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# Does Investor Attention Matter's?

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**Abstract:**

*The purpose of the study is to examine the effect of investor attention on profitability, liquidity and volatility of a firm. Forty two firms listed on Karachi Stock Exchange are investigated. Data with monthly frequency from November 2009 to October 2013 is analyzed to inspect the relationship. It is found that the investor attention partially affect profitability, liquidity and volatility. Liquidity of a firm is more affected by investor attention as compared to profitability and volatility.*

**Keyword:** *investor attention, liquidity, volatility*

## Introduction

It is often said that investors have infinite cognitive resources with high attentiontoward the stock market activities. On the other hand investors have in realitylimitedcognitive capabilities (Kaheman, 1973).Previous studies show that there are limitsto the essential cognitive processing capability of the human brain.Sometime huge amount of information is available but investor collect specific information for their decision purpose, and alsoshows that attention have vital role in investors learning and trading behavior.

In the advancement of information technology the world is going in the digital era and internet is becoming an essential research tool. It provide us the easiest way to access information from different sources and people are more dependent on search engines to get their desired results from the internet, with respect to other search engine Google become the most frequently using search engine as worldwide and now in Pakistan, if someone do search on Google so he is paying attention to it (Da, Engelberg, & Gao, In Search of Attention, 2011),and without any biasness Google trend is the most reliable source of measuring Pakistani investors' attention so

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irrelevant and noisy information is ignorable or negligible. Our research contributes andsomehow relates to the stream of literature that analyze the "investor attention hypothesis" (e.g.,(Fang & Peress, 2009), (Grullon, Kanatas, & Weston, 2004)and (Tetlock, 2010). Investor frequently gather information on stocks that are traded in market, they pay high attention toward every piece of information which is related to the specific stock, because as we discuss before human brain has a limited central cognitive processing capability. Sometimesincomplete or asymmetric information become a problem for investors and it could be risky for them to make decisions. When investor pay a high level of attention toward the stock by searching actively on search engine, so they receive specific information on the stock which decreases level of asymmetric and incomplete information problems. It result, the stocks with more investor attention have a high rate of liquidity.

This paper is divided in to following steps. First, we examined the case of Pakistani stock market while previous studies emphasize on the US and French stock markets(Ding & Hou, 2011)(Vlastakis & Markellos, 2012) and(Aouadi, Arouri, & Teulon, 2013). Second, the paper analyzes empirically that does investor attention matters? And wefollowGoogle search volume as a proxy on monthly basis for knowinginvestors' attention for stocksin KES 100-index.
And third, we considered Investor Attention as independent variable and profitability, liquidity and volatility as dependent variable.

Our results may help for stakeholders of institutions like financial markets (e.g. stock brokers and liquidity traders) from this they can efficiently learn investors trading behaviors. Finally, our findings may also benefit to search engine firms to develop a business model and standardize the search data on individuals searching behavior in terms of accuracy and timeliness, and then they are able to sell this information to concerned participants those who need such information.

The rest of the paper is arranged as follows. Section 2 demonstrates relevant literature review. Section 3 describes data and methodology. Section 3 presents empirical results, interpretation and relevant discussion. Section 4 will draw conclusion.

**Literature Review**

The concept "recognition of investor" was initiallyintroduced by (Merton, 1987) andsuggests that investor attention may be relevant to the stock market activities.Human brain is bounded in

its information processing capability, attention plays a vital role in learning, selecting, decision making, and also effects trading behavior of investors(Hou, Xiong, & Peng, 2009).Asset pricing model speculate that investor attention is an essential part of stock price to fully integrate the public information, as aninvestor has to be conscious about information before he can observe and respond to this specific stock information.(Peng, Xiong, & Bollerslev, 2007)They find out that investors shift their limited attention to process market level information, anincrease in market wide uncertainty and then subsequently divert their attention back to assetspecific information.

According to Merton the firm should be well recognized or front line investors should be aware to the firm before investments, this shows investor attention is obligatory condition for a company to be recognized, also stated that increment in search volume increases the trading activities like stock prices, liquidity and temporary returns(Merton, 1987). (Barber, Odean, & Zhu, 2006) Investors only focus on those stocks which are more familiar in the stock market and that information may not enough to determine attraction of investors. This study indirectly indicates that limited attention toward direct determination is so effected because it is very difficult to measure human attention especially in stock market, For directly measures researchers have to go back in that particular time period which is very hard to do.(Barber & Odean, 2008) Individual investors locates the information about the firm's environment, product, history and strategies and they are more conscious to search for information when they are buying since they have to choose from a large set of available alternatives.(Fehle, Tsyplakov, & Zdorovtsov, 2005)Examine that most of the firms create and then increase investor attention through advertising techniques.(DellaVigna & Pollet, 2009)They find out that volume and two day stock price reaction to Friday news released media is relatively weaker than the other days of week. (Huberman & Regev, 2001).

They find that newspaper can affect the stock prices even contents don't have genuine information thus prove the important role exercised by investor attention.(DellaVigna & Pollet, 2009)They find out that volume and two day stock price reaction to Friday news released media is relatively weaker than the other days of week. Mostly investor's intentions toward buying of stocks or grabbing stocks, high intention toward specific stock is due to its familiar reputation like headlines news, extreme or high returns and high abnormal trading volume. The result of attention is not restricted to the retail investors; High attention increases the level of unaccepted trading and uninformed investors(Yuan, 2008).(Chemmanur & Yan, 2009)Find that an increase in the level of investor intension is related with a higher cotemporary stock

return and a lower future return.Stock market related news cause theinvestor's ignorant or attentive behavior towards frequently switching process (Andrei & Hasler, 2011).In good law enforcement countries investors pay more attention to firm's specific information which leads to higher momentum returns(Gavrailov, 2013).(Da, Engelberg, & Gao, The sum of all fears: investor sentiment and asset prices, 2010)Show that investor attention is correlated with the high first-day return and thelong-run underperformance of IPO stocks.We emphasize from these studies that investor attention is almost depended on the way investor react on specific information and they are restricted to limited stocks and there information. Attention to stock market rises in times of high market activities, Moreover an increase in investor attention is followed by high volatility(Dimpfl & Jank, 2011).There are lots of tools and techniques through investor attention can be measured,like in previous studies researchers uses different indirect methods to measure investor attention.Such as business cycle activities (Kita & Wang, 2012), media coverage(Fang & Peress, 2009), abnormal trading volume(Hou, Xiong, & Peng, 2009) and advertising expense(Lou, 2009), extreme or high returns (Barber & Odean, 2008).(Grullon, Kanatas, & Weston, 2004)Examine that advertising expense is positively related to the number of investors and stock market liquidity.(DellaVigna & Pollet, 2009)Find that news can be the sources through stock prices reacts.(Fang & Peress, 2009) Report that there is a negative relationship between stock returns and media coverage.

Internet search volume proxies can be the most reliable sources because researcher can get highly relevant results. According to(Ding & Hou, 2011) when people pay more attention to trading activities by actively searching on the internet they receive relevant information on stocks and may eventually become investors of it, and this enable the firm stocks and name to be better recognized as a result stocks with increased investor attention become more liquid.GSV first introduce by (Mondria, Wu, & Zhang, 2010)and (Da, Engelberg, & Gao, In Search of Attention, 2011) in their financial literatures as a direct measure of investor attention and show that it is more efficient than the previous measure of investor attention.(Aouadi, Arouri, & Teulon, 2013)Successfully measure the attention through Google search volume proxy, (Now onward Google search volume is called GSV) inspired by them and especially for avoiding any biasness GSV has been used in this paper.Most frequently used search engine Google, online search volume data was released on 2008 but search data is available from 2004 and onward. GSV captures information demand among investor and most of the searches have been performed during the period of earning announcement (Drake, Jennings, Roulstone, & Thornock, 2012).Higher GSV leads to increase greater stock liquidity, trading activities and

greater the future returns in short term period(Bank, Larch, & Peter, 2011), (Da, Engelberg, & Gao, In Search of Attention, 2011), (Vlastakis & Markellos, 2012), (Dimpfl & Jank, 2011), and (Kita & Wang, 2012)These researcher use GSV on firms tickers, names and other related terms to determine investor attention as the information is available publicly, all these articles suggest that investor's online behavior is strongly time varying and larger in times of high volatility. Moreover (Vlastakis & Markellos, 2012) define that GSV explain about 50% of the variability in the Market Volatility Index.

Facts and figures suggest that GSV is the most reliable proxy source for measuringPakistan's investor's attention.Useful and reliable information is perceived more valuable in Pakistan's financial markets,use of searchengines is increasingrapidlyday by day, and most of the investors and brokers are aware of it. All credit goes to information technology and then internet system because it decreases the cost of data gathering and increases the flow of information, still most of people are not the regular users of internet but in recent decades they are showing high interest towards it. Regarding GSV previous researches show positive results for different empirical studies in stock market activities. As we discuss below, the empirical question (Does investor attention matters?) can be examined.

**Data and Methodology**

Companies listed on KSE 100 index are used to measure the effect of investor attention on liquidity, profitability and volatility. 42 companies are filtered out of 100 stock firmsbased on the availability of data. Time duration for the analysis range from November 2009 to October 2013 with monthly frequency, stock firms are listed in the KSE 100 index which is chosen for our sample period and reason for selection of stocks from KSE 100 index is that they are the upfront representatives of Karachi Stock Exchange. To measure the investor attention we use Google Search volume and it considered as a proxy Index because it better as compare to other proxies of measure used in the previous literatures e.g. Advertisement expenditure , media coverage(Grullon, Kanatas, & Weston, 2004),(DellaVigna & Pollet, 2009).

To measure the profitability of stock we convert individual stock price into return by using this equation $r = \frac{pn}{pn-1} - 1$.We follow the(Ascioglu, Comerton-Forde, & McInish, 2007)(Chae, 2005)(Barnea & Logue, 1975)to measure the monthly volatility in the returns of a firm is calculated with the help of standard deviation of the daily returns.Turnover is used as a proxy of measure for liquidity of a firm by following(Fong, Holden, & Trzcinka, 2011)as

representative of liquidity; a high ratio indicates a more liquid stock (low price impact of trades).

**Table 1**

| Sr# | Companies Name | Stock Ticker | Search Query | Sr# | Companies Name | Stock Ticker | Search Query |
|---|---|---|---|---|---|---|---|
| 1 | Adamjee Ins.XD | AICL | *"adamjee insurance"* | 22 | National Bank. | NBP | *"national bank"* |
| 2 | Allied BankXD | ABL | *"allied bank limited"* | 23 | National Refin XD | NRL | *"national refinery"* |
| 3 | Askari Bank | AKBL | *"askari bank"* | 24 | Nestle Pak.SPOT | NESTLE | *"nestle pakistan"* |
| 4 | Attock Cement | ACPL | *"attock cement"* | 25 | Netsol Tech. XDXB | NETSOL | *"netsol"* |
| 5 | Attock Petroleum | APL | *"attock petroleum"* | 26 | Nishat (Chunian)XDXB | NCL | *"nishat chunian"* |
| 6 | Attock RefineryXD | ATRL | *"attock refinary"* | 27 | Nishat PowerXD | NPL | *"nishat power"* |
| 7 | B.O.Punjab | BOP | *"bank of punjab"* | 28 | Oil & Gas Devel | OGDC | *"ogdcl"* |
| 8 | Bank Al-Falah | BAFL | *"bank al falah"* | 29 | P.S.O. XD | PSO | *"pso"* |
| 9 | Bata (Pak)SPOT | BATA | *"bata pakiatn"* | 30 | P.T.C.L.A | PTC | *"ptcl"* |
| 10 | Century Paper | CEPB | *"century paper"* | 31 | Pace (Pak) Ltd. | PACE | *"pace pakistan"* |
| 11 | Cherat CementXD | CHCC | *"cherat cement"* | 32 | Pak Petroleum | PPL | *"pakistan petroleum"* |
| 12 | Fauji CementXD | FCCL | *"fauji cement"* | 33 | Pak Services | PSEL | *"pakistan services"* |
| 13 | Faysal BankSPOT | FABL | *"faysal bank"* | 34 | Pak Suzuki Motor | PSMC | *"pak suzuki motors"* |
| 14 | Habib Bank LtdSPOTXD | HBL | *"hbl"* | 35 | Pak TobaccoXD | PAKT | *"pakistan tobacco"* |
| 15 | ICI Pakistan | ICI | *"ici pakistan"* | 36 | Shell Pakistan Ltd. | SHEL | *"shell"* |
| 16 | Kohat CementXDXB | KOHC | *"kohat cement"* | 37 | Shifa Int.Hosp XD | SHFA | *"shifa"* |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 17 | Kohinoor Textile | KTML | *"kohinoor textile mills"* | 38 | Siemens Pakistan | SIEM | *"siemens pakistan"* |
| 18 | Lucky Cement XD | LUCK | *"lucky cement"* | 39 | St.Chart.BankXD | SCBPL | *"standard chartered"* |
| 19 | Maple Leaf Cement | MLCF | *"maple leaf cement"* | 40 | Sui North Gas | SNGP | *"sngpl"* |
| 20 | MCB Bank Ltd. | MCB | *"mcb"* | 41 | TRG Pakistan Ltd. | TRG | *"trg"* |
| 21 | Meezan Bank Ltd.XD | MEBL | *"meezan bank"* | 42 | United BankXD | UBL | *"united bank"* |

stocks in the sample and search queries.

**Table 2**

Unit root tests on Turnover Returns Volatility and GSV.

| | Turnover | | Returns | | Volatility | | GSV | |
|---|---|---|---|---|---|---|---|---|
| **stocks** | **t-Stats** | **P-Value** | **t-Stats** | **P-Value** | **t-Stats** | **P-Value** | **t-Stats** | **P-Value** |
| AICL | -3.511 | 0.0119 | -8.48368 | 0.0000 | -4.41208 | 0.0010 | -5.18484 | 0.0001 |
| ABL | -4.464 | 0.0008 | -7.74367 | 0.0000 | -3.91823 | 0.0040 | -4.49484 | 0.0007 |
| AKBL | -3.049 | 0.0376 | -8.15957 | 0.0000 | -3.97912 | 0.0034 | -3.20389 | 0.0260 |
| ACPL | -3.949 | 0.0036 | -7.94602 | 0.0000 | -4.85803 | 0.0003 | -5.15953 | 0.0001 |
| APL | -2.931 | 0.0493 | -8.20006 | 0.0000 | -4.71654 | 0.0004 | -5.00334 | 0.0001 |
| ATRL | -4.21 | 0.0017 | -7.93353 | 0.0000 | -4.78707 | 0.0003 | -4.99829 | 0.0002 |
| BOP | -3.657 | 0.0082 | -7.97323 | 0.0000 | -3.64792 | 0.0085 | -4.95558 | 0.0002 |
| BAFL | -3.696 | 0.0073 | -8.18108 | 0.0000 | -3.71785 | 0.0070 | -4.93248 | 0.0002 |
| BATA | -17.99 | 0.0000 | -4.28949 | 0.0014 | -7.76625 | 0.0000 | -5.37058 | 0.0000 |
| *CEPB* | *-2.12* | *0.2362* | *-7.5355* | *0.0000* | *-8.6368* | *0.0000* | *-4.9633* | *0.0002* |
| *CHCC* | *-2.92* | *0.0508* | *-7.8014* | *0.0000* | *-4.2062* | *0.0018* | *-4.0727* | *0.0025* |
| *FCCL* | *-1.98* | *0.2925* | *-7.9395* | *0.0000* | *-3.4831* | *0.0130* | *-2.0359* | *0.2710* |
| FABL | -3.71 | 0.0070 | -8.06507 | 0.0000 | -4.49287 | 0.0008 | -5.9405 | 0.0000 |
| HBL | -3.189 | 0.0269 | -4.88883 | 0.0002 | -8.29139 | 0.0000 | -4.13218 | 0.0021 |
| ICI | -3.317 | 0.0196 | -8.11935 | 0.0000 | -8.2131 | 0.0000 | -4.08704 | 0.0026 |
| *KOHC* | *-0.14* | *0.9387* | *-8* | *0.0000* | *-3.4254* | *0.0151* | *-3.5877* | *0.0097* |
| KTML | -2.932 | 0.0493 | -9.38139 | 0.0000 | -8.19302 | 0.0000 | -4.3063 | 0.0013 |
| LUCK | -3.008 | 0.0414 | -8.43506 | 0.0000 | -3.9005 | 0.0042 | -5.58844 | 0.0000 |
| *MLCF* | *-2.06* | *0.2615* | *-9.2486* | *0.0000* | *-3.4981* | *0.0125* | *-7.3265* | *0.0000* |
| MCB | -3.141 | 0.0302 | -8.10795 | 0.0000 | -4.73773 | 0.0004 | -4.74675 | 0.0004 |
| *MEBL* | *-7.95* | *0.0000* | *-7.7852* | *0.0000* | *-4.529* | *0.0007* | *-1.5062* | *0.5212* |
| *NBP* | *-3.42* | *0.0153* | *-7.7677* | *0.0000* | *-8.2472* | *0.0000* | *-1.0688* | *0.7200* |
| NRL | -2.706 | 0.0806 | -8.18252 | 0.0000 | -4.42603 | 0.0010 | -3.12138 | 0.0317 |
| NESTLE | -4.405 | 0.0009 | -8.21907 | 0.0000 | -4.61597 | 0.0005 | -2.94451 | 0.0479 |
| *NETSOL* | *-5.24* | *0.0001* | *-8.9676* | *0.0000* | *-4.5481* | *0.0007* | *-1.9751* | *0.2965* |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| NCL | -3.237 | 0.0239 | -7.64976 | 0.0000 | -8.32995 | 0.0000 | -6.52849 | 0.0000 |
| *NPL* | *-2.53* | *0.1150* | *-8.216* | *0.0000* | *-4.6531* | *0.0005* | *-6.5723* | *0.0000* |
| *OGDC* | *-1.98* | *0.2925* | *-7.9395* | *0.0000* | *-3.4831* | *0.0130* | *-2.0359* | *0.2710* |
| *PSO* | *0.602588* | *0.9882* | *-7.9004* | *0.0000* | *-3.8913* | *0.0044* | *-1.8921* | *0.3331* |
| *PTC* | *-3.82* | *0.0052* | *-7.8984* | *0.0000* | *-4.8859* | *0.0002* | *-2.3242* | *0.1689* |
| PACE | -4.916 | 0.0002 | -7.31777 | 0.0000 | -7.2529 | 0.0000 | -2.92776 | 0.0497 |
| PPL | -3.705 | 0.0071 | -8.86145 | 0.0000 | -7.87531 | 0.0000 | -1.79075 | 0.3805 |
| *PSEL* | *7.734881* | *1.0000* | *-7.7417* | *0.0000* | *-4.9929* | *0.0002* | *-1.2406* | *0.6491* |
| PSMC | -4.365 | 0.0011 | -8.23041 | 0.0000 | -7.95315 | 0.0000 | -3.43871 | 0.0144 |
| PAKT | -3.092 | 0.0340 | -3.54672 | 0.0111 | -8.05154 | 0.0000 | -3.75858 | 0.0061 |
| *SHEL* | *-2.8* | *0.0658* | *-9.0505* | *0.0000* | *-5.1604* | *0.0001* | *-1.915* | *0.3228* |
| *SHFA* | *-6.27* | *0.0000* | *-8.0231* | *0.0000* | *-5.1514* | *0.0001* | *-2.4058* | *0.1458* |
| *SIEM* | *1.696488* | *0.9995* | *-7.6456* | *0.0000* | *-8.6044* | *0.0000* | *-3.0061* | *0.0416* |
| *SCBPL* | *-5.14* | *0.0001* | *-8.5033* | *0.0000* | *-4.6503* | *0.0005* | *-1.207* | *0.6639* |
| *SNGP* | *-1.3* | *0.6227* | *-7.8534* | *0.0000* | *-4.7179* | *0.0004* | *-3.9811* | *0.0033* |
| *TRG* | *-3.58* | *0.0099* | *-7.6064* | *0.0000* | *-4.315* | *0.0013* | *-0.9018* | *0.7768* |
| UBL | -3.71 | 0.0070 | -4.94033 | 0.0002 | -8.12874 | 0.0000 | -4.70634 | 0.0004 |

**Table 3(continued)**

Descriptive statistics ofTurnover Returns Volatility and GSV.

| **Turnover** | | | | | |
|---|---|---|---|---|---|
| **stocks** | **Mean** | **Jarque-Bera** | **Kurtosis** | **Skewness** | **Std. Dev.** |
| AICL | 798063.0 | 14.33063 | 4.059018 | 1.229207 | 708917.2 |
| ABL | 176629.5 | 25.75995 | 4.642567 | 1.595458 | 169573.0 |
| AKBL | 0.400179 | 6.182611 | 2.437698 | 0.832935 | 0.013684 |
| ACPL | 80292.09 | 3.514641 | 2.412158 | 0.594088 | 54703.09 |
| APL | 102259.3 | 134.4750 | 9.695050 | 2.367160 | 118550.6 |
| ATRL | 1188495. | 11.88431 | 4.075774 | 1.093716 | 643140.8 |
| BOP | 4225349. | 55.86246 | 6.312172 | 2.059171 | 5046376. |
| BAFL | 3265016. | 9.753648 | 3.208549 | 1.099242 | 2212156. |
| BATA | 1526.392 | 3095.145 | 40.39499 | 6.107113 | 4691.242 |
| CEPB | 147797.9 | 43.93824 | 6.113907 | 1.751621 | 154041.0 |
| CHCC | 292133.4 | 23.13941 | 4.726317 | 1.465395 | 377468.9 |
| FCCL | 6183904. | 12.68649 | 3.208244 | 1.254978 | 8194501. |
| FABL | 439763.6 | 969.6128 | 23.34101 | 4.214548 | 734188.9 |
| HBL | 220996.9 | 20.15008 | 4.397005 | 1.425080 | 190321.9 |
| ICI | 179792.7 | 16.98338 | 4.103538 | 1.348508 | 176591.4 |
| KOHC | 229826.5 | 177.8458 | 11.00833 | 2.489457 | 253693.3 |

| | | | | | |
|---|---|---|---|---|---|
| KTML | 184150.5 | 25.48729 | 4.674341 | 1.576406 | 234232.8 |
| LUCK | 1552636. | 12.83654 | 4.083625 | 1.144992 | 880830.9 |
| MLCF | 3379325. | 12.46701 | 3.024716 | 1.248288 | 4598190. |
| MCB | 864813.8 | 12.24451 | 3.594516 | 1.200917 | 524456.8 |
| MEBL | 146550.1 | 46.05376 | 6.254205 | 1.763309 | 113126.4 |
| NBP | 4033543. | 20.78474 | 4.555395 | 1.411835 | 2647161. |
| NRL | 140764.1 | 5.960986 | 2.607678 | 0.840621 | 93482.21 |
| NESTLE | 618.3645 | 52.36149 | 6.164350 | 2.010450 | 763.3882 |
| NETSOL | 711833.8 | 12.98621 | 3.841205 | 1.202651 | 493543.4 |
| NCL | 1667289. | 29.36292 | 5.394323 | 1.495717 | 1588355. |
| NPL | 840752.3 | 86.27298 | 7.689961 | 2.298954 | 910211.3 |
| OGDC | 6183904. | 12.68649 | 3.208244 | 1.254978 | 8194501. |
| PSO | 1256756. | 275.3139 | 12.99857 | 3.069426 | 1577078. |
| PTC | 5429660. | 35.01185 | 5.538502 | 1.662974 | 5372380. |
| PACE | 2015344. | 35.89145 | 5.501792 | 1.709296 | 2103527. |
| PPL | 998811.5 | 57.98809 | 6.812737 | 1.901123 | 758312.1 |
| PSEL | 1768.313 | 865.1203 | 21.84630 | 4.398211 | 6066.590 |
| PSMC | 59417.97 | 18.11810 | 4.344133 | 1.346510 | 50159.76 |
| PAKT | 17095.90 | 5.758856 | 2.977117 | 0.848367 | 14674.92 |
| SHEL | 72412.33 | 243.4937 | 12.50914 | 3.025581 | 117742.4 |
| SHFA | 4846.941 | 110.2998 | 8.573247 | 2.454018 | 6779.693 |
| SIEM | 3268.185 | 3279.051 | 41.52353 | 6.234239 | 13661.35 |
| SCBPL | 82341.81 | 2818.694 | 38.62795 | 5.915997 | 233031.4 |
| SNGP | 1005247. | 61.56525 | 6.610473 | 2.106366 | 1482762. |
| TRG | 4168846. | 26.77990 | 4.839025 | 1.581766 | 4573417. |
| UBL | 897092.1 | 2.618096 | 2.656933 | 0.545746 | 525840.8 |

**Table 3(continued)**

Descriptive statistics ofTurnover Returns Volatility and GSV.

**Returns**

| stocks | Mean | Jarque-Bera | Kurtosis | Skewness | Std. Dev. |
|---|---|---|---|---|---|
| AICL | 0.200114 | 7.628205 | 2.740274 | 0.967813 | 0.020234 |
| ABL | 0.199809 | 6.997954 | 2.521156 | 0.904114 | 0.019917 |
| AKBL | 0.200079 | 7.503071 | 2.506552 | 0.936489 | 0.019697 |
| ACPL | 0.199552 | 6.104271 | 2.553403 | 0.844495 | 0.019670 |
| APL | 0.199752 | 8.143460 | 2.636549 | 0.992426 | 0.019582 |
| ATRL | 0.198996 | 6.387857 | 2.577179 | 0.868209 | 0.020611 |
| BOP | 0.199682 | 5.924215 | 2.731796 | 0.850026 | 0.021021 |
| BAFL | 0.199154 | 7.037443 | 2.606191 | 0.917011 | 0.019886 |
| BATA | 0.199492 | 3.361790 | 2.475807 | 0.592899 | 0.021489 |
| CEPB | 0.198831 | 6.257811 | 2.756183 | 0.875994 | 0.020424 |
| CHCC | 0.198649 | 5.215287 | 2.576114 | 0.779096 | 0.020465 |

| | | | | | |
|---|---|---|---|---|---|
| FCCL | 0.199491 | 5.935432 | 2.432216 | 0.813225 | 0.020629 |
| FABL | 0.200169 | 5.099386 | 2.431908 | 0.746151 | 0.019967 |
| HBL | 0.199654 | 6.833408 | 2.673340 | 0.909670 | 0.019763 |
| ICI | 0.199597 | 7.139529 | 2.532590 | 0.915327 | 0.019702 |
| KOHC | 0.197979 | 6.443223 | 2.552928 | 0.869157 | 0.021224 |
| KTML | 0.198717 | 5.075302 | 2.372671 | 0.732139 | 0.020200 |
| LUCK | 0.198762 | 7.110066 | 2.551909 | 0.915730 | 0.019828 |
| MLCF | 0.198436 | 6.555235 | 2.595129 | 0.882284 | 0.021116 |
| MCB | 0.199376 | 6.961021 | 2.549129 | 0.905155 | 0.020167 |
| MEBL | 0.198932 | 6.626990 | 2.483107 | 0.872685 | 0.019414 |
| NBP | 0.200237 | 6.116240 | 2.716428 | 0.862802 | 0.020630 |
| NRL | 0.199852 | 6.619954 | 2.393432 | 0.857621 | 0.019738 |
| NESTLE | 0.198506 | 6.765248 | 2.701437 | 0.907398 | 0.019497 |
| NETSOL | 0.199566 | 6.671003 | 2.615239 | 0.892673 | 0.020055 |
| NCL | 0.198249 | 5.391170 | 2.489310 | 0.780189 | 0.020096 |
| NPL | 0.198732 | 6.635325 | 2.494309 | 0.874920 | 0.020057 |
| OGDC | 0.199491 | 5.935432 | 2.432216 | 0.813225 | 0.020629 |
| PSO | 0.200030 | 6.719364 | 2.580257 | 0.892118 | 0.020854 |
| PTC | 0.199465 | 7.076774 | 2.736439 | 0.931252 | 0.020413 |
| PACE | 0.198460 | 2.725151 | 2.768954 | 0.572100 | 0.021640 |
| PPL | 0.199613 | 6.115624 | 2.441682 | 0.828567 | 0.019662 |
| PSEL | 0.199380 | 5.422774 | 2.789443 | 0.816556 | 0.020988 |
| PSMC | 0.199636 | 7.617887 | 2.701348 | 0.964333 | 0.019517 |
| PAKT | 0.199603 | 4.390212 | 2.528386 | 0.702262 | 0.020983 |
| SHEL | 0.200458 | 5.861802 | 2.357655 | 0.813284 | 0.019675 |
| SHFA | 0.199719 | 6.996694 | 2.888667 | 0.933535 | 0.019999 |
| SIEM | 0.200345 | 4.040696 | 2.679999 | 0.692450 | 0.019393 |
| SCBPL | 0.198775 | 7.835403 | 2.673002 | 0.976060 | 0.018637 |
| SNGP | 0.199765 | 6.395425 | 2.536120 | 0.863500 | 0.020804 |
| TRG | 0.197490 | 5.817292 | 2.597165 | 0.828609 | 0.021002 |
| UBL | 0.199324 | 7.387635 | 2.582010 | 0.937963 | 0.019408 |

**Table 3(continued)**

Descriptive statistics ofTurnover Returns Volatility and GSV.

**Volatility**

| stocks | Mean | Jarque-Bera | Kurtosis | Skewness | Std. Dev. |
|---|---|---|---|---|---|
| AICL | 0.400098 | 6.309905 | 2.426275 | 0.840505 | 0.013527 |
| ABL | 0.400100 | 6.554987 | 2.522109 | 0.873086 | 0.013403 |
| AKBL | 32.37813 | 36.38106 | 5.907839 | 1.560049 | 9.307300 |
| ACPL | 0.400335 | 7.403876 | 2.639383 | 0.944973 | 0.013616 |
| APL | 0.400056 | 6.601297 | 2.513587 | 0.875221 | 0.013614 |
| ATRL | 0.400647 | 7.081592 | 2.765791 | 0.933534 | 0.013444 |

| | | | | | |
|---|---|---|---|---|---|
| BOP | 0.400771 | 5.009316 | 2.397413 | 0.731701 | 0.013358 |
| BAFL | 0.400526 | 6.736464 | 2.490513 | 0.881569 | 0.013630 |
| BATA | 0.400536 | 5.930011 | 2.649770 | 0.842963 | 0.013439 |
| CEPB | 0.400897 | 6.196487 | 2.361763 | 0.820198 | 0.013443 |
| CHCC | 0.401196 | 5.884432 | 2.605540 | 0.834658 | 0.013876 |
| FCCL | 0.400639 | 6.184556 | 2.578049 | 0.853557 | 0.013546 |
| FABL | 0.400195 | 8.661856 | 2.749148 | 1.032957 | 0.013647 |
| HBL | 0.400190 | 6.341078 | 2.503755 | 0.855026 | 0.013526 |
| ICI | 0.400215 | 6.275320 | 2.477183 | 0.846215 | 0.013562 |
| KOHC | 0.401439 | 5.004783 | 2.445991 | 0.740855 | 0.013473 |
| KTML | 0.401813 | 7.482505 | 2.881898 | 0.965311 | 0.014324 |
| LUCK | 0.400618 | 6.863684 | 2.555113 | 0.899155 | 0.013544 |
| MLCF | 0.401659 | 10.51835 | 3.600266 | 1.106668 | 0.014239 |
| MCB | 0.400341 | 6.653927 | 2.509305 | 0.878377 | 0.013302 |
| MEBL | 0.400626 | 6.733926 | 2.543992 | 0.888682 | 0.013856 |
| NBP | 0.400180 | 6.240506 | 2.522218 | 0.850291 | 0.013333 |
| NRL | 0.400107 | 7.030653 | 2.623153 | 0.918329 | 0.013632 |
| NESTLE | 0.400892 | 6.690737 | 2.480487 | 0.876852 | 0.013924 |
| NETSOL | 0.400555 | 5.334575 | 2.384576 | 0.756396 | 0.013819 |
| NCL | 0.401213 | 7.577511 | 2.622281 | 0.954736 | 0.013750 |
| NPL | 0.400711 | 7.072009 | 2.656924 | 0.924433 | 0.013533 |
| OGDC | 0.400639 | 6.184556 | 2.578049 | 0.853557 | 0.013546 |
| PSO | 0.399985 | 6.262872 | 2.516436 | 0.851117 | 0.013048 |
| PTC | 0.400466 | 5.933476 | 2.376144 | 0.802736 | 0.013357 |
| PACE | 0.402225 | 5.116258 | 2.237135 | 0.702881 | 0.014005 |
| PPL | 0.400150 | 7.469731 | 2.571815 | 0.942274 | 0.013473 |
| PSEL | 0.400536 | 5.789653 | 2.431267 | 0.801774 | 0.013267 |
| PSMC | 0.400257 | 5.761346 | 2.378033 | 0.789593 | 0.013830 |
| PAKT | 0.400318 | 6.117149 | 2.485753 | 0.835782 | 0.013245 |
| SHEL | 0.400280 | 6.643007 | 2.524768 | 0.900010 | 0.013857 |
| SHFA | 0.400456 | 7.550393 | 2.829341 | 0.967739 | 0.013708 |
| SIEM | 0.400037 | 7.167419 | 2.569452 | 0.921729 | 0.014103 |
| SCBPL | 0.400990 | 6.631872 | 2.582034 | 0.886177 | 0.014261 |
| SNGP | 0.400289 | 6.617363 | 2.605072 | 0.887794 | 0.013241 |
| TRG | 0.402752 | 9.640495 | 3.353319 | 1.083445 | 0.014717 |
| UBL | 0.400370 | 6.278017 | 2.475078 | 0.846089 | 0.013687 |

**Table 3(continued)**

Descriptive statistics ofTurnover Returns Volatility and GSV.

| **GSV** | | | | | |
|---|---|---|---|---|---|
| **stocks** | **Mean** | **Jarque-Bera** | **Kurtosis** | **Skewness** | **Std. Dev.** |
| AICL | 36.85104 | 11.36793 | 4.487799 | -0.93145 | 12.93061 |

| | | | | | |
|---|---|---|---|---|---|
| ABL | 13.18542 | 9.008738 | 3.722690 | -0.99776 | 5.473077 |
| AKBL | 1051040. | 20.42869 | 4.452097 | 1.423531 | 928063.3 |
| ACPL | 34.31250 | 137.2062 | 10.01643 | 2.200726 | 14.71742 |
| APL | 4.375000 | 2.424873 | 2.662347 | 0.524029 | 1.423586 |
| ATRL | 40.33333 | 2.016052 | 2.031539 | 0.132391 | 9.001970 |
| BOP | 2.595833 | 76.67181 | 7.575705 | 2.085595 | 2.381262 |
| BAFL | 25.38958 | 6.702364 | 3.765184 | -0.83152 | 10.56892 |
| BATA | 34.84792 | 18.76393 | 5.943098 | 0.424305 | 8.365424 |
| CEPB | 30.17813 | 1.587797 | 3.246190 | 0.428162 | 5.383801 |
| CHCC | 32.45833 | 4.884897 | 3.370832 | 0.759100 | 8.530193 |
| FCCL | 21.97917 | 27.11752 | 4.622415 | 1.652765 | 22.08830 |
| FABL | 17.95000 | 21.48438 | 5.146479 | 1.238428 | 8.396954 |
| HBL | 25.05833 | 142.6060 | 10.32403 | 2.101283 | 5.771199 |
| ICI | 24.91667 | 79.17814 | 7.790870 | 2.039402 | 18.06705 |
| KOHC | 47.04167 | 2.913394 | 3.311204 | -0.58306 | 21.59783 |
| KTML | 43.14583 | 34.16342 | 5.874894 | 1.484646 | 14.84529 |
| LUCK | 29.65104 | 55.62798 | 7.271287 | 1.546779 | 11.85419 |
| MLCF | 50.37500 | 6.449125 | 3.851460 | 0.790503 | 14.46290 |
| MCB | 35.50625 | 6.778124 | 2.519921 | 0.888621 | 16.52799 |
| MEBL | 27.46771 | 16.31411 | 4.121316 | 1.313365 | 10.59248 |
| NBP | 17.55417 | 6.990004 | 2.913326 | 0.933741 | 9.538722 |
| NRL | 34.72813 | 1.792196 | 2.499237 | 0.401664 | 6.183763 |
| NESTLE | 48.50000 | 0.648299 | 2.467855 | 0.101207 | 9.056219 |
| NETSOL | 22.82500 | 2.993825 | 1.988137 | 0.343892 | 3.483563 |
| NCL | 64.85417 | 0.224745 | 2.753980 | 0.113849 | 15.10388 |
| NPL | 36.35625 | 12.44227 | 4.906851 | 0.803905 | 6.970635 |
| OGDC | 21.97917 | 27.11752 | 4.622415 | 1.652765 | 22.08830 |
| PSO | 26.74583 | 11.65161 | 3.814548 | 1.136037 | 14.62348 |
| PTC | 46.26458 | 13.30284 | 4.007473 | 1.187057 | 16.87485 |
| PACE | 20.54167 | 11.05727 | 4.584557 | -0.86859 | 5.757357 |
| PPL | 4.566667 | 453.9470 | 16.27675 | 3.560246 | 1.992655 |
| PSEL | 25.24583 | 8.964167 | 2.761637 | 1.051816 | 11.60573 |
| PSMC | 24.94479 | 6.601326 | 4.645006 | 0.385558 | 13.40089 |
| PAKT | 21.75208 | 5.628243 | 4.090535 | 0.637349 | 5.919261 |
| SHEL | 20.18370 | 33.52590 | 5.758060 | 1.572011 | 10.06510 |
| SHFA | 64.76458 | 18.09588 | 4.822447 | -1.19652 | 15.48638 |
| SIEM | 34.52604 | 1.335962 | 2.427803 | 0.291793 | 9.040300 |
| SCBPL | 43.91042 | 2.667205 | 3.881789 | 0.372844 | 14.08257 |
| SNGP | 16.22500 | 20.47864 | 5.689054 | 0.867224 | 5.519424 |
| TRG | 4.550000 | 87.55416 | 8.179401 | 2.058573 | 4.163928 |
| UBL | 3.637500 | 29.76155 | 5.735032 | 1.360182 | 2.802668 |

Table 1 show the queries used in the analysis. The combination of words in any search query is of very much importance. In Pakistan mostly the firms are searched by their names rather than the tickers as it is easy to remember the names. Also symbols of tickers may be used in different meaning than required.

To investigates the effect of investor attention on Turnover, profitability and volatility all the series are tested for stationary. The returns and volatility are found to be stationary at level for all the 42 firms. But for some companies it is observe that the series of turnover and Investor attention showed a unit root at level that's why ARDL is applied for that series. The results of Augmented Dickey Fuller test are shown in table 2 while Table 3 reports descriptive statistics for Turnover, profitability and volatility.

**Empirical Results**

The results of regression are shown in table 4 estimates of ARDL are marked as *italic* whereas estimates of ordinary least square are non-*italic.* From the table we observe that turnover of 26% firms are significantly affected by investor attention,the results also indicates that 17% firms and volatility of 9% firms are alsoaffected by investor attention at 5% Confidence Interval. At 1% Confidence Interval 19% firms in case of turnover, 12% firms in case of returns and 5% firms in case of volatility are found to be affected by investor attention.

Similar when 10% confidence interval is considered that 36% firms in case of turnover, 19% in case of returns and 14% firms in case of volatility are found to be affected by investor attention.

From these results it is observed that liquidity is most affected variable by investor attention and volatility is the least variable in our observation.

**Table 4**

Least square regression on turnover, returns volatilityand GSV.

| | Turnover | | | | Returns | | | |
|---|---|---|---|---|---|---|---|---|
| **Stocks** | **Coefficient** | **Std. Error** | **t-Statistic** | **Prob.** | **Coefficient** | **Std. Error** | **t-Statistic** | **Prob.** |
| AICL | -11575.3 | 7901.242 | -1.46499 | 0.1497 | 5.93E-05 | 0.000231 | 0.257391 | 0.798 |
| ABL | -13672.7 | 4099.338 | -3.33535 | 0.0017*** | 0.00022 | 0.000536 | 0.411152 | 0.6829 |
| AKBL | 18617.73 | 14443.41 | 1.289012 | 0.2038 | 0.000135 | 0.000311 | 0.432633 | 0.6673 |
| ACPL | 967.1147 | 529.1501 | 1.827676 | 0.0741* | -5.8E-05 | 0.000197 | -0.29218 | 0.7715 |
| APL | 11610 | 12158.47 | 0.95489 | 0.3446 | 0.001525 | 0.002016 | 0.756377 | 0.4533 |
| ATRL | 8370.735 | 10461.36 | 0.800158 | 0.4277 | -0.00034 | 0.000334 | -1.00527 | 0.32 |
| BOP | -196722 | 311110.2 | -0.63232 | 0.5303 | 0.001868 | 0.001272 | 1.468254 | 0.1488 |
| BAFL | -1.5E-05 | 0.000277 | -0.05261 | 0.9583 | -1.5E-05 | 0.000277 | -0.05261 | 0.9583 |
| BATA | -180.037 | 78.30704 | -2.29911 | 0.0261** | -0.00071 | 0.000364 | -1.95713 | 0.0564* |
| CEPB | 5101.7 | 1417.1 | 3.6 | 0.001*** | -0.00049 | 0.000555 | -0.88308 | 0.3818 |
| CHCC | 8331.7 | 4316.8 | 1.9301 | 0.06 | 0.000464 | 0.000347 | 1.338283 | 0.1874 |
| FCCL | 83666.4 | 133637.7 | 0.62607 | 0.534 | 0.005925 | 0.003567 | 1.6611 | 0.104 |
| FABL | -9696.2 | 12812.09 | -0.7568 | 0.453 | 0.000445 | 0.000344 | 1.292561 | 0.2026 |
| HBL | -1415.87 | 4857.841 | -0.29146 | 0.772 | 8.16E-05 | 0.000505 | 0.161679 | 0.8723 |
| ICI | 3692.251 | 1334.351 | 2.767075 | 0.0081*** | 1.62E-06 | 0.000161 | 0.010079 | 0.992 |
| KOHC | 4733.6 | 1035.8 | 4.5699 | 0*** | 5.74E-05 | 0.000145 | 0.397187 | 0.6931 |
| KTML | -6.4E-05 | 0.0002 | -0.31824 | 0.7517 | -1047.37 | 2321.247 | -0.45121 | 0.654 |
| LUCK | 12542.34 | 10798.54 | 1.161484 | 0.2514 | -1.3E-05 | 0.000247 | -0.05147 | 0.9592 |
| MLCF | 59464 | 51490.1 | 1.1549 | 0.254 | -0.00026 | 0.000212 | -1.22613 | 0.2264 |
| MCB | 18157 | 3836.912 | 4.732192 | 0*** | 0.000102 | 0.000179 | 0.568786 | 0.5723 |
| MEBL | 7296.3 | 12000.5 | 0.608 | 0.546 | 0.006053 | 0.002358 | 2.5665 | 0.014* |
| NBP | 149538.7 | 60982.9 | 2.4521 | 0.018** | 0.005405 | 0.009985 | 0.54129 | 0.591 |
| NRL | -390.525 | 2228.19 | -0.17527 | 0.8616 | -0.00025 | 0.000469 | -0.53254 | 0.5969 |
| NESTLE | -3.56318 | 12.41742 | -0.28695 | 0.7754 | 0.000288 | 0.000315 | 0.914697 | 0.3651 |
| NETSOL | 27850.3 | 2886.2 | 9.6496 | 0*** | 0.007798 | 0.001595 | 4.8898 | 0*** |
| NCL | 22531.7 | 15145.23 | 1.48771 | 0.1437 | 8.38E-05 | 0.000196 | 0.428194 | 0.6705 |
| NPL | 24714.7 | 9071.6 | 2.7244 | 0.009*** | -9.2E-05 | 0.000424 | -0.21649 | 0.8296 |
| OGDC | 19442.6 | 8177 | 2.3777 | 0.022 | 0.005272 | 0.000815 | 6.4687 | 0*** |
| PSO | 46329.8 | 41542 | 1.1153 | 0.271 | 0.00492 | 0.003808 | 1.2921 | 0.203 |
| PTC | -49.5399 | 120.5612 | -0.41091 | 0.683 | 0.003971 | 0.000717 | 5.5417 | 0*** |
| PACE | 6080.984 | 53862.43 | 0.112898 | 0.9106 | -0.00025 | 0.000553 | -0.44981 | 0.655 |
| PPL | -88659.8 | 54565.58 | -1.62483 | 0.111 | -0.00098 | 0.001448 | -0.67811 | 0.5011 |
| PSEL | -49.5399 | 120.5612 | -0.41091 | 0.683 | 0.006197 | 0.002525 | 2.4544 | 0.018** |
| PSMC | 913.6336 | 535.1849 | 1.707136 | 0.0945* | 0.000315 | 0.00021 | 1.504234 | 0.1394 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| PAKT | -87.4755 | 365.3076 | -0.23946 | 0.8118 | -5.4E-05 | 0.000523 | -0.10287 | 0.9185 |
| SHEL | 3001.9 | 2325.9 | 1.2906 | 0.204 | -9.4E-05 | 0.000168 | -0.55576 | 0.5811 |
| SHFA | 74.4628 | 11.5945 | 6.4222 | 0*** | 0.002932 | 0.000232 | 12.6265 | 0*** |
| SIEM | 72.775 | 55.1685 | 1.3191 | 0.194 | 0.000289 | 0.000313 | 0.921657 | 0.3615 |
| SCBPL | 52723.7 | 26606.6 | 1.9816 | 0.054* | 0.004063 | 0.000806 | 5.0403 | 0*** |
| SNGP | 1077.5 | 1000 | 1.0774 | 0.287 | -0.0002 | 0.000555 | -0.36696 | 0.7153 |
| TRG | 420759.8 | 416898.9 | 1.0093 | 0.318 | 0.024499 | 0.02134 | 1.1481 | 0.257 |
| UBL | -35524.2 | 27162.9 | -1.30782 | 0.1974 | 0.000505 | 0.001018 | 0.496258 | 0.6221 |

**Table 4(continued)**

Least square regression on turnover, returns volatility and GSV.

| | **Volatility** | | | |
|---|---|---|---|---|
| **stocks** | **Coefficient** | **Std. Error** | **t-Statistic** | **Prob.** |
| AICL | 3.38E-05 | 0.000154 | 0.219401 | 0.8273 |
| ABL | 0.000144 | 0.00036 | 0.400146 | 0.6909 |
| AKBL | 0.000242 | 0.000214 | 1.132841 | 0.2632 |
| ACPL | -4.2E-05 | 0.000136 | -0.31125 | 0.757 |
| APL | 0.000545 | 0.001408 | 0.387282 | 0.7003 |
| ATRL | -0.00029 | 0.000216 | -1.32468 | 0.1918 |
| BOP | 0.001206 | 0.000808 | 1.493037 | 0.1423 |
| BAFL | -56129.3 | 29730.39 | -1.88795 | 0.0654* |
| BATA | -0.00024 | 0.000234 | -1.01129 | 0.3172 |
| CEPB | -0.00026 | 0.000366 | -0.70552 | 0.484 |
| CHCC | 0.000385 | 0.000233 | 1.653412 | 0.1051 |
| FCCL | 0.010059 | 0.019492 | 0.51603 | 0.608 |
| FABL | 0.000469 | 0.000229 | 2.045197 | 0.0466** |
| HBL | 5.62E-05 | 0.000345 | 0.16275 | 0.8714 |
| ICI | -2.2E-05 | 0.000111 | -0.20268 | 0.8403 |
| KOHC | 4.66E-05 | 9.17E-05 | 0.508225 | 0.6137 |
| KTML | -0.00016 | 0.00014 | -1.13715 | 0.2614 |
| LUCK | 2.37E-05 | 0.000168 | 0.140727 | 0.8887 |
| MLCF | -6.4E-05 | 0.000145 | -0.441 | 0.6613 |
| MCB | 6.09E-05 | 0.000118 | 0.514289 | 0.6095 |
| MEBL | 0.010651 | 0.013132 | 0.81112 | 0.422 |
| NBP | 0.033164 | 0.075047 | 0.44191 | 0.661 |
| NRL | -4.1E-05 | 0.000325 | -0.12696 | 0.8995 |
| NESTLE | 0.000312 | 0.000222 | 1.407141 | 0.1661 |

| | | | | |
|---|---|---|---|---|
| NETSOL | 0.019682 | 0.017356 | 1.134 | 0.263 |
| NCL | 0.000205 | 0.000131 | 1.571222 | 0.123 |
| NPL | 4.36E-05 | 0.000286 | 0.152325 | 0.8796 |
| OGDC | 0.010838 | 0.00215 | 5.041 | 0*** |
| PSO | 0.007283 | 0.030967 | 0.2352 | 0.815 |
| PTC | 0.007809 | 0.003429 | 2.2775 | 0.028** |
| PACE | 0.000239 | 0.000357 | 0.66872 | 0.507 |
| PPL | -0.00053 | 0.000994 | -0.52885 | 0.5995 |
| PSEL | 0.010631 | 0.019709 | 0.53941 | 0.592 |
| PSMC | 0.000246 | 0.000148 | 1.665788 | 0.1026 |
| PAKT | 3.97E-05 | 0.00033 | 0.120333 | 0.9047 |
| SHEL | -5.3E-05 | 0.00012 | -0.43974 | 0.6622 |
| SHFA | 0.005934 | 0.000747 | 7.9395 | 0*** |
| SIEM | 0.000225 | 0.000228 | 0.989697 | 0.3275 |
| SCBPL | 0.007977 | 0.004047 | 1.9711 | 0.055 |
| SNGP | 1.09E-05 | 0.000354 | 0.030794 | 0.9756 |
| TRG | 0.048462 | 0.10206 | 0.47484 | 0.637 |
| UBL | 0.000308 | 0.000719 | 0.428654 | 0.6702 |

## Conclusion

The research conclude that Investor Attention that investor attention partially affected liquidity, volatility and returns but the effect of Investor Attention is more in the case of liquidity it means that when a stock receive more investor attention investors tend to trade the stock with accelerating frequency. Returns and volatility are effected by investor attention, it suggest that when investor pay more attention to particular stock it doesn't means that the attention is due to its profitability or volatility.

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