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Pandemic impact: challenges faced by entrepreneurs of logistics industry

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Abstract: Pandemic impact is one of the major causes that has affected and disrupted the flow of the logistics industry. Specifically during the covid-19 days, the industry had been clueless to handle tough times. The main aim of this study is to know the factors that had caused impact on the industry during the Covid times and to identify the main reason behind the struggle in shipping various products on time. Here this study involves a descriptive research method as research design and samples for the finding purpose were collected from 90 respondents along with the help of primary data. The research findings were analysed using tools like frequency analysis, mean analysis, independent t test and ANOVA analysis. It is evident that the major impact reasons were due to shortage of labour, lack of safety measures, shipment difficulties, transport isolation that made the industry to face difficult times.

Keywords: Pandemic impact, logistics industry, transport isolation, labour shortage, more demand, entrepreneurship

INTRODUCTION

The logistics industry is one of the vast industries that relates all the business-to-business, business-to-market, business-to-consumers and much more. This industry is a backbone for every business that evolves in this world. It is always said that connecting from various countries to others was always a big deal but the logistics across the globe had made it easier to get the business growing forward and bright. Each company, various countries choose different modes of logistics to ship the products to reach them to the destination point. The main objective of a logistic industry is to reach the destination point on the estimated time period, hand over the various goods, products, materials etc to other businesses across the world. The business that orders their products from various countries can run their business tension free and make profit only when they get to receive their raw materials on time and on the basis of demand for that product. When there is more demand, then the need for the materials are also said to be more. Logistics industry plans the supply chain, the inter-link, the intermediate and lifeline of a business to sustain in the competitive world. When there is a shortage of products, goods, raw materials then there is an absolute necessity to make an order that has to be imported from other countries as we are mostly made in China when it comes to electronics and a lot more products. The pandemic season it is, Covid19, everyone under this world has been affected by its presence in many ways such as economically, financially, mentally and also physically. The influence of pandemic had not only affected the logistics industry but also many such industries and their growth. The routine target goal of a lot of industries had fallen to the base of having no profit but in a complete loss. The logistics industry is one such substitute player that faced severe effects during the pandemic season. There were a lot of major obstacles for them to handle this year. These industries faced this kind of hopeless situation just because they didn't expect that a pandemic would be a threat to them and also they had no backup plans to save themselves from this threat. It wasn't easy to survive with such daily challenges for the logistic industry. But yet there were few top companies that had put in a lot of efforts to bring back the scale to the top in the world of business and in the field of logistics. Researchers after reviewing the previous literature have framed objectives to conduct the study to find the impact of pandemic on the logistics industry, to find out various factors, to analyse and measure the impact for a better accuracy and to derive alternatives to handle such problems.





REVIEW OF LITERATURE

("Managing COVID-19: How the pandemic disrupts global value chains," n.d.) Adnan Seric, Holger Gorg (April 2020) The researchers say that the Covid 19 outbreak had made the supply chain get struck globally. The pandemic situations had caused very much severe impact on the international production and logistics network. The outbreak had caused several new restrictions in various fields, its movements, curfews and much more had caused a clueless situation for the logistics industry. (Auto, 2020) The Economic Times (April 2020) as per this article, the study confirms that even though the movement had been approved by the government for the logistics industry, the situations are still tough. The approval for both essentials and non-essentials goods were permitted after a few weeks of the lockdown but the ground level situations weren't easy as the container freight stations, the inland container depots, port terminals which have carried the essentials were choked. The ocean freights were quarantined for more than 2 weeks was a major challenge as the standing cost of assets are way too high for the company to handle. ("Supply chains in crisis," n.d.) Published by DHL (July 2020) The report says that the covid 19 situations had not only triggered the health problems but also made a huge disturbance in the economic system. The logistics company reportedly states that they have been facing such a condition like never before. The current scenario has taught the logistic industry on how to handle it and get adapted to the new normal. (Kuo, n.d.) Mercy A. Kuo (March 2020) This news article had found the three key impacts of the coronavirus on the global shipping industries and the logistics industry had been impacted both directly and indirectly. The refrain from travelling further had affected the air freights. Low demand for the goods and other commodities has pushed the freight rates to go lower. Several logistics industries had gone down with a warning reduced earnings, weak future earnings. ("Logistics: challenges and opportunities in the post-covid-19 world," n.d.) Bobby Sharma, vice president - retail and logistics BU, Atos Syntel (July 2020) This article explains how the logistics industry has risen to handle the challenges and difficult situations. It is said that the business to business logistics market was almost standstill at the early stages of the pandemic. The situation changed that the orders were big and bulk in the e-commerce sites of certain logistics companies and logistics industry had stepped up forward with a technology uplift and changing its profile in a digital mode as the demand was too high and the reach the business-to-consumer as now things rely digital. Indo-Asia news service, (Mamtany, 2020) IANS (March 2020) This report clearly says about the outbreak impact on the logistics industry in India as well as Global world market players admits that the global capacity has gone down up to 70 percent and the freight rates have gone up by 6-8 percent. In India the logistics industry is having a hardship. This conveys that a lot of essential commodities were also held up and weren't able to take a step forward to reach the destination on time due to the lockdown. ("4 big logistics challenges of COVID-19 - and how to overcome them," 2020) Agility (August 2020) This study clearly says that the various freights have various capacities and different levels of problems to handle. This explains that the capacity of the ocean freight, air freight and road freight had lost its capacity as the demand and certain restrictions were held up on them that made them get stuck with no alternative plans to proceed shipping but rather they were halted in different locations across the globe. (COVID-19 impact: Indian e-commerce lost \$400 million in a week, says Forrester, 2020) Consumer news and business channel (March 2020) This report is precise to know how the pandemic had made a huge loss in the e-commerce of the logistic industry as everything now relies on the online. The loss is about \$400 million worth of sales that had gone completely down due to the transportations halt loaded with

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several products from different locations when it was a nationwide lockdown. (Parimala, n.d.) stated that India's logistics companies are developing rapidly, but this development does not come without challenges and also the government of India is taking measure to implement the make in India policy to drive the country's economic growth and competitiveness and to enlarge the logistics industry with placing best leverage class level technology, skilled labours, more manpower and much more. India's logistics industry is growing rapidly, and it is the combination of infrastructure and technology improvements that determines whether the logistics industry can help its customers minimise their costs and risks in the logistics sector and provide efficient services despite the challenges that occur. ("Impact of COVID-19 on logistics sector and trucking - detailed analysis," 2020) Rajesh Yabaji (June 2020) The author states that the logistics sector employs over 8 million people in India. It also adds that the logistics industry has a strong correlation with the key economic indicators including GDP and unemployment. Transportation is the backbone of the logistics industry and the industry completely relies on the transportation in different modes. The logistics industry serves as the umbrella for the rest of the businesses. Due to lack of health security, the drivers refused to trip during the pandemic made the truck stand randomly in an unsafe location. After all this the industry will have a slow progress to start seeing profits in the future but in a gradual manner. Our research idea is based on the rich knowledge acquired by our peer teams across the university.(A.C.Gomathi, S.R.Xavier Rajarathinam, A.Mohammed Sadiqc, Rajeshkumar, 2020; Danda et al., 2009; Danda and Ravi, 2011; Dua et al., 2019; Ezhilarasan et al., 2019; Krishnan and Chary, 2015; Manivannan, I., Ranganathan, S., Gopalakannan, S. et al., 2018; Narayanan et al., 2012, 2009; Neelakantan et al., 2013, 2011; Neelakantan and Sharma, 2015; Panchal et al., 2019; Prasanna et al., 2011; Priya S et al., 2009; Rajeshkumar et al., 2019; Ramadurai et al., 2019; Ramakrishnan et al., 2019; Ramesh et al., 2016; Venugopalan et al., 2014)

RESEARCH METHODOLOGY

The main goal of the research is to find out the factors that impacted the industry during the outbreak time. Descriptive research design was used in this study. In this research both primary and secondary data had equal parts which helped to enhance the research. Here to accomplish this, a structured questionnaire was circulated and the data was collected from 90 targeted respondents from the employees that are working in the logistics company. Firstly the demographic profiles were collected and then further the data collected were analysed using the tools. Demographic profile of the employees





Table 1: Mean analysis o	n impact of pandemi	c on logistics industry

S.NO	IMPACT OF PANDEMIC ON LOGISTICS INDUSTRY	MEAN	RANK
1	More demand for the products	9.68	1
2	Shipment difficulties	8.8	2
3	Labour shortage	8.74	3
4	Transport isolation	6.96	4
5	Angry customers	6.20	5
6	Safety measures	6.0	6
7	Technology uplifting steps	5.58	7

The mean analysis and the rank is done by the factors computed together in such a way that it shows the clear mean score of the computed variable from the highest to the lowest for a better understanding. The mean rank is aligned in ascending order. The top most impacted factor was more demand for products which is ranked 1. Shipment difficulties is ranked 2 as it was the next problem faced. More demand is due to shipment difficulties. Labour shortage is ranked 3 and it has been affected only because of the lack of safety measure which is ranked low and it takes place at rank 6. Isolation of transport is ranked 4 and this has elevated the customers to get impatient and it is ranked at 5. The last one is technology upliftment where it is rank 7 and it has not been much prioritised, changing these conditions will help the industry to step forward.

S.No	Gender	T-value	Significance
1	Labour shortage	0.285	0.210
2	Transport	1.199	0.091
3	Shipment	0.306	0.116
4	Safety measures	0.429	0.074
5	More demand	0.508	0.114
6	Angry customers	0.059	0.338
7	Technology upliftment	0.434	0.184

Table 2: Demographic profile and the factors in independent t-test

The table shows the T values of the demographic profile along with the factors that have been analysed. From the analysed part it is found that there are no significant differences with respect to gender and the impacting factors.

Table 3: Demographic	profile and the factors i	n ANOVA analysis
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S.NO	Age	F-value	Significance
1	Labour	0.309	0.819
2	Transport	0.420	0.739
3	Shipment	0.845	0.473
4	Safety measures	2.995	0.035
5	More demand	0.757	0.521
6	Angry customers	0.945	0.422
7	Technology uplift	4.503	0.006

The table shows the ANOVA analysis and the F values of the demographic profile in comparison with the factors. Here it is evident that out of the seven factors, there were significance differences with two factors. There is a significant difference with respect to age and safety measures and the other significant difference was with the age and technology uplift steps.

DISCUSSIONS

There were various analyses done to understand the cause for the impact that affected the logistics sector. Means analysis, independent sample T test, ANOVA were analysed using the tool IBM SPSS v23 with the collected sample datas from the targeted respondents. The final results of means analysis shows that the factor safety measures and technology upliftment were ranked low and it was less prioritised. Test test analyses led to no significance difference. Further the result of the ANOVA analysis proves that there are significant differences with respect to age and safety measures, also there are significant differences with respect to age and technology uplift steps. Since there were significant differences with these two factors, to get a further clarity post-hoc analysis was done to find out which age group of the employees responded and caused the difference. It is evidently found that the age ranging between 30 - 35 years have given a significant difference with respect to safety measures as compared to the other age groups and the age ranging between 30 - 35 years have given a significant difference with respect to safety measures as compared to the other age groups and the age ranging between 30 - 35 years has given a significant difference with respect to technology upliftment steps as compared to the other age groups. The industry is very vast and it would do best when there is a innovative technology development with the support of the government will definitely uplift the industry in a great position. The future implications of the logistics industry can be handled well if they are prepared as a whole industry to overcome and handle tough situations.

CONCLUSION

The goal of this research is to find out the various challenges and impacts that the pandemic season has caused on various industries and my research completely relies on the logistics industry. Here the companies had faced several challenging situations, losses and were unable to handle the situations. The research had been dealing with various factors, to know the accuracy of the study. As the pandemic had become the new normal the company had now learnt very well on how to survive despite such conditions. The economy of the nation is like a human body and the various industries are the heart of the economy. If one falls apart, the entire economy would fall as well. As of now the impact of pandemic has taught every industry a lesson, they have been working and are ready to go through and overcome any such upcoming situations in the future.

REFERENCES

- 1. 4 big logistics challenges of COVID-19 and how to overcome them [WWW Document], 2020. URL https://logisticsinsights.agility.com/COVID19/4-big-logistics-challenges-of-covid-19-and-how-to-overcome-them/ (accessed 1.23.21).
- 2. A.C.Gomathi, S.R.Xavier Rajarathinam, A.Mohammed Sadiqc, Rajeshkumar, 2020. Anticancer activity of silver nanoparticles synthesized using aqueous fruit shell extract of Tamarindus indica on MCF-7 human breast cancer cell line. J. Drug Deliv. Sci. Technol. 55.
- Auto, E.T., 2020. Inland logistics players' volume may fall 10-15% in current financial year: India Ratings [WWW Document]. PTI. URL https://www.google.com/amp/s/auto.economictimes.indiatimes.com/amp/news/aftermarket/inland-logisticsplayers-volume-may-fall-10-15-pc-in-current-financial-year-india-ratings/75297313 (accessed 1.23.21).
- 4. COVID-19 impact: Indian e-commerce lost \$400 million in a week, says Forrester, 2020.
- 5. Danda, A.K., Ravi, P., 2011. Effectiveness of postoperative antibiotics in orthognathic surgery: a metaanalysis. J. Oral Maxillofac. Surg. 69, 2650–2656.
- 6. Danda, A.K., S, R., Chinnaswami, R., 2009. Comparison of gap arthroplasty with and without a temporalis muscle flap for the treatment of ankylosis. J. Oral Maxillofac. Surg. 67, 1425–1431.
- Dua, K., Wadhwa, R., Singhvi, G., Rapalli, V., Shukla, S.D., Shastri, M.D., Gupta, G., Satija, S., Mehta, M., Khurana, N., Awasthi, R., Maurya, P.K., Thangavelu, L., S, R., Tambuwala, M.M., Collet, T., Hansbro, P.M., Chellappan, D.K., 2019. The potential of siRNA based drug delivery in respiratory disorders: Recent advances and progress. Drug Dev. Res. 80, 714–730.
- 8. Ezhilarasan, D., Apoorva, V.S., Ashok Vardhan, N., 2019. Syzygium cumini extract induced reactive oxygen species-mediated apoptosis in human oral squamous carcinoma cells. J. Oral Pathol. Med. 48, 115–121.
- 9. Impact of COVID-19 on logistics sector and trucking detailed analysis [WWW Document], 2020. URL https://blog.smallcase.com/impact-of-covid-19-on-trucking-and-logistics-sector-part-1/ (accessed 1.23.21).
- 10. Krishnan, R., Chary, K.V., 2015. A rare case modafinil dependence. J. Pharmacol. Pharmacother. 6, 49-50.
- 11. Kuo, M.A., n.d. COVID-19: Impact on Global Shipping and China's Economy [WWW Document]. URL https://thediplomat.com/2020/03/covid-19-impact-on-global-shipping-and-chinas-economy/ (accessed 1.23.21).
- 12. Logistics: challenges and opportunities in the post-covid-19 world [WWW Document], n.d. URL https://atos.net/en/blog/logistics-challenges-and-opportunities-in-the-post-covid-19-world (accessed 1.23.21).
- 13. Mamtany, S., 2020. COVID-19 pandemic severely affects logistics industry [WWW Document]. URL https://www.indiatvnews.com/business/news-covid-19-pandemic-severely-affects-logistics-industry-

602411 (accessed 1.23.21).

- 14. Managing COVID-19: How the pandemic disrupts global value chains [WWW Document], n.d. URL https://www.weforum.org/agenda/2020/04/covid-19-pandemic-disrupts-global-value-chains/ (accessed 1.23.21).
- 15. Manivannan, I., Ranganathan, S., Gopalakannan, S. et al., 2018. Mechanical Properties and Tribological Behavior of Al6061–SiC–Gr Self-Lubricating Hybrid Nanocomposites. Trans Indian Inst Met 71, 1897–1911.
- 16. Narayanan, V., Kannan, R., Sreekumar, K., 2009. Retromandibular approach for reduction and fixation of mandibular condylar fractures: a clinical experience. Int. J. Oral Maxillofac. Surg. 38, 835–839.
- 17. Narayanan, V., Ramadorai, A., Ravi, P., Nirvikalpa, N., 2012. Transmasseteric anterior parotid approach for condylar fractures: experience of 129 cases. Br. J. Oral Maxillofac. Surg. 50, 420–424.
- 18. Neelakantan, P., John, S., Anand, S., Sureshbabu, N., Subbarao, C., 2011. Fluoride release from a new glassionomer cement. Oper. Dent. 36, 80–85.
- 19. Neelakantan, P., Sharma, S., 2015. Pain after single-visit root canal treatment with two single-file systems based on different kinematics--a prospective randomized multicenter clinical study. Clin. Oral Investig. 19, 2211–2217.
- 20. Neelakantan, P., Subbarao, C., Sharma, S., Subbarao, C.V., Garcia-Godoy, F., Gutmann, J.L., 2013. Effectiveness of curcumin against Enterococcus faecalis biofilm. Acta Odontol. Scand. 71, 1453–1457.
- 21. Panchal, V., Jeevanandan, G., Subramanian, E.M.G., 2019. Comparison of post-operative pain after root canal instrumentation with hand K-files, H-files and rotary Kedo-S files in primary teeth: a randomised clinical trial. Eur. Arch. Paediatr. Dent. 20, 467–472.
- 22. Parimala, G., n.d. An Analytical Study on the Challenges faced by the Indian Logistics Companies and. rrjournals.com.
- 23. Prasanna, N., Subbarao, C.V., Gutmann, J.L., 2011. The efficacy of pre-operative oral medication of lornoxicam and diclofenac potassium on the success of inferior alveolar nerve block in patients with irreversible pulpitis: a double-blind, randomised controlled clinical trial. Int. Endod. J. 44, 330–336.
- 24. Priya S, R., Krishnan, C., S, J.R., Das}, J., 2009. Growth and characterization of NLO active lithium sulphate monohydrate single crystals. Crystal research and technology 44, 1272–76`.
- Rajeshkumar, S., Menon, S., Venkat Kumar, S., Tambuwala, M.M., Bakshi, H.A., Mehta, M., Satija, S., Gupta, G., Chellappan, D.K., Thangavelu, L., Dua, K., 2019. Antibacterial and antioxidant potential of biosynthesized copper nanoparticles mediated through Cissus arnotiana plant extract. J. Photochem. Photobiol. B 197, 111531.
- Ramadurai, N., Gurunathan, D., Samuel, A.V., Subramanian, E., Rodrigues, S.J.L., 2019. Effectiveness of 2% Articaine as an anesthetic agent in children: randomized controlled trial. Clin. Oral Investig. 23, 3543– 3550.
- 27. Ramakrishnan, M., Dhanalakshmi, R., Subramanian, E.M.G., 2019. Survival rate of different fixed posterior space maintainers used in Paediatric Dentistry A systematic review. Saudi Dent J 31, 165–172.
- 28. Ramesh, A., Varghese, S.S., Doraiswamy, J.N., Malaiappan, S., 2016. Herbs as an antioxidant arsenal for periodontal diseases. J Intercult Ethnopharmacol 5, 92–96.
- 29. Supply chains in crisis [WWW Document], n.d. URL https://www.dhl.com/global-en/home/aboutus/delivered-magazine/articles/2020/issue-3-2020/supply-chains-in-crisis.html (accessed 1.23.21).
- 30. Venugopalan, S., Ariga, P., Aggarwal, P., Viswanath, A., 2014. Magnetically retained silicone facial prosthesis. Niger. J. Clin. Pract. 17, 260–264.