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"Impact of Covid-19 on Indian economy in terms of consumer buying behavior and sustainability through digitalization"

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ABSTRACT:

Ever since the outbreak of the COVID-19 has occurred, the whole world has witnessed economic and financial crunches. The economy of the whole world has stopped and lockdown are imposed in majority of the countries which has further escalated the problem. As a result, the purpose of this research is to understand the impact that the COVID-19 on the economy of India and to analyze the role of digitalization on the sustainability. The objectives of the research are to determine the impact that COVID-19 pandemic had on the overall economy of India, to determine the role of digitalization on the sustainability, Digitalisation plays an essential part in global growth and has a huge influence on the lives of people. With strong digital collaboration and connexions between researchers and policy makers, it is important to utilise the maximum capacity for digitalization. As our agricultural property, our habitats and urban areas alter, our approaches to solving global problems can continue to grow,to analyze how sustainability can be improved using digitalization in COVID-19 pandemic, and to analyze the impact of the Covid-19 on the consumer behavior towards the luxury products like car. For this, the research methodology that has been used is the Positivism philosophy and deductive approach and the primary data has been collected using the survey strategy so that multi-method of data formation can be put to use. It has been analyzed and found out that managing stress is the most crucial priority of the consumer in the pandemic and the purchasing habits of consumers have slightly changed as consumers are purchasing essential products majorly in the pandemic. It has been analyzed and found out that the effect of pandemic on luxury product has been moderate because of job losses and economic downfall and the rising fuel prices are making people shift towards alternative energy sources such as electricity.

INTRODUCTION:

India today (even the world) is vulnerable to the so-called Covid-19 coronavirus disease. In December 2019 in the Chinese city of Wuhan, which is considered China's biggest transport center, the first case of the coronavirus was identified. Most countries shut down their seaports and airports during the spread of Covid-19. We also forbidden the practices of manufacture and export. China is also the world's largest producer of raw material and has lockdowns in manufacturing (Lokhandwala & Gautam, 2020). As the Covid-19 cases recorded by the Indian Government have been expanding to India, the developed world has been locking down for 41 days affecting the economic activities and mainly affecting the country's supply and economy. The implications of Covid-19 on the Global economy and supply chains in India (Tandon, 2020) were addressed in today's paper. A total of 18 primary obstacles have been uncovered impacting India's supply chains. This thesis is intended to help researchers build the computational models to solve this issue.

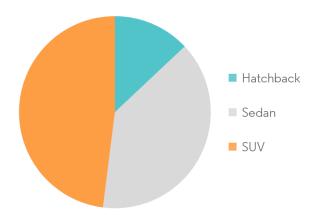
During this moment of turmoil India's zeal for accomplishment of and constructive commitment to the Sustainable Development Goals (SDGs) tends to be outdated. A crucial problem at this point is whether to approach our long-term goals in view of the ongoing crisis? Will the issue of climate change not worry us more? Why do we maximize the quality of our capital while ensuring safe communities and implement policies for the protection of natural wealth from our past? In the current case, such issues do not sound particularly troubling. They are similarly relevant and should be addressed on a different basis (Leal Filho et al. 2020).



Prior to the pandemic, people above the age of 40 years who have extra money in their hands will start thinking regarding the concept of the you only live once, thus starts spending more on the luxury things like car but in this pandemic situation, there is a shift in this behavior of the customers as people have shifted their purchase towards more necessity items.

In the year 2019, the market trends of the luxury cars became slow, due to many changes in the market conditions, and barriers. There are many reasons behind barriers are the slow rate of the economic growth, liquidity pressure, alteration in the GST rates, are all the major reasons that impacted the luxury vehicles in India. Thus, the slow rate of the economy affected the sales of the luxury, buyers are shifted to the SUVs and mainly focus on the SUVs rather than Luxury Sedans and Hatchbacks.

India Luxury Car Market - Revenue (%), by Vehicle Type, 2019



The user preferences of the Luxury brands are consistently improving, as the rise in the income affects it. The sales of vehicle in India maybe increase in the upcoming years as the government of the India is planning to alter their policies by the year 2020 which will remove many barriers and uplift the sales of the vehicles and arise the demand of the new vehicles and stable the growth of the luxury vehicles in the future.



Though, the sales of the luxury SUVs also affected by the pandemic COVID-19. The Automobile sector manufacture across the India stop their working in the lockdown period (up to 90 days), as the supply chain is fully disturbed and customers were compulsory forced to stay indoors rather than to roam around here and there, as the nation-wide lockdown was imposed by the government. Thus, due to pandemic the economic circle is collapsed in several states, union territories, and even in the entire India. It has started to lift the restriction permits the different manufactures to restart their business activities to start the production of vehicles.

LITERATURE REVIEW

Impact of COVID-19 pandemic on Indian Economy

In India, the real GDP of the nation is believed to have been degraded from the past 6 years till the third quarter of the financial year 2019-2020. Also, the outbreak of the COVID-19 pandemic has further added to the problems in the economy of India. The outbreak of the

COVID-19 pandemic has forced India to impose a country wide lockdown which has resulted in shutting down almost all of the sectors of the nation which has further escalated the economic and sustainable problem for India. According to MoSPI, 2020, there are three major factors that are essential contributors to the GDP of India. These three contributors are private consumption that takes place in the country, investments made and the external trade made by India. Because of the lockdown caused due to the COVID-19 pandemic, these factors are drastically affected leading to disruption in the real GDP of India.



Source: https://www.mmaglobal.com/files/potential_impact_of_covid_19_on_the_indian_eco nomy_1585908555.pdf.pdf.pdf.pdf

Impact on the demand – The COVID-19 pandemic has resulted into a significant impact on the private consumption of India which forms a sizeable part of the economy. According to MoSPI, 2020, the private consumption expenditure from the restaurants and hotels has fallen down to 2.2 percent in the total share of the economy which is believed to be a significant downfall. Also, the sector of recreation and culture has also witnessed a significant drop in the total share of the private consumption. The total share of the recreation and culture in calculated to be 0.80 percent which is significantly lower than the levels it used to be before the COVID-19 pandemic.

Also, the COVID-19 pandemic has resulted in delays in supply chain for many industries which has resulted in halt in the production process for most of the industries. As a result, this stoppage in the production process has further resulted into stoppage on the export of the products which are imported by different nations of the world. This stoppage in the export has further degraded the economy of India and has created financial crisis for the Indian Government and has led to severe financial problems for the country.

Role of Digitalization on Sustainability

According to Parida et al., 2019, digitalization plays a pivotal role in sustainable development and providing enhances sustainability. Digitalization enables an individual to fulfil their basic needs of safety, health and security. With the help of digitalization, the individuals can seek health solutions and diagnosis of potential health issues which is considered to be a significant achievement which is facilitated by the digitalization. Digitalization combined with the artificial intelligence has proved to be effective for enhancing the health systems and the healthcare information system. Digitalization has enabled innovation in the healthcare system and also enables monitoring of the climate, pollution levels and the overall health of the environment which results into enhanced sustainability. Also, according to Jovanović et al., 2018, digitalization can enable sustainability at a very rapid rate by enabling decarbonization throughout the different sectors of the economy. Digitalization has the potential to increase the material efficiency and can also become the key enabler for monitoring and protecting the ecological system of the Earth. Thus, digitalization can potentially help in tackling the unparalleled challenges that the current and the future generation would face

such as climate issue, environmental issues, pollution, etc. to make a safer and sustainable living.

PURPOSE OF STUDY

Ever since the outbreak of the COVID-19 has occurred, the whole world has witnessed economic and financial crunches. The economy of the whole world has stopped and lockdown are imposed in majority of the countries which has further escalated the problem. As a result, the aim of this research is to understand the impact that the COVID-19 on the economy of India and to analyze the role of digitalization on the sustainability. The objectives of the research work are as follows -

- To analyze how sustainability can be improved using digitalization in COVID-19 pandemic.
- To analyze the impact of the Covid-19 on the consumer behavior towards the luxury products like car.

METHODOLOGY

The research methodology for this research is formulated by using the Saunders Research Onion. According to the Saunders Research Onion, the first layer in the Research Onion is the research philosophy stage. For this research work, Epistemology research philosophy has been chosen and in the Epistemology, the Positivism research philosophy would be used specifically

Since the Positivism research philosophy was chosen as the research philosophy, the deductive research approach has been chosen which would enable the researcher to answer the hypothesis and the research questions formulated by the researcher.

The research strategy which has been chosenfor this research work is the survey research strategy. Thus, questionnaire for the research work was formulated and used in the research survey in order to meet the aim and objectives of the research work.

The research choice for this research work was the multi method of research choice. Choosing this research choice would enable the researcher to form different data set for different segment in the research work which would enable answering of the research questions.

The research data collected for this research work was the primary data. Because the research strategy that is chosen is the survey strategy, the questionnaires was sent to the sample population in order to collect the first hand data for the research work. This data was thus analysed to answer the research question and to form a reasonable conclusion at the end of the research work.

The primary data is been collected with the help of the questionnaire which was distributed to the 100 participants belonging to the age group of the 30-50 who are either working professionals or business person or households. This age group is been selected because the buying behavior of this age group is been affected the most as they have to take care of all the needs of their families.

To find the facts secondary data is also been used as available. Entire study was based on the documentary analysis. Secondary data includes various books, research papers, journals, newspapers, reports of diversified agencies, web contents etc. For example, India's GDP prediction has been reduced by ratings and analysis to 3,6 percent, compared to 5,5 percent

for the 2020–2021 financial year. India's GDP predictions for 2020 have also been further reduced for India by 5,3 percent.

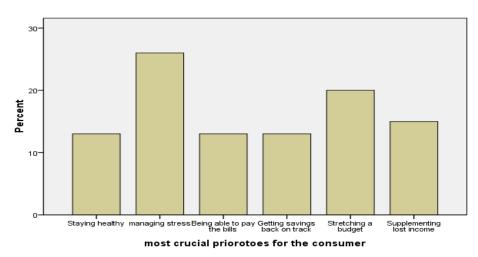
Digitalization from the business model viewpoint can be characterized as a method for developing, organizing and structuring a specific framework for storage, processing and effective data analysis, which is critical for redesigning and assessing the business model. (Minashkina & Happonen, 2020). This paper examines the connections between digitalization and sustainable development and discusses the Modern Economy and Society Index (EDSI) composite index used to assess the digital competitivity of nations.

DATA ANALYSIS

What is the most crucial priorities for the consumer during covid-19?

When the respondents were asked about what are their priorities during the course of pandemic, it was observed that the majority of them are trying to manage the stress along with the stretching their budget which indicates that due to the covod-19, the purchasing parity of the people have changed which have also impacted their buying behaviour.

most crucial priorotoes for the consumer



most crucial priorities for the consumer

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Staying healthy	13	12.9	13.0	13.0
	managing stress	26	25.7	26.0	39.0
	Being able to pay the bills	13	12.9	13.0	52.0
	Getting savings back on track	13	12.9	13.0	65.0
	Stretching a budget	20	19.8	20.0	85.0
	Supplementing lost income	15	14.9	15.0	100.0

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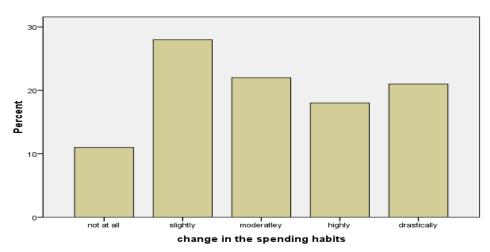
PJAEE, 17(12) (2020)

	T otal	100	99.0	100.0	
Missing	System	1	1.0		
Total		101	100.0		

How have your spending habits changed in the past few weeks?

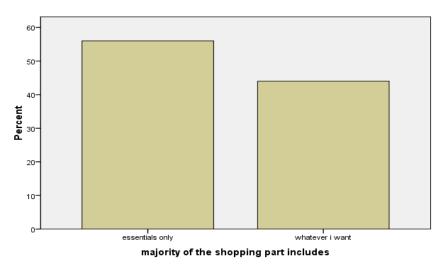
This was asked to the participant so as to know the extent to which Covid-19 have impacted the habits of the consumer and it was found out that majority of the participants agreed that their habits have changed in the slight manner followed by the moderate change and the drastic change. Thus it can be said that there is a shift in the habits of the customers, where some experienced the drastic change.

change in the spending habits



In the past few months, the majority of the shopping part of the consumer includes essential products which is because of the lack of the purchasing parity of the consumers and limited things available which was due to the lockdown scenarios which also resulted in loss of job of many people which have paused their income flow thus decreasing their purchasing power limiting them to spending on the essentials only.

majority of the shopping part includes



How do you expect your expenditure on luxury products to change as a result of coronavirus?

The respondents, when asked about their expenditure on the luxury products, said that the expenditure on the luxury product will be changed in the moderate manner whereas some of them agreed that there will be slight shift in the expenditure on the luxury products.

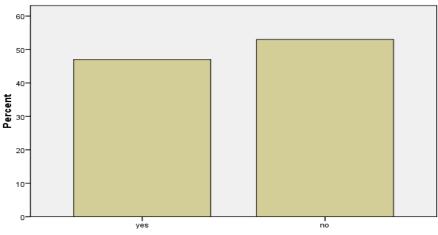




Are you planning to purchase the car in the coming 6 months? And if yes, what is the major reason?

When these respondents were asked whether they are planning to purchase a car within next 6 months, majority of them said No as they might consider it as a luxury expenditure which is not possible due to hindered income flow. But out of 100 people, 47 said yes, which means that they are considering the car in the necessity category and they are planning it to purchase so as to protect their family from travelling from the public vehicle like the cabs and autos, as public transport will be risky option due to covid pandemic.

planning to purchase the car in the coming 6 months



planning to purchase the car in the coming 6 months

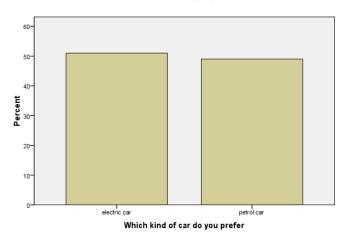
planning to purchase the car in the coming 6 months

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	47	46.5	47.0	47.0
	no	53	52.5	53.0	100.0
	Total	100	99.0	100.0	
Missing	System	1	1.0		
Total		101	100.0		

Which kind of car do you prefer?

Although, electric cars are helping in reducing the air pollution by reducing the emission of the harmful air pollutants, electric cars have made their space in the mind of the customers as 51% of the people prefer electric cars over petrol cars. One of the reason for this can be the increasing price of the petrol which might have caused the shift of the preference of the customers towards the electric cars.





Which kind of car do you prefer

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	electric car	51	50.5	51.0	51.0
	petrol car	49	48.5	49.0	100.0
	Total	100	99.0	100.0	
Missing	System	1	1.0		
Total		101	100.0		

When the analysis is been done so as to find out the correlation between their expenditure on the luxury product and the planning to purchase the car in the coming 6 months, it can be said there exist a positive but weak correlation between both the variables. Thus it can be said that few people who are spending on the luxury products are planning to buy a car in the near future.

Correlations

expect your	
expenditure on	
luxury planning	to
products to purchase	the
change as a car in	the
result of coming	6
coronavirus months	

Spearman's rho	expect your expenditure Correlation on luxury products to Coefficient change as a result of Sig. (2-tailed)	1.000	.318**
	coronavirus N	100	100
	planning to purchase the Correlation car in the coming 6 Coefficient	.318**	1.000
	months Sig. (2-tailed)	.001	
	N	100	100

^{**.} Correlation is significant at the 0.01 level (2-tailed).

When it is been analysed, the respondent who is planning to purchase the car in the near future, out of 16 people who are planning to buy the car,22 out of 47 are planning to buy the petrol car and the 29 of them are planning to get an electric car.

planning to purchase the car in the coming 6 months * Which kind of car do you prefer Cross tabulation				
Count				
	Which kind of car do you prefer			
	electric car	petrol car	Total	
planning to purchase yes	22	25	47	
the car in the coming 6 no months	29	24	53	
Total	51	49	100	

Reliability test

The reliability test helps in testing the internal consistency of the items or the variables used in the questionnaire, thus it can be observed that the score is high which is .7 and is close to one means the internal consistency is high.

Reliability Statistics

Cronbach's Alpha	N of Items
.070	9

FINDING AND DISCUSSION

Aarogya Setu Mobile Device, built by the Government of India utilizing Bluetooth, Global Positioning Systems (GPS), Artificial Information (AI) and Contact-Tracking and Contact-Tooling data analytics is one of the most prominent solutions in the category. The list does not end here, however (Junor et al. 2020).

State governments in India have partnered with the existing technology business ecosystem to implement a broad spectrum of solutions, in particular beginning companies. Two types of approaches is commonly applied. The second level is the provision of social programs (Gonzalez et al., 2020). The first group includes medical and health care response.

- The usual characteristics of state-level healthcare and medical applications include
- monitor the geographical spread of the pandemic with GIS-related tools;
- Real time medical access capabilities and related data uploads to a common integrated pool comprising health care practitioners, government leaders, COVID-19 contact center consumers
- Control of hospital facilities and beds' availability and use levels
- Maintaining the demand for equipment such as ventilators and essential medical devices, including N95 masks and PPEs, availability and utilization levels.

A variety of such applications include simulation layer and predictive functionalities in data analytics, like detecting possible hotspots, hospital bed usage, associated equipment and consumables, for the further distribution of illnesses within a defined geographic region (Keller & Bette, 2020).

The second category of technology solutions is more general and covers various types of public services. Two of the more popular implementations are

- household demands for critical products in exclusion areas accompanied by real-time supply monitoring
- handling and monitoring a variety of manufacturers for the door supply in some societies with foods and other important products for growing footprints and social distancing
- Allocation of time slots on local markets for the purchase of foodstuffs, medicines and other essential products.

The pandemic is already relatively widely known and governments worldwide, including in India, have announced that "we have to know how to deal with the virus." Given the considerable economic locking costs, a targeted resumption of commercial operations and provision of government services to people has also been rendered essential for the government (Balogun et al. 2020). The current standard would most definitely begin to be used in the short and medium term for all device types and technical solutions. Within this latest generation of e-governance approaches, the environment was increasingly pushed up by various steps taken by Central, State, and Local government actors.

- discussing best practices to develop apps / solutions usability and functionality as well as standardization
- Simplify and improve current government programs, data protection concerns, infrastructure and application quality strategies and legislative frameworks.

It will promote environmental growth and optimize gains for people as well as for the economy in general.

The customer behavior is the factor which makes the customers to decide on how, when, where, what and why they buy the specific product. Thus in the crisis of the pandemic of covid, every non-essential brands must work on engaging with the customers by communicating with them. The survival mood of the consumers is considered to be temporary, and thus after lifting of the lockdown, the customers will initiate their purchase by taking the precautions. The post-lockdown situation might also change the market scenario which will again shift the purchase behavior of the consumer. The coronavirus fear have thus infiltrated the mind of the consumer along with the psychology which might affect the way they purchase the things. The brands thus have to exploit the new strategies for brand communication which will help in minimizing the psychological impact in the mind of the consumer.

Managerial implication

- There are three managerial implications from the effect of covid-19 on the behavior of the consumer. First implication, just as the consumers have improvised themselves, business also have to learn to bring in the improvisation in their operations so as to meet the new demand and improvised demand and need of the consumers.
- The second implication is to create the balance between the demand and supply. Initially there was the hype in the consumers for panic buying as they were thinking with the mentality of run out of the bank. But now that hype have settled down an instead of panic buying the necessity goods, now people have started to get back to somewhat normal buying and due to the high risk of the travelling with the public transport, people are considering buying their own cars to facilitate the traveling.
- With this, the third implication comes in the picture which indicates that consumers will go back to their old habits unless the advancements and the changes are prominent enough to bring back the permanent change. So the companies should work on building the strategies for the post purchase services along with coming up new and innovated ideas.

CONCLUSION:

The effect on the Indian economy and supply chain of Covid-19 is studied in this study. This study has documented the global development and supply chain impact of Covid-19. N-CoV also influenced worldwide production companies and their supply chain. COVID-19 has frequent effects for our supply chains and growth. The COVID-19 virus peak had disrupted the supply chain and caused thousands of factories in the US, Europe, and throughout the developing world, such as India, to briefly turn down or close down their production lines. The analysis established 18 essential obstacles in total to the supply chain in India in the consultation with the specialist. This study can be extended by evaluating the barriers to the decision-making approaches with multiple criteria. In interpretive structural modeling, the relation between the barriers may be established.

LIMITATION OF STUDY:

- For now, it is an unpredictable situation, the final result may vary.
- The pandemic already hit globally and impacted the global economy, it is quite complicated to assume the final results for now.
- As an individual, it is not easy to work from the remote location or depend upon the digitalization.

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