



Insider Trading Laws & Corporate Governance Impact on Investment Decision

Sadaf Khan¹, Ubaid Ur Rehman²

¹ Sindh Madrassatul Islam University, Karachi, Pakistan. Email: sadaf.khan@smiu.edu.pk

² MS Scholar, Sindh Madrassatul Islam University, Karachi, Pakistan. Email: ubaid.khan83@hotmail.com

ARTICLE INFO

Article History:

Received: August 20, 2021
 Revised: September 29, 2021
 Accepted: September 30, 2021
 Available Online: September 30, 2021

Keywords:

Insider trading
 Corporate governance
 Insider trading laws
 Investment decision

ABSTRACT

This research aims to analyze the impact of insider trading laws and corporate governance on investment decisions. For this purpose, the data of 400 potential and actual investors employed who provided their feedback on a structured questionnaire. When the data is collected, it was cleaned. The normality of data and reliability of items were also checked and within limits. Simple Regression was applied to test hypotheses. It was concluded that the perception of insider trading laws and corporate governance have a positive impact on investment decisions. The study has wide implications and the government and corporation both can be beneficial from its insight and findings, and exercise good corporate governance practices and follow stringent insider trading laws. The study also paves the way for future research.



© 2021 The Authors, Published by iRASD. This is an Open Access article under the Creative Common Attribution Non-Commercial 4.0

Corresponding Author's Email: sadaf.khan@smiu.edu.pk

1. INTRODUCTION

Among the economic communities, insider trading is one of the most debatable and controversial topics which is considered as the theft of information and violation of public trust. Insider trading is a phenomenon that is rooted in the practice of stock markets since their origin. Two opposite views exist about its regulation; one favors deregulation allowing corporation to set up their own rules of insider trading One set of scholars favors deregulation of insider trading, allowing corporations to set their own insider trading policies by contract. Reason is the central point behind in most of the many investment decisions being taken in the financial world (Brodback, Guenster, & Mezger, 2019) While other economics scholars contend that the government should devise policies to discourage and penalize incidents of insider information which occurs loss to national exchequer Investors evaluate and infer the past information from many external sources for different types of investments options in order to make an optimal decision. In the process, different psychological dimensions also influence and bias the decision. According to Raut (2020) the impact of some investment decisions aspects with the mediation effect of risk perceived and determinants of investment decisions. Various research criticized the poor corporate governance which does not incorporate laws prohibit such practices. When insider trading works for the personal benefit of the few, it affects the firm performance and shake its shareholders' confidence (Bhatti, Farhan, Ahmad, & Sharif, 2019). But does it also affect investment decisions. They used survey data of stock market investors. Individual investments decisions are associated with personal choices regarding purchases of small value of securities purchased in small amounts for the purpose of his or her account (Devadas & Vijayakumar, 2019).

The objective of the study is to demonstrate the impact on investment decisions by implementing insider trading laws & code of corporate governance in its true letter & spirit through the theoretical framework of behavioral finance factors such as anchoring bias,

availability bias, confirmation bias. Inside information generally means material nonpublic/price sensitive information which (directly or indirectly) relates to particular listed securities, which has not been made yet public. Moreover, if this precise nature of information were made public, it would have a major impact on its stock prices. Since its inception; insider trading has not only been a well-known practice around the world in most of the capital markets but at the same time a significant area for discussion to the researchers, academia, policymaker, practitioners, and decision-makers. There is a need to increase understanding about investment decisions taken by investors based on eventual outcomes and factors prevailing that could identify the most crucial factor on the company's investors' behavior on how the future direction is set and how long will it take to achieve its financial goals. In many cases, market volatility halts the investors to take their investment decisions (Devadas & Vijayakumar, 2019; Khan, Panatik, & Saat, 2015).

Further, there should not be any doubt that it not only influences the market efficiency but also the transparency of the markets' operation. The Securities Act of 2015 forbids the insider trading practice. It means Insider trading only occurs when an investment decision is based on the information from the tipping off an insider within the company. On the other hand, market manipulation includes transactions that provide deceitful information through any means of communication like the internet, media, or by other social network means about the demand, supply, or commercial instrument price to mislead the general public at large.

Now it comes under the umbrella of corporate governance that the management of organizations shall put in place such governance and structural provisions, surveillance techniques, and operating mechanism to detect and prevent insider trading and market abuse. However, according to Goergen, Renneboog, and Zhao (2019) and Renneboog and Zhao (2020) some insiders provide true inside information about their respective firms. This will not only enhance the confidence of potential investor on the stock exchange market but at the same time help in financial inclusion (Bhatti, Chaudhry, & Bashir, 2021).

This study is carried out at a time when the whole financial market of the globe is threatened by the current wave of the pandemic. Lockdown is still imposed in most countries, and the financial system is being operated with great difficulties. Countries like Pakistan are particularly facing many challenges because of the depleting strength of their health system (Gillani, Shafiq, & Ahmad, 2019) and financial crises due to poverty (Shittu, Hassan, & Nawaz, 2018) and impeding corrupt practices to fight with the COVID (Chien et al., 2021). Although the Government has lowered the interest rates to boost economic activities, but still investors are at a halt because of the blurriness of the financial situation. Moreover, in the absence of strong ethical corporate governance and weak insider trading laws, an average investor's financial decisions Initially, a broad assessment is carried out on the existence and the application of insider trading laws in Pakistan. This study also focuses to prove with empirical evidence along with the theoretical melody that the existence and enforcement of insider trading laws really matters for an economy for its long-term growth and financial inclusion. Further, it also analyzes the behavioral finance aspect of confirmative bias, anchoring bias, and availability bias with investment decision making. These objectives are as follows

- i. To investigate the existence and enforcement of corporate governance and insider trading laws in Pakistan.
- ii. To analyze whether the existence and enforcement of insider trading laws and code of corporate governance matter for Pakistani economy specially in the financial inclusion.
- iii. To investigate the relationship between investment decision and perception of insider trading laws and corporate governance in Pakistani context.

The existence of strong insider trading laws along with the Corporate Governance implementation in its true letter and spirits will not only increase the confidence level of the potential investor but also lead us to financial inclusion. This will also open the door for the documentation of the economy. Further, this study will help reduce the gap that exists between the classes of rich and poor category and will open the door to everyone to invest in the monopolized capital market structure of Pakistan.

2. LITERATURE REVIEW

In recent times, regulation of insider trading is considered one of the more controversial issues in stock market policy because it reveals private information which could lead to future productive opportunities. The profit of insider trading is made at the expense of uninformed traders, however, when this happens, the other rational uninformed traders tend to invest less. Fishman and Hagerty (1992) mention that when insiders are allowed to trade it may lead to prices which are less informative in nature. The price and trade competition are increased within insiders however; the same increased competition may reduce the shared incentives for others to have a costly information purchasing. According to the evidence gathered by Damodaran and Liu (1993), and Seyhun (1986) about the advance trade of the insiders based on the released information and their information is impounded on stock prices (Donaldson & Hatheway, 1993; Zhuang et al., 2021). Brudney (1979) pointed out the unfair aspect of insider trading making it unfair for uninformed investors; the argument says that it is socially costly. According to the model of Glosten (1989) it leads to imperfect risk sharing. The model explains that in the presence of excessive private information a possible loss of liquidity happens in the market. Leland (1992) took the argument further and concluded that insiders tend to reduce the market liquidity and directly hurting the uninformed investors.

Koudijs (2015) reported the ways that private information had been used by insiders in the London and Amsterdam stock exchange market in the 18th century, finding considerable analogies with today's practices. Today practices, of course, are more complicated and sophisticated and are widely influenced by the media and the high speed that news is disseminated (Dai, Parwada, & Zhang, 2015). Enforcement of Insider trading laws is closely connected to the Code of Corporate Governance and it is an excellent tool for removing the external financing limitation. This will attract the foreign investor through considering the low-risk investment. This could be deputation for a more state of law enforcement which could be associated with policy transformations and familiarizing equity market liberalization.

Bhattacharya and Daouk (2002) have argued on it and share the empirical evidence where through enactment of insider trading laws in developing countries like Pakistan attracts potential foreign investors along with increase trust level of local investor (Shafiq, Hua, Bhatti, & Gillani, 2021; Yang & Shafiq, 2020). They further distinguish between the enactment of law and its enforcement in true letter and spirits. There is another aspect that if we make strong laws against insider trading particularly, Laws vigorously enforce them, it can result innocent people to be jailed. If such rules become more complex and difficult, it is difficult to understand and recognize their what is what. Legal experts always make the most of them and twist the cases. Another perspective is the unintentional discloser of the important information (Jardak & Matoussi, 2020). Some researchers argue that if someone having access to nonpublic information may probably get the opportunity to disclose it without an intention to disclose it becomes a victim of the law. He can get caught and punished according to the law and go to the jail. These are the risks, which increase fear in the public and sometimes it goes to a level where most talented people leave the field and choose something else for a living (Chiang, Chung, & Louis, 2017).

Further, Kahneman and Tversky (1979) in their prospect theory of decision making under uncertainty tried to explain the psychological behavior of the investor where they suggest that investors are risk averse and they only focus about the gain and return, if they see more risk or foresee the potential loss they quit, and which ultimately impact the stock prices of the security or instruments. This because their financial behavioral biases and behavior therefore firms with lack of good corporate governance not only fails to attract the potential investors but also lost their existed investor (Amjad, Ehsan, Amjad, & Gillani, 2021; Bhatti & Fazal, 2020).

That's why the majority developed countries implemented stringent laws on insider trading but also has clear cut policies on disclosure of insiders within the organization and developed relevant disclosure in this regard before allowing transaction to such insiders. Bainbridge (1999); Betzer and Theissen (2009); Maug (2002) also proves that full

disclosure of the transactions by the insider will help to prevent the exploitation of shareholder or potential shareholders and strengthen their wealth and confidence in the market. Further it will help to prevent this practice of unethical behavior & undue advantage the insiders possessed and open the door for well-organized and transparent operation of the capital market.

Bainbridge (1999); Beny (2004); Hamil, Holt, Michie, Oughton, and Shailer (2004) in their related work proof that adopting the Corporate Governance in its true spirit will alleviate the adverse effect of insider trading from the market and within the firm. Further in the study of Bushman and Smith (2003); Shleifer and Vishny (1997) also evident to implement Corporate Governance will add considerable impact on preventing the destructive effect of insider trading and market manipulations. Certainly, this will also influence the firm performance and operational efficiency (Noshad, Amjad, Shafiq, & Gillani, 2019). This will directly influence the decision-making process of the investors (Bebchuk & Weisbach, 2010; Demsetz & Villalonga, 2001). On contrary it will discourage the outside investors to take investment decision as they believe it is unfair, will result reducing the liquidity and increase market volatility (Du & Wei, 2004).

This was further elaborated in Bailey *et al.*, (2006) where he emphasis on well-organized and a wide-ranging (CG) Corporate Governance internal mechanism and system which will prohibit insider trading and its destructive effect on firm's performance cum worth. This mechanism consists of the organization structure, controlling mechanism, review & monitoring and overall reporting lines Goergen *et al.* (2019); Shleifer and Vishny (1997) through delegation to management and using tools to gauge the performance linked with performance reward (Demsetz & Villalonga, 2001).

Leland (1992) summarized positive and negative aspects of Insider trading. He argument in favor of it that if properly communicated it provides the market and the investors with firsthand information regarding insider transactions and will result fairness, make investor in a better position for valuation of the asset and therefore decreasing risks associated with the investment in this asset leading to increased levels of investments in the market. Accounting scandals may also lead to higher levels of insider trading as insiders try to sell stocks at higher prices, before the restating of the statements of their firms (Agrawal & Cooper, 2015).

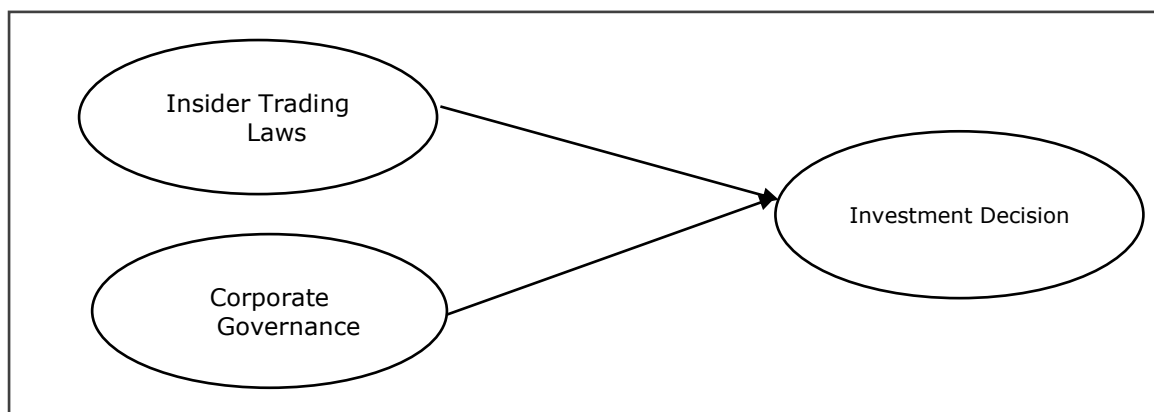


Figure 2. 1 Conceptual Model based on the Work of Amin, Rahman, Sondoh, and Hwa (2011); Gopi and Ramayah (2007)

Hypotheses

- H₁: The perception of strong insider trading laws has a positive significant impact on investors' decision.
- H₂: Corporate governance of a company has a positive significant impact on investors' decision to invest in that company.

3. METHODOLOGY

3.1. Research Design

The research design of a study is considered positive philosophy in nature. This research is survey-based research and quantitative in nature. Khan *et al.*, (2013) concluded that survey-based research is suited to a well-defined population. It collected data from 400 individuals through nonprobability-based convenience sampling technique. The reason for taking convenience sampling over probability sampling is that in probability sampling every element of the population has been given an equal chance of being selected. It happens when the whole population is listed and then at random, the desired sample size is selected. The process is not only lengthy and costly, but also it is almost impossible in the given circumstances when people due to COVID lockdown restriction are working from home. Therefore, convenience sampling was preferred over random sampling.

Once the data was gathered, the data cleaning process was carried out. The missing values were treated through the mean value solution called the imputation method which is usually carried out in such a situation (Kang, 2013).

3.2. Research Instrument/Data Sources

In this research, three the relationship among three variables is studied. Since these variables are latent variables, they cannot be measured directly. So, each of the three variables is measured through a set of items. Measurement Scales of Amin *et al.* (2011); Gopi and Ramayah (2007) have been used. As the dependent variable investment decision is a latent variable that is measured by four items. Perception of insider trading laws is an independent variable which is also a latent variable measured by four items, corporate governance is an independent variable which is latent in nature measured by six items. Each of the items is measured on a Likert scale which is divided from 1 to 5. Where 1 means 'Strongly Disagree' and 5 means 'Strongly Agree'. The questionnaire also collected demographic information of the respondent which including information such as Name, Gender, work status, and investment experience.

Regression Models

$$Y = \alpha + \beta X1 + \varepsilon \dots \dots (i)$$

$$Y = \alpha + \beta X2 + \varepsilon \dots \dots (ii)$$

Y = Investment Decision

X1 = Perception of Insider Trading laws, X2= Corporate Governance where ε is error term.

Table 1
Variable Description

Variables	Proxies	Computation	Data Source
Dependent Variable			
Investment Decision	ID	Likert Scale	Amin <i>et al.</i> , (2011)
Independent Variable			
Perception of Insider Trading Laws	PITL	Likert Scale	Amin <i>et al.</i> , (2011)
Corporate Governance	CG	Likert Scale	Gopi & Ramayah, (2007)

4. RESULTS AND DISCUSSION

4.1. Descriptive Statistics

According to Table 2, the mean statistic of three main variables; PITL is 3.22, CG is 3.21 and ID is 3.73. The standard deviation is not much higher so as the variance. Data normality is an important aspect which needs to be checked. If the values of Skewness and Kurtosis are within -2 to +2 then the data is normal (Field, 2013; Gravetter, Wallnau, Forzano, & Witnauer, 2014; Trochim & Donnelly, 2006). According to the Table 4.1, the values of the skewness and kurtosis of our data is closed to zero and not going cross the limit, it shows that our data is normal.

Table 2
Descriptive Statistics

	Mean	Std.	Skewness		Kurtosis	
	Statistic	Deviation Statistic	Statistic	Std. Error	Statistic	Std. Error
PITL	3.22	0.82	-0.28	0.12	-1.00	0.24
CG	3.21	0.82	-0.11	0.12	-0.63	0.24
ID	3.73	0.89	-0.92	0.12	0.44	0.24

Whereas, PITL = Perception of Insider Trading Laws, CG=Corporate Governance, ID= Investment Decision

A total of four questions were asked to know the perception of insider trading. These questions are:

PIT 1: Insider trading laws discourage corrupt practices.

PIT 2: Stringent Insider trading laws ultimately increase the investor confidence on the financial market.

PIT 3: Insider trading laws result in more investment.

PIT 4: Implementing insider trading laws is the key steps towards financial inclusion.

The questions were measured on likert scale (1 to 5), and the following table shows their average score.

Table 3
Perception of Insider Trading Laws- Frequency

	PITL 1		PITL 2		PITL 3		PITL 4	
	Freq	Per%	Freq	Per%	Freq	Per%	Freq	Per%
Strongly Disagree	43	10.7	11	2.7	21	5.2	41	10.2
Disagree	120	29.9	115	28.7	85	21.2	117	29.2
Neutral	40	10.0	46	11.5	30	7.5	44	11.0
Agree	180	44.9	197	49.1	228	56.9	176	43.9
Strongly Agree	18	4.5	32	8.0	37	9.2	23	5.7
Total	401	100.0	401	100.0	401	100.0	401	100.0

PITL: Perception of Insider Trading Laws

In response to PITL 1 statement, according to Table 3: Perception of Insider Trading Laws, 44.9% of the respondents were Agree and 4.5% were Strongly Agree to the statement. Also, in response to PITL 2 statement, 49.1% of the respondents were Agree and 8% were Strongly Agree to the statement.

Furthermore, in response to PITL 3 statement, 56.9% of the respondents were Agree and 9.2% were Strongly Agree to the statement. This is the most endorsed statement that in result of insider trading laws, people make more investment which is probably they feel more secured. Further qualitative studies may dig this deeper to find out the motivation behind it.

In response to PITL 4 statement, 43.9% of the respondents were Agree and 5.7% were Strongly Agree to the statement.

4.2. Regression Analysis

For the two hypotheses, we have applied simple regression analysis because we needed to measure the impact of our independent variables on dependent variable. The Beta values for PITL and CG are .217 and .412 respectively. These values are significant $b = .217$, $t(400) = 4.442$, $p < .05$ and $b = .412$, $t(400) = 9.023$, $p < .05$, as the P value is less than the threshold level. Hence both of the hypotheses are accepted.

Table 4
Regression Analysis

Variable	Beta value	t-Statistics	P-Value	Status
PITL	.217	4.442	.000*	Acceptable
CG	.412	9.023	.000*	Acceptable

*p value <0.05

In the literature, the results mentioned above fully and partially consistent with the previous studies. Mitchell and Kodongo (2016) investigated risk factors associated with weak insider trading laws in equity market in South Africa and found its negative impact on investment decisions. Information leaks prior to the investment created doubts on the mind of investors. In the study of (Kim, 2014), insider trading regarded as a private corruption because it is consistent with the definition of corruption which is the misuse of position for private gains. And this notion is also perceived by the investors who associated it with corrupt and illegal practices.

In the previous literature, strong evidence of the relationship between corporate governance and investment decision were found. The study of Miloud (2017) concluded that a good corporate governance practices not only link with investment but eventually played its role in business growth (Fazal, Bhatti, & Ahmad, 2019). Similar results consistent with this study are found in the study of Wahyudi and Chairunesia (2019) which aimed to analyze the impact of good corporate governance practices on investment and profitability. In Vietnam, the corporate structure and managerial decisions taken in 480 Small and Medium Size Industries were investigated by Chi, Van Can, and Duc (2019), the results demonstrated that companies where manager hold shares has more opportunities of investment, whereas the revenue growth and financial leverage have also a positive impact on the investment decisions.

4.3. Correlation Test

Table 6, demonstrate the correlation results between the variable. All the variables are significantly correlated with each other at the level of 0.01. The correlation between PITL and CG is .386, the correlation between PITL and ID is .217 while the correlation between CG and ID is .412 which is higher than the others. Although these correlations are not strong but they are significant.

Table 6
Correlation Matrix

	PITL	CG	ID
PITL			
CG	.386**		
ID	.217**	.412**	

** . Correlation is significant at the 0.01 level.

In support of our results, the studies of Jayaraman (2012) and Wahyudi and Chairunesia (2019) provided strong evidence that the corporate governance, perception of insider trading laws and investment decision are associated with each other. Other studies e.g. the studies of Chi et al. (2019); Kim (2014); Mitchell and Kodongo (2016) also provided the same results that investment increases with the improvement of corporate governance or the adoption of good corporate practices.

5. CONCLUSION AND RECOMMENDATIONS

The result of the study shows that the hypotheses are accepted. The accepted hypotheses concluded that the Perception of Insider Trading Laws and Corporate Governance have a significant positive impact on Investment Decisions. These perceptions included how these laws help to improve investors' confidence, or whether such perceptions directly impact on investment and bring financial inclusion and discourage illegal practices. According to the results of this study, investors always concern about how well the governance of a company is. The links of good corporate governance is with firms' management in a dynamic environment. Good Corporate governance also includes protection of shareholder's interest, ensuring accountability, fair treatment, and

transparency within the organization. Which ensures stability and performance, and a code of conduct for board members and executives.

In the hypotheses of this study, the impact of corporate governance and perception of insider trading laws are studied on investment decisions. Both hypotheses were accepted. According to Shahid and Abbas (2019) corporate governance amplifies the influence of the confidence of investor on firm's decisions. When a firm has good corporate governance practices it impacts board members' function of monitoring which is a tendency to take care of shareholder interest. The study findings are consistent with the literature. It is concluded, Strong Insider Trading Laws which make it difficult to reveal inside information for private gain, and they do not let the confidence of uninformed investors lost. In Pakistan, Sections, 223 and 224 of the Company Ordinance, 1984 and Section 17-(e)-6 of Security and Exchange Ordinance, 1969 presented a legal framework of insider trading laws. In March 2001, the Security and Exchange Commission of Pakistan (SECP) had released guidelines on account of prohibition of insiders trading. These laws are supposed to discourage insider trading and boosting investor confidence however, very little has been achieved so far. Like, in December 2017, during a hearing of United Sugar Mills Ltd case, the Supreme Court of Pakistan was informed that when this entity was to be sold, a key political person of the ruling party was allegedly involved in insider trading (Mobin, 2017). The person who enjoyed the benefit from insider information made 70.8 million rupees, however when the allegations were proved, the court slapped a fine of 70 million rupees which was paid. It is also important to note that insider trading is different from Market Manipulation, which provides intestinally false information through various sources such as social media, internet, or by any other mean, to misguide the masses. The Securities Act of 2015 defined insider information related to listed securities as such which has not been made public, and if it does, it affects the prices.

Similarly, a good corporate governance in a company set rules and procedures to streamline operations with lead to optimum productivity.

This study has certain limitations. First it has a sample size which is equal to 400, the sample size can be increased for getting more accurate picture of the study population. The study focuses only Karachi city, similar studies can be conducted in other cities as well generalizability. Another aspect of the study was its quantitative nature. For getting more insight, qualitative study techniques can also be applied for in-depth picture of our research problems. This study has wide implications in the field corporate governance and insider trading regulations. The study showed that inventors' decisions are positively affected by the perception of how strong the corporate laws are, and how effectively a firm is running under its corporate governance framework. Organizations where corporate governance is weak investors have serious concerns there. Pakistan has been working for the enactment and implementation of strong insider trading laws, however, SECP has been registering cases where insider information helped few to make the most of their position. This study provided government strong analytical insight and evidence that they should focus to resolve insider trading issues which have been undermining corporate businesses. The study shall also provide a foundation for future studies in this area.

REFERENCES

- Agrawal, A., & Cooper, T. (2015). Insider trading before accounting scandals. *Journal of Corporate Finance*, 34, 169-190. doi:<https://doi.org/10.1016/j.jcorpfin.2015.07.005>
- Amin, H., Rahman, A. R. A., Sondoh, S. L., & Hwa, A. M. C. (2011). Determinants of customers' intention to use Islamic personal financing: The case of Malaysian Islamic banks. *Journal of Islamic Accounting and Business Research*, 2(1), 22-42. doi:<https://doi.org/10.1108/175908111111129490>
- Amjad, A., Ehsan, S., Amjad, M., & Gillani, S. (2021). Impact of Shareholders' Activism on Governance Practices and Firm Performance in Pakistan: A Response for Family Controlled Firms. *iRASD Journal of Economics*, 3(1), 1-12. doi:<https://doi.org/10.52131/joe.2021.0301.0021>
- Bainbridge, S. M. (1999). Mandatory disclosure: A behavioral analysis. *U. Cin. L. Rev.*, 68, 1023.

- Bebchuk, L. A., & Weisbach, M. S. (2010). The state of corporate governance research. *The Review of Financial Studies*, 23(3), 939-961.
- Beny, L. N. (2004). A comparative empirical investigation of agency and market theories of insider trading.
- Betzer, A., & Theissen, E. (2009). Insider trading and corporate governance: The case of Germany. *European Financial Management*, 15(2), 402-429. doi:<https://doi.org/10.1111/j.1468-036X.2007.00422.x>
- Bhattacharya, U., & Daouk, H. (2002). The world price of insider trading. *The Journal of Finance*, 57(1), 75-108.
- Bhatti, M. A., Chaudhry, I. S., & Bashir, F. (2021). Financial Globalization, Output Gap and Foreign Output Gap on inflation: Evidenced from Developing Economies. *Journal of Accounting and Finance in Emerging Economies*, 7(2), 419-433. doi:<https://doi.org/10.26710/jafee.v7i2.1773>
- Bhatti, M. A., Farhan, M., Ahmad, M. J., & Sharif, M. N. (2019). The Impact of Social CRM Capabilities and Customer Engagement on the Firm Performance: Mediating Role of Social Media Usage. *Pakistan Journal of Humanities and Social Sciences*, 7(3), 313-324. doi:<https://doi.org/10.52131/pjhss.2019.0703.0089>
- Bhatti, M. A., & Fazal, S. (2020). Impact of Globalization on Industrial Sector Growth in Pakistan. *Pakistan Journal of Economic Studies*, 3(1), 24-45.
- Broadback, D., Guenster, N., & Mezger, D. (2019). Altruism and egoism in investment decisions. *Review of Financial Economics*, 37(1), 118-148. doi:<https://doi.org/10.1002/rfe.1053>
- Brudney, V. (1979). Insiders, outsiders, and informational advantages under the federal securities laws. *Harvard Law Review*, 93(2), 322-376. doi:<https://doi.org/10.2307/1340381>
- Bushman, R. M., & Smith, A. J. (2003). Transparency, financial accounting information, and corporate governance. *Financial accounting information, and corporate governance. Economic Policy Review*, 9(1).
- Chi, N. T. K., Van Can, B., & Duc, B. M. (2019). Impact of Corporate Governance on Investment in SMEs Vietnam. *International Journal of Economics and Finance*, 11(11), 1-59.
- Chiang, C.-H., Chung, S. G., & Louis, H. (2017). Insider trading, stock return volatility, and the option market's pricing of the information content of insider trading. *Journal of Banking & Finance*, 76, 65-73. doi:<https://doi.org/10.1016/j.jbankfin.2016.11.027>
- Chien, F., Sadiq, M., Kamran, H. W., Nawaz, M. A., Hussain, M. S., & Raza, M. (2021). Co-movement of energy prices and stock market return: environmental wavelet nexus of COVID-19 pandemic from the USA, Europe, and China. *Environmental Science and Pollution Research*, 1-15. doi:<https://doi.org/10.1007/s11356-021-12938-2>
- Dai, L., Parwada, J. T., & Zhang, B. (2015). The governance effect of the media's news dissemination role: Evidence from insider trading. *Journal of Accounting Research*, 53(2), 331-366. doi:<https://doi.org/10.1111/1475-679X.12073>
- Damodaran, A., & Liu, C. H. (1993). Insider trading as a signal of private information. *The Review of Financial Studies*, 6(1), 79-119. doi:<https://doi.org/10.1093/rfs/6.1.79>
- Demsetz, H., & Villalonga, B. (2001). Ownership structure and corporate performance. *Journal of Corporate Finance*, 7(3), 209-233.
- Devadas, M., & Vijayakumar, T. (2019). Investment Decisions, Herd Behaviour and Retail Investors. *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*, 5(12), 3291-3294.
- Donaldson, G., & Hatheway, F. (1993). *An Empirical Analysis of Insider Trades, News and Stock Prices*. Retrieved from
- Fazal, S., Bhatti, M. A., & Ahmad, T. I. (2019). Sectorial growth, Exchange rate and Fiscal policy in Developing Economies: The Interlinkages. *iRASD Journal of Economics*, 1(2), 68-81. doi:<https://doi.org/10.52131/joe.2019.0101.0006>
- Field, A. (2013). *Discovering statistics using IBM SPSS statistics*. London: SAGE.
- Fishman, M. J., & Hagerty, K. M. (1992). Insider trading and the efficiency of stock prices. *The RAND Journal of Economics*, 23(1), 106-122. doi:<https://doi.org/10.2307/2555435>
- Gillani, S., Shafiq, M. N., & Ahmad, T. I. (2019). Military Expenditures and Health Outcomes: A Global Perspective. *iRASD Journal of Economics*, 1(1), 1-20. doi:<https://doi.org/10.52131/joe.2019.0101.0001>

- Glosten, L. R. (1989). Insider trading, liquidity, and the role of the monopolist specialist. *Journal of Business*, 62(2), 211-235.
- Goergen, M., Renneboog, L., & Zhao, Y. (2019). Insider trading and networked directors. *Journal of Corporate Finance*, 56, 152-175. doi:<https://doi.org/10.1016/j.jcorpfin.2019.02.001>
- Gopi, M., & Ramayah, T. (2007). Applicability of theory of planned behavior in predicting intention to trade online: Some evidence from a developing country. *International Journal of Emerging Markets*, 2(4), 348-360. doi:<https://doi.org/10.1108/17468800710824509>
- Gravetter, F. J., Wallnau, L. B., Forzano, L.-A. B., & Witnauer, J. E. (2014). *Essentials of statistics for the behavioral sciences* (8 ed.). Belmont, CA: Wadsworth: Cengage Learning.
- Hamil, S., Holt, M., Michie, J., Oughton, C., & Shailer, L. (2004). The corporate governance of professional football clubs. *Corporate Governance: The international journal of business in society*.
- Jardak, M. K., & Matoussi, H. (2020). The effectiveness of insider trading disclosure policies: US and EU comparison. *Journal of Financial Reporting and Accounting*, 18(3), 591-614. doi:<https://doi.org/10.1108/JFRA-09-2019-0120>
- Jayaraman, S. (2012). The effect of enforcement on timely loss recognition: Evidence from insider trading laws. *Journal of Accounting and Economics*, 53(1-2), 77-97. doi:<https://doi.org/10.1016/j.jacceco.2011.10.003>
- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 363-391.
- Kang, H. (2013). The prevention and handling of the missing data. *Korean journal of anesthesiology*, 64(5), 402. doi:10.4097/kjae.2013.64.5.402
- Khan, S., Panatik, S. A. B., & Saat, M. B. (2015). Dysfunctional audit behaviors: An exploratory study in Pakistan. *Research Journal of Applied Sciences, Engineering and Technology*, 9(9), 778-785.
- Kim, S. H. (2014). Insider Trading as Private Corruption. *UCLA Law Review*, 61(4), 928-1008.
- Koudijs, P. (2015). Those who know most: Insider trading in eighteenth-century Amsterdam. *Journal of Political Economy*, 123(6), 1356-1409. doi:<https://doi.org/10.1086/683839>
- Leland, H. E. (1992). Insider trading: Should it be prohibited? *Journal of Political Economy*, 100(4), 859-887. doi:<https://doi.org/10.1086/261843>
- Maug, E. (2002). Insider trading legislation and corporate governance. *European Economic Review*, 46(9), 1569-1597. doi:[https://doi.org/10.1016/S0014-2921\(02\)00243-X](https://doi.org/10.1016/S0014-2921(02)00243-X)
- Miloud, T. (2017). Corporate Governance, Investment And Business Growth. *Journal of Applied Business Research (JABR)*, 33(1), 1-8. doi:<https://doi.org/10.19030/jabr.v33i1.9862>
- Mitchell, J., & Kodongo, O. (2016). Insider trading law and illegal insider trading in South Africa's equity market: lessons from corporate takeovers. *African Finance Journal*, 18(1), 1-19.
- Mobin, M. (2017). What is insider trading? Retrieved from <https://www.dawn.com/news/1374308>
- Noshad, M., Amjad, M., Shafiq, M. N., & Gillani, S. (2019). Performance and Obstacles of SMEs: An Empirical Evidence from BRICS Countries. *iRASD Journal of Economics*, 1(2), 113-131. doi:<https://doi.org/10.52131/joe.2019.0101.0010>
- Raut, R. K. (2020). Past behaviour, financial literacy and investment decision-making process of individual investors. *International Journal of Emerging Markets*, 15(6), 1243-1263. doi:<https://doi.org/10.1108/IJOEM-07-2018-0379>
- Renneboog, L., & Zhao, Y. (2020). Director networks, turnover, and appointments. *European Financial Management*, 26(1), 44-76. doi:<https://doi.org/10.1111/eufm.12213>
- Seyhun, H. N. (1986). Insiders' profits, costs of trading, and market efficiency. *Journal of financial Economics*, 16(2), 189-212. doi:[https://doi.org/10.1016/0304-405X\(86\)90060-7](https://doi.org/10.1016/0304-405X(86)90060-7)
- Shafiq, M. N., Hua, L., Bhatti, M. A., & Gillani, S. (2021). Impact of Taxation on Foreign Direct Investment: Empirical Evidence from Pakistan. *Pakistan Journal of Humanities and Social Sciences*, 9(1), 10-18. doi:<https://doi.org/10.52131/pjhss.2021.0901.0108>
- Shahid, M. S., & Abbas, M. (2019). Does corporate governance play any role in investor confidence, corporate investment decisions relationship? Evidence from Pakistan and India. *Journal of Economics and Business*, 105, 105839. doi:<https://doi.org/10.1016/j.jeconbus.2019.03.003>
- Shittu, W. O., Hassan, S., & Nawaz, M. A. (2018). The nexus between external debt, corruption and economic growth: evidence from five SSA countries. *African Journal of Economic and Management Studies*, 9(3), 319-334. doi:<https://doi.org/10.1108/AJEMS-07-2017-0171>

- Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The Journal of Finance*, 52(2), 737-783. doi:<https://doi.org/10.1111/j.1540-6261.1997.tb04820.x>
- Trochim, W., & Donnelly, J. (2006). *The Research Methods Knowledge Base*. 3rd. Mason, OH: Atomic Dog Publishing.
- Wahyudi, S. M., & Chairunesia, W. (2019). The Effect of Good Corporate Governance on Investment Decisions and Profitability and Its Impact on Corporate Value. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 9(3), 140-149.
- Yang, X., & Shafiq, M. N. (2020). The Impact of Foreign Direct Investment, Capital Formation, Inflation, Money Supply and Trade Openness on Economic Growth of Asian Countries. *iRASD Journal of Economics*, 2(1), 25-34. doi:<https://doi.org/10.52131/joe.2020.0101.0013>
- Zhuang, Y., Yang, S., Chupradit, S., Nawaz, M. A., Xiong, R., & Koksai, C. (2021). A nexus between macroeconomic dynamics and trade openness: moderating role of institutional quality. *Business Process Management Journal*. doi:<https://doi.org/10.1108/BPMJ-12-2020-0594>