BIG DATA

A Road-Map for Successful Digital Marketing

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Editors

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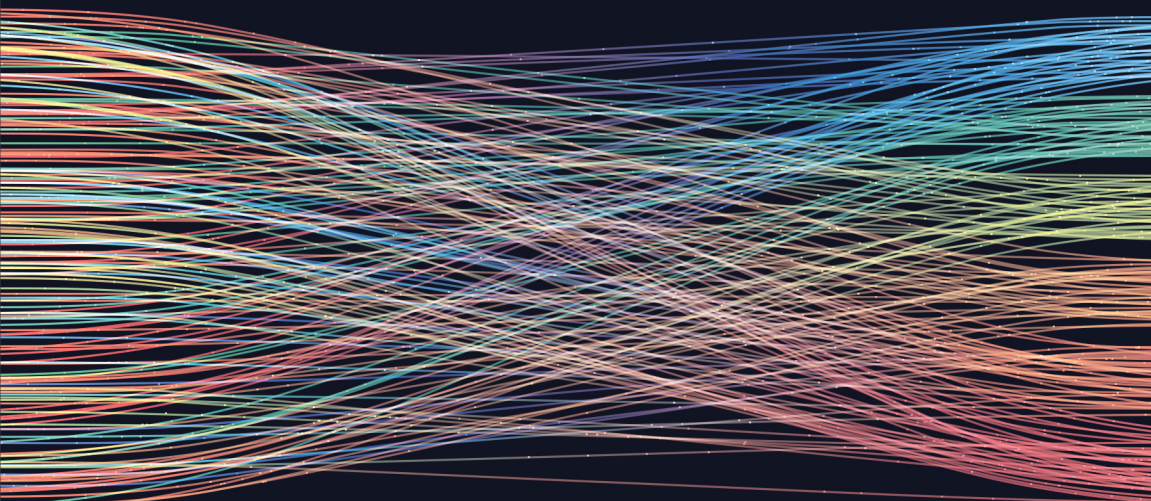
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NOTICE TO THE READER

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Preface

Every business organization, small or big, needs valuable data and insights. When it comes to understanding your target audience and customers' preferences, big data plays a very important role. It even helps you anticipate their needs. The right data needs to be effectively presented and properly analyzed. It can help a business organization achieve various goals. Data plays a huge role in understanding valuable insights about target demographics and customer preferences. From every interaction with technology, regardless of whether it's active or passive, we are creating new data that can describe us. With data being captured through products, video cameras, credit cards, cell phones, and other touchpoints, our data profile is growing exponentially. If analyzed correctly, these data points can explain a lot about our behaviour, personalities, and life events. Companies can leverage these insights for product improvements, business strategy, and marketing campaigns to cater towards the target customers. With this focus in mind, this book is proposed will help digital marketers to understand Big Data in a better way and to get meaning full information out of that. In today's world we are surrounded by gadgets and the internet, any gadget we use or any social media etc. we use it records our data called Big Data which can be better analysed for better customer understanding. This book comprises 12 chapters. Each chapter tries to cover the various aspects of Big Data to achieve marketing effectiveness.

Chapter 1 -The purpose of this chapter is to examine and consider how individual businesses might improve their organisational resilience when unforeseen occurrences occur. The Covid-19 epidemic is an exceptional and unforeseeable phenomenon that has an impact on society and the whole economy. In terms of the number of deaths, the extent of the worldwide spread, the economic toll, and the detrimental effects on public health, the COVID-19 pandemic has been the deadliest in recorded human history. The COVID-19 problem has also affected how integrated marketing communication (IMC) is implemented and how much money is spent on it by firms. The authors investigated how large corporations were able to adapt to the crisis to maintain company continuity using a case study technique.

Chapter 2 - This chapter also looks at some case studies of the financial service segment of the business as an exculpation to concretize the role of digital marketing. To a great extent, a country's economy benefits from the banking and insurance industry. Since banking is one of the most lucrative industries, there are a lot of public and private institutions competing for customers. As a result, increasing online presence via Digital Marketing for Financial Services is extremely crucial. However, the banking industry is slow to adopt Digital Marketing since it is already so saturated with conventional marketing media. The present study aims to identify the role of digital marketing in reshaping financial services. To meet the objective, the role of digital marketing in boosting the profitability of various industries in financial services is identified through various research published in the domain. The financial industry significantly contributes to the national economy, and digital marketing plays a crucial part in catalyzing the sector's economic development. The financial services industry is notoriously sluggish when adopting cutting-edge marketing strategies. Financial services include many businesses, including banks, credit unions, private lenders, investment banks, and insurance firms. Simply put, financial marketing bridges the gap between businesses and individuals seeking financial assistance.

Chapter 3 - This chapter begins with a brief overview of digital marketing before focusing on the different forms it can take, how it varies from traditional marketing, as well as its benefits and drawbacks and importance in the present era. As the world transitions from analogue to digital, so does marketing. Digital marketing, with the development of technology, Search engine marketing and social media marketing is becoming more and more popular. Since digital marketing mainly relies on the internet and the number of internet users is growing quickly, it has profited the most. The way that consumers shop is changing, and they now prefer digital marketing to traditional marketing. The practice of using electronic media to advertise goods or services is well known as digital marketing. The fundamental goal of digital marketing is to bring in customers and give them the means to communicate with the company online. Examining the benefits of digital marketing for both consumers and marketers is the goal of this review article.

Chapter 4 - This chapter examines the evolution of the accounting function within the shifting landscape of the industrial revolutions, as businesses have shifted their attention to more technologically demanding processes. Along with the changes in business practices, the accounting function also has to adapt to this arena and accept these new shifts in the performance of its role. This will ensure that individuals, businesses, and

stakeholders remain competitive, efficient, profitable, and relevant. In light of recent developments in artificial intelligence, data analytics, and big data, this chapter explores the benefits and challenges that these technologies manifest for businesses and accountants. This chapter is descriptive, and it looks at the technologies mentioned above in the context of the fifth wave of the industrial revolution from a global point of view.

Chapter 5 - This chapter examines and explores (or may be termed as pre-empt in the analytics terminology) the relevance of human resource (also popular as HR) analytics on the willingness of employees to enhance the effectiveness and efficiency of their performance. In this attempt, this chapter studies the issues pertaining to the PA or performance appraisal system. This also illustrates factors that impact the willingness of employees to enhance performance and also tends to decide how analytics of Human Resources may prove a proposed recommendation to handle similar matters.

Chapter 6 - This chapter examines the effects of big data on mobile marketing and provides guidance to help professionals succeed in their efforts at digital marketing. Imagine being able to reach a market of highly qualified and ready to make a purchase prospect and quickly converting them into devoted clients by foreseeing their wants and so providing real value. This is big data's ability to transform digital marketing. It is important to investigate current trends in the use of big data to forecast consumer behavior, strategies for engaging online consumers, the integration of big data with other data sources, and its applications in customer relationship management, social media analytics, mobile marketing, and search engine optimization. A person today could download all the data from the internet in about 181 million years. The amount of data that is available and being shared online is understandable. Here are some examples of how big data affects business and mobile apps.

The big data movement, which is currently becoming more and more popular, is embraced by mobile app development. The growth in massive data volume has an impact on mobile sales globally. Mobile device usage is now at an all-time high. Mobile gadgets have become an integral part of daily life for the majority of people. Since practically all interactions now take place on mobile devices, businesses can no longer question the value of the various mobile app development services. Most companies now have their mobile strategies. The success of marketing initiatives will primarily depend on attention to detail in data analysis and quickly acting on discoveries in order to implement adjustments that will produce improved results as the marketing industry moves to a data-focused future.

Chapter 7 - This chapter is based upon secondary data like articles, collective research from various reviews of literature, journals, textbooks, websites, and expert advice on the topic concerned. The term 'Big data' is used to describe the vast amount of structured and unstructured data that constantly inundates businesses. But what matters is how the organization uses the data, not how much data it collects. A whopping 53% of businesses had adopted big data by the end of 2017. The truth is that big data is opening vast opportunities for us and has given us unending solutions for handling social, economic, technical, and other business challenges. Big data has a quite significant impact on businesses as it allows them to manage massive amounts of data effectively and successfully. The technologies such as cloud-based analytics are being used in managing big data prove to be cost-effective way and assist businesses in storing enormous volumes of data. They support organizations' decision-making processes by assisting with information analysis. The goal of this chapter is to offer an insightful analysis of major recent trends in big data and digital marketing. This chapter focuses on how big data is impacting businesses, and how it is used in business across industries.

Chapter 8 - In this chapter, benchmark datasets, and machine learning, are used to demonstrate the usage of artificial intelligence in analyzing, forecasting, and predicting consumer behavior. Consumer behavior prediction is a significant task, and it is a prerequisite for marketing activities. Regardless of the product type/market type, predicting consumer behavior plays a vital role in determining the target market. The activities involved in identifying a target market include the tasks of analyzing the offerings, conducting market research, identifying market segments to create consumer profiles, and assessing the competition. In order to complete all four tasks mentioned above, it needs to have comprehensive and precise data/dataset in hand. It also means that the data/fact is the primary source of predicting consumer behavior. In today's digital world, sources of source (data) are multifold. During the process of data collection, if the repository is accepting data from such sources, then all five "V" (volume, velocity, variety, veracity, and Value) of data should be considered. The role of big data in predicting consumer behavior is inevitable. Machine learning models shall be deployed to analyze data from big data Before concluding the chapter, the performance of algorithms is evaluated and compared to find the most suitable models for predicting consumer behavior. Benchmark datasets are used in this chapter to represent the role of big data in predicting consumer behavior.

Chapter 9 - In this chapter, important facets of context-aware mobile computing are examined, as well as the concept of context awareness and

various context awareness methodologies. In interactive ubiquitous mobile computing systems, context awareness is becoming more and more useful. Understanding context awareness, how context is categorized, and context-aware development frameworks are important in order to apply this notion to the design of applications for dynamic contexts. There are suggestions for improving context awareness and design guidelines for creating context-aware programmes.

Chapter 10 - The purpose of this study is to thoroughly locate and examine the scholarly works that were relevant to the ideas and facets for conducting successful negotiations in educational Institutes, and corporates. The selection of relevant studies needed to be a major and methodical process because the literature appraisal was the critical component of this study. A large number of original peer-reviewed articles were found using the keywords and phrases "Negotiation Skills" and "Negotiation Process". This study used a variety of databases, search engines, and pre-synthesized keywords, such as effective negotiation tools and techniques, Stages of Negotiation, and Factors that influence negotiation, to find as many relevant published articles as it could. Many published studies indicating the relevance and strategies for conducting efficient negotiations were discovered throughout the literature search. The review gave a thorough yet concise analysis of the theory of Negotiations, as well as the process and different skills required to conduct effective negotiations. This research provides a complete examination of several techniques for conducting efficient negotiations and suggested that an individual should plan, procure, prioritize, be precise, predict, persuade and have patience while dealing with the other party.

Chapter 11 - This chapter states that digital marketing is essential for expanding a business since it creates new leads by connecting with individuals who are looking for products and services. There are around 4.3 billion web users, and 2 billion of them use digital marketing effectively. The fact that most businesses and clients today heavily rely on the Internet highlights the significance of digital marketing to business success. As a result of this dependence and the need of having one, businesses must create an online presence. The act of advertising a business's goods and services to valuable customers online is known as web marketing. Digital marketers have long been interested in attracting customers through social media content, pay-per-click (PPC) advertising, and Search Engine Optimization (SEO). Through the app, they collect user activity data and employ artificial intelligence (AI) technology to examine the predictive capabilities of sizable historical datasets. Digital marketing is extremely important to the financial sector, which is a key

contributor to the national economy. The financial industry needs to implement the ideal digital marketing plan to effectively compete with cutting-edge technology and reach a larger market. Commercial banks, investment banks, and insurance corporations are leading the way in implementing sophisticated sales interactions and digital marketing strategies for their financial services marketing campaigns. Increased exposure, visibility, and consumer engagement are all made possible by using digital marketing strategies, which are essential elements in the financial industry. Digital marketing is a technique to attract more customers, reach a large audience, engage with them, establish trust, improve the customer experience, and generate income. To contact potential customers and increase conversion rates, financial institutions use multi-channel marketing strategies including SMS alerts and emails that fit their lifestyle. The Digital revolution is streamlining financial services. Additionally, it gives clients real-time information, lowers costs, personalizes offerings, and serves them proactively. To put it more precisely, digital marketing is crucial to corporate success and propels companies to new heights.

Chapter 12 - This chapter consists of three sections. The chapter introduces the concepts of big data, stretching beyond big data towards smart data and the impact on digital marketing. Big data refers to massive amounts of business data from a wide variety of sources, much of which is available in real-time including insights. It consists of a huge amount of all data types and is used by businesses for their functional business decisions. The data is too large and complex to manage with multiple management tools and traditional data tools. Big data has four major characteristics: Velocity, Volume, Variety and Veracity. Big data helps in exploring strategies for digital marketing, and for improving marketing functions. However, all data is not valuable for an organization and the data should add value and must be available fast for decision-making. Hence it is essential to stretch beyond big data. Smart data is the digital information formatted for manipulation at the point of collection and sent to analytics platforms for data integration and analysis. The term smart data is associated with the Internet of Things (IoT) which is the data generated by intelligent sensors that are embedded in physical objects or pervasive computing. Smart labels are directly sent for automated data entry which is adequate for immediate decision-making.

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Chapter 1

Four Cases on Marketing Strategies Adopted by Companies during COVID-19

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Abstract

The Covid-19 epidemic is an exceptional and unforeseeable phenomenon that has an impact on society and the whole economy. In terms of the number of deaths, the extent of the worldwide spread, the economic toll, and the detrimental effects on public health, the COVID-19 pandemic has been the deadliest in recorded human history. The COVID-19 problem has also influenced how integrated marketing communication (IMC) is implemented and how much money is spent on it by firms. The authors investigated how large corporations were able to adapt to the crisis to maintain company continuity using a case study technique. The purpose of the article is to examine and consider how individual businesses might improve their organisational resilience in unforeseen circumstances.

Keywords: COVID-19, case study, technology, digital, strategy

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Introduction

As a result of the COVID-19 epidemic, the globe has had to enact tougher controls to slow its spread and flatten the curve. It has been difficult for marketers to guarantee that the story that businesses communicate to their target audience is reasonable in these difficult times. They could have had to modify marketing strategies, postpone or cancel their whole editorial schedule, as well as their complete marketing plan. Brands must be sympathetic while yet taking an unbiased stand on the world situation.

According to a recent United Nations report, vulnerable people, people who live in poverty, elderly people, and people with disabilities are among those who are affected by the virus' societal repercussions (2020). Over 4 million confirmed cases are being reported in Africa (African Union, 2021). The epidemic poses a major hazard in regions like South Sudan where there are any patients receiving acute care. Additionally, those who reside in dense slums where violence and filth coexist are particularly vulnerable. More generally, we need to take into account the fact that certain nations do not have enough hospital beds. Last but not least, the psychological impact resulting from the implementation of national measures (such as quarantine) is significant. In addition to psychological stress (Scott et al., 2020), depressive symptoms, fear, and insomnia (Torales et al., 2020), there is a significant correlation between alcohol, drug abuse, suicide, and unemployment (Continetti, 2020).

In present times, marketing has become a perfect melange of technology and strategy. Even though it never started this way, the current scenario is remarkable. The idea and concept of marketing started out in the 18th century, during the Industrial Revolution. At that time technology was still evolving and industries were engaged in mass production due to the growing consumer market. This created the need for producers to think of new and better ways of developing the products as per consumer needs and to think of additional sophisticated ways to inform them about it.

Marketing started out through word-of-mouth technique and then slowly shifted to the digital media. The evolution of the web helped a number of businesses to market their product and services. After getting success on these platforms, organisations started to move towards strategizing in order to compete with their competitors and become the leader in their respective areas.

Marketing strategies are big for any business- as it facilitates reaching and connecting with your targeting audience better. A strategy encompasses a road map for guiding your business ahead and eventually leading to growth.

Unprecedented times calls for unusual strategies too, traditional tactics which focused on segmenting the market using demographics or using penetration pricing to win customers aren't enough to make customers respond to your marketing efforts, a shift in approach to focus on emotions and building a sense of safety is required. Marketing strategies hence are very volatile based on the external environment, this is exactly what pandemic made us realize.

Coronavirus belongs to a large family of single-stranded, enveloped, and positive-sense RNA viruses. The virus resembles a crown-or corona like structure and hence is termed as the Coronavirus. On the eve of December 30, 2019, few patients with pneumonia of unknown aetiological symptoms were observed in Wuhan, China. As slowly, as the research was conducted, it became clear that person-to-person contact led to a rapid spread of the disease, and Wuhan contributed significantly to this as the city has a population of 11 million inhabitants. Despite many preventive measures taken by China, the virus was exported to different locations and reached 100 countries and more by March 2020. The WHO declared it as a pandemic due to the high magnitude of spread and severity and due to reckless preventive measures taken to counter it, a nation-wide lockdown was the last option left to control the alarming situation- this was implemented globally - and as rightly said every action has an equal and opposite reaction so did this: businesses were hit and they were hit hard. The complete lockdown refers to proper shutting down of all public and entertainment places (a tough but very crucial step which had to be taken to control the virus). Now if it's a lockdown, businesses won't get customers, and if businesses won't get customers, they need to work on other ways to achieve their existence in the market.

'*Staying relatable*' is becoming a secret word which everyone's familiar with, but not everyone is able to reciprocate to it.

(Staying relatable = Hour's trending)

For staying relatable and connecting better with customers, marketers are always in an unceasing race –

- To sync-up with the changing customer taste
- To play along in competition
- Need to upgrade

Even though marketers try to achieve all this, their major goal is to adapt to the changing factors of the market. The marketing activities of any live concern are worked on, keeping in mind the external and internal environmental factors because they can severely affect the relationship of business with its customers. The fusion of these internal and external factors enhances the results in the marketing environment.

> "A company's marketing environment consists of the actors and forces outside of marketing that affect marketing management ability to build and maintain successful relationships with target customers." – Philip Kotler

Just to illustrate this more evidently in the COVID-19 crisis, almost all marketing campaigns are directed towards: *Stay home, Stay safe* agenda. The cause marketing is becoming the conversation for marketers at this crucial hour. Cause marketing is a type of marketing, where organization focuses on profit as well as societal benefit. Through this they are targeting the vulnerable public (customers/consumers), assisting in raising funds for the government, going off track with production of certain products/items in demand and shifting gears to reach customers straight in their homes.

Physical environment is forever changing, and marketers need to adapt to these changing environments if they wish to survive. All companies work on marketing, but the approach a particular business takes, brings all the differences that's why some brands stay with customers and some just fade away. Corona virus started to flip our lives unconditionally and we had to find a way to deal with it. Even during the times of pandemic, the approach which marketers took and the very first to act 'n' implement those made history.

Although it's a complete shut down the work hasn't stopped for many companies. Well in the past, this would've been quite impossible to even think of but currently we are blessed with many alternatives- From completely depending on technology for work and even entertainment to "Work from home" becoming the new norm many changes popped up.

In 4 mini cases we've discussed below we talk about "BOX-8" known for its desi taste and have reconsidered on how to deal with pandemic in a humanistic approach. In the second mini case we look at Over the top OTT platforms and their tactics applied to make 'Binge watch' a new normal. Third case focusing on health tech start-up- MyUpchar's relentless efforts made in the direction of cause marketing followed by the 4th case on Zoom application and why it's everything everyone needs right now.

We've tried to show how companies adopted new strategies to make changes from their conventional ways of working to serve customers better and how stocks of many big names tumbled yet some still managed to hike.

Literature Review

Many conservative businesses have been pushed online by the COVID-19 outbreak (Hwang, Nageswaran & Cho, 2020). To connect with customers, merchants are using omni-channel strategies. While shops with little or no presence in online channels needed time to create or ramp up their online presence, those with an omni-channel distribution network were fast to react to the government-imposed lockout scenario (Hwang, Nageswaran & Cho, 2020). The phenomenon of competitiveness was also present during the COVID-19 crisis. This occurrence showed collaboration between the competitive businesses as they exchanged information with one another. Examples include working together to create a vaccination, exchanging stock level information during a pandemic, and sharing technical expertise for product manufacture (Crick & Crick, 2020).

Because direct channel alternatives were limited or non-existent as a result of the COVID-19 outbreak, the organisations turned to digital marketing based on analytics to connect with their target audience. Targeting clients also involves the use of augmented reality, virtual reality, and artificial intelligence (AI). During the COVID-19 crisis, usage of apps like WhatsApp, Zoom, and Google Meet surged (He & Harris, 2020; Donthu & Gustafsson, 2020). As a result, businesses utilise digital marketing extensively to target buyers for high-involvement goods like real estate, cars, and servers.

In its forecasts and customer-based operations, Amazon uses augmented intelligence, which places an emphasis on making the most use of human inputs and machine learning applications (https://aws.amazon.com/augmented-ai/). This service is known by Amazon as Amazon A2I. It makes use of an AI-based chatbot and automatic website selection based on previous portal users' search histories. Customers receive the automated digital ads depending on their search terms and surfing habits. Digital marketers may increase their accuracy in reaching out to their target clients during the epidemic by using techniques like text mining and picture analytics.

Many organisations ran social media initiatives as part of their CSR efforts to improve individuals' attitudes and raise awareness of social distance and masks (Habes et al., 2020). With slogans like "Move more, move better,"

the venerable Nike brand promoted outdoor play. More recently, the slogan was adjusted to emphasise playing indoors rather than going outside. Nike's campaign quickly gained popularity on social media. To have a timely effect during the epidemic, the brands needed to deploy creativity in more flexible ways (Balis, 2020). The magnitude of the COVID-19 situation's repercussions was likened to those of climate change by Mende and Mishra (2020). It was discovered that firms have to build their capacity to adapt quickly to such crises by realigning processes for product re-development, forming new strategic partnerships, and taking action for value-creating activities during pandemics (Seetharaman, 2020).

Value Creation Activities during Pandemics

Box8 – Desi Meals, Done Better

> "The one single word that the food industry hates: '*addiction*.' They much prefer words like '*crave-ability*' and '*allure*.'" ~MICHAEL MOSS

Creating *crave-ability* is the first and the foremost action that needs to be worked upon in the food industry. Same was the approach taken by the two young IIT graduates Anshul Gupta and Amit Raj in 2012 in Mumbai which led to the phenomenal start of the Indian food brand Box8. (Initially, it started out as a small cafeteria outlet in a corporate area.) Following the Mantra, "We only serve food that we love to eat." – This has become India's fastest growing on-demand food delivery company. They serve DESI FOOD with a unique twist in a convenient, easy-to-carry box across Mumbai, Pune, Bengaluru and Gurugram and the best part is they serve you dessert along with the meal so no worries to order separately. There is not only the twist in the taste or the method of delivery, but in the address of the recipient too. They only deliver to office addresses not home addresses and the number doesn't matter; the order can be for a single person or for the whole company.

Their ultimate goal is to provide a delightful end-to-end experience every single time, by following the three important pillars of company, desi taste, technology and logistics. Currently having 20,000, plus registered corporate and 45,000, plus registered addresses, they have been delivering 22,000, plus meals every day.

They work with the promise of superfast delivery within 38 minutes without delivery charges. But now due to the pandemic of COVID-19, each

and every company, especially the e-commerce ones are working on reconfiguring their strategy and offering out to deliver daily necessities and groceries for easing up the survival of mankind. Since, the demand in this category is very high at this hour, that's why companies are also not shying away to en-cash this opportunity.

Figure 1. Full-stack approach Box8.

With long queues at grocery stores and local vegetable marts where people are having a tough time to get basic cooking necessities, Box8 understood the customer pain point and introduced grocery ordering in its application (Figure 1). With this additional feature, it has been named '*InstaFresh*,' which aims at delivering the current necessities- fruits, vegetables, dairy products and self—branded bakery products by completely following the guidelines issued by the WHO. Earlier, it was already offering limited essential grocery products and now it's more of an extension at this time. The company claims that it will deliver the items within 30 minutes. With 120+ kitchens and an owned delivery fleet, items will be facilitated in Mumbai, Pune, Bengaluru and Gurugram. At this crucial hour of avoiding physical contacts and moving out of houses, Box8 is ensuring safety and following its absolute zero contact delivery.

"In these trying times, it is our responsibility to be of utmost help to the public with our resources and services. We had to do our best to bring safety and convenience for everyone. We are also constantly working on increasing our delivery fleet to be able to service the additional demand" (Bansal, 2021).