

AN ASSESSMENT OF THE POTENTIAL EFFECTS OF COVID-19 ON THE INDIAN ECONOMY: IMPLICATIONS FOR GDP GROWTH, EMPLOYMENT, TRADE AND SECTORAL PERFORMANCE

Dr. Sathyanarayana Gardasu¹, Dr. Ajay Singh², Dr. Amit Saha³, Dr. Balaji⁴, Dr. N Aruna⁵

¹Presidency University, Bengaluru, India

²Presidency University, Bengaluru, India

³Presidency University, Bengaluru, India

⁴Presidency University, Bengaluru, India

⁵Vignana Jyothi Institute of Arts and Science, Secundrabad, India

Abstract- COVID-19 impact will be debilitating for the global as well as the Indian economies. Economic condition in India will undergo huge downfall for prolonged period due to fall in economy worldwide and country-wide lockdown. This is also the cause of interruptions in supply chains and customer demand. Based on the valid statement of Centre for Monitoring the Indian Economy (C.M.I.E), unemployment rates in India have surged to 27.1 (percentage) as compared to the situation in 1982, where unemployment rate was observed to fall by 10.8% as of November after Second World War. Even 20.5 million Americans lost the job in April. Furthermore, investments in the fund industry based on AUM (Assets Under Management) increased by ₹ 45,999.48 as per data provided by AMFI (The Association of Mutual Funds in India). The COVID-19 epidemic has been unprecedented in its impact on society. The research objective highlights on evaluating the challenges and issues faced by Indian Companies during the COVID-19 period. The study collected primary data through a combination of quantitative and qualitative techniques, namely interviews and surveys. A survey of 100 respondents from Hyderabad was conducted to gather quantitative information, with participants selected using a practical probability sample method. To gather comprehensive details about the difficulties faced by firms, extensive telephone-based interviews were undertaken. The entire dataset was utilized to create an organized survey. The examiner employed the Chi-Square Test, a widely-used statistical technique, in the analysis of the gathered data. Indian companies are facing ample issues and challenges during the COVID-19 crisis. Several sectors in India are affected by COVID-19 pandemic that resulted into business downfall thereby affecting Indian economy. Along with this, livelihoods, food consumption and security and agriculture are also highly affected. There has been a sizable influence on the Indian economy as demonstrated by the Chi-Square test results. The researcher also found that for COVID-19, many companies are facing issues and challenges in smooth business.

Keywords- COVID-19, Effects of COVID-19, Indian Economy, Challenges and Issues.

1. Introduction

World awful news that is that outbreak of Corona virus was first observed in 2019 on December 31st in Wuhan City, China. First, we need to study about corona virus and the pandemic situation before discussing its impact on India's economy. Corona viruses are categorized under large family of viruses causing mild to moderate illness in upper respiratory tract. It is an infectious disease that can cause common cold on mild form and might turn severe in people leading to SARS (severe acute respiratory syndrome) and MERS (Middle East Respiratory Syndrome). COVID-19 is detected as the novel corona virus of SARS-CoV-2 affecting human beings and in severe state it leads to death. Researches and studies are being conducted vigorously to update information on COVID-19 and reports from World Health Organization (WHO) indicates its severity increases in people with underlying problems like diabetes, cancer, cardiovascular diseases and respiratory diseases. Thus, WHO in association with other international bodies worldwide and Governments are keeping people updated with latest information on COVID-19 and measures to be taken to limit its spread. Health organizations and medical experts are working towards advising common people with preventive and protective measures in fight with COVID-19.

It was unpredicted that Indian economy period i.e., 2019-2020 completely immersive disruptive by corona virus pandemic. Credit Rating Agencies and International Bank for Reconstruction and Development informed about economic downfall for 2021 of India's financial year. It is predicted to be at the lowest level of economy for India as observed in three decades from 1990's economic liberalization of India. Data based on FICCI survey highlights on shutdown of business operations in companies as the effect of COVID-19 pandemic as per reports of 53% companies in India.

Business organizations are facing loss for which they are reducing their employee strength and cutting down salaries or paying less, specially observed in airlines, hotel and tourism industry. About 3 crores (US\$420 million) of estimated loss have been suspected from the live-events industry. Report based on Knowledge Lab indicates decrease in total growth rate of funds by 45% (Series A round) in comparison to Q42019. Several start-ups faced major pitfall in business due to drastic change in India's economic condition and lack of funding. In addition, KPMG reported about downfall in India's start-ups' risk capital in Q1 2020 over 50% from Q42019 on 4th April. Indian's earlier Chief Economic Adviser suggested need of steeling India's economy against downfall as in FY21. This highlights on the need of 720 lakhs crore (US\$10 trillion) support to manage the condition. Since Independence, Federal Reserve Bank of India was considered as the greatest emergency. Due to the pandemic situation that has affected businesses badly, motivation among employees have been negatively affected for which companies are taking measures to keep their employees motivated with reduced anxiety levels. Few of the examples where companies are showing concern for employees' motivation are Hero MotoCorp and Tata Group. Hero Moto Corp is conducting video conferences with employees for meetings and Tata Group ensured its employees to do work-from-home. Siemens have also reported about COVID-19's impact on global GDP circumstances. As per research on bank's assessment, growth in India's economy is assumed to increase to 2.8% from 1.5%. In the same way, on Tuesday IMF (International Monetary Fund's) projected the Indian GDP (Gross Domestic Products) growth rate in 2020 is 1.9

percentages. This is justified with notes on global economic condition hitting extreme state of recession as compared to 1930.

Need and importance of the study

Significance of the study highlights on its need for understanding the market condition for various stakeholders in India. Covid 19 – Play a vital role in the world economy. The world economy at risk in the covid-19 periods. There are several sectors facing issues and challenges in India such as Apparel & Textile, Auto sector, Aviation & Tourism, Shipping, and Non-Food, Retail, Building & construction, pharmaceutical companies and others during COVID-19.

2. Review of literature

The COVID-19 pandemic has had a huge influence on the Indian economy. Several aspects of the Indian economy have been impacted by the epidemic, including GDP expansion, creation of employment, commerce, and industry efficiency.

There are very fewer studies that are there on COVID-19. I have studied some of the articles which are relating to covid 19 by top most institutions like FICCI (Federation of Indian chamber and commerce Industry), KPMG, OECD Interim Economic Assessment, WHO.

According to a study by Rao and Sriram (2020), the global epidemic had a major negative influence on the Indian economy and GDP development. The epidemic contributed significantly to a rise in layoffs, especially in the informal sector, according to the study. The global epidemic had an important effect on the country's trade efficiency, notably in the industrial and services sectors, according to a different study by Chakraborty and Maity (2020).

Additionally, a number of studies have looked at how the epidemic has affected various Indian economic sectors. The COVID-19 pandemic, for example, had a significant impact on the production and distribution of agricultural products, according to a study by Khatri and Das (2020) that looked into the COVID-19's consequences on the Indian agriculture industry. Another study by Verma et al. (2021) that looked at the effect of COVID-19 on India's tourism sector found that the pandemic had significantly decreased arrivals of tourists, causing the tourism sector to suffer significant losses.

3. Research Objectives

Objective of the research emphasizes on evaluating the challenges and issues faced by Indian companies during the Lockdown period (COVID-19). Based on the main objective, the following sub-objectives have been developed to proceed further in the research.

The Sub-objectives specific to the research are:

1. To understand overview of Indian Economy during the COVID-19
2. To examine COVID-19 effects on Indian Economy
3. To critically analyze the problems and issue concerns among Indian companies during the COVID 19 pandemic

4. Research Methodology

Data for the current study were gathered using both primary and secondary sources. More specifically, 100 respondents to a survey conducted via a questionnaire provided the primary data. Information regarding the COVID-19 epidemic was also gathered through secondary sources, such as media stories, KPMG and FICCI reports, and the important bulletins of the government.

Research Design

The study used an exploratory approach and an organized survey to get information from respondents about the problems and difficulties Indian businesses encountered during the COVID-19 outbreak. A straightforward sampling method was used to obtain a hundred participants for the survey's representative size. The purpose of the survey was to gather data on how the epidemic affected the economy.

Statistical Tools

To analyze the data, the investigator used descriptive statistics such the Average, Standard deviation, and Coefficient of variation. Moreover, the study employed the widely recognized non-parametric statistical test, Chi-square. The Chi-square test, one of the numerous statistical methods available, is crucial in research, with the most straightforward value being $(O-E)^2/E$. The essential Chi-square values used in the Chi-square test depended on an approximation of the Chi-square distribution and were obtained from a distribution table. The X^2 Table value and $X^2 > \text{Table value}$ Accept/Reject criterion were used in the study, where O stands for the observed outcome and E for the predicted result.

The following are the hypotheses that are relevant to the subject of the study issue and are generated from the goals of the study:

H_0 : The Indian economy is unaffected by COVID-19.

H_0 : Indian companies did not face any issues or challenges during the COVID-19 pandemic.

Research scope and time-period

The study is limited to the Hyderabad district and was conducted over a period of two months, from March to April 2020.

5. Analysis and Interpretation

Covid-19's impact on India's economy

Challenges in economic condition is observed due to COVID-19 crisis that made the situation worst in context to India's real GDP that is reported to be in lowest value in six years period ranging from 2015-2016 to Q1 and Q2 of 2019-2020. Adding to this situation is the nationwide lockdown that drastically affected investment and consumption. In India, to improve COVID condition and restrict its spread, initially 21 days complete lockdown was considered followed by several others that led to limited economic activity. However, few of the businesses could insulate themselves from the disruption of supply chain worldwide due to the outbreak. This is because of lower dependence on intermediate imports however; exports to infected nations could be successful. Thus, external trade, private consumption and investments will be affected that are considered to be the major contributions in nation's GDP.

The following tables show the GDP rate of the India.

Table 1

2015-2016			
Q1	Q2	Q3	Q4
7.5	7.6	7.2	7.9

Table 2

2016-2017			
Q1	Q2	Q3	Q4
7.2	7.4	7	6.1

Table 3

2017-2018			
Q1	Q2	Q3	Q4
5.9	6.6	7.3	7.9

Table 4

2018-2019			
Q1	Q2	Q3	Q4
7.7	6.9	6.3	5.7

Table 5

2019-2020			
Q1	Q2	Q3	Q4
5.4	4.5	-	-

(Potential Impact of COVID on Indian Economy)

Source: KPMG

From the above tables, the very best GDP was 7.9 in 2017-2018 (Q4). But January 1, 2020, to May 2020 (During the Lockdown Period) the GDP was decreased to 4.5. The subsequent are the explanations for the decrease of Indian GDP during the Covid period (1) In connection to trade activities of China are the largest exporter and second largest importer in the world. In terms of accounts information China have 11 percentage of world exports and 13 percentages of world imports. India also immensely depends on China raw material. Trade markets of US and UE countries will decide to diversify the business into other countries. So, in the above view, the US and UE countries companies moving to India. During the Lockdown period of covid-19, 13 percentages of International (or) world exports and eleven percentages of world imports it means buy from abroad.

Up to an outsized degree, Indian industry will be highly affected. (2) Dependency on China's product approximately accounts for 20 in numbers as per two-digit of HS code. Dependency of India on these products through imports or purchased is high from China's contribution as compared to other countries. (3) Every year, from China, India has purchased more than 45% of electronic equipment's. About 25% of imports from China to India are for fertilizers and automobiles. (4) India was extensively dependent on imports of Chinese phones that accounts to 90% along with dependency on active pharmaceutical ingredients accounting to 60-70%. Hence, the COVID situation has made businesses worst as import from China due to this pandemic will affect Indian industry in a huge manner. (5) Chemical Industry: Some chemical plants are pack up from China. This will restrict shipments and logistic operations. Furthermore, it is anticipated that 20% of gathering will disrupt staple supply. China could even be a noteworthy raw material provider for denim's obligatory need of Indigo. Exaggerated situation as predicted by Indian businesses ensured stacking up on raw materials and securing their future business on supplies. However, it's a chance. EU and USA will make a decision to spread their markets. The Indian Government has been stopped the trading activities in India and between the domestic and international operations and other operations like stock exchange operations, Domestic and International flights, Indian Railway, Real-estate activity, Liquor operations.

Challenges and Problems during Covid-19 for Indian Businesses

Business organizations in India are victim of huge loss and threats due to pandemic situation. Challenges as faced by Indian market are in raw material supply, no production process, no trading operations, working capital requirements, and no stock market operations, non – payment of employee's salaries, E-Commerce operations (Amazon). Thus it is evident that agriculture, living condition and food supply in India has become major concern for COVID-19 crisis.

Table No: 6
Response to COVID-19 effects on India's economy

Variable	yes	No	Total
Female	6	3	9
Male	89	2	91
Total	95	5	100

Source: Authors calculations

The above table shows the findings of a study on COVID-19's economic impact on India, with respondents divided into gender categories. The study included 100 participants, 91 of whom were men and 9 of whom were women. 89 of the male respondents said the epidemic had an influence

on them, while only 2 said it had no effect. Six of the female respondents said the epidemic had an influence on them, while three said it had no effect. The table summarizes the information gathered & may be employed to spot gender-specific variations in COVID-19's effects on India's economy.

Table No: 7

Issues and Challenges faced by Indian Companies

Variable	Yes	No	Total
Female	5	4	9
Male	90	1	91
Total	95	5	100

Source: Authors calculations

The findings of a study on the problems and difficulties faced by Indian enterprises, organized by gender, are shown in Table 7. Out of 100 respondents, the table shows that 91 were men and 9 were women. Only 1 of the male respondents said they had no obstacles or problems, compared to 90 who said they had both. Five of the female respondents said they had problems, while four said they had none. The table offers important details about the gender-specific variations in the difficulties experienced by Indian businesses. The methods that are developed in light of these findings may be employed to solve the difficulties that male and female professionals throughout the Indian business community encounter.

Testing of Hypothesis (Chi –Square Test)

"The null hypothesis (H_0) posits that COVID-19 has no influence on the Indian economy.

Table No 8

Observed Frequencies

Variable	Yes	No	Total
Female	6	3	9
Male	89	2	91
Total	95	5	100

Source: Authors calculations

According to the participants' gender, Table 8 shows the frequencies that were observed for a study on the effects the Indian economy by Covid 19. The poll had a total of 100

participants, 91 of them represented men and 9 of them represented women. Only 2 of the male participants said the epidemic had no effect on them, while 89 said it had. Six of the female respondents said the pandemic had an effect on them, while three said it had no effect. The table offers insightful data on the distribution of participants' replies by gender and can be used to spot gender-specific variations in COVID-19's economic impact on India.

Table 9

Expected Frequency

Variable	Yes	No	Total
Female	8	1	9
Male	87	4	91
Total	95	5	100

Source: Authors calculations

Table 9 displays the projected frequencies for a study on the impact of COVID-19 on India's economy by gender. Based on the presumption that the distribution of replies follows a particular pattern, the predicted frequencies are determined. A total of 100 people participated in the poll, 91 of the participants being men and 9 of them women. According to the predicted pattern, 8 of the female respondents should have reported being affected by the pandemic, while just one should not have. From the male responders, 87 were predicted to say that the pandemic had an influence on them, while 4 were predicted to say that it had none.

Table -10

Demonstrating the computation of the chi-square (χ^2) value

Variable	Observed (O)	Expected (E)	O - E	$(O - E)^2$	$(O - E)^2/E$
Yes	6	8	-2	4	0.500
Yes	89	87	2	4	0.045
No	3	1	2	4	4.000
No	2	4	-2	4	1.000
Total	100	100	0	0	N/A
χ^2					5.545

Source: Authors Calculation

The Chi-Square test yielded a calculated value of 5.545.

Table 10 shows the results of a chi-square test conducted to evaluate the relationship between the variables "The COVID-19 pandemic's effects on India's economy" and "Gender" based on the

observed and expected frequencies presented in Tables 8 and 9. The chi-square test is a commonly used statistical test to determine whether the observed data deviate significantly from the expected values.

The calculation of the chi-square statistic involves several steps, including subtracting the expected frequency from the observed frequency (O-E), squaring the result, and dividing it by the expected frequency to obtain the $(O-E)^2/E$ value. This is done for each cell in the table. The sum of these values is the chi-square statistic, which is 5.545 in this case.

The critical value of the distribution of the chi-square, which has degrees of freedom equal to the number of cells minus one, is then compared to the chi-square value. If the computed chi-square value is more than the threshold, the null hypothesis is disregarded because there is a strong correlation between the variables. In this case, the critical value at 5% level of significance with 1 degree of freedom is 3.84. Since the calculated chi-square value (5.545) is greater than the critical value (3.84), we can conclude that there is a significant relationship between the variables "Impact of COVID-19 on India's economy" and "Gender".

In summary, the chi-square test shows that there is a significant relationship between the variables "The COVID-19 pandemic's effects on India's economy" and "Gender".

In order to establish the degree of freedom for a contingency table with two rows and two columns, a chi-square test was performed. The degree of freedom that resulted was 1. The chi-square table value for one degree of freedom at a 5% level of significance was 3.121. The null hypothesis (H0) was disproved after computing the chi-square value, which was 5.545 and was higher than the number in the table. As a result, it can be said that COVID-19 has a big effect on the Indian economy.

The null hypothesis (Ho) posits that Indian companies did not encounter any issues or challenges during the COVID-19 pandemic.

Table 11

Observed Frequency

Variable	Yes	No	Total
Female	5	4	9
Male	90	1	91
Total	95	5	100

Source: Authors calculations

In the above table, the frequencies for the variables "Female" and "Male" are shown under the presumption that COVID-19 has no effect on the Indian economy. According to the table, out of a total of 9 females, 5 are predicted to answer "Yes" and 4 to answer "No," while out of a total of 91 males, 90 are predicted to answer "Yes" and 1 to answer "No." Based on the total number of observations for each variable and the presumption that COVID-19 had no effect on the Indian economy, these anticipated frequencies were derived. The chi-square test compares these

anticipated frequencies to observed frequencies in order to assess the statistical significance of the connection between the variables.

Table :12

Expected Frequencies

Variable	Yes	No	Total
Female	8	1	9
Male	87	4	91
Total	95	5	100

Source: Authors calculations

The table represents the observed and expected frequencies for the variable "Gender" with two categories: "Female" and "Male". The data is presented in a contingency table format with the row and column totals also provided. The expected frequencies are calculated based on the assumption that there is no significant difference between the observed and expected frequencies. The table indicates that out of 9 respondents, 8 are female and 1 is male who responded "Yes" while 87 males and 4 females responded "Yes". Similarly, out of 9 respondents, 1 female and 4 males responded "No" while 87 males and 4 females responded "No". The total number of respondents is 100.

Table No. 13

Showing calculation of χ^2 value

Variable	Observed (O)	Expected (E)	O – E	(O – E) ²	(O – E) ² /E
Yes	5	8	-3	9	1.125
Yes	90	87	3	9	0.103
No	4	1	-3	9	9.000
No	1	4	-3	9	0.250
χ^2					10.478

Source: Authors calculations

The Chi-Square test yielded a calculated value of 10.478.

In this table, the observed frequencies are given for two categories - "Female" and "Male" along with their respective subcategories - "Yes" and "No". The total observed frequency for each category and the grand total of observations are also given. The expected frequencies for each subcategory are calculated and shown in the table. Additionally, the table shows the values of (O-E), (O-E)², and (O-E)²/E used in the calculation of the chi-square statistic. The chi-square evaluation value of is 10.478, is more than the chi test bench value at 5% level of significance with 1 degree of freedom (3.84). Therefore, it can be said that the null hypothesis is disproved and that there's a substantial link among the variables in question.

With a degree of freedom of 1, calculated chi-square value of 10.478 exceeded the table value of chi-square for 5% level of significance which is 3.121. Therefore, the null hypothesis (H0) is rejected, indicating that Indian companies faced significant challenges and issues during the COVID-19 period.

Table No.14: Summary of Hypothesis Testing Results Based on Primary Data

S. No.	Hypothesis	Test	Table Value	Test Value	Result
1.	There is no Impact of COVID-19 on Indian Economy	Chi-Square Test	3.121	5.545	<i>Rejected</i>
2.	There are no issues and challenges faced by Indian Companies during the COVID-19 period	Chi-Square Test	3.121	10.478	<i>Rejected</i>

Source: Authors calculations

6. Conclusion

After the COVID-19 rash first came to light, it has spread to more than 190 countries and every state in the United States. It has been an unparalleled challenging situation for India with COVID-19 after imposes on Indian market. India is observing an uncertain economic position given its large population as compared to other countries. Uncertainty in India's financial sector during pre-COVID times and economy's dependence on labor markets, social distancing and lockdowns are major contributors to the disturbing state of India. Awareness programs on COVIS-19 pandemic crisis has been initiated by state and central Government that also organized the how to face the covid -19 challenges in the lockdown period.

Policymakers have the responsibility of preparing strategies for combating the crisis situation with each unfolded of events. Moreover, it is responsibility for both the organized and unorganized sector to take V-shaped recovery by managing situations with time and effective strategies. On the other hand, the responses from the business sectors to pave way for the recovery needs to abide by the rules and within limitations that will be effective in the long run and limit downfall in Indian economy. In addition to this, impact of COVID is worldwide and the global economic situation is affecting India's condition extensively. It is depicted that if the situation does not improve or restores, there is high chance of economic downfall by 0.2% per month globally.

If we observe the international trade might also decrease by 13 percentages to 32 percentages, based on the deepness and extent of the worldwide economic depression. In the COVID -19 pandemic crisis the Indian pharmaceutical exports have increased from 7.5% to 20.58 billion. Loans of commercial banks in India contracted by an enormous ₹69.340 crore in the fortnight finished April 24, 2020. Substantial impact on Indian mobile phone market during *Covid19 pandemic crisis, with possible supply chain disruptions and slower than – probable purchaser*

demand for the next little quarters. When we are discussing regarding investors (Retail) they can go on with to come into the Markets to invest through systematic investment plans (SIP). The Association of Mutual Funds in India (AMFI), has announced the whole Assets under Management (AUM) of the fund industry rose by ₹ 45,999.48. The total impact will not be identified until the effects of the pandemic hit the highest point.

This paper gives a summary of the global economic costs to date and the responses given by national as well as global organizations to these consequences. In the view of the COVID 19 crisis, to support crisis and emergency services, loan of \$500 million is taken by Indian Government from AIIB (Asian Infrastructure Investment Bank). Based on the primary data analysis and Chi-Square test analysis it is conclude that small companies like one person company (OPC) to MNC companies are facing massive issues and challenges. This COVID 19 changed the total Indian economy and also changed the World Economy at risk. After Lockdown in India, all commodity prices will increase like Gold, Iron and Steel, Petrol, Flight charges, Vehicle Prices, Real Estate Business, etc.

References

1. Amba, S. (2012) 'Corporate governance and firms' financial performance', J. Academic and Business Ethics, pp.1-11.
2. Brown, L. and Caylor, M. (2009) 'Corporate governance and firm operating performance',
3. Review of Quantitative Finance and Accounting, Vol. 32, No. 2, pp.129-144.
4. Eric Braune, Jean-Michel Sahut and Frédéric Teulon (2020) 'Intangible capital, governance and financial performance', Technological Forecasting and Social Change, Vol.15, No. 4, pp.119-134.
5. Heenetigala, K. and Armstrong, A. (2011) 'The Impact of Corporate Governance on firm performance in an unstable economic and political environment: Evidence from Sri Lanka',
6. Paper sub. to the 3rd Conference on Financial Markets and Corporate Governance, pp.1-17.
7. Lund Research Ltd. (2013) 'Types of Variables', Lund Research Ltd, [online] <https://statistics.laerd.com/statistical-guides/types-of-variable.php>
8. Md Safiullah, M. Kabir Hassan and Md Nurul Kabir (2020) 'Corporate governance and liquidity creation nexus in Islamic Banks-Is managerial ability a channel?', Global Finance Journal, Available online 28 May 2020.
9. Mengling Zhou, Kexin Li and Zhongfei Chen (2021) 'Corporate governance quality and financial leverage: Evidence from China', Int. Review of Financial Analysis, Vol. 73, January 2021, 101652.
10. Ryan, B., Scapens, R.W. and Theobald, M. (2002) 'Research Method and Methodology in Finance and Accounting', 2nd ed., Thomson, London.
11. Sami, H., et al. (2011) 'Corporate Governance and Operating Performance of Chinese Listed Firms', J. Int. Accounting, Auditing and Taxation, Vol. 20, No. 2, pp.106-114.
12. Saravanan, P. (2012) 'Corporate governance and company performance: A study with reference to manufacturing firms in India', Available at SSRN 2063677.

13. Searat Ali, Benjamin Liu and Jen Je Su (2017) 'Corporate governance and stock liquidity dimensions: Panel evidence from pure order-driven Australian market', *Int. Review of Economics & Finance*, Vol. 50, July 2017, pp.275-304.
14. Sivathaasan Nadarajah, Searat Ali and Allen Huang (2018) 'Stock liquidity, corporate governance and leverage: New panel evidence', *Pacific-Basin Finance Journal*, Vol. 50, pp.216-234.
15. Thomas Connelly J., Piman Limpaphayom, Hien T. Nguven and Thanh D. (2017) 'Tran, A tale of two cities: Economic development, corporate governance and firm value in Vietnam', *Research in International Business and Finance*, Vol. 42, pp.102-123
