



Comparison between Floor Trading and Electronic System on Liquidity

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Abstract: A trend towards computerized transaction points out a significant query that either electronic cost which is occurring in trading system is lower than that of trading through floors. Trading system is how orders are handled and how they are administered and how individual prices are been setup. The trading affects the profitability and hence it affects traders' behavior, price formation and trading cost. Data of returns of KSE 100 index from the period of January 1998 to June 2008 and the variables that have the significant difference in the Electronic system are volume, market capitalization, volatility and turnover. Thus, electronic system shows more information in a limited time when volume and return volatility is high. The results and findings indicated that the electronic system has a significant edge over trading by floors.

Key Words: KSE 100 index, Market capitalization, volatility, turnover

Introduction

The development of electronic system using trade market, orders are prepared on the source of importance to limit and help deliver more number of shares being sold and purchased. There are two reasons from which the briefings are considered risky. Firstly, traders will disclose all the information about the shares to the shareholders so that the shareholders who have got priority should be well informed and they should know what the important shares are which have to be picked up. To reduce the danger, the sellers would sell and trade carefully among counterparties. Secondly the problem with other traders would increase significantly. Thus, progress will increase in the market impact of the orders (Domowitz, 2001).

In this way to remove or to reduce the risk the giant or the big traders try to expose only to the priority or good traders who like to get benefit out of it. The outcome thus far be the execution costs are less raised at all size categories. The deviation in normal transaction remained statistically useful afterwards. By calculating it in selecting adverse, comparative tick sizes and financially viable characteristics crosswise with samples (Jain, 2005).

The liquidity job for the floor brokers is more deceptive for less active stores; the trade among these branches is less vibrant for provisions with large exchange of volume. The off-exchange traders may have briefings in liquefied stores electronically rather than get the advanced projects of the floor broker and if the valued by human intermediation that is inferior for highly liquefied stores, Before we can look ahead to an automated trading instrument to have inferior performance that charges for a test of liquefied store so by comparing execution charges of large and liquefied stores in the market structures. It is intentionally biasing the outcomes in the direction of finding smaller execution charges in an automated trading system. The bigger dealing capacity in the dwelling homeland presents important liquidity assistance that might be dissimilar to the relation competences of the trade mechanism. By analyzing performance it measures the goods with identical features. In the dual market of trade, this paper tries significantly to overcome this restraint and to explore the

relationship between familiar environments to make organizational efficiency. While in developed association dealing means offers many benefits over the floor but as by contemplating the present tendency toward computerization of sale markets, the relation effectiveness of an automated versus a floor-based means as significant.

Literature Review

The price of the automated system and trading and to perform trades crosswise is considerably reduced in New York associated to Paris. The reliant variable for this study was liquidity, Stock cost volatility and independent variable was dealing volume. The outcome recommended that the current practice of the computerized trading system may not be able to fully copy the profit of the call option as human intermediation on a trading floor (Venkatarman, 2001).

ATS is more significant in US than in Europe, secondly in the US there is a trade concerned on the NASDAQ and the NEW YORK stock exchange in which NASDAQ share is called about 30%. While the impact of New York stock exchange was still quite (Degryse & Achter, 2001).

The automated market examines the dissimilarities in the use of market and restrict instructions by acquainted traders and liquidity traders, and we further investigate the dissimilarities between little and large liquidity traders and present outcomes on how the proposal rates of instructions (relative to market orders) develop through time, and on how the instability of a security or the worth of data held by informed traders sway dealer strategies (Bloomfield, Maureen & Sagar, 2003). A great part of bid ask quotes invent from the edge sort book lacking shortest contribution by specialists, and that struggle among traders and specialists has a major impact on the bid ask spread. Specialists' spreads are widest at the release, tapered until late sunrise, and then plane (Chun, Ness & Ness, 1998)

Futures and spot charges precede simultaneously more closely when both devices are computer display traded. This finding carries the major Hypothesis major of the thesis. Secondly, the discerned discrepancy in market integration will not be attributed to distinct arbitrage trading (Kemp & Korn, 2000).

The outcome analyze from this study is that scattered dimensions is more likely to be partial by the number of dealings, somewhat than that of trade size. Generally, these observed results, the information satisfied the number of dealings appeared to be higher than the trade sizes in the Taiwan OTC market (Tai, Chiang & Chou, 2006).

Relationships among dealing cost, technology, and the situation of intermediation in the trade. Market places representing automated trade execution are associated in reducing the trade costs. Lower explicit charges are associated in developing and functioning charges in electrical devices. The customary sight struggle that stock market is ordinary monopolies. Formerly trades has a positive quantity of liquidity, it is possible to pull towards extra trading volume, still if here are additional capable but less liquid, alternatives (Schilling & Wahrenburg). At the similar point in time as the Government analysis have shack significant radiance on the motivation and of Nasdaq market makers to connect in anti-competitive behavior, the information is silent on a figure of significant subject. (Christie & Schultz, 1999)

Information from electrical devices restricts alignment publications are recognized in cost savings. The awareness of liquidity in environments is accessible, and it promises to perform and illustrate using restricted placement publication data. If liquidity providers are compact then traders whose guidelines go beyond the line dimension might disburse upper deal implementation expenses, even if quoted spreads are narrower (Bessembinder, 1999). Mediation is characterized as the restoration of an uncover mediated institution, and its situation is queried for brokers and dealing markets in an electronic environment. Competitive fringes to the establishment of liquidity administration services are in evaluation over kinds of reintermediaries (Domowitz, Jean & Frank 2001).

The NASDAQ multiple trader market is conceived to make slender bid-ask spreads through the affray for alignment flow within dealers. Though, we find that odd-eighth extracts are efficiently missing for 70 of 100 actively traded NASDAQ securities, surrounding Apple Computer and Lotus

Development. The deficiency of odd-eighth extracts will not be explained in the hypothesis of Harris (1991), trade or extra variables influencing spreads. The outcome recommended that the interior disperse for a large amount of NASDAQ materials is at least \$0.25 and increases the investigation of if NASDAQ traders indirectly conspire to preserve broad spreads (Christie, Harris & Schultz, 1994).

The outcomes display that despite likely market fragmentation due to the supplement of alternate dealing venues, quotes submitted by ECNs and dealers have data content and extracts on the same asset contemplate widespread information. Prior Studies showed that study on NASDAQ are greater than that which is one on NYSE as Ness & Ness reported that both the quoted and effective stock traded on NASDAQ are wider than those which are traded in NYSE. Foreign listing may also be utilized as a vehicle for reducing risk, as a marketing tool to improve firm's international profile and to overcome market segmentation barriers (Foester and Karolyi, 1999).

Further investigation proposes that functional dissimilarities between ECNs and NASDAQ market manufacturers have an influence on cost discovery. Specifically, ECNs' share of cost breakthrough is increased by acquainted traders who are tempted by the proficiency to trade anonymously but is impeded by liquidity traders who are captivated by the likelihood of lower dealing costs (Huang & Stall, 1995).

Research Method

Method of Data Collection

Secondary data of the variables KSE 100 Index stock returns, market capitalization and volatility has been collected to measure the difference of floor trading and Electronic system on liquidity. Monthly data over the period January 1998 to June 2008 has been employed. The choice of a monthly frequency is consistent with previous work (Degryse & Achter, 2001) which examines the variables in relation with the returns. The price effect of the trades is smaller than the share trade that is executed lower than the simple trade that approaches to overlook and monitor the volume and stayed nearly continuous along different trade sizes.

Sample Size

Monthly data of Stock returns of KSE 100, market capitalization, volatility and turnover has been collected for the period of 10 years since January 1998 to June 2008. Data has been gathered from State Bank of Pakistan (SBP), Karachi Stock Exchange (KSE) to examine the difference of floor trading and Electronic System on Liquidity.

Research Model Developed

The fundamental endeavor of this analysis is to conclude whether information, specifically Electronic System, gives incremental information in comparison with trading through floor concerning the behavior of returns. Some work has been conducted at the market level (O'Hara, 1995; Harris, 1997; Jain, 2005). To analyze the comparison between returns of Floor trading and Electronic system after it has been implemented.

Results

The descriptive table exhibits the sample size, mean, standard deviation, and standard error for both groups. Total sample size used for the analysis is 114 out of which 60 responses were taken from floor trading and 54 responses were taken from electronic system. In this study Volume, market capitalization, volatility and turnover are taken as variables which were used to show the variation between liquidity and floor trading after the implementation of electronic system. Mean value of volume on floor trading is 7.2470 as compared to electronic trading that is 8.8106. Independent t-test was used to compare the difference between the floor trading and electronic system on liquidity. Mean is taken as average and std.error of mean is calculated as standard deviation divided by the square root of the sample size.

Table 1

| Group Statistics | | | | | |
|--------------------------|-------------------|----|---------|----------------|-----------------|
| | Dummy | N | Mean | Std. Deviation | Std. Error Mean |
| Volatility | Floor Trading | 59 | 1.6689 | .77512 | .10091 |
| | Electronic System | 54 | 1.3402 | .70195 | .09552 |
| Ln_Volume | Floor Trading | 60 | 7.2470 | .26120 | .03372 |
| | Electronic System | 54 | 8.8106 | .47230 | .06427 |
| Ln_Turnover | Floor Trading | 60 | 7.8134 | 2.24256 | .28951 |
| | Electronic System | 54 | 5.7487 | .53049 | .07219 |
| ln_Market_Capitalization | Floor Trading | 60 | 12.7883 | .20492 | .02645 |
| | Electronic System | 54 | 14.3691 | .56234 | .07653 |

Hypotheses Assessment Summary

The hypothesis of the study was to identify the difference of floor trading and electronic system on liquidity. This table shows the statistical result about the rejection and acceptance of the hypotheses.

Table 2

| | Hypotheses | T | Sig. | RESULT |
|----------------------|--|----------|-------------|---------------|
| H₁ | There is a significant difference between floor trading and electronic system on liquidity. | -22.160 | 0.000 | Rejected |
| H₂ | Market Capitalization a significant difference between floor trading and electronic system on liquidity. | -20.334 | 0.000 | Rejected |
| H₃ | Volatility has a significant difference between floor trading and electronic system on liquidity. | 2.355 | 0.020 | Rejected |
| H₄ | Volume has a significant difference between floor trading and electronic system on liquidity. | -21.543 | 0.000 | Rejected |
| H₅ | Turnover a significant difference between floor trading and electronic system on liquidity. | 6.599 | 0.000 | Rejected |

Conclusion

The world proposes to proceed from the floor-based operation scheme to the electrical devices dealing structure. This tendency in the direction of mechanization raised significant inquiry of the relation efficiencies of the two dealing means this topic by matching the trade execution charges for the widespread supply of same companies in an automated restrict alignment and a floor-based market structure. The automation decreases business costs drastically. ATS is the promoter of computerized schemes and should thus be more thriving in the United States. Our empirical work displays that automation also has an important influence on dealing charges, but still less considerable than in an international context. Markets are typically synchronized as an auction market where buyers can propose and limit orders. ECNs allows investors to buy and sell with each other by a restrict alignment publication without the intervention of a dealer. Thus affray appears to be more significant than division of markets. The outcomes on market deepness are inconclusive. ECNs reduce the informational effectiveness of the market. The cause is that ECNs normally permit for anonymous dealing, premier to a boost in the harmful assortment constituent of the spread. Crossing systems depend on cost breakthrough at the prime exchange while ECNs dynamically assist to the cost breakthrough process. Currently, dealing capacity on alternate dealing schemes is quite stumpy compared to the well-known market places. This research can further be studied by using cads as by implementing the electronic system of intranet to different cities and compare the results with the current research.

References

Bessembinder H. 2000. Tick Size, Spreads, and Liquidity: An Analysis of Nasdaq Securities Trading near Ten Dollars. Journal of Financial Intermediation. 9: 213–239.

- Bhattacharya N, Black L, Ervin Christensen E, Theodore & Mergenthaler D, Richard. 2007. Who trades on Pro Forma Earnings Information. *Accounting Review*. 82(3): 581-619.
- Bloomfield R, O'Hara M, & Saar G. 2005. The "make or take" decision in an electronic market: Evidence on the evolution of liquidity. *Journal of Financial Economics*. 75(1): 165-199.
- Christie G, William & Schultz H, Paul. 1999. The initiation and withdrawal of odd-eighth quotes among Nasdaq stocks: An empirical analysis. *Journal of Financial Economics*. 52: 409-442.
- Chung H, Kee Ness V F, Bonnie & Ness V A, Robert. 1999. Limit orders and the bid ask spread. *Journal of Financial Economics*. 53: 255-287.
- Chung h, Kee Ness V A, Robert & Ness V F, Bonnie. 2004. Trading Cost and quote clustering on the NYSE and NASDAQ after decimalization. *Journal Of Financial Research*. 17(3): 309-328.
- Degryse H, & Achter M, Van. 2001. *Alternative Trading Systems and Liquidity*. Center Of Economic Studies.
- Domowitz I. 2002. Liquidity, Transaction Costs, and Reintermediation in Electronic Markets. *eBusiness Research Center*. 22(1): 141-157.
- Faff W, Robert, Hodgson A & Saudagaran S. 2002. International cross-listings towards more liquid markets: the impact on domestic firms. *Journal of Multinational Financial Management*. 12(12): 365-390.
- Foerster R, Stephen & Karolyi A G. 1999. The Effects of Market Segmentation and Investor Recognition on Asset Prices: Evidence from Foreign Stocks Listing in the United States. *The Journal of Finance*. 54(3): 981-1013.
- Grammig J, Schiereck D & Theissen E. 2000. Knowing Me, Knowing You: Trader Anonymity and Informed Trading in Parallel Markets. *Department Of Economics*. 4(4): 385-412.
- Huang D, Roger & Stall R, Hans. 1995. Dealer versus auction markets: A paired comparison of execution costs on NASDAQ and the NYSE. *Journal of Financial Economics*. 41: 313-357.
- Jain K, Pankaj. 2005. Financial Market Design and the Equity Premium: Electronic versus Floor Trading. *The Journal of Finance*. 60(6): 2955-2985.
- Kempf A & Korn O. 1998. Trading System and Market Integration. *Journal of Financial Intermediation*. 7(3): 220-239.
- Pagano M. 1998. *The Changing Microstructure of European Equity Markets*. Centre for Studies in Economics and Finance.
- Schilling S C, & Wahrenburg M. 2000. Regulating Competition between Stock Exchanges. *Journal Of Finance*. Theissen E. 1999. Floor versus Screen Trading: Evidence from the German Stock Market. *Journal of Finance*.