Table shows the results of univariate regressions of combined News of IPP and HUBCO on stock returns and excess trading volume. with multiplicative dummies for each day of the week and without dummies. Stock Returns = a + b1 (Total Number of News) \* D1 + b2 (Total Number of News) \* D2 + b3 (Total Number of News) \* D3 + b4 (Total Number of News) \* D4 + b5 (Total Number of News) \* D5. Similarly, Ln(Excess Trading Volume) = c + g1 (Total Number of News) \* D1 + g2 (Total Number of News) \* D2 + g3 (Total Number of News) \* D3 + g4 (Total Number of News) \* D4 + g5 (Total Number of News) \* D5. Where D1 to D5 are dummy variables for each day of the week Monday to Friday. Numbers in parentheses are t-values

Firms		Thursday		Friday	
		Return	Volume	Return	Volume
<i>HUBCO</i>	Coeff.	-0.008	-1.094	-0.028	0.172
	t-value	-0.199	-1.590	-0.580	0.213
	p-value	0.842	-0.112	0.561	0.830
<i>JPGL</i>	Coeff.	-0.027	0.542	0.004	1.067
	t-value	-0.566	0.402	0.069	0.689
	p-value	0.572	0.688	0.945	0.491
KESC	Coeff.	-0.001	-0.539	-0.077	2.226 <sup>c</sup>
	t-value	-0.031	-0.586	-1.357	1.878
	p-value	0.975	0.558	0.175	0.061
SEPCO	Coeff.	-0.012	0.3	-0.03	0.844
	t-value	-0.279	0.292	-0.518	0.614
	p-value	0.78	0.77	0.605	0.54

a Significant at 1%

b Significant at 5%

c Significant at 10%

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