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Comparative study of exchange efficiency in terms of market capitalisation & trading volume

Abstract

A stock exchange is a market that is premeditated for the sale and purchase of securities of corporations and municipalities. Countries with poor governance and poor stock exchange may survive in good weather, but in these turbulent times, any country that has been hiding its shaky foundations is likely to be exposed. This paper is an attempt to compare exchange efficiency of different stock exchange in terms of market capitalization and trading volume since inception till date. The exchanges which have been considered for study are National stock exchange (NSE), Australia Securities exchange (ASX), Swiss Exchange (SWX), London Stock Exchange (LSE) and Karachi Stock Exchange (KSE).

Introduction

A stock exchange is a market that is premeditated for the sale and purchase of securities of corporations and municipalities, that is, a stock exchange sells and buys stocks, shares, and other such securities. In addition, the stock exchange sometimes buys and sells certificates representing commodities of trade. Stock exchange of various countries are the barometer of different countries. They help in raising capital for the business & mobilize the saving of investment. Also stock exchange is a very important apparatus for corporate governance. When the tide goes out after an economic storm surge it is often the most financially secure and well-managed countries that are left standing. Stock markets affect the entire economy and encourage investment. In the United States, larger cities including Boston, New York, Philadelphia, Denver, Chicago, Los Angeles, and San Francisco all have stock exchanges. Major

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cities across the world also have exchanges of their own. Stock exchanges originated as mutual organization, owned by its member stock brokers. There has been a recent trend for stock exchanges to demutualize, where the members sell their shares in an initial public offering [1]-[5].

In this way the mutual organization becomes a corporation, with shares that are listed on a stock exchange. Examples are Australian Securities Exchange (1998), Euronext (merged with New York Stock Exchange), NASDAQ (2002), the NYSE (2005). Market capitalization is a measurement of corporate or economic size equal to the share price of the number of shares outstanding of a public company. As owning stock represents owning the company, including all its assets, capitalization could represent the public opinion of a company's net worth and is a determining factor in stock valuation. Likewise, the capitalization of stock markets or economic regions may be compared to other economic indicators. The total market capitalization of all publicly traded companies in the world was US\$51.2 trillion in July 2008. Market capitalization represents the public consensus on the value of a company's equity. A corporation, including all of its assets, may be freely bought and sold through purchases and sales of stock, which will determine the price of the company's shares. Its market capitalization is this share price multiplied by the number of shares in issue, providing a total value for the company's shares and thus for the company as a whole.

Many stock market indices adjust for these by calculating on a "free float" basis, i.e. the market capitalization they use is the value of the publicly tradable part of the company.

It is possible for stock markets to get caught up in an economic bubble, like the steep rise in valuation of technology stocks in the late 1990s followed by the dot-com crash in 2000. Speculation can affect any asset class, such as gold or real estate. In such events, valuations rise disproportionately to what many people would consider the fundamental value of the assets in question. In the case of stocks, this pushes up market capitalization in what might be called an "artificial" manner. Market capitalization is therefore only a rough measure of the true size of a market.

COMPARATIVE STUDY OF EXCHANGE

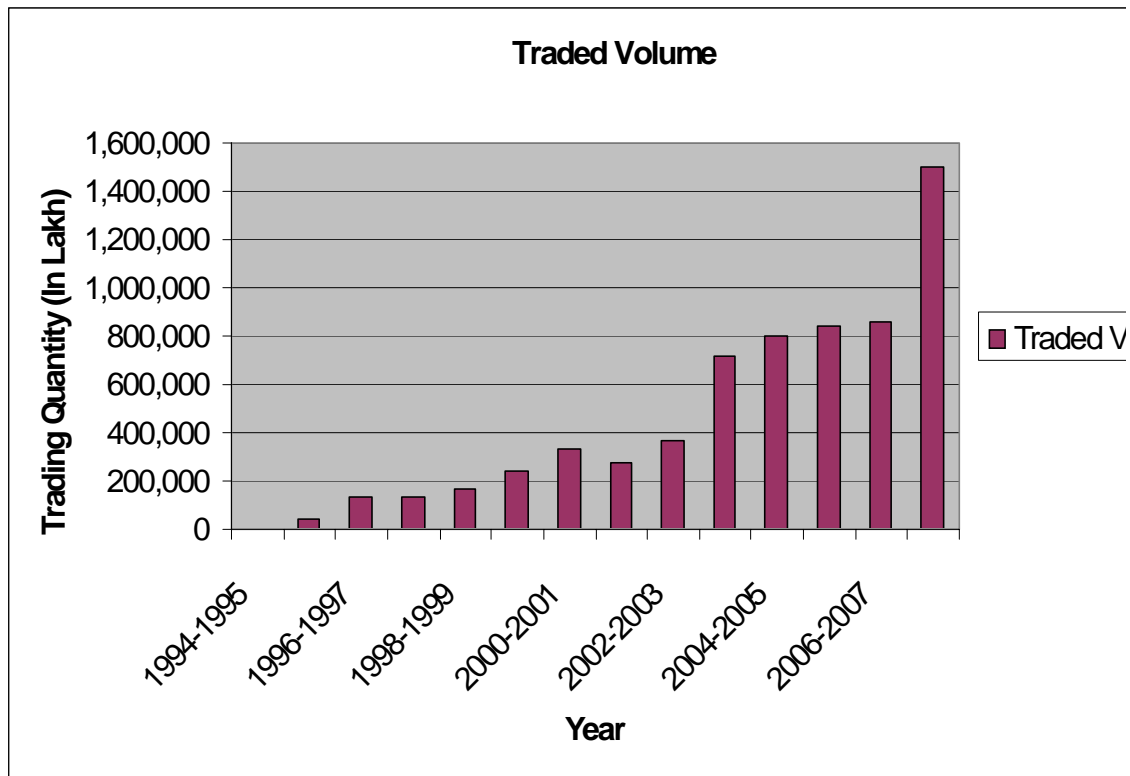
The attempt to compare exchange efficiency of different stock exchange in terms of market capitalization and trading volume since inception till date. The exchanges which have being considered for study are National stock exchange (NSE), Australia Securities exchange (ASX), Swiss Exchange (SWX), London Stock Exchange (LSE) and Karachi Stock Exchange (KSE).

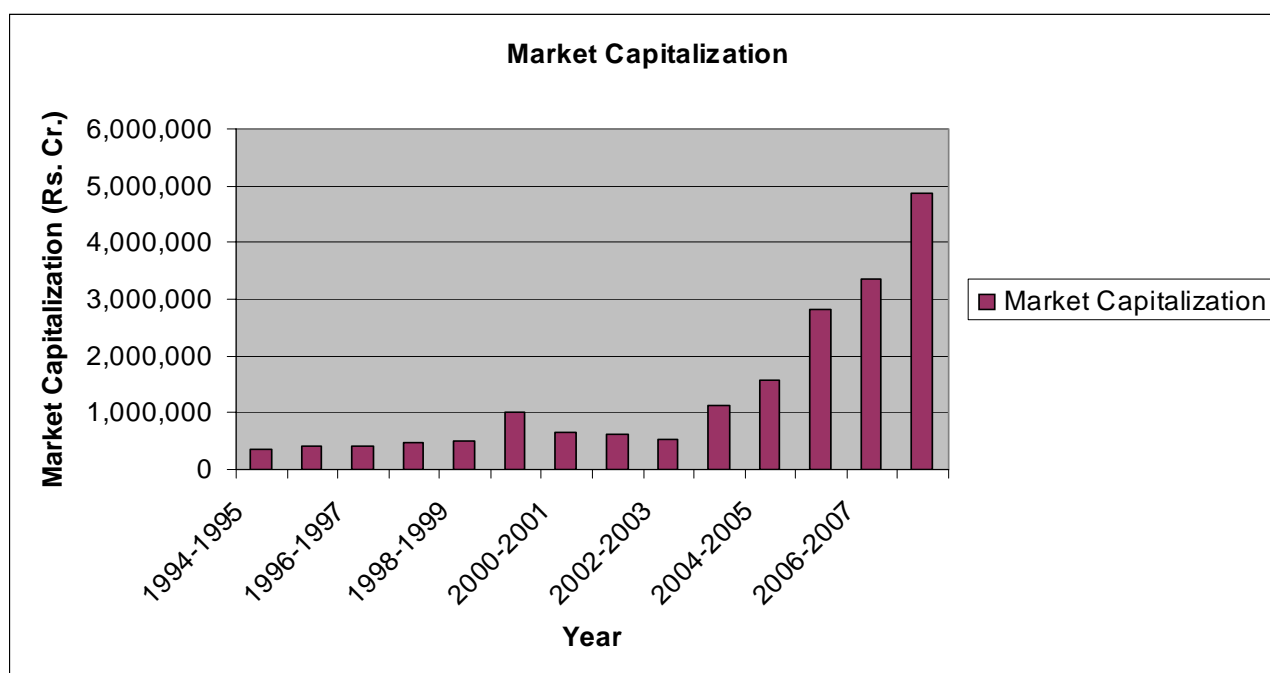
NATIONAL STOCK EXCHANGE

The National Stock Exchange of India Limited or S&P CNX NIFTY (NSE), is a Mumbai-based stock exchange. It is the largest stock exchange in India in terms of daily turnover and number of trades, for both equities and derivative trading. Though a number of other exchanges exist, NSE and the Bombay Stock Exchange are the two most significant stock exchanges in India, and between them are responsible for the vast majority of share transactions. The NSE's key index is the S&P CNX Nifty, known as the Nifty, an index of fifty major stocks weighted by market capitalization [3].

MARKET CAPITALISATION & TRADE VOLUME DATA

Month/Year	Traded Quantity (lakh)	Average Trade Size	Market Capitalisation (Rs.cr)*
1994-1995	1,391	60,167	363,350
1995-1996	39,912	101,950	401,459
1996-1997	135,561	111,895	419,367
1997-1998	135,685	97,164	481,503
1998-1999	165,327	75,911	491,175
1999-2000	242,704	85,270	1,020,426
2000-2001	329,536	79,923	657,847
2001-2002	278,408	29,274	636,861
2002-2003	364,065	25,771	537,133
2003-2004	713,301	29,088	1,120,976
2004-2005	797,684	25,279	1,585,585
2005-2006	844,486	25,781	2,813,201
2006-2007	855,456	24,793	3,367,350
2007-2008	1,498,469	30,281	4,858,122





NSE is one of the first de-mutualised stock exchanges in the country, where the ownership and management of the Exchange is completely divorced from the right to trade on it. Though the impetus for its establishment came from policy makers in the country, it has been set up as a public limited company, owned by the leading institutional investors in the country.

From day one, NSE has adopted the form of a demutualised exchange – the ownership, management and trading is in the hands of three different sets of people. NSE is owned by a set of leading financial institutions, banks, insurance companies and other financial intermediaries and is managed by professionals, who do not directly or indirectly trade on the Exchange. This has completely eliminated any conflict of interest and helped NSE in aggressively pursuing policies and practices within a public interest framework.

AUSTRALIAN SECURITIES EXCHANGE

The Australian Securities Exchange (ASX) is the primary stock exchange in Australia. The ASX began as separate state-based exchanges established as early as 1861. Today trading is

all-electronic and the exchange is a public company, listed on the exchange itself. The Australian Securities Exchange as it is now known resulted from the merger of the Australian Stock Exchange and the Sydney Futures Exchange in December 2006. As at 31-Dec-2006 the three largest sectors by market cap were financial services (34%), commodities (20%) and listed property trusts (10%). The major market index is the S&P/ASX 200, an index made up of the top 200 shares in the ASX. This supplanted the previously significant All Ordinaries index, which still runs parallel to the S&P ASX 200. Both are commonly quoted together. The ASX is a public company, and its own shares are traded on the ASX. However, the corporation's charter restricts maximum individual holdings to a small fraction of the company [2].

The exchange began as six separate exchanges established in the state capitals Melbourne (1861), Sydney (1871), Hobart (1882), Brisbane (1884), Adelaide (1887) and Perth (1889). An exchange in Launceston merged into the Hobart exchange too. Trading was conducted by a call system, where an exchange employee called the names of each company and brokers bid or offered on each.

In the 1960s this changed to a post system. Exchange employees called "chalkies" wrote

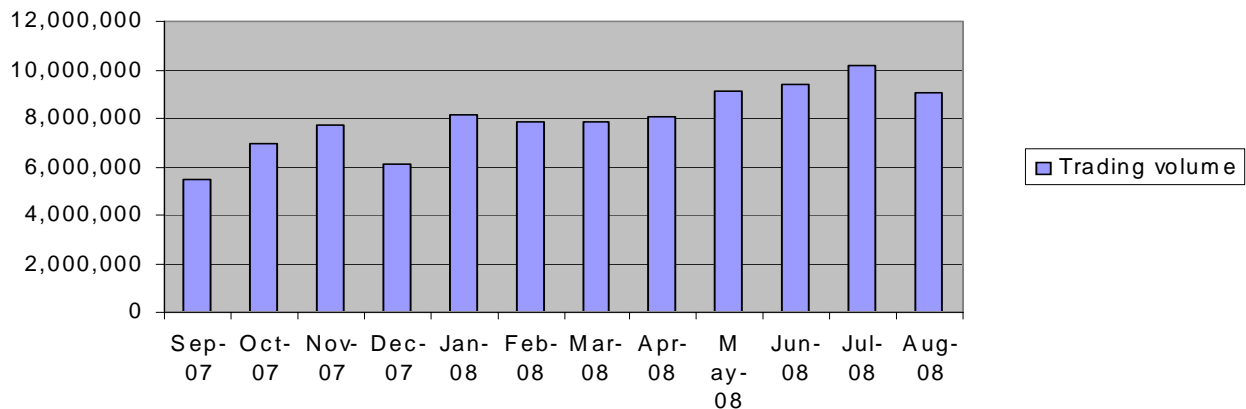
bids and offers in chalk on blackboards continuously, and recorded transactions made.

MARKET CAPITALIZATION & TRADING VOLUME DATA

Year	Market Capitalization
2002	688,260
2003	700,587
2004	855,618
2005	991,485
2006	1,234,137
2007	636,750
2008	183,703

Month	Trading Volume
Aug-08	9,078,290
Jul-08	10,171,963
Jun-08	9,436,699
May-08	9,119,836
Apr-08	8,048,325
Mar-08	7,834,520
Feb-08	7,886,918
Jan-08	8,123,002
Dec-07	6,121,655
Nov-07	7,710,557
Oct-07	6,971,694
Sep-07	5,463,360

Trading Volume



SWISS EXCHANGE

SWX Swiss Exchange is Switzerland's stock exchange, based in Zürich. The main stock market index for the SWX Swiss Exchange is the SMI, the Swiss Market Index. The index consists of the 20 most significant equity-securities based on the free float market capitalization. The Swiss Stock Exchange (SWX), based in Zurich is the first stock exchange in

the world to incorporate a fully automated trading, clearing and settlement system in 1995. The Swiss Stock Exchange (SWX) is controlled by an association of banks which number 55. Each of these banks have equal voting rights in the matter of decision making concerning the management and regulation of the Swiss Stock Exchange. The Swiss Stock Exchange (SWX) is the joint owners of the Eurex, the world's largest futures and derivatives

exchange along with their German partners Deutsche Börse. The Swiss Stock Exchange(SWX) has a blue-chip index as its stock market index. It is called the Swiss

Market Index (SMI) and comprises a maximum of thirty largest and at the same time most liquid, large and mid-cap SPI stocks [4].

MARKET CAPITALISATION & TRADING VOLUME DATA

Year	Trading Volumes	Market Capitalization
1999	8 013 413	
2000	7 636 654	1 056 908.0
2001	9 813 840	860 475.5
2002	9 474 697	614 304.5
2003	11 136 097	721 278.8
2004	12 135 777	760 013.7
2005	12 852 654	1 000 499.7
2006	16 083 409	1 155 631.0
2007	21 901 437	1 058 528.1
2008	32075603	

LONDON STOCK EXCHANGE

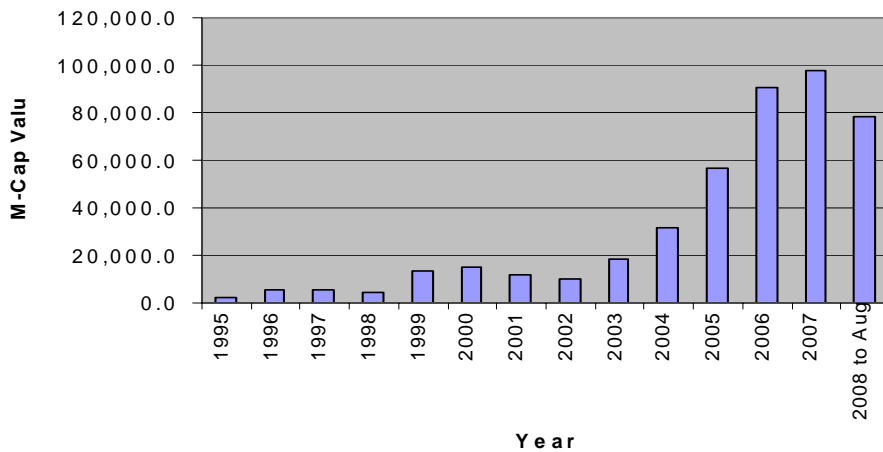
The London Stock Exchange or LSE is a stock exchange located in London, United Kingdom. Founded in 1801, it is one of the largest stock exchanges in the world, with many overseas

listings as well as British companies. The LSE is part of the London Stock Exchange Group plc. Its current premises are situated in Paternoster Square close to St Paul's Cathedral in the City of London [5].

MARKET CAPITALIZATION & TRADING VOLUME DATA

Year	Number of companies			Market value (£m)	Turnover value £m	Shares traded(m)
	UK	International	Total			
6/19/1995	10	0	10	82.2		
1995	118	3	121	2,382.4	270.2	544.3
1996	235	17	252	5,298.5	1,944.2	5,529.1
1997	286	22	308	5,655.1	2,415.3	6,443.0
1998	291	21	312	4,437.9	1,948.2	6,921.4
1999	325	22	347	13,468.5	5,397.5	21,258.5
2000	493	31	524	14,935.2	13,605.6	39,510.3
2001	587	42	629	11,607.2	4,854.8	28,166.6
2002	654	50	704	10,252.3	3,517.6	24,791.8
2003	694	60	754	18,358.5	6,615.8	57,662.3

Market Capitalization



,325.9
,265.5
,510.4
,861.0
,208.1

KARACHI STOCK EXCHANGE

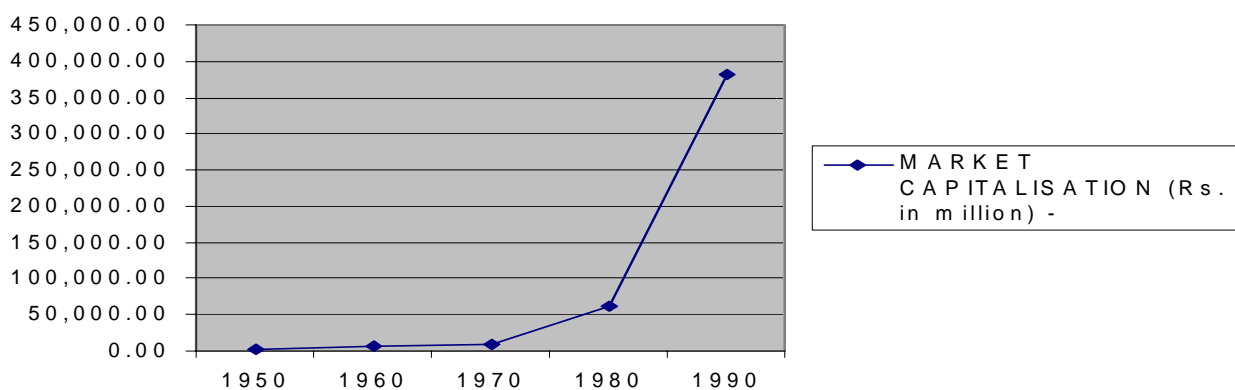
The Karachi Stock Exchange or KSE is a stock exchange located in Karachi, Sindh, Pakistan. Founded in 1947, it is Pakistan's largest and

oldest stock exchange, with many Pakistani as well as overseas listings. Its current premises are situated on Stock Exchange Road, in the heart of Karachi's Business District [1].

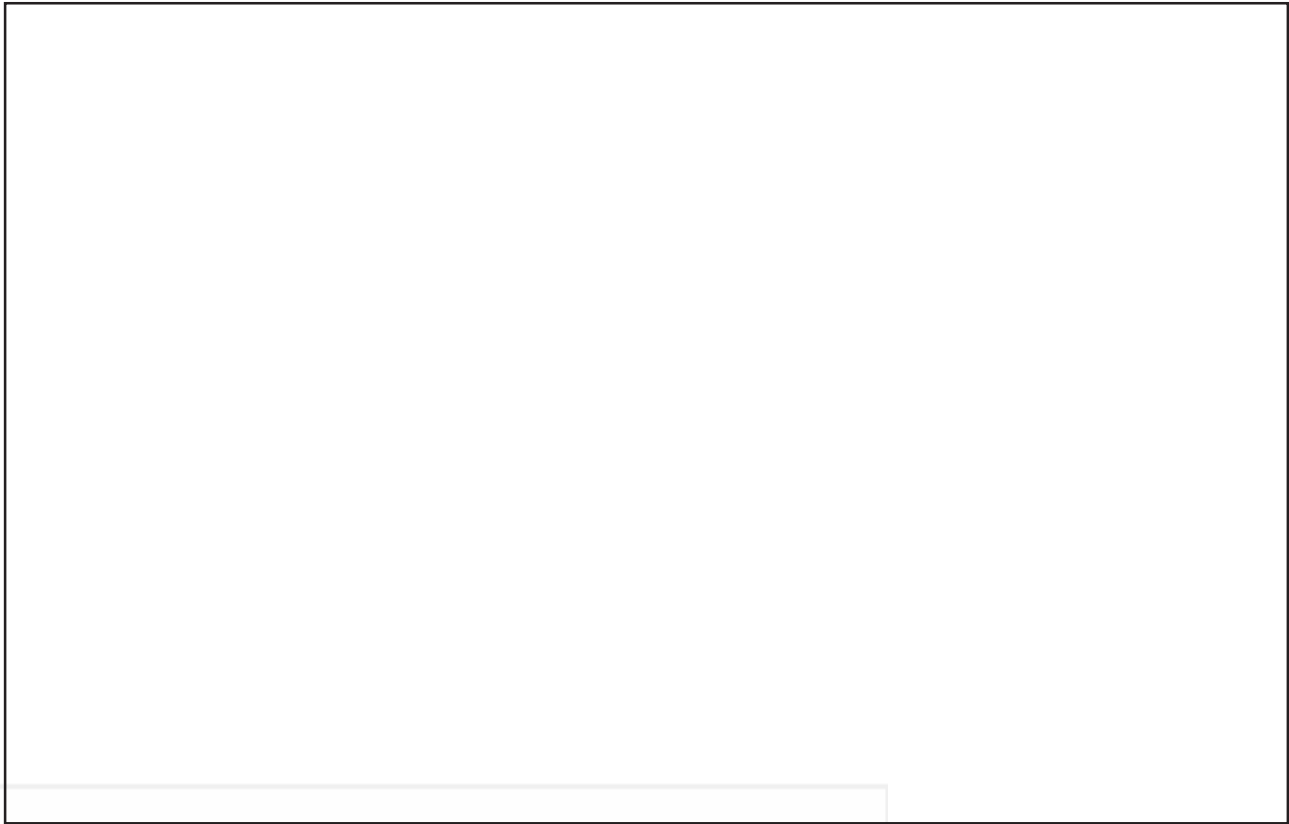
MARKET CAPITALIZATION DATA

YEAR	MARKET CAPITALISATION (Rs. In million)
1950	-
1960	1,871.40
1970	5,658.10
1980	9,767.30
1990	61,750.00
2000	382,730.40

MARKET CAPITALISATION (Rs. in million)

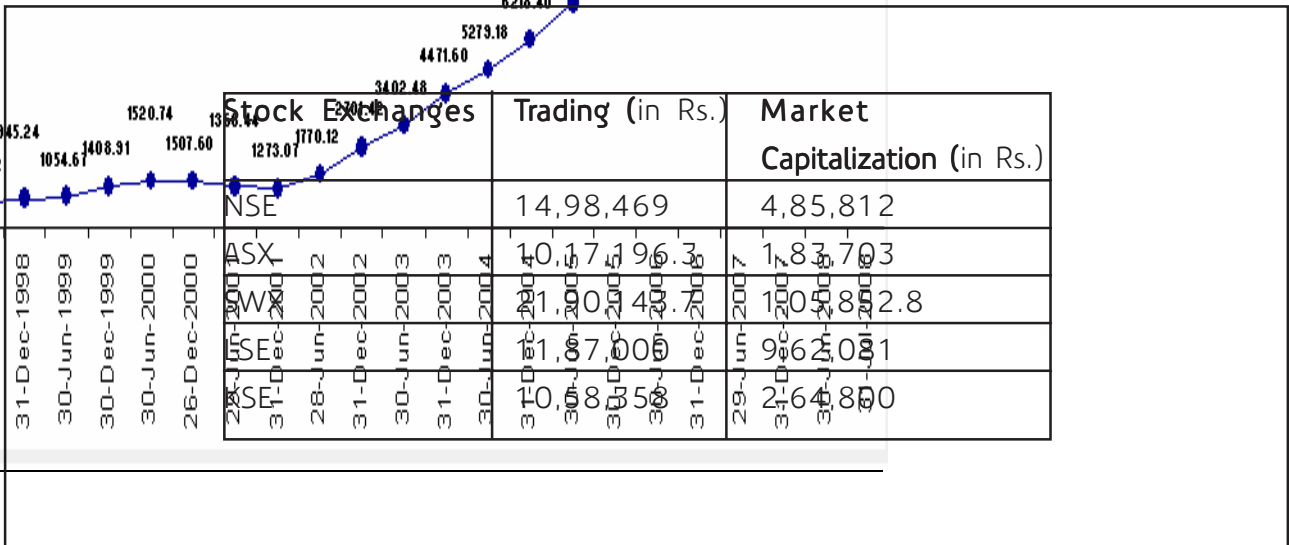


PERFORMANCE OF KSE 100 INDEX (FROM 30TH JUNE, 1998 TO 31ST JULY, 2008)



COMPARATIVE STUDY OF STOCK EXCHANGE EFFICIENCY

The comparative study of exchange efficiency in terms of market capitalization & trading volume is presented with the help of following table



Stock Exchanges	Trading (in Rs.)	Market Capitalization (in Rs.)
NSE	14,98,469	4,85,812
ASX	10,17,196.3	1,83,703
NYSE	11,07,000	10,58,22.8
KSE	10,68,358	9,62,001
		2,64,800

The most important and developed stock exchange is found to be LSE & next is NSE, While in volume trading and market capitalization it is found that NSE is best traded stock exchange. Though KSE was declared to be best performing stock exchange but in reality it is the most volatile because of the instability in politics in Pakistan, Australian stock exchange shows the good growth in past 2 years, introducing different innovative ideas to improve the trading, Swiss Stock Exchange (SWX) is the world's largest futures and derivatives exchange.

CONCLUSION

All the stock exchanges which are explained in this paper are studied and are found that every stock exchange is different from each other in so many aspects. All the 5 stock exchange is performing well from past 5 years excluding the current year of turbulence.

ACKNOWLEDGEMENT

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