

SUMMAR TRAINING REPORT

Submitted By

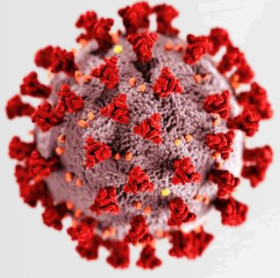
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MBA HOSPITAL AND HEALTH MANAGEMENT
2019-2021





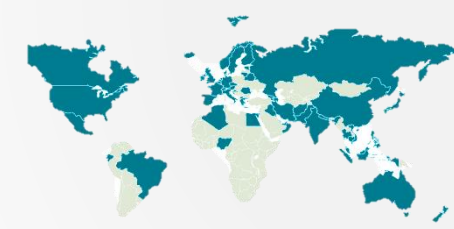
PART-A

RESEARCH PROJECT

TITLE

**Public Health Interventions to manage COVID-19
pandemic in India : A Review**





INTRODUCTION

- ❑ The 2019 novel coronavirus also called as COVID-19 was initially noticed in a seafood market in Wuhan city in Hubei Province of China in mid-December, 2019, has now spread to 214 countries/territories/areas worldwide. This virus was originated in bat.
- ❑ This is the third coronavirus since year 2002 which have jumped the species. First was Severe Acute Respiratory Syndrome coronavirus (SARS-CoV) which was arisen in Guangdong, China, in 2002. SARS-CoV was transmitted from civet cats to humans. Second was Middle Eastern Respiratory Syndrome coronavirus (MERS-CoV) which emerged in the Middle East in 2012. MERS-CoV was transmitted from dromedary camels to humans in Saudi Arabia in 2012. And third was Severe Acute Respiratory Syndrome coronavirus 2 (SARS-CoV-2) which emerged in Wuhan, China, in 2019.
- ❑ WHO declared this outbreak as public health emergency of international concern on January 31, 2020 and on 3 Feb 2020, WHO released strategic preparedness and response plan (SPRP) which outlines the public health measures to respond to COVID-19.
- ❑ This study gives the bird eye view of the public health measures which were undertaken in India to combat COVID-19 pandemic until 30 June 2020
- ❑ As of now there is no vaccine available to eliminate COVID-19 and that is why the public health interventions are of utmost importance to limit the spread of SARS-CoV-2.
- ❑ Our study demonstrates the review of the current covid-19 situation, different public health interventions used to obviate the spread of COVID-19 and key learnings which are very important for future readiness and responsiveness.



OBJECTIVES

The Objectives of the study were –

- ☐ To review the COVID-19 situation in India.
- ☐ To study the public health interventions used to combat COVID-19 pandemic in India.
- ☐ To summaries the key learnings of the study to manage pandemic like COVID-19.



Literature Review						
Sr. No	Title	Source	Authors	Date	Objectives	Findings
1.	The effect of extended closure of red-light areas on COVID-19 transmission in India	https://arxiv.org/abs/2006.10488	Abhishek Pandey, Sudhakar V. Nuti et al	12-06-2020	To understand the potential impact of extended closure of RLAs on COVID-19 in India	1. The initial nationwide lockdown was projected to substantially delay the peak of the epidemic for each city considered in India. 2. Extended closure of RLAs after the initial lockdown period would avert 32% to 60.2% of cumulative cases and 43% to 67.6% of cumulative deaths across India. 3. The cumulative number of hospitalizations and deaths in RLAs would be substantially reduced with extended closure of the Red light areas.
2.	Quarantine alone or in combination with other public health measures to control COVID-19: a rapid review	https://pubmed.ncbi.nlm.nih.gov/32267544/	Barbara Nussbaumer-Streit, Verena Mayr et al	08-04-2020	To assess the effects of quarantine (alone or in combination with other measures) of individuals who had contact with confirmed cases of COVID-19, who travelled from countries with a declared outbreak, or who live in regions with high transmission of the disease.	1. Quarantine of people exposed to confirmed or suspected cases averted 44% to 81% incident cases and 31% to 63% of deaths compared to no measures based on different scenarios. 2. The models combined quarantine with other prevention and control measures, including school closures, travel restrictions and social distancing, the models demonstrated a larger effect on the reduction of new cases, transmissions and deaths. 3. Early implementation of quarantine and combining quarantine with other public health measures is important to ensure effectiveness.
3.	Effects of non-pharmaceutical interventions on COVID-19 cases, deaths, and demand for hospital services in the UK: a modelling study	https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(20)30133-X/fulltext	Nicholas G Davies, Adam J Kucharski et al	02-06-2020	To study the effects of non-pharmaceutical interventions on COVID-19 cases, deaths, and demand for hospital services in the UK.	1. Four base interventions (school closures, physical distancing, shielding of people aged 70 years or older, and self-isolation of symptomatic cases) were each likely to decrease reproduction number. 2. Intensive interventions with lockdown periods would need to be in place for a large proportion of the coming year to prevent health-care demand exceeding availability. 3. Study projects a median unmitigated burden of 23 million clinical cases and 350 000 deaths due to COVID-19 in the UK.

S. No	Title	Source	Authors	Date	Objectives	Findings
4.	Can we contain the COVID-19 outbreak with the same measures as for SARS?	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7102636/	Annelies Wilder-Smith, Calvin J Chiew and Vernon J Lee	05-03-2020	To examine whether COVID-19 outbreak can be contained with the same measures (active case detection, isolation of cases, contact tracing and quarantine of all contacts, social distancing, community quarantine) as for SARS.	1. Traditional public health measures used during SARS were successful. Whether these measures can also be used to contain COVID-19 does not depend on the similarities but the differences between SARS and COVID-19. 2. Clear differences are COVID-19 has a higher transmissibility than SARS, and many more patients with COVID-19 rather than SARS have mild symptoms that contribute to spread because these patients are often missed and not isolated. 3. Because of the extent of community spread individual case containment might not be possible in the long run, and there might be the need to move from containment to mitigation, balancing the cost and benefit of public health measures. 4. Even if our public health measures are not able to fully contain the spread of COVID-19, they will still be effective in delaying the onset of widespread community transmission.
5.	Impact of nonpharmacological interventions on COVID-19 transmission dynamics in India	http://www.ijph.in/article.asp?issn=0019-557X;year=2020;volume=64;issue=6;spage=142;epage=146;au last=Patel	Purvi Patel, Aditya Athotra et al	02-06-2020	To study the impact of nonpharmaceutical interventions on transmission dynamics of COVID-19 epidemic in India.	1. Time distribution showed a propagated epidemic with sub-exponential growth. 2. Average growth rate of COVID-19 cases, 21% in the beginning, reduced to 6% after an extended lockdown (May 3, 2020). 3. Average early doubling time (4.3 days) (standard deviation [SD] = 1.86) increased to 5.4 days (SD = 1.03) and 10.9 days (SD = 2.19). 4. India's early response, especially stringent lockdown, has slowed COVID-19 epidemic. Thus far, the fallouts of the pandemic have been less severe than countries with more robust health systems.
6.	Impact assessment of nonpharmaceutical interventions against coronavirus disease 2019 and influenza in Hong Kong: an observational study	https://www.thelancet.com/journals/lanpub/article/PIIS2468-2667(20)30090-6/fulltext	Prof Benjamin J Cowling, Sheikh Taslim Ali et al.	17-04-2020	To study the impact of non-pharmaceutical interventions against coronavirus disease 2019 and influenza in Hong Kong	1. Public health interventions (including border entry restrictions, quarantine and isolation of cases and contacts, and population behaviour changes, such as social distancing and personal protective measures) that Hong Kong has implemented since late January, 2020, is associated with reduced spread of COVID-19. 2. Control measures and changes in population behaviour coincided with a substantial reduction in influenza transmission in early February, 2020. 3. Suggests that the same measures would also have affected COVID-19 transmission in the community.

S. No	Title	Source	Authors	Date	Objectives	Findings
7.	Evaluating COVID-19 Lockdown Policies For India: A Preliminary Modelling Assessment for Individual States	https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3575207	Aditya Mate, Jackson A Killian, Bryan Wilder et al	29-05-2020	To study the disease dynamics in India at the state level for Maharashtra and Uttar Pradesh to estimate the effect of further lockdown policies in each region.	1. Policies enforce physical distancing while otherwise returning to normal activity could lead to widespread outbreaks in both states. 2. Lockdown and physical distancing may lead to much lower rates of infection while simultaneously permitting some return to normalcy. 3. "Middle ground" policies could provide an effective means to curb the otherwise exponential rates of infection and death.
8.	Nonpharmaceutical Measures for Pandemic Influenza in Nonhealthcare Settings-Social Distancing Measures	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7181908/	Min W Fong, Huizhi Gao et al	17-05-2020	To see the effectiveness of nonpharmaceutical measures in nonhealthcare setting.	1. Social distancing measures are effective interventions to reduce transmission and mitigate the impact of an influenza pandemic. 2.School closures paired with teleworking policies to provide opportunities for parents to take care of school-age children at home. 3. Social distancing measures such as school closures and mall closures could be implemented simultaneously to prevent an increase in social contact rates outside schools. 4. Timely implementation and high compliance in the community would be useful factors for the success of these interventions.
9.	Impact of intervention on the spread of COVID-19 in India: A model based study	https://arxiv.org/pdf/2004.04950.pdf	Abhishek Senapati , Sourav Rana et al	10-04-2020	To study the impact of intervention on the spread of COVID-19 in India.	1. Study reveals that higher intervention effort is required to control the disease outbreak within a shorter period of time when strength of the intervention throughout the period of implementation is kept fixed. 2. when the whole implementation time are divided into three time windows and in each of the window, different intervention strength is taken, it was found that the strength of the intervention should not be relaxed over the time rather the intervention should be strengthened to eradicate the disease effectively.

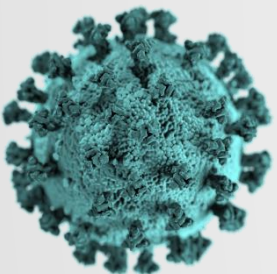
METHODOLOGY

For this study , qualitative research method was used using an observational study design to study the current covid-19 situation, different public health interventions used to obviate the spread of COVID-19 and to figure out the key learnings of the study.

Method of data collection and analysis :

- Data was collected from various secondary data sources like articles, journals, WHO, Government of India websites, newspapers, etc.
- Search term included were novel coronavirus 2019, severe acute respiratory syndrome coronavirus 2, 2019-nCoV-2, SARS-CoV-2, COVID-19 in combination with public health interventions, non-pharmacological interventions.
- Our literature search from PubMed, Lancet, Science direct of Elsevier, Jama network, Indian Journal of Medical Research, Indian Journal of Public Health, Medrxiv, Springer, Social Science Research network have retrieved 34 relevant articles. Additional relevant articles were identified from the review of citations referenced.
- The titles and abstracts are independently reviewed for inclusion and most relevant 17 articles were included in the study.
- Analysis was done on the official information published on the government website dedicated to the COVID-19 and all the secondary data collected through articles, WHO website, journals newspapers, etc to define the usefulness of public health interventions to combat COVID-19 and to identify key learnings for future readiness and responsiveness for pandemic or like situations.



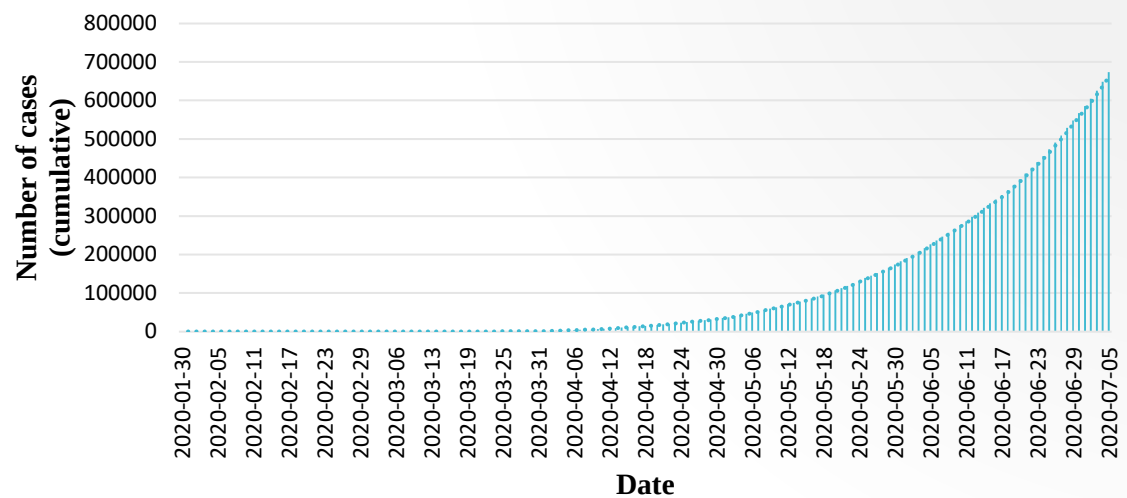


RESULTS

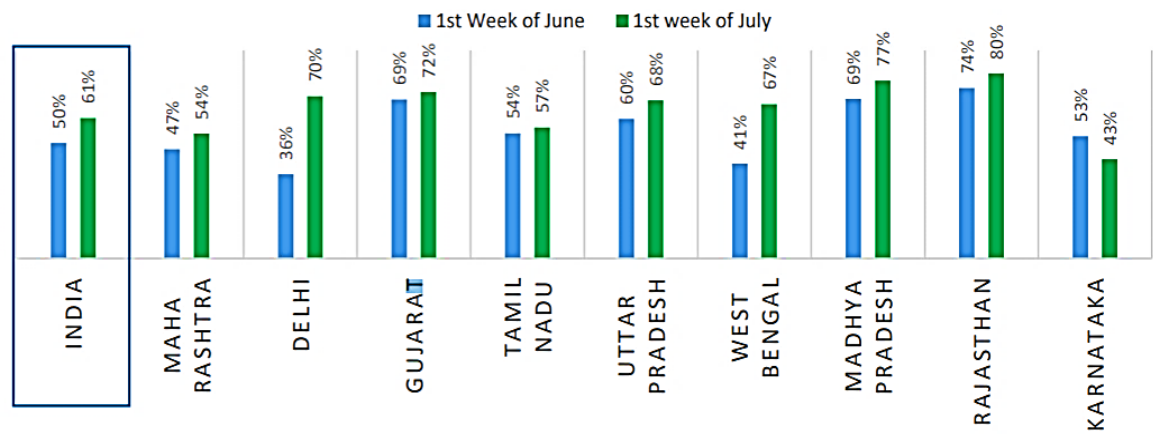
Current situation of India-

- As per the data, In the end of first phase of lockdown there were 11485 confirmed cases of SARS_CoV-2 which were increased to 190648 cases at the end of fifth phase of lockdown. As of 5 July 2020, 6,85,110 confirmed cases are reported in the country.
- The case doubling time was observed as 4.66 days in the 1st phase of lockdown which is increased to 20 days as of 5 July 2020.
- 510 out of every 1 million people in India have been tested positive for the SARS-CoV-2 virus and percentage of active cases was found to be 36.18% in the country.
- Recovery and mortality rate was observed to be 60.96% and 2.85% respectively.

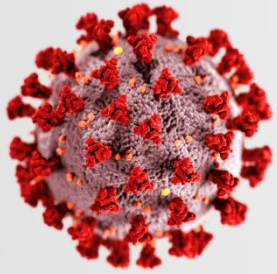
Total cases over time



RECOVERY RATE AMONG CONFIRMED CASES ACROSS STATES WITH THE HIGHEST COVID-19 BURDEN

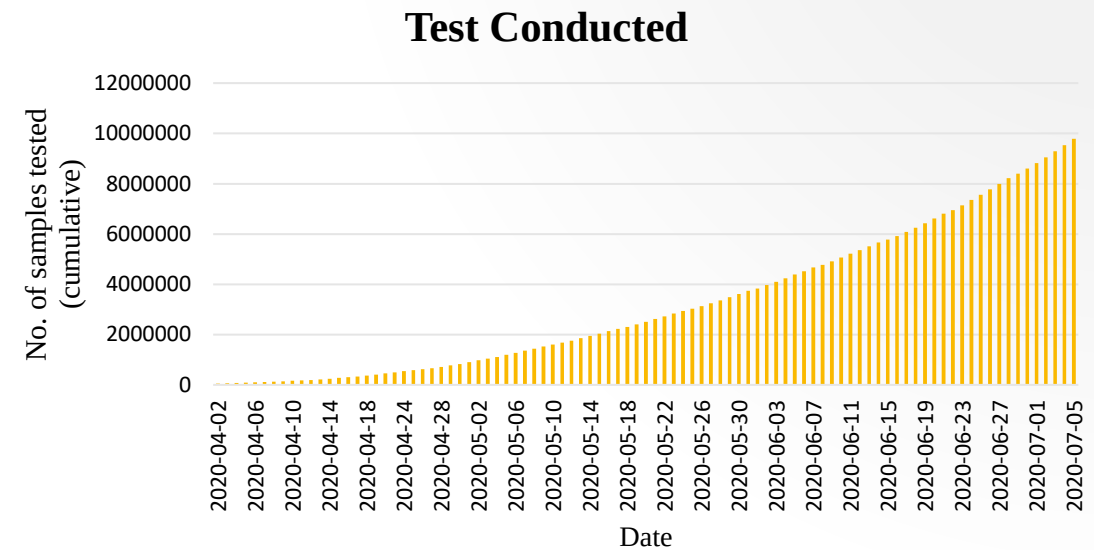


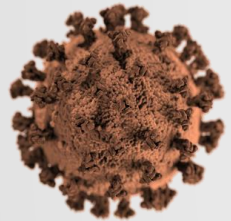
Source: MoHFW Government of India COVID-19 as on: 05 July 2020, 08:00 IST (GMT+5:30)



Public health interventions-

- India has implemented all the traditional public health measures used to contain SARS like isolation of cases, contact tracing and quarantine of all contacts, social distancing, et cetera
- The lockdown was implemented in India when the number of confirmed positive coronavirus cases in India was approximately 500.
- As of 20 July 2020, 3,687 people are in institutional quarantine, 32,304 people are in home quarantine, and total people released are 4,53,775.
- India is equipped with approximately 1.9 million hospital beds, 95 thousand ICU beds, and 48 thousand ventilators to combat COVID-19.
- At present there are 1100 labs in the country out of which 786 labs are in the government sector and 314 private labs.
- To combat COVID-19, India also have World's largest COVID Care Center in Delhi with 10,000 beds and World's largest Project Platina for plasma therapy trial for treatment of coronavirus patients in Maharashtra.
- India has 2 vaccines which are in human clinical trials.



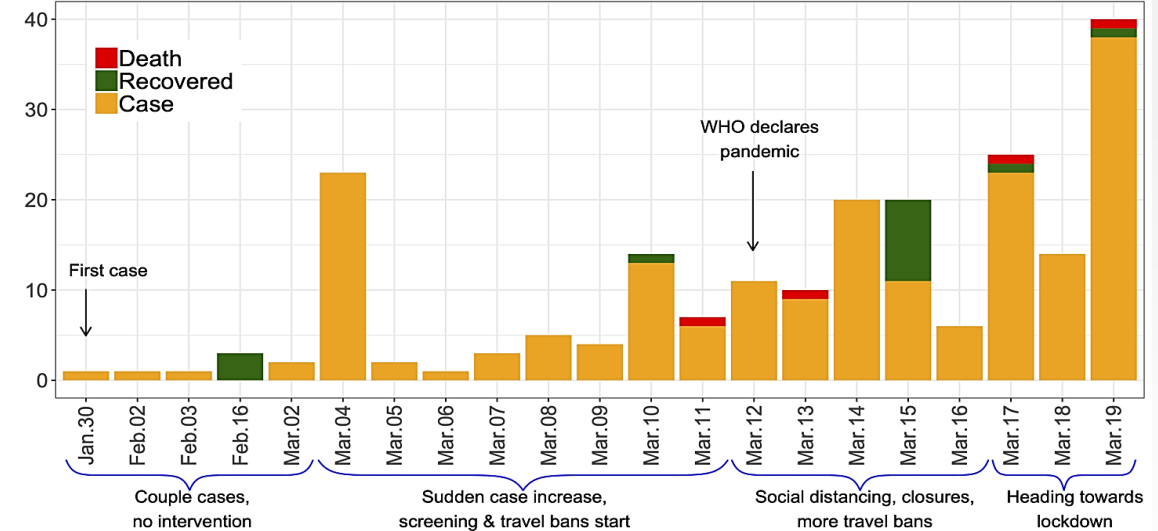


Key learnings-

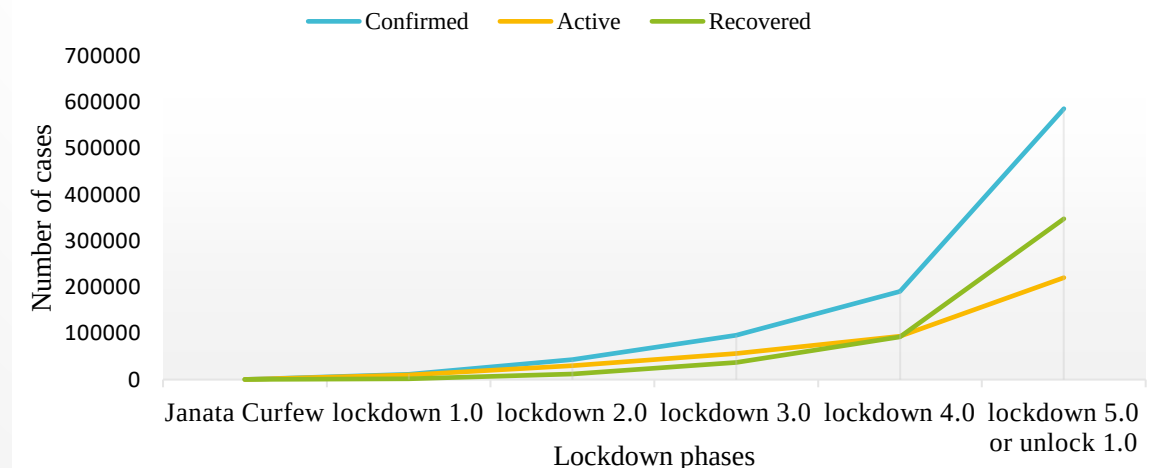
- India's early response, especially brassbound lockdown, has slowed COVID-19 pandemic in India.
- Effective contact tracing methods like mandatory installation of Aarogya Setu app in each and every smart phone to alert people of any COVID-19 threat nearby, segregation of the containment areas into three zone- ed, green and orange and sealing them off depending upon the severity of cases has also helped to some extent to curb the spread of COID-19 in the country.
- The social distancing measures seem to have been working for India in absence of treatment in sight for COVID-19; however, the sustainability of these measures is uncertain.
- The number of cases across the five phases of lockdown have been continuously increasing despite being taking all the necessary measures required.
- But in this bloomy scenario one thing which is giving the ray of hope is the recovery rate which now stands at 60.96% and the mortality is only 2.85%, as of 5 July 2020 and the reason for this is India's enhanced capabilities of rapid testing, interconnected lab networks and measures like plasma therapy, mandatory hand hygiene, thermal scanning, and compulsory mask at public places, etc.

COVID-19 Confirmed New Cases/Recovered/Deaths by Day in India

Data source: Johns Hopkins University CSSE



Trend of COVID-19 Cases Across different phases of Lockdown





DISCUSSION AND CONCLUSION-

Current situation of COVID-19:

The threat of COVID-19 started from Wuhan in China has now spread to almost each and every country across the globe gripping India also in its clutches when the first case of covid-19 reported in Kerala on 22 March and now on 5th July 2020 the total number of confirmed cases of COVID-19 in the country stands at about 6,85,110 cases and 19,505 fatalities in the country. India is not in the community transmission phase yet. At present there are cluster of cases in India. But as threat of COVID-19 is increasing, one thing that is giving the ray hope is the recovery rate which now stands at 60.96% and the mortality is only 2.85% as of 5 July 2020. Madhya Pradesh, West Bengal, Maharashtra, Tamil Nadu, Delhi and Assam are the most affected states from Central, Eastern, Western, Southern, and North-eastern regions of India respectively despite every possible interventions deployed by the Indian government to curb the spread of COVID-19.

Public health interventions-

To control the increasing menace of this deadly virus in the country various safety measures and interventions have been deployed both at the public level and personal level with the help of government and non-government organisations like initiation of complete lockdown at the national level, formation of containment zones and mandatory wearing of mouth mask at public places. However, as per the findings, the strategy of the government and public healthy interventions were not quite effective in controlling the threat of COVID-19 in India as today 510 out of every 1 million people in India have been tested positive for novel coronavirus. During the five phases of lockdown in the last 4 months the number of COVID positive cases in India have been increasing at an exponential rate. However, increased testing, intensive case-based surveillance and containment efforts, modulated movement restrictions while protecting the vulnerable population, and continuous monitoring of transmission dynamics is proving effective in absence of treatment.

DISCUSSION AND CONCLUSION-

Key learnings of the study-

India's early response, especially brassbound lockdown, social distancing measures seem to have been working for India in absence of treatment in sight for COVID-19; however, the sustainability of these measures is uncertain. Various interventions at healthcare level like real time RT-PCR, usage of TrueNAt, CBNAAT and rapid antigen detection test to enhance the COVID-19 testing in the country has significantly strengthen the diagnosis of this disease due to which people are taking effective precautionary measures in time to safeguards themselves and others. Testing lab network in the country continues to expand to enhance the COVID-19 testing in the country. Also, plasma therapy has been proven to be a promising avenue for patients not responding to other lines of treatment.



PART-B
ONLINE COURSE

TITLE
MARKET RESEARCH AND CONSUMER BEHAVIOR

OFFERED BY



IE Business School, Madrid, Spain | Coursera



COURSE DESCRIPTION

- This course was offered by IE Business School, Madrid, Spain.
- Course instructor- Prof. Shameek Sinha.
- This course helps to develop the understanding of the importance of knowing the customers and how to go about conducting thorough market research.
- This course consist of two blocks: Marketing Research and Consumer Behaviour. In this course, firstly, Professor show the tools and methods to be able to effectively conduct and interpret market research. Secondly, he teach the foundations of consumer behaviour and the consumer decision-making process and how to use this knowledge in the formulation of effective marketing strategies and tactic.

OBJECTIVES OF THE COURSE

- To learn about the tools and methods to be able to effectively conduct and interpret market research.
- To learn how to design a research plan and analyse the data gathered.
- To learn to accurately interpret, communicate survey reports and to translate the results into practical recommendations.
- To gain the tools and techniques to translate a decision problem into a research question.
- To understand the consumer decision-making process.
- To analyse the customer perceptions about the purchase and their purchase experience.
- To understand the state of the product before approaching the market strategy.
- To learn to formulate effective marketing strategies.

WEEK 1 CONSUMER BEHAVIOURAL FUNDAMENTALS

OBJECTIVES

- To understand the importance of consumer behaviour in the marketing process framework.
- To study the different factors which affects the consumer behaviour.
- To learn the prospect theory to understand how the consumer rationality affects their decisions.
- To study the continuum of buying decision behaviour.

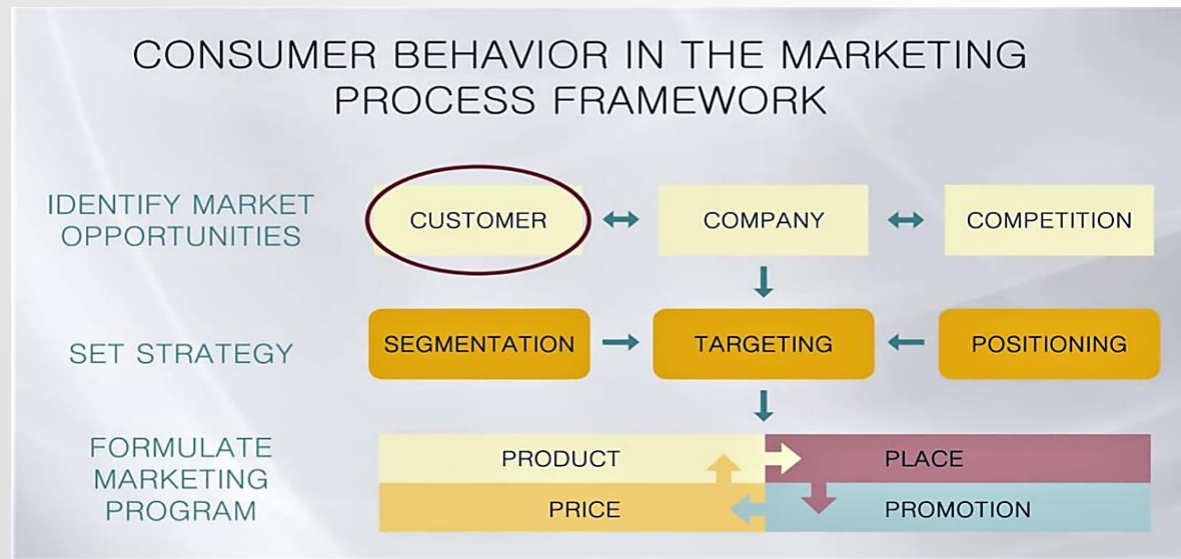
METHODOLOGY

- In this module Prof. Shameek Sinha talked about consumer behaviour fundamentals.
- Video lectures were provided and the topics covered were-
 - Why is consumer behaviour important in marketing process framework.
 - The consumer behaviour process and attitudes.
 - Prospect theory.
 - Consumer limits.
 - Continuum of buying decision behaviour.
- Professor teach the consumer's thought process to get to know what makes them tick, and, more specifically, what makes them make their purchase decisions, which is the first step in developing a marketing strategy that is effective.
- Additional reading materials were also provided at the end of the session.
- Assignments were given at the end of the session, mainly consisting of quiz which were graded and 60% or more score was required to clear the quiz.

KEY LEARNINGS

❖ Consumer Behaviour :

The psychological and behavioural processes involved when individuals or groups search, select, purchase, use, evaluate or dispose of products, services, ideas or experiences to satisfy their expected needs and desires.



❖ Psychological processes a consumer go through while making decision :

- **Motivation**
 - Freud's Theory- Laddering and projective techniques
 - Maslow Theory- Hierarchy of needs
 - Herzberg's Theory- Satisfiers and Dissatisfiers
- **Learning**
- **Memory**

❖ Purchase decisions a consumer encounters :

- Product Choice
- Brand Choice
- Dealer Choice
- Purchase Amount
- Purchase Timing
- Payment Method

❖ Continuum of Consumer Thought Process :

Different approaches a consumer takes in order to decide on the product which he or she finally decides to purchase.

▪ Rational Approach

➤ Consumer assess their different options of purchases relative to their net worth.

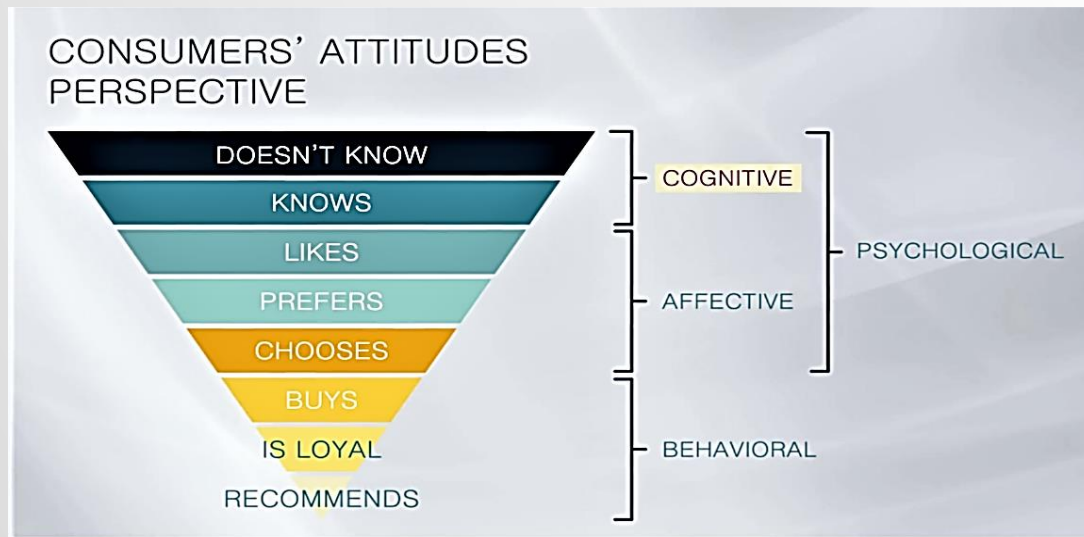
▪ Motivational Approach

➤ Consumer are not rational at all here and their purchase behaviour is solely drive by emotions.

▪ Bounded Rationality Approach

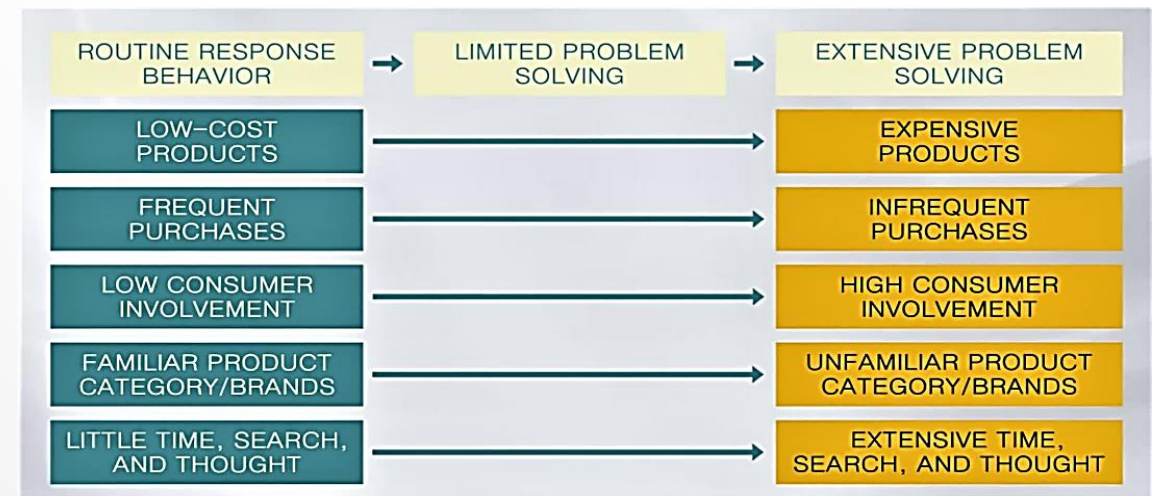
➤ Consumers are not necessarily completely irrational or completely rational. They usually take a reference pricing as a baseline.

❖ Consumers' Attitude Perspective :



❖ Continuum of Buying Decision Behaviour

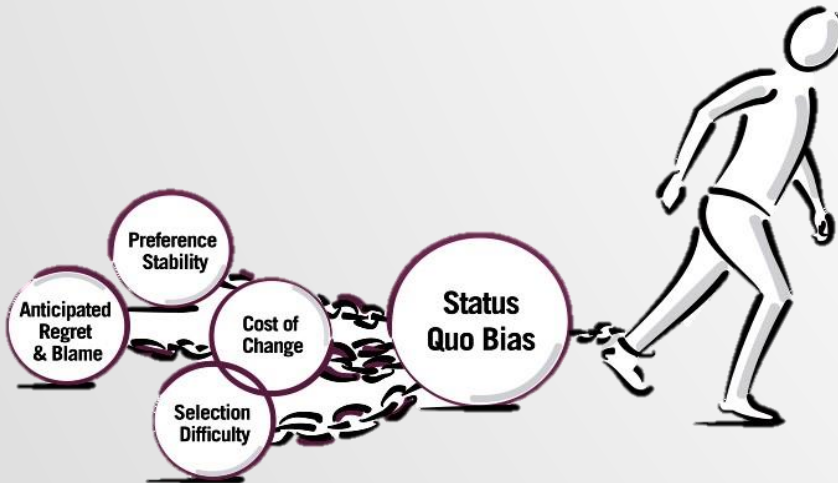
Three types of responses of consumers when they purchase a product-



❖ Prospect Theory

Concepts under bounded rationality approach-

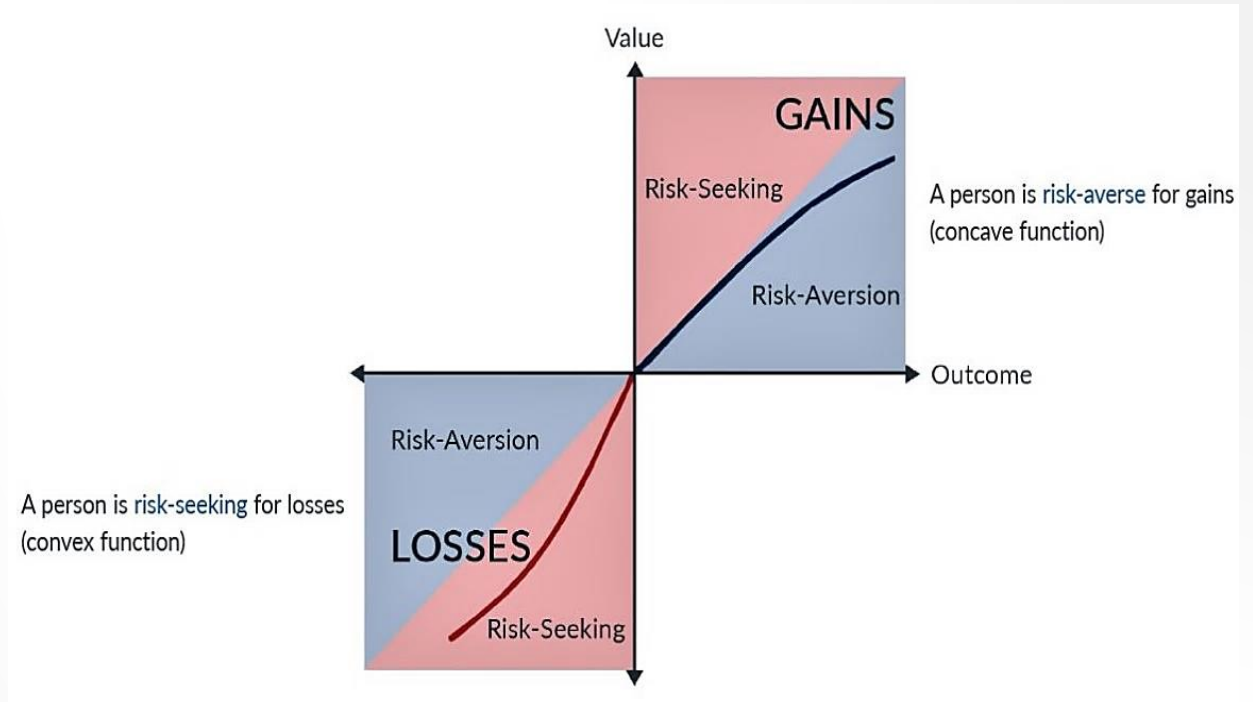
- Reference pricing-
- Framing-
- Risk Profile-
- Risk Aversion
- Mental Accounting
- Disposition Effect
- Status Quo Bias



APPLICATIONS

Studying consumer behaviour helps to find answers to following questions and which ultimately contribute to devising marketing strategy -

1. What is the psychology behind consumer's feelings and reasonings as it relates to purchase?
2. What persuades consumers: culture, family, friends, the media?
3. What prompts consumers to purchase goods and services?



WEEK 2 THE CONSUMER DECISION PROCESS

OBJECTIVES

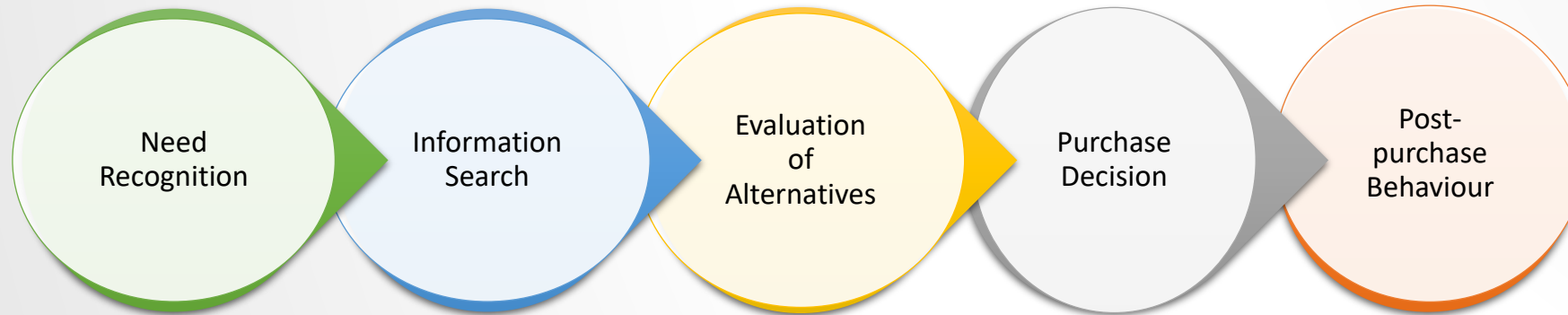
- To identify need recognition as part of consumer decision making process.
- To examine “information search”, “evaluation of alternatives”, “purchase decision” and “post-purchase behaviour” stage of the consumer decision making process.
- To understand how a potential buyer researches a product.
- To learn about the constraints the consumer encounters while making decisions.

METHODOLOGY

- In this module Prof. Shameek Sinha talked about consumer decision process.
- Video lectures were provided and the topics covered were-
 - Stages of consumer decision making process.
 - Constraints on decision making.
 - How perception and attitude affect consumers' decisions.
- Professor Sinha helps to explore how a potential buyer researches a product, how they make their purchase decisions and their post-purchase evaluation. Also, the difference between consumer markets and business markets is explained.
- Additional reading materials were also provided at the end of the session.
- Assignments were given at the end of the session, mainly consisting of quiz which were graded and 60% or more score was required to clear the quiz.

KEY LEARNINGS

❖ Stages of consumer decision making process



- It refers to the decision-making stages that a consumer undergoes before, during, and after they purchase a product or service.
- Information search is one of the critical ones.

1. Need Recognition

- It occurs when a consumer identifies a need and thinks of a product that might meet his or her needs.
- A need can be triggered by internal or external stimuli.

2. Information Search

- Consumer searches for internal or external information.
- During the information search, the options available to the consumer are identified or further clarified



3. Evaluating Alternatives

- consumer evaluates all the products available on a scale of particular attributes which have the ability to deliver the benefit that they are seeking.



4. Purchase

consumer may form an intention to buy the most preferred brand or product

- During this stage, the consumer must decide the following-
 - from whom he should buy,
 - when to buy and
 - whether to buy.

5. Post-purchase behaviour

- Post-purchase behaviour is when the customer assesses whether he is satisfied or dissatisfied with a purchase.
- Some companies like to engage their consumers with post-purchase communications in an effort to influence their feelings about their purchase and future purchases.



❑ **Marketers try to influence consumers to maintain attitude to retain consumers -**

Foot in the door technique

- If a marketer has been able to acquire a particular consumer, they have gained some entry in consumer's mind and now they want to emphasize this entrance by putting in message which are very consistent.
- Dissonance reduction.

❑ **Marketers try to influence consumers to maintain attitude to acquire new consumers-**

Elaboration likelihood model

- High involvement products - Focus is on argument strength.
- Low-involvement products - Focus is on peripheral cues.

APPLICATIONS

1. Studying consumer decision making process helps to take informed marketing decisions.
2. Answer to the following question contribute to making marketing campaigns-
What constraints prevent consumers from purchasing a certain good or service?

WEEK 3 MARKETING RESEARCH FUNDAMENTALS

OBJECTIVES

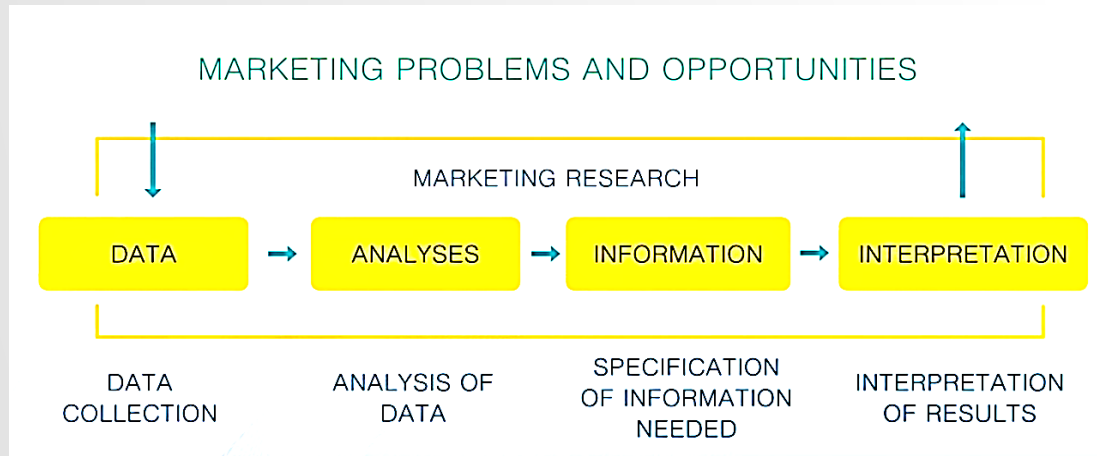
- To learn about the market research and its role in an organisation.
- To explore the role of market research in marketing management.
- To study the research designs involved in market research.
- To understand the experimental research fundamentals.
- To study different types of experimental designs.

METHODOLOGY

- In this module Prof. Shameek Sinha talked about marketing research fundamentals.
- Video lectures were provided and the topics covered were-
 - Importance of marketing research and its role in marketing management.
 - The steps of conducting marketing research.
 - Research designs.
 - Experimental research fundamentals.
 - Types of experimental designs.
- Professor Sinha shares the importance of market research and how to acquire data. Later, different types of experimental research and designs are explained.
- Assignments were given at the end of the session, mainly consisting of quiz which were graded and 60% or higher score was required to clear the quiz.

KEY LEARNINGS

❖ Market Research Process :



❖ Organizational structure of marketing research

• Decentralization-

- One marketing department per division.
- Better focus on individual markets, the practices and problems.

• Centralization

- One marketing department at headquarters.
- Economies of scale.
- Better control over entire marketing research process.

❖ Steps to conduct market research

1. Formulate problem
2. Determine research design
 - Exploratory
 - Descriptive
 - Causal
3. Design data collection method and forms of data collection
 - Design – observation, survey, etc
 - Form of data collection – open ended, closed ended.
4. Design sample and collection of data
 - Who - representative
 - How - reliability
 - How many - validity
5. Analyse and interpret data
 - Basic analysis – descriptive analysis or correlation analysis
 - Advance analysis – certain models are used like statistical model.
6. Reporting
 - Summarise research results
 - Recommendations
 - Make conclusions

❖ **Types of Market Research**

- 1) Exploratory Research
- 2) Descriptive Research
- 3) Causal Research

▪ **Types of Experimental Designs**

Pre-experimental Design

- No control over test subjects.
- No control over who will be measured and when.
- No randomization or matching.

True Experimental Design

- Control over subjects.
- Control over who is measured for outcome and when.
- Randomization and matching is possible.
- Effects of extraneous factors can be measured.

Quasi Experimental Design

- No control over subjects.
- Control over who is measured for outcome and when.

APPLICATIONS

Market research is useful in following areas-

1. Pricing research- To make pricing strategy decisions and to find on market positioning opportunities.
2. Product research- For new product design and market validation and to assess existing product strength.
3. Branding research- To decide on brand strategy and to measure the depth of a brand power in target market.
4. Distribution research.
5. Marketing environment research.
6. Et cetera

WEEK 4 MARKETING RESEARCH DATA COLLECTION & ANALYSIS

OBJECTIVES

- To study the different types of marketing data.
- To learn about designing a questionnaire.
- To study different types of attitude measurement scales.
- To understand the data collection in survey research.
- To explore the data analysis fundamentals.
- To learn about target population and its importance in market research.

METHODOLOGY

- In this module Prof. Shameek Sinha talked about marketing research data collection and analysis.
- Video lectures were provided and the topics covered were-
 - Types of marketing data.
 - Data collection in survey research.
 - Target population and sampling.
 - Data analysis fundamentals.
- Professor Sinha teach various types of data acquired during the market research process and how to evaluate and assess it in more detail. Also, the importance of, and how to create an effective survey is explained. Later, Professor Sinha helps to understand the marketing research.
- Assignments were given at the end of the session, mainly consisting of quiz which were graded and 60% or higher score was required to clear the quiz.

KEY LEARNINGS

❖ Questionnaire Design-

- 1. Specify what information will be sought**
- 2. Determine type of questionnaire and method of administration**
- 3. Determine the content of individual question.**
- 4. Determine the form of response to each question**
- 5. Determine wording of each question**
 - Use simple words and questions.
 - Avoid ambiguous words and questions.
 - Avoid leading questions.
 - Avoid double barrelled questions.
- 6. Determine question sequence**
 - Use simple, interesting opening questions.
 - Use a funnel approach- asking broad questions first, then narrowing down to more specific questions.
 - Place difficult or sensitive questions towards the end or hide in couple of questions.
- 7. Determine physical characteristics of questionnaire**
 - Offline mode- what kind of paper you want to put questionnaire on?
 - Online mode- what kind of background colour or fonts you want to put in the questionnaire?
- 8. Pre-test questionnaire and revise if necessary.**

❖ **Types of Marketing Data**

- **Primary data**- Data collected for specific study
- **Secondary data**- Data collected for separated study.

❖ **Hypothesis Testing**

• **Steps-**

1. In order to test the hypothesis, first determine the degree of level of significance, called degree of significance (α).
2. Draw a sample.
3. Estimate the quantity of interest
 - Ex. The effect of specific advertisement on sales
4. Calculate test statistics
 - Observed value of statistic which we want to test.
5. Evaluate the P-value of the hypothesis test.
6. Arrive at the decision.
 - Reject the null hypothesis and accept the alternative hypothesis, if P- value greater than zero.

APPLICATIONS

- Hypothesis testing helps to examine causes and effects before making a crucial management decisions.
- Concept testing
- Hypothesis testing is a good tool for confirming a business claim.
- Data driven informed marketing decision making.

THANK YOU