



## Knowledge and Awareness on Economic impact of Covid-19 among Trichy city population - A survey

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### ABSTRACT

Coronavirus disease [Covid 19] is an infectious communicable disease causing severe causality among the world's population. A communicable disease with high intense spread rates originated from China. As a result the world has locked all its gates, lockdown prevails in the entire world. Economy - the most affected sector in any country, daily life living is now restricted. The main aim of this study is to test the knowledge and create awareness on various attributes that are related to the Indian economy among the Trichy population. A self assessed questionnaire containing 14 questions about Indian economy during COVID 19 were framed and was shared through an online survey platform. The questionnaire was passed to 109 individuals. Responses from them were collected and were analysed through SPSS. Many residents from Trichy are aware about various aspects that affect our economy. Most of the responses from them were relevant and correct, emphasizing that they are already aware in these fields. Pandemic plays an important role in deciding a country's economy. It shows its effects on all sectors of the government. Measures should be adopted by the citizens in order to escape from this economic fever.

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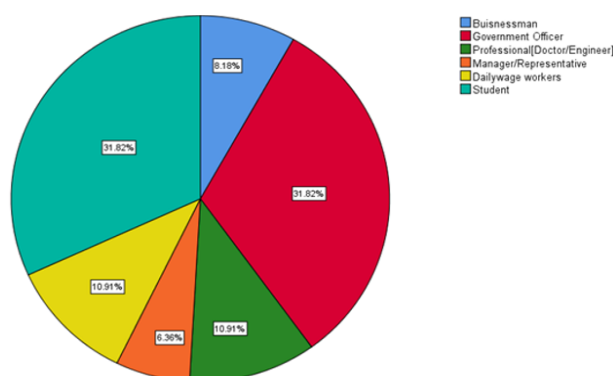
### INTRODUCTION

Coronavirus disease is a communicable infectious disease, caused by a virus named SARS CoV-2, and

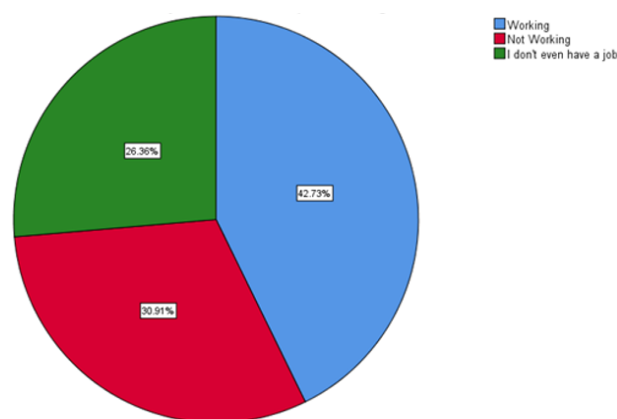
is said to be a pandemic as the spread is world-wide affecting huge ratios of population (Marra, 2003). This virus mainly affects the respiratory system (Dave and Preetha, 2016; Devi and Sethu, 2018). From its onset the virus has given many casualties. This has left many countries to be left in complete lockdown from all kinds of usual activities (Narayanan and Saha, 2020). India also follows the norms of lockdown followed by other countries to cease the spread of COVID 19. India is now closed for more than 80 days, with complete, sometimes partial shutdowns; which has its own merits and demerits (Venkatesan, 2020). Even though the country is being held in lockdown, there is no change in increasing affected victims as well as in drop in economic values on varied sectors (Scheuerl, 2020). Coronavirus is not only accused of killing people's

health like jaundice (Harsha, 2015), goitre Samuel and Devi (2015), liver diseases (Choudhari and Jothi-priya, 2016), lower back pain (Swathy and Sethu, 2015) and myocardial infarction (Renuka and Sethu, 2015) but also a country's wealth (World Bank, 2020). Already humans suffer from various diseases and conditions like obesity (Fathima, 2016; Baheerati and Devi, 2018; David, 2019) and insomnia (Ilankizhai and Devi, 2016) due to lack of many simple exercises (Shruthi and Preetha, 2018), new diseases appear in their heads nowadays. Covid, originated from the outskirts of China recently, showed

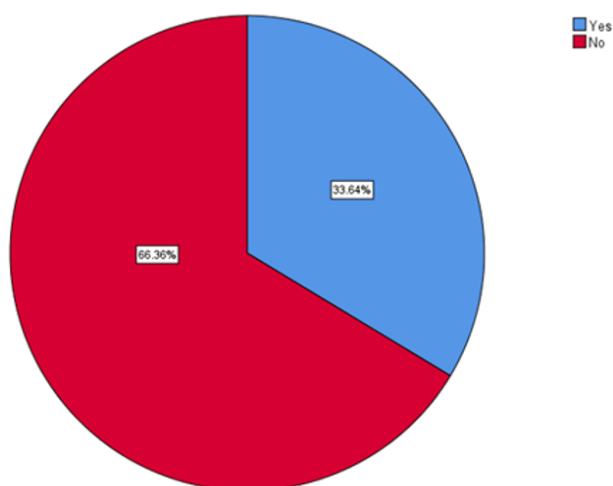
effects after 60 years (Hoek, 2004). The effects are worse than expected, it has affected most of the people from the socio-economic hierarchy. Goods and commodities are affected worse because exports and movement [sale] of local goods are affected, this can also have a greater impact in our country's economy (Estrada, 2020). Many are jobless, so the government has issued exemption from particular taxes as the condition of lockdown still prevails. This could lead the government to face a deep crisis for funds to do relief measures for the affected (Mehta, 2020) and tourism is totally stopped, so lots of income to the government has



**Figure 1: The occupation of the respondents. Government officers [31.82%, red], students [31.82%, bluish green], daily wage workers [10.91%, yellow], professionals [10.91%, green], businessman [8.18%, blue] and manager/representatives [6.36%, orange]**



**Figure 3: Status of occupation during lockdown. Working [42.73%, blue], not working [30.91%, red], unemployed [26.36%, green]**



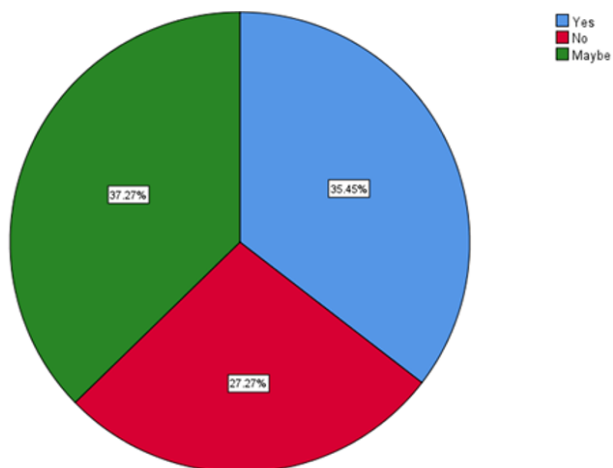
**Figure 2: Economic impact of lockdown. Affected [33.64%, blue] and unaffected [66.36%, red]**

stopped. When we talk about sectors, individually transport is the most affected sector of all (Find-eklee and Morinello, 2020). Localised movements to places are restricted, fuel industries are affected [private and government sector], so workers are also affected as they don't receive enough salaries (Albrecht, 2020). The stoppage of various exports and imports has resulted in a decrease in GDP. Large amounts of goods, rice and other commodities are stagnated as demand for some goods have decreased in many states of India producing them (Guerrero and Corona, 2018).

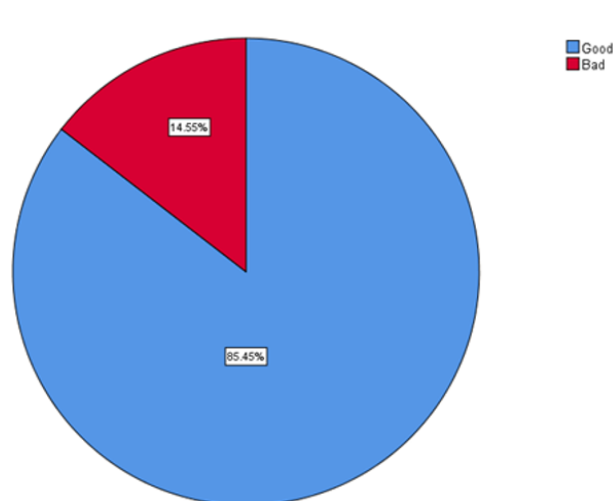
Economy of a country can attain its normal value only when all conditions return to normal, in a day to day approach. Economic effects of this COVID 19 is observed from the daily wage workers to top class businessmen who exist in our country (Haleem et al., 2020). When demand supply theorem is applied on goods, for the present pandemic situation as availability in the rate of essential products is decreased, price for them increases as demand increases (Davis and Serrano, 2017; Timothy et al., 2019).

its vigor attack all over the world, spreading like bush fires. Human coronaviruses were found as late as the 1960s, but it remained dormant showing its

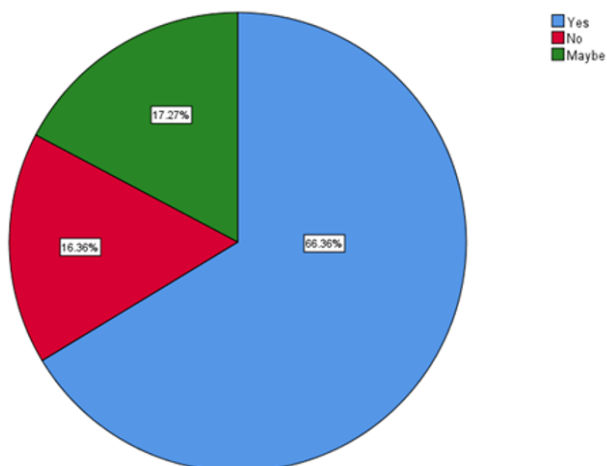
Many economic crises were officially recorded previously in various pandemic situations, which shook the world. During the period of swine flu spread



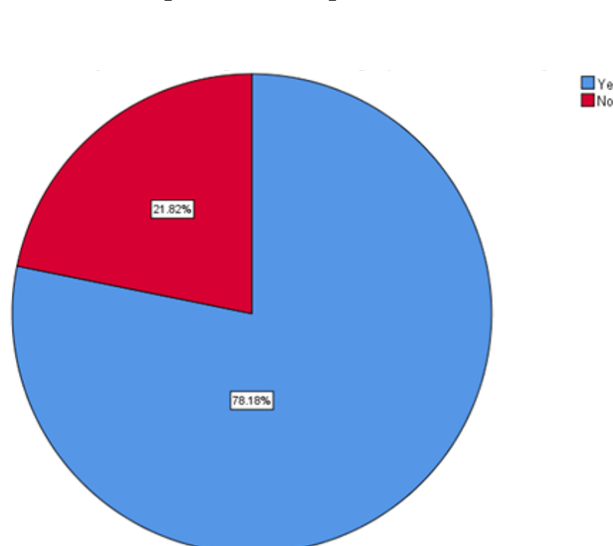
**Figure 4: Finding ease in managing economic loss. Maybe [37.27%, green], yes [35.45%, blue] and no [27.27%, red]**



**Figure 6: Consequences of closing the factories. Factories are closed for good [85.45%, blue] and for bad [14.55%, red]**



**Figure 5: Essentiality of the lockdown. Essential [yes, blue, 66.36%], not essential [no, 16.35%, red] and maybe [17.27%, green]**

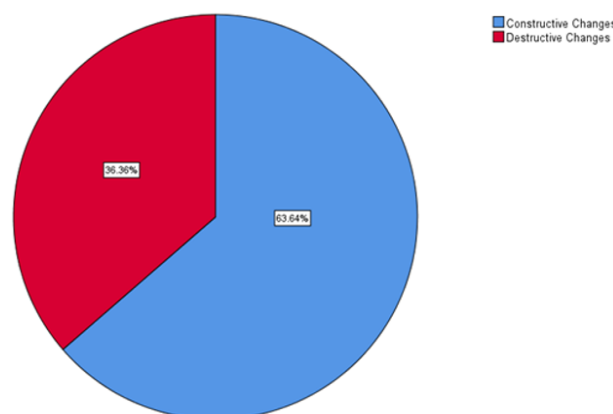


**Figure 7: Economy and industries. Closure of factories can cause depression in the economy, yes [blue, 78.18%], no [red, 21.82%]**

in India in 2015, there was a wholesome shrinkage in the country's gross value. It affected exports, imports and other transport of goods because Delhi was affected the most (Purushwani and Sinha, 2019; Iyer et al., 2019).

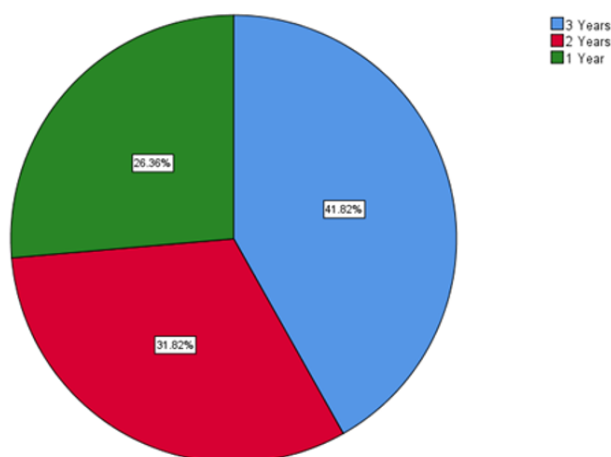
Trade and share values were affected to its core, which became a huge drawback to our country's economy (D'Silva, 2015) in 2005 when there was a cholera outbreak in Andhra Pradesh, it caused a rapid fever in that state's economy. Andhra being the rice bowl of India, agricultural based economy was the common economic practice. Due to the

outbreak of chikungunya, rice export is totally stopped and so there was a huge hit in the state's economy. These goods cannot be stored as they are edible products, they get spoiled too sometimes ('Chikungunya Outbreak In Kurnool District, Andhra Pradesh', 2007). Considering the outbreak of plague



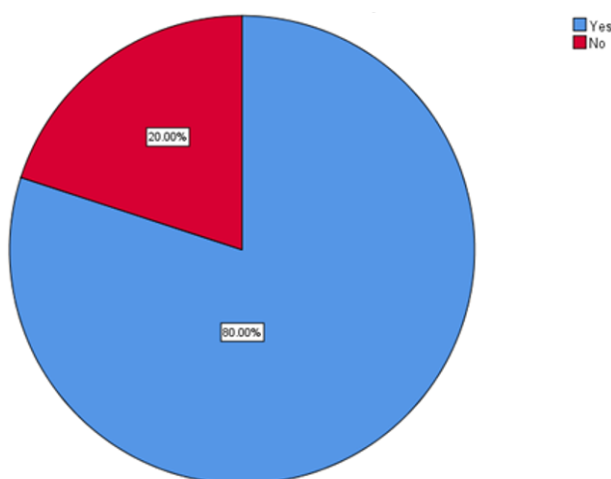
**Figure 8: Changes during lockdown. Constructive changes [63.64%, blue], destructive changes [36.36%, red]**

in Surat in 1994, movement of goods to various countries was totally prohibited. Downfall in the economy was margin to 0.7 as a whole (Ramalingaswami, 2001). Henipah virus [Nipah] outbreak



**Figure 9: Time to get recovered from the crisis. Three years [41.82%, blue], two years [31.82%, red] and a year [green, 26.36%]**

occurred in Kerala in 2018. The connections to and from Kerala were totally terminated, most of the trades were affected within days. Corona was also showing its gore which made the economy slide down for the state to its bottom (Rajput et al., 2018). Whenever a country is affected by a pandemic, [usually pandemics occur all over the world] it takes human efforts, other combined ones to get relieved from it. Most pandemics like chicken pox, cholera in recent days can be easily eradicated

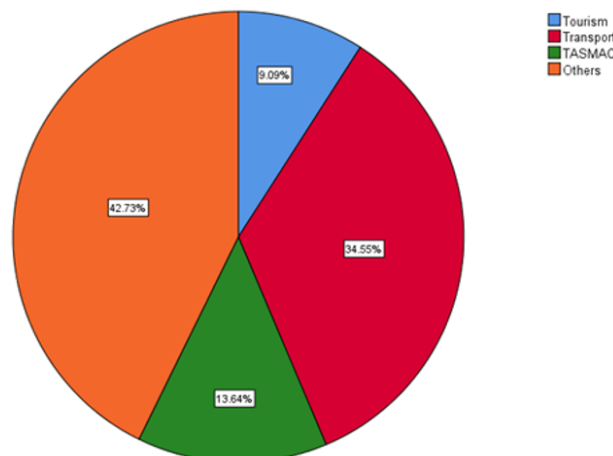


**Figure 10: Economy and agriculture. Agriculture affects the economy yes [80%, blue] and [20%, red]**

so it does not cause a major effect in the economy (Zhang, 2020; Abigail, 2019). When time estimation from different articles were studied, most of the studies had given only an estimated time limit to

escape from this economic fever (Bolsinger, 2020).

This study is based on the economic impact of COVID 19 in India from the perspective of Trichy city population. The main objective of this study is to test the knowledge and create awareness on various attributes related to the economy of India during COVID lockdown and how it has affected the economy in different sectors.



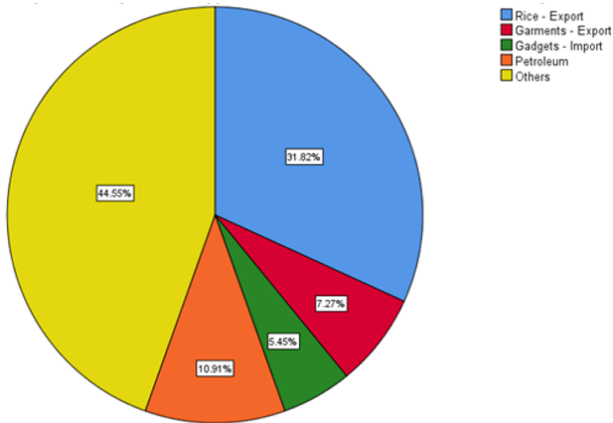
**Figure 11: Sectors of the government. Tourism [9.09%, blue], transport [34.55%, red], TASMAC [13.64%, green] and others [42.73%, orange]**

**MATERIALS AND METHODS**

The datas should be segregated from the common public’s view, a self assessed questionnaire comprising 14 questions based on the country’s economy and one’s role in developing country’s economy were framed and was shared using non-probability convenient sampling among 109 Trichy residents through online platform “google docs”. The participants were first told about the purpose of the study in a detailed manner.

The main advantage of this study is that the study is completely online, so that it can be circulated very easily. The questions were set in an easy to understand manner, so that all questions can be answered without any hesitations. But were restricted to a limited population. Some of the measures to avoid bias was selecting a random population and setting restrictions on factors like age.

The validity of the structured questionnaire was done in a standard manner, by checking both internal as well as external validity. The data collected from the online platform were analysed with the help of SPSS statistics 19, pie-chart generated using Descriptive statistics. Job, residing place, income of a person were the necessary output variables that needed to be assessed and they were represented

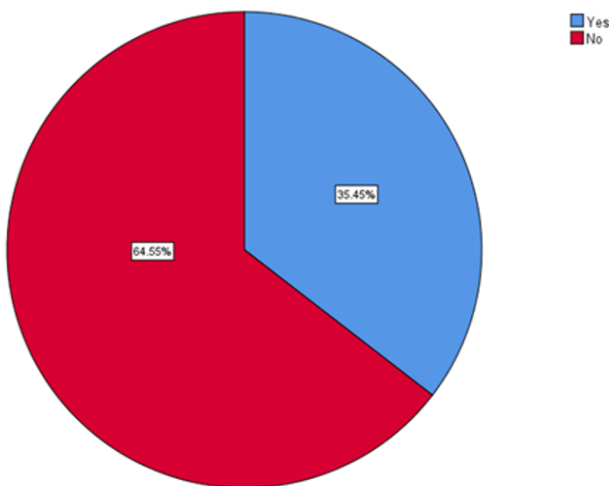


**Figure 12: Exports and imports. If they are stopped affected sectors are rice - export [31.82%, blue], garments - export [7.27%, red], gadgets - import [5.45%, green], petroleum [10.91%, orange] and others [44.55%, yellow]**

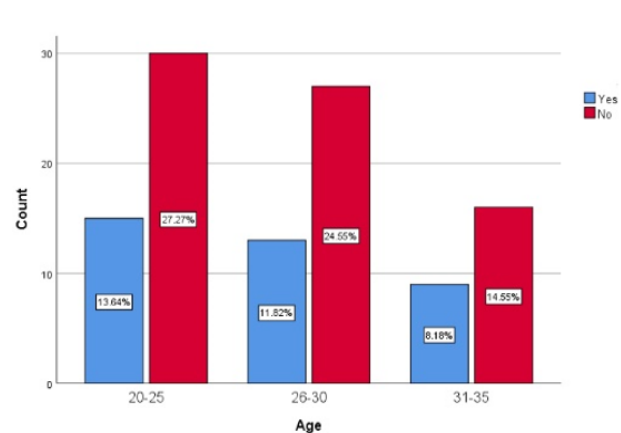
with the help of pie-charts. The independent variables include - height, weight, gender and the list of dependant variables are job, income, where they stay [population in Trichy].

**RESULTS AND DISCUSSION**

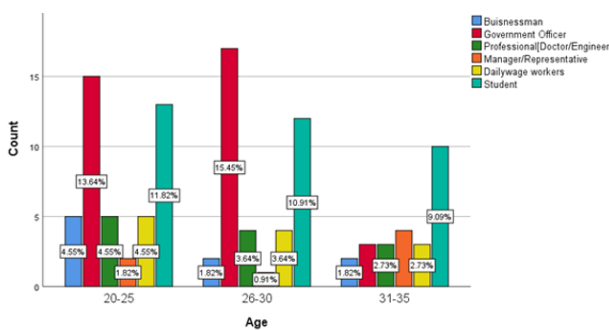
Bar graph representing association between age and occupation of the respondents in Trichy city. Most [31.82%] of respondents are government officers where the majority of them fall into the age group of 26-30 [15.45%, yellow] years, than other age group citizens who do the same as well as different jobs [businessman, professionals, manager, workers]. This association helps us to find the economic impact among different citizens of Trichy. There is no significant difference in the government jobs pursued in different age groups. Chi square test was done, Pearson’s Chi square value: 1.615, df: 1. p value: 0.765 (>0.05) and the association was found not to be statistically significant.



**Figure 13: Theatres in a country's economy. Affects the economy [yes, 35.45%, blue] and does not affect the economy [64.55%, red]**



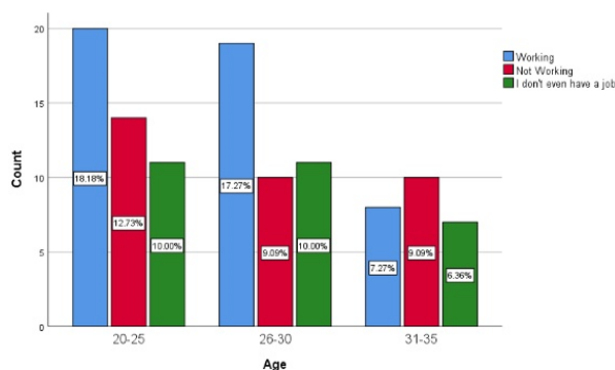
**Figure 15: X axis representing the age of the respondents and Y axis representing the number of participants and their response for economic impact in a family**



**Figure 14: X axis representing age of the respondents and Yaxis representing their frequency**

Bar graph association between age and economic impact in a family. Most of the respondents [27.27%, red] from Trichy from age groups between 20-25 years do not experience much impact on their economy. But some [13.64%, blue] in the same age group struggle due to economic depression than others. This association helps us to find the economy of a family during the lockdown. There is no significant difference in the responses about economical effects in their family between different age grouped Trichy citizens. Chi square test was done, Pearson’s Chi square value: 1.078, df value: 1, p value was found to be 0.977 (>0.05) and the association was found not statistically significant.

Bar graph representing the association between age and status of occupation of the respondents. Most



**Figure 16: X axis representing age of the respondents and Y axis representing the number of participants and their response for their status of occupation during the lockdown**

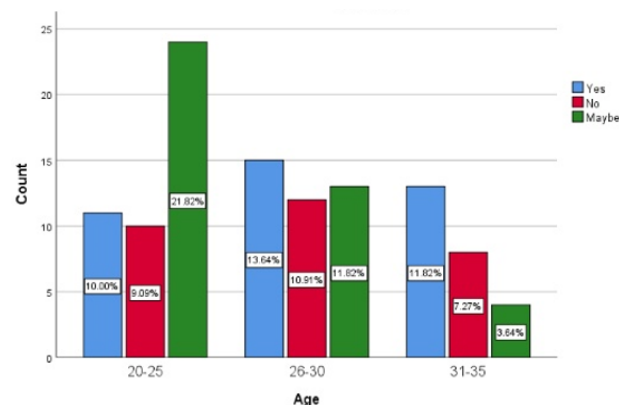
of the respondents from age groups 20-25 years [18.18%, blue] and 26-30 years [17.27%, blue] are working when compared to the people belonging to 31-35 years of age. This association helps us to find the unemployed as well as people who don't work during the lockdown in and around Trichy. There is no significant difference in the status of occupation among different age groups. Chi square test was done, Pearson's Chi square value: 1.543, df value: 1. P value was found to be 0.709 (>0.05) and the association was found not significant statistically.

Bar graph representing Chi square analysis between age and ability in managing the economic loss. Most [21.82%, green] of the respondents from age group 20-25 years are not sure whether they could manage the economic loss or not, when compared to other age group people. This association helps us to know how the citizens manage their economic loss during a lockdown. There is no significant difference in the people's ability in managing the loss. Pearson's Chi square value: 1.221, df value: 1 and p value was found to be 0.031(<0.05) which was statistically significant. People in older age group were able to manage economic loss better than younger aged people.

Bar graph representing Chi square analysis between age and exports, imports in economy. Most [18.18%, yellow] of the respondents from age groups 20-25 and 26-30 years of age think that there are factors other than rice [blue], garments [red], gadgets [green] and petroleum [orange] exports and imports for affecting the Indian economy. This association helps us to find the major exports and imports affecting the Indian economy. There is no significant difference in most of the exports and imports. Pearson's Chi square value: 1.471, DF value: 1, P value was found to be 0.074 (>0.05). It was not statistically significant.

On analysing the results, it is clear that most of

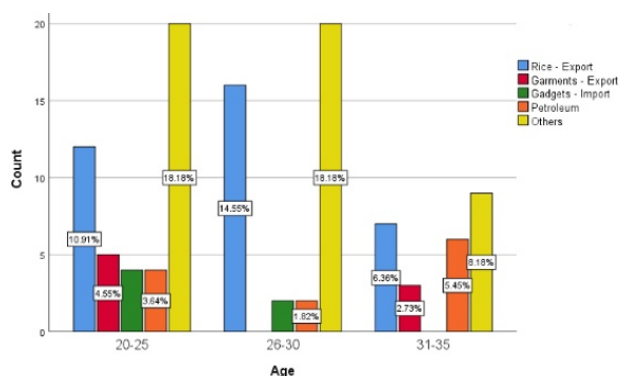
the respondents are government officers 31.82% and students 31.82%, followed by daily wage workers and professionals 10.91% each, then by manager/representatives 6.36% [Figure 1]. Unlike other pandemic situations most people are not affected during the lockdown economically 66.36% except few 33.64% who are not affected economically [Figure 2]. Most residents in Trichy are working 42.73% even during the lockdown, followed by people who are not working 30.91% and who don't have a job 26.36% [Figure 3]. As many are working it is possible for them to ease out the economic loss 35% and some 37% are not sure whether they could manage the loss caused as a result of lockdown, and 27% are not able to manage their loss [Figure 4]. Although some are affected, everyone thinks that this lockdown is essential 66.36% to contain the disease spread [Figure 5], and lead to constructive changes 63.64%, few 36.36% think that this leads to destructive changes [Figure 8] and it is for good 85.45% [Figure 6]. Closing factors lead to depression in the normal economy, agrees 78.18%



**Figure 17: X axis representing the age of the respondents and Y axis representing the number of the participants and their response about their ability in managing their economic loss**

and disagreed by 21.82% [Figure 7]. Majority of the respondents from Trichy, think that it takes almost 3 years 41.82% for them to heal from the economic turnover that has now occurred in India, followed by respondents who think 2, 31.82% and 3, 28.36% years [Figure 9]. India being the agricultural country, if agriculture is affected, most of the sectors related to it are affected, it might affect the whole economy, agrees 80% of the people who responded to the response [Figure 10]. Among the sectors of government, many responded, 42.73% that the transport; followed by TASMACH, 13.64%; tourism, 9.09% aren't the affecting branches of the economy of India, they think that there are other reasons for it [Figure 11]. Out of few imports and exports,

export of rice, 31.82%; import of fuel, 10.91% and garments, 7.27% does not have an impact on the economy, they think that other reasons are the cause for this economic depression, 42.73% [Figure 12]. Almost majority of the respondents, 64.55% think that closing theatres will not cause a problem in the economy, only few think that there will be a change in the economy [Figure 13]. Age of the respondents were compared with different criterias. When it was compared with occupation of the respondents, the P value was 0.344, which was not significant [Figure 14]. When age was compared with the economic impact within a family, the P value obtained was 0.957, and it was not significant [Figure 15].



**Figure 18: The X axis representing the age of the respondents and Y axis representing the number of the respondents and their response about exports and imports in the economy**

Then it was compared with the status of occupation of the respondents, most [18.18%] of the respondents who were aged between 20 and 25 years were working when compared to other age grouped people [26-30 years], so the P value was insignificant which was found to be 0.709 [Figure 16]. But when age was compared with the ability in managing the economic loss, most [21.82%] of those who were aged between 20 and 25 years are not sure whether they could manage their economic loss or not, when compared to the respondents with other age people and so the P value was 0.031, which is statistically significant, People in older age group were able to manage economic loss better than younger aged people, [Figure 17]. When it was compared with economic impacts on export and import ceasement many respondents aged between 20 and 25 thought that there are other reasons [18.18%] for affecting the economy rather than garments [4.55%], rice [10.91%], gadgets and petroleum [3.64% each] and so P value found was 0.074, which was not statistically significant [Figure 18].

Economy always lowers during pandemics, then it retains its values after a few days of normalcy. In a

cross sectional study that was done during the Swine flu pandemic in Haryana (Verma, 2018), majority of the people were not affected economically, because all daily activities were stopped for only a week. This was relevant to the current study because the Trichy residents also were not affected, 66.36% economically. More than 60% of the people wanted the lockdown for the spread to get contained, which was too similar as our current study. In another survey based study done in Uttar Pradesh on Covid 19 lockdown, almost 67% of the people do not want this lockdown, as they are affected by all means, they don't have enough money for even food and to buy essential goods Varshney (2020). In another study, which was done in Kerala during the Nipah virus attack (Saha and Debnath, 2019), almost 47% of the people were working which was relevant for the current scenario also as 42% of Trichy citizens are also working during the period of lockdown. When the number of people who are unemployed were calculated via online durin COVID in Japan, almost 49% of the whole population were not working and 18% were unemployed (Yoneoka et al., 2020). In an online survey done in Saudi Arabia during the COVID spread, 67% of the people think that Saudi faces a crisis only because tourism is affected. Saudi Arabia is known for its tourist spots, the government's main income is via tourism (Quadri, 2020). But in India [Trichy] people think that transport is not a big deal. In a survey done in Andhra Pradesh, 90% of the people want the factories to run as normal, this shows that they don't care about the spread as well as our environment as it might turn into a community spread (Gittinger, 2020). In a study which was done in Cuba (Fitz, 2020), being the sugar bowl of the world, its main source of income is through sugarcane cultivation and sugar refineries. Due to the Covid spread they are closed fearing spread across the country, which resulted in a massacre in all sources of income for the country's economy. These results were relevant to the current study as many of the respondents responded that India's economy is affected if agriculture is affected. Thus most of the attributes of the current study results are relevant to the previous studies.

The study was undertaken on the same [relevant] homogeneous selected population. Minimum sample size which restricts the results from variations. Some results from the responses acquired may be biased. Complete analysis is not possible in the present lockdown situation.

To expand sample size, so that variations can be found in the data collected. The survey should be passed onto other states as well, to examine the economic impact in other sectors of other states and

countries due to COVID 19.

## CONCLUSIONS

COVID 19 has given the biggest blow in the Indian economy. The disease is uncontrollable, it affects people in greater ratios every day. The duty to develop the country's economy as well as eradicating the disease should be taken in the hands of the normal citizens. We should follow norms of the government and should be supportive in order to develop our nation.

## Conflict of Interest

Nil.

## Funding Support

Nil.

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